

|                       |                  |                                |
|-----------------------|------------------|--------------------------------|
| Flt ID: 020823H       | From: KMCF       | To: KMCF                       |
| Flt No: 02            | Blk In: 1851     | ATA: 1840                      |
| ETD: 1400             | Blk Out: 1349    | ATD: 1412Z                     |
| ETE: 5+00             | Blk Time: 5.0    | Flt Time: 4.5                  |
| Sponsor Org: NOAA/HRD | Program: Hurr 02 | Purpose: INTERCOMPARISON w/N43 |

## AOC Personnel

|                            |                         |
|----------------------------|-------------------------|
| AC: KENUL, P               | Sys Eng: BARR, J        |
| CP: TEBEEST, R / STRONG, T | Data Sys: M & Millan, S |
| Nav: NEWMAN, C             | Radar: BROGAN, D        |
| FE: WADE, S                | GPS/BT: PEEK, B         |
| FD: SHEPHERD, T            | Cld Phys: PARRISH, J    |
| Avionics:                  | FLAHERTY, P             |

## Participating Scientists / Visitors / AOC

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| CHANG, P           | PI                   | NESDIS      |
| CONNOR, L          | CO PI                | NESDIS      |
| ZHANG, A           | ↓                    | UMASS       |
| ESTABAN, D         | ↓                    | ↓           |
| DONOVAN, B         | ↓                    | ↓           |
| DODGE, P           | PI                   | HRD         |
| GOLDENBERG, S      | CO-PI                | HRD         |
|                    |                      |             |
|                    |                      |             |

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

2553  
8557

RECCO'S  
1945

159 ↓ ~ 1454  
232 ↑ ~ 1458

~ 1708  
Radar  
UP

KING LW INOP

3.0 PND  
2.0 PHX

|                 |                 |               |
|-----------------|-----------------|---------------|
| Flt ID: 020823H | Time Off: 1412Z | Time On: 1840 |
|-----------------|-----------------|---------------|

|          |                |                       |            |                   |
|----------|----------------|-----------------------|------------|-------------------|
|          | A/C (Take Off) | Wx Station (Take Off) | A/C (Land) | Wx Station (Land) |
| Pressure | 1018.8         | 30.10                 | 1017.6     | 30.09             |

|                     | Number | Data Disposition / Date / Quality |
|---------------------|--------|-----------------------------------|
| Flt Lvl Tapes       | 2      |                                   |
| Radar Tapes         | 1      |                                   |
| Cloud Physics Tapes |        |                                   |
| Video Tapes         | 4      |                                   |
|                     |        |                                   |
|                     |        |                                   |
|                     |        |                                   |
| AXBT                |        |                                   |
| AXCP                |        |                                   |
| AXCTD               |        |                                   |
| Dropsondes          | 4      | 3 HRD / 1 AOC                     |
|                     |        |                                   |

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

Remarks





# NOAA P-3 N42RF Ocean Winds 2002 Inter-comparison Flight



**Flight ID: H020823**

Sensor or system

INE  
Accelerometer  
Temperature Probe  
Dew Point Probe  
Altitude (for vertical wind)  
Static Pressure  
Dynamic Pressure  
Time Source  
Constants File

Number or Name

1  
1  
1  
3 (Buck Research)  
Radar Altitude (RA-232)  
Rosemount Fuselage  
Rosemount Fuselage  
Micro 99  
CO2023.CON

Take off: 1412Z

Land: 1840Z

Notes:

Four GPS dropsondes/AXBT combinations were deployed:

25° 51' N, 85° 56' W @ 1628:45Z  
25° 30' N, 85° 43' W @ 1639:40Z  
25° 40' N, 86° 22' W @ 1658:00Z  
27° 27' N, 84° 51' W @ 1756:00Z

All other instruments worked optimally during the flight.

There were two times when the dewpoint temperature exceeded ambient temperature resulting in an RH >100%. These times were during rain events (as noted by the Johnson-Williams Liquid Water sensor) and were likely due to a wet-bulb effect on the total temperature sensor.

The aircraft INE positions were renavigated with respect to GPS.

**SPECIAL NOTE!!!**

Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical 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> |
|--------------------------|--------------------------|----------------|
| Aircraft Static Pressure | 1018.8 mb                | 1017.6 mb      |
| Corrected Tower Pressure | 1019.3 mb                | 1019.0 mb      |
| Flight Director:         | Tom Shepherd             |                |
| Phone #:                 | (813) 828-3310 ext. 3053 |                |

152210

154230

Flight ID: 020823H

Page 1 of

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

Form 413-5

| Time   | Lat  | Long | Trk | Hdg | Wind Dir | Wind Spd | T <sub>a</sub> | T <sub>d</sub> | Press. Alt. | Geo. Alt. | Slc Press. | Press. Slc | Dyn. Press | Remarks               |
|--------|------|------|-----|-----|----------|----------|----------------|----------------|-------------|-----------|------------|------------|------------|-----------------------|
| 142940 | 2714 | 8248 | 264 | 263 | 132      | 7.2      | 8.3            | -1.5           | 3332        | 3561      | 1016.7     | 671.9      | 683        | SET BLO CLR ABV       |
| 144635 | 2648 | 8350 | 246 | 245 | 142      | 4.5      | 10.5           | 4.0            | 2845        | 3039      | 1017.7     | 716.0      | 95.3       | CLR BLO/ABV           |
| 150300 | 2616 | 8505 | 244 | 243 | 212      | 5.2      | 9.6            | 3.6            | 2831        | 3024      | 1017.6     | 716.2      | 82.5       | Turned w/43 42 BEHND  |
| 150715 | 2609 | 8523 | 244 | 243 | 095      | 1.9      | 10.1           | 4.0            | 2827        | 3020      | 1017.4     | 716.7      | 80.0       |                       |
| 151000 | 2601 | 8539 |     |     |          |          |                |                |             |           |            |            |            | Begin L1 OK           |
| 151531 | 2552 | 8558 |     |     |          |          |                |                |             |           |            |            |            | NEAR BUOY SLOW TO 190 |
| 151735 | 2546 | 8604 | 225 | 226 | 326      | 3.4      | 10.1           | 5.6            | 2819        | 3015      | 1018.0     | 717.3      | 59.9       | 190 F OUTSIDE         |
| 152231 | 2533 | 8618 |     |     |          |          |                |                |             |           |            |            |            | END LEG               |
| 152425 | 2528 | 8623 |     |     |          |          |                |                |             |           |            |            |            |                       |
| 153500 | 2539 | 8615 | 050 | 051 | 216      | 2.8      | 15.5           | 15.9           | 1385        | 1510      | 1019.8     | 857.6      | 62.4       | Reg L1 190 IAS        |
| 154130 | 2553 | 8555 | 055 | 055 | 240      | 4.6      | 18.2           | 13.1           | 1393        | 1520      | 1019.6     | 856.1      | 80.9       | Reg L1 190 IAS        |
| 154230 | 2556 | 8551 |     |     |          |          |                |                |             |           |            |            |            | 220 IAS L2 SK         |
| 154750 | 2608 | 8532 |     |     |          |          |                |                |             |           |            |            |            | END L2                |
| 155800 | 2612 | 8555 | 235 | 235 | 063      | 5.2      | 26.1           | 22.4           | 228         | 299       | 10200      | 986.2      | 80.2       | RA 159 ↑ Taking lead  |
| 160100 | 2605 | 8536 | 235 | 235 | 066      | 5.1      | 25.9           | 22.7           | 228         | 298       | 1019.9     | 986.3      | 80.0       | RA 159 ↑              |
| 160640 | 2554 | 8551 | 249 | 249 | 74       | 3.8      |                |                |             |           |            |            |            | 220 IAS L2 SK         |
| 160840 | 2552 | 8605 | 248 | 249 | 90       | 3.9      | 26.3           | 22.7           | 224         | 292       | 1019.5     | 986.6      | 59.9       | 190 IAS               |
| 161400 | 2542 | 2624 |     |     |          |          |                |                |             |           |            |            |            | END L2                |
| 161530 |      |      |     |     |          |          |                |                |             |           |            |            |            | Clunk                 |
| 162845 | 2551 | 8556 | 145 | 145 | 285      | 2.8      | 18.1           | 13.8           | 1382        | 1507      | 1019.5     | 857.7      | 65.8       | BT Sample 4200        |
| 163940 | 2530 | 8543 |     |     |          |          |                |                |             |           |            |            |            | BT Sample             |
| 164740 | 2553 | 8602 | 245 | 245 | 022      | 3.2      | 12.1           | 12.1           | 2263        | 2423      | 1018.1     | 769.4      | 70.4       | NEAR BUOY             |
| 165800 | 2546 | 8622 | 068 | 068 | 301      | 4.3      | 12.5           | 10.1           | 2267        | 2426      | 1018.3     | 769.0      | 70.2       | BT Sample             |
| 170510 | 2553 | 8555 | 055 | 054 | 275      | 3.7      | 12.6           | 9.6            | 2267        | 2246      | 1019.4     | 788.5      | 74.1       | END 2nd leg           |
| 175000 | 2722 | 8511 |     |     |          |          |                |                |             |           |            |            |            | END Sci RTB           |
| 175230 | 2720 | 8503 | 61  | 59  | 28       | 3.2      | 15.7           | 11.9           | 1754        | 1930      | 1020.0     | 811.0      | 64.2       | Clunk                 |
| 175500 | 2727 | 8451 | 37  | 37  | 201      | 4.7      | 12.5           | 9.5            | 2292        | 2462      | 1019.1     | 766.3      | 79.2       | BT Sample (AOC)       |



# N42RF AVAPS DropSonde Log

N42RF Project: \_\_\_\_\_ Flight ID 020823H

Mission: \_\_\_\_\_ Flight #: \_\_\_\_\_ System Status: \_\_\_\_\_

| Drop # | Sonde Serial Number | Chn. # | Time (Zulu) | Press. offset | Winds time | Operator Initials | Comments / Drop Status / Failure Reason | GOOD <input checked="" type="checkbox"/> |
|--------|---------------------|--------|-------------|---------------|------------|-------------------|-----------------------------------------|------------------------------------------|
| 1      | 003 025 042         | 1      | 1628Z       | 0             | 30.6       | JMB               | GOOD DROP                               | <input checked="" type="checkbox"/>      |
| 2      | 003 025 040         | 1      | 1639Z       | -1.2          | 40.0       | JMB               | GOOD DROP                               | <input checked="" type="checkbox"/>      |
| 3      | 003 015 263         | 2      | 1650Z       | 0             | 15.0       | JMB               | GOOD DROP                               | <input checked="" type="checkbox"/>      |
| 4      | 003 025 215         | 4      | 1756Z       | -0.5          | 29.4       | DLB               | GOOD DROP                               | <input checked="" type="checkbox"/>      |
| 5      |                     |        |             |               |            |                   |                                         |                                          |
| 6      |                     |        |             |               |            |                   |                                         |                                          |
| 7      |                     |        |             |               |            |                   |                                         |                                          |
| 8      |                     |        |             |               |            |                   |                                         |                                          |
| 9      |                     |        |             |               |            |                   |                                         |                                          |
| 10     |                     |        |             |               |            |                   |                                         |                                          |
| 11     |                     |        |             |               |            |                   |                                         |                                          |
| 12     |                     |        |             |               |            |                   |                                         |                                          |
| 13     |                     |        |             |               |            |                   |                                         |                                          |
| 14     |                     |        |             |               |            |                   |                                         |                                          |
| 15     |                     |        |             |               |            |                   |                                         |                                          |
| 16     |                     |        |             |               |            |                   |                                         |                                          |
| 17     |                     |        |             |               |            |                   |                                         |                                          |
| 18     |                     |        |             |               |            |                   |                                         |                                          |
| 19     |                     |        |             |               |            |                   |                                         |                                          |
| 20     |                     |        |             |               |            |                   |                                         |                                          |
| 21     |                     |        |             |               |            |                   |                                         |                                          |
| 22     |                     |        |             |               |            |                   |                                         |                                          |
| 23     |                     |        |             |               |            |                   |                                         |                                          |
| 24     |                     |        |             |               |            |                   |                                         |                                          |
| 25     |                     |        |             |               |            |                   |                                         |                                          |
| 26     |                     |        |             |               |            |                   |                                         |                                          |
| 27     |                     |        |             |               |            |                   |                                         |                                          |
| 28     |                     |        |             |               |            |                   |                                         |                                          |
| 29     |                     |        |             |               |            |                   |                                         |                                          |
| 30     |                     |        |             |               |            |                   |                                         |                                          |
| 31     |                     |        |             |               |            |                   |                                         |                                          |
| 32     |                     |        |             |               |            |                   |                                         |                                          |
| 33     |                     |        |             |               |            |                   |                                         |                                          |



