

|                       |                             |               |
|-----------------------|-----------------------------|---------------|
| Flt ID: 020216H       | From: KPDX                  | To: KPDX      |
| Flt No: 02-028        | Blk In: 0835                | ATA: ON 0830  |
| ETD: 2330             | Blk Out: 0000Z              | ATD: OFF 0012 |
| ETE: 9+15             | Blk Time: 8.6               | Flt Time: 8.3 |
| Sponsor Org: NOAA/ETL | Program: PACJET/OCEAN WINDS | Purpose: IOP5 |

|                             |                        |
|-----------------------------|------------------------|
| AC: TE BEEST, R ✓           | Sys Eng: SMITH, J ✓    |
| CP: TAGGART, B/HALVERSON, H | Data Sys: BARR, J ✓ +1 |
| Nav: ADLER, J ✓             | Radar:                 |
| FE: FLOYD, D ✓✓             | GPS/BT:                |
| FD: SHEPHERD, T ✓           | Cld Phys:              |
| Avionics: ROGERS, M ✓       |                        |

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| RALPH, M ✓         | PI                   | NOAA/ETL    |
| JORGENSEN, D ✓     | Radar                | NOAA/NSSL   |
| KNIEVEL, J ✓       | Radar                | NOAA/NSSL   |
| WHITE, D ✓         | Radar                | NOAA/ETL    |
| ZHANG, A ✓         | SFMR/CSCAT           | UMASS       |
| ESTEBAN, D ✓       | SFMR/CSCAT           | UMASS       |
| BRYANT, A ✓        | Sat Comms            | NOAA/NWS    |
| GERBERG, G ✓       | Media                | FREE LANCE  |
|                    |                      |             |

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

Prob. w/#2 DELAY T.O.  
 JW E King ON @ ~ 0015  
 004705 BAL DPI

---

# Pacjet Ocean Winds 2002

Flight #5 020216H

| <u>Sensor or system</u>      | <u>Number or Name</u> |
|------------------------------|-----------------------|
| INE                          | 1                     |
| Accelerometer                | 1                     |
| Temperature Probe            | 1                     |
| Dew Point Probe              | 1                     |
| Altitude (for vertical wind) | Radar Alt. (APN-159)  |
| Static Pressure              | Rosemount Fuselage    |
| Dynamic Pressure             | Rosemount Fuselage    |
| Time Source                  | Micro 99              |
| Constants File               | CO2021.CON            |

Notes:

Takeoff: 0012Z

Land: 0830Z

There were no data gaps during the flight.

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during takeoff (000901 - 001930) and landing (082030 - 083300).

Dew pointer #2 (Edge Tech) was substituted for dew pointer #1 to remove a balancing spike from 004601 - 004928. A 0.0 degree C offset was applied.

During times when the aircraft was flying through heavy precipitation, the dew point temperature exceeded the ambient temperature resulting in humidities greater than 100%. This could also be due in part to wet bulbing effect on the total temperature sensor. No adjustments were made.

The vertical winds are calculated using the selected altimeter (radar altimeter for this flight). Therefore, the vertical wind speeds are erroneous at the beginning and end of the flight as the aircraft transited over mountainous terrain between the coast and KPDX.

|                          | <u>Takeoff</u> | <u>Landing</u> |
|--------------------------|----------------|----------------|
| Aircraft static pressure | 1017.2         | 1017.6         |
| Corrected tower pressure | 1017.6         | 1017.9         |

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 resectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight Director: Tom Shepherd, (813) 828-3310 ext. 3053

#5

020216H

TT #1

TAKEOFF: 0012

DP #1

LANDING: 0830

INE #1

AZI #1

Sub 232 for RA159

000901-001930 T.O.

082030-083300 Land

Sub DP#2 for DP#1 TO Remove Balance Spike

004601-004928

RENAV (OVER)

|            |      |      |         |          |   |
|------------|------|------|---------|----------|---|
| 1) 002300  | 0.0  | 0.1  | 4518.3  | 123 5.2  | ✓ |
| 005400     | -0.2 | -0.4 | 43 51.7 | 125 33.5 | ✓ |
| 013800     | -0.3 | -0.5 | 41 30.4 | 129 1.4  | ✓ |
| 023700     | -0.5 | -1.3 | 38 34.2 | 131 44.8 | ✓ |
| 5) 030300  | -0.2 | -1.1 | 38 33.5 | 130 29.3 | ✓ |
| 035200     | -0.7 | -1.2 | 38 52.4 | 130 19.3 | ✓ |
| 042900     | -0.5 | -1.1 | 39 11.5 | 132 28.2 | ✓ |
| 050000     | -1.0 | -1.4 | 38 18.6 | 131 40.2 | ✓ |
| 054500     | -1.3 | -1.6 | 39 19.9 | 131 31.5 | ✓ |
| 10) 062200 | -1.5 | -1.5 | 38 51.9 | 131 1.3  | ✓ |
| 071100     | -1.7 | -1.4 | 41 56.3 | 128 28.6 | ✓ |
| 075400     | -2.5 | -1.5 | 44 12.2 | 125 4.0  | ✓ |
| 13) 083300 | -2.3 | -1.3 | 45 35.3 | 122 34.9 | ✓ |

| Time   | Lat  | Long  | Trk | Hdg | Wind Dir | Wind Spd   | T <sub>a</sub>      | T <sub>s</sub> | Press. Alt. | Geo. Alt. | Sfc Press. | Press. Sfc | Dyn. Press | Remarks                        |
|--------|------|-------|-----|-----|----------|------------|---------------------|----------------|-------------|-----------|------------|------------|------------|--------------------------------|
| 003120 | 4453 | 12339 | 222 | 218 | 144      | 28.6       | -14.3               | -20.4          | 4553        | 3895      | 935.4      | 573.2      | 89.4       | BKN BLO<br>OVR LAND            |
| 003335 | 4445 | 12350 |     |     | CLIMB    | to         | FL170               |                |             |           |            |            |            |                                |
| 0038   | 4432 | 12409 |     |     | BROKE    | COAST      |                     |                |             |           |            |            |            |                                |
| 004810 | 4407 | 12503 | 238 | 233 | 143      | 33.5       | -17.8               | -38.6          | 5145        | 5155      | 1012.5     | 529.9      | 80.8       | FL170 WAVE<br>BKN BLO CLOS     |
| 011815 | 4235 | 12729 | 227 | 223 | 126      | 23.9       | -20.4               | -33.4          | 5303        | 5275      | 1012.1     | 518.6      | 82.5       | OVC BLO<br>CL ABV              |
| 020740 | 3950 | 13048 | 211 | 211 | 204      | 19.6       | -20.3               | -24.4          | 5301        | 5254      | 1009.4     | 518.8      | 79.3       | OVC BLO<br>FL175               |
| 022210 | 3854 | 13127 | 206 | 208 | 216      | 38.5       | -20.3               | -22.3          | 5300        | 5248      | 1008.8     | 519.1      | 76.8       | OVC BLO<br>FL175               |
| 023050 | 3827 | 13146 | —   | —   | 219      | 44.3       | -20.4               | -20.9          | 5140        | 5056      | 1009.2     | 538.7      | 72.1       | SPIRAL ↓ to 1000<br>@ 2000 FPM |
| 024940 | 3833 | 13130 | 090 | 097 | 177      | 27.1       | 10.3                | 7.3            | 92          | 56        | 1009.1     | 1002.1     | 85.7       | 200 FT                         |
| 030400 | 3838 | 13023 |     |     | CLIMB    | on +1R     | to 1000'            |                |             |           |            |            |            | then spiral to 6000'           |
| 030930 | 3836 | 13020 |     |     | 6000'    | Spiral     | ↓ to 3000'          |                |             |           |            |            |            |                                |
| 031255 | 3832 | 13026 | 269 | 265 | 215      | 23.7       | 2.8                 | 0.5            | 1081        | 1055      | 1012.1     | 889.9      | 77.7       | 3500' RA                       |
| 032600 | 3834 | 13128 |     |     | Spiral   | R↓ 1000'   | ↑ 6000'             |                |             |           |            |            |            | ↓ 2500' RA                     |
| 032850 | 3836 | 13130 |     |     | TOUCH    | 1000       | up to 6000          |                |             |           |            |            |            |                                |
| 033420 | 3839 | 13129 |     |     | TOUCH    | 6000       | down to 2300'       |                |             |           |            |            |            |                                |
| 034940 | 3851 | 13031 | 80  | 88  | 189      | 30.8       | 4.9                 | 3.5            | 731         | 701       | 1011.1     | 928.3      | 84.3       | 2300 RA                        |
| 035455 | 3854 | 13004 |     |     | (D)      | TOTRK 280  | and descend to 700' |                |             |           |            |            |            | RA                             |
| 035700 | 3858 | 13009 | 282 | 276 | 169      | 25.3       | 8.9                 | 5.4            | 231         | 204       | 1010.4     | 985.9      | 72.7       | 700' RA                        |
| 041400 | 3908 | 13130 | 271 | 264 | 162      | 30.9       | 6.9                 | 6.9            | 471         | 418       | 1007.4     | 957.8      | 77.7       |                                |
| 042145 | 3907 | 13205 |     |     | 270      | 22.0       | 6.1                 | 4.4            |             |           |            |            |            | COLD FRONT                     |
| 045715 | 3818 | 13144 |     |     | Spiral   | up to 6000 |                     |                |             |           |            |            |            |                                |
| 050829 | 3836 | 1324  | 046 | 051 | 201      | 43.9       | -1.2                | -1.3           | 1877        | 1819      | 1008.4     | 807.1      | 73.4       | DI NESDIS                      |
| 060055 | 3858 | 13120 |     |     | POWERS   | to 6000    | back to 500'        |                |             |           |            |            |            |                                |
| 063050 | 3928 | 13112 | 040 | 046 | 176      | 33.9       | -8.4                | -8.4           | 3109        | 3032      | 1007.8     | 691.5      | 69.3       |                                |
| 064600 | 3959 | 13036 | 039 | 045 | 175      | 32.1       | -9.2                | -11.6          | 3668        | 3637      | 1005.7     | 634.0      | 64.8       | CLIMB + RTB                    |
| 070400 | 4128 | 12859 | 041 | 041 | 226      | 21.3       | -26.2               | -28.9          | 5950        | 5890      | 1012.5     | 475.1      | 76.9       | FL195 (29.92)                  |
| 074820 | 4343 | 12557 | 049 | 059 | 137      | 45.9       | -26.2               | -31.7          | 5493        | 5443      | 1020.9     | 505.5      | 93.3       | FL180                          |
| 080520 | 4445 | 12405 | 051 | 059 | 158      | 40.1       | -24.9               | -26.3          | 5489        | 5348      | 1007.9     | 505.8      | 84.6       | FL180 over<br>COAST            |

# N42RF AVAPS DropSonde Log

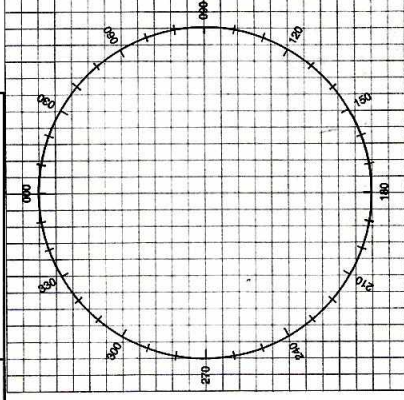
N42RF Project: PACJET 02 Flight ID 020216H

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      | 994 315 052         | 1      | 0508Z       | .3            | 195005     | JMB               | NESDIS                                  | <input checked="" type="checkbox"/>      |
| 2      | 993 925 253         | 1      |             | -.2           |            |                   | NO DROP                                 |                                          |
| 3      | 003 338 132         |        |             |               |            |                   |                                         |                                          |
| 4      | Change to NESDIS!   |        |             |               |            |                   |                                         |                                          |
| 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     |                     |        |             |               |            |                   |                                         |                                          |

[illegible]

## POSITION REPORT



- PILOT INTENTIONS
- WE HAVE
- ENDURANCE REMAINING

[illegible]