

## Dropsonde Scientist

The lead project scientist (LPS) on the P3 is responsible for determining the distribution patterns for dropwindsonde releases. Predetermined desired data collection patterns are illustrated on the flight patterns. However, these patterns often are required to be altered because of clearance problems, etc. Operational procedures are contained in the operator's manual. On the G-IV the sole HRD person is designated the LPS. The following list contains more general supplementary procedures to be followed. (Check off or initial.)

### Preflight

- SM 1. Determine the status of the AVAPS and HAPS. Report results to the LPS.
- SM 2. Confirm the mission and pattern selection with the LPS and assure that enough dropsondes are on board the aircraft.
- SM 3. Modify the flight pattern or drop locations if requested by AOC to accommodate changes in storm location or closeness to land.
- SM 4. Complete the appropriate preflight set-up and checklists.

### In-Flight

- SM 1. Operate the system as specified in the operator's manual.
- SM 2. Ensure the AOC flight director is aware of upcoming drops.
- SM 3. Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal. Recommend if a backup dropsonde should be launched in case of failure.
- SM 4. Report the transmission of each drop and fill in the Dropwindsonde Scientist Log.

### Post flight

- SM 1. Complete Dropwindsonde Scientist Log.
- SM 2. Brief the LPS on equipment status and turn in completed forms.
- SM 3. Hand-carry all dropwindsonde data tapes or CDs as follows:
  - a. Outside of Miami-to the LPS or PI.
  - b. In Miami-to AOML/HRD.[Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]
- SM 4. Debrief at the MGOC or the hotel during a deployment.
- SM 5. Determine the status of future missions and notify MGOC as to where you can be contacted.



# N42/3RF HRD GPS Dropwindsonde Scientist Log (Revised 5/2002)

Storm IFEX-TCSP Dropwindsonde Scientist's Shirley Murillo Page 1 of 2  
 Flight ID 20050716H1 Flight Director Paul Flaherty Takeoff from MROC at 183024 UTC  
 Mission ID WXWKE suspect AVAPS Operators Sean McMillan Recovery at MROC at 084618 UTC

Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd (kt)	hgt (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #
✓ 1	042815237	193212	8.906	88.026	1009.9	229°/7	7	27.9		saturated below 850mb, press bias -2.5 combo BT & drop	03 6
✓ 2	043615104	194758	10.167	88.027	1009.3	287°/10	7	28.5		combo BT & drop, press bias -2.4mb	04 10
✓ 3	042815058	195802	10.742	88.560	1009.2	236°/10	7			press bias -2.4mb	06 10
✓ 4	043615107	201246	11.490	89.354	—	91°/24	N/A	28.4		RH heating cycles 3 bad telemetry BT & drop - did not reach surface combo BT & drop, press. bias -2.2mb	07 20
✓ 5	042815233	203001	11.479	90.669	1008.5	122°/6	7	—		BT didn't launch combo BT & drop, press. bias -2.3mb	09 6
✓ 6	042815229	204251	10.762	91.307	1009.0	270°/14	7			press. bias -2.4mb	10 15
✓ 7	043615103	205543	10.167	92.026	1009.0	251°/12	7	27.8		late winds 865 combo BT & drop, press. bias -2.4mb	12 10
✓ 8	042816047	211241	9.454	92.948	—	—	—	—		for telemetry + no winds 870-874 mb + below 844 mb press bias -2.6mb, didn't make it to surface	14 10
✓ 9	042815253	212816	8.832	91.959	1009.5	218°/10	7	27.6		combo BT & drop, press bias -2.4mb	15 10
✓ 10	042816017	214032	8.185	91.316	1008.2	234°/10	7			press bias -2.6mb	17 10
✓ 11	042815232	215426	7.508	90.533	1009.2	226°/8	7	27.3		combo BT & drop, press bias -2.2mb	18 10
✓ 12	041716044	221125	7.559	89.345	1008.6	242°/11	7			press bias -2.8mb combo BT & drop, BT didn't work!	19 10
✓ 13	042825044	222410	8.257	88.700	1008.4	283°/9	7			press bias -3.0mb	21 10
✓ 14	042815221	223558	8.906	89.322	1008.8	—	—			no winds!	22
✓ 15	042815020	225146	10.169	89.334	1008.5	257°/11	7			press bias -2.5mb	24 10
✓ 16	042825049	231012	11.542	89.322	1008.0	141°/16	7				26 20
✓ 17	042815234	233455	12.764	87.991	1008.4	131°/12	8			RH heating cycles press bias -2.7mb	28



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Storm TCSP-IFEX Dropwindsonde Scientist's Shirley Murillo Page 2 of 2  
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Mission ID WXWXE Suspect AVAPS Operators Sean McMillan Recovery at MROC at 004618 UTC

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