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

_____ 1. Determine the status of the AVAPS and HAPS. Report results to the LPS.

_____ 2. Confirm the mission and pattern selection with the LPS and assure that enough dropsondes are on board the aircraft.

_____ 3. Modify the flight pattern or drop locations if requested by AOC to accommodate changes in storm location or closeness to land.

_____ 4. Complete the appropriate preflight set-up and checklists.

In-Flight

_____ 1. Operate the system as specified in the operator's manual.

_____ 2. Ensure the AOC flight director is aware of upcoming drops.

_____ 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.

_____ 4. Report the transmission of each drop and fill in the Dropwindsonde Scientist Log.

Post flight

_____ 1. Complete Dropwindsonde Scientist Log.

_____ 2. Brief the LPS on equipment status and turn in completed forms.

_____ 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.]

_____ 4. Debrief at the MGOC or the hotel during a deployment.

_____ 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 H. Dennis Dropwindsonde Scientists Shirley Murillo & Paul Leighton Page 1 of 1

Flight ID 050710 H1 Flight Director Paul Flaherty Takeoff from NAS JAX at 185320 UTC

Mission ID WX04A Dennis AVAPS Operators John Hill Recovery at NAS JAX at 021501 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	042715156	193727	29.654	84.255	1005.0	162/35	7			DLD 11.5 s; RH heating cycles; approaching storm from the east	03	35
2	042715190	194815	29.528	85.081	1001.4	169/47	7			SE 50 kt radius	05	45
3	042715160	200531	30.221	86.385	989.0	170°/70	831			DLD 10 s; no winds below 900 mb; at T3 tower	06	
4	042715291	201223	30.215	86.921	983.1	N/A	N/A			SE of eyewall, no winds, DLD 19.5 s	07	
5	043845094	201635	30.17	87.18	982.3	N/A	N/A			no launch detect, made it to sfc but no winds	12	
6	043845005	201741	30.16	87.27	983	—	—			BOD records in AVAPS file missing first 17 s; no launch detect... failed		← no winds
7	043845095	202118	30.114	87.543	986.3	N/A	N/A			DLD 7.5 s; late winds 84 s; gale force radius on west side	09	
8	043845084	202756	30.059	88.037	990.1	300°/31	31				10	30
9	043845004	203645	30.081	88.744	996.5	328/46	8			near buoy 42007	11	45
10	042715159	210828	31.103	86.141	986.6	N/A	N/A			RH heating cycles; over land!! DLD 7.5 s; winds only 737-761 mb	14	
11	042715285	215246	32.554	88.309	988.9	40°/60	736			RH heating cycles; 100 miles NW of center	17	
12	042815265	220501	31.772	88.460	985.5	4/21	7		NW rainband	NW outside of rainband	18	20
13	043845092	221603	31.230	87.792	976.6	333/40	9		NW eyewall	RH heating cycles	19	40
14	043845088	221928	31.095	87.549	961.2	110°/60	619		eye	over land!	21	
15	043845007	003635	31.961	87.676	965.7	46/37	6		NE eyewall	RH heating cycles; Near eyewall over land	28	PAL 35
16	043845093	004731	32.56	87.05	987	—	—		PAL	NLD; noisy, PTH, telemetry, location etc ??? No wind		← Not Sent
17	043825191	005135	32.54	86.76	982.4	—	—		PAL	NLD — No winds	—	Not Sent