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

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

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

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

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

In-Flight

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

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

X 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.

X 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.

MROC = San Jose, Costa Rica

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

IFEX TCSP

Storm Genesis Dropwindsonde Scientist: Shirley Murillo Page 1 of 2

Flight ID 20050714H1 Flight Director Paul Flaherty Takeoff from MROC at 175050 UTC

Mission ID NOAA2 WXWXE suspect AVAPS Operators Sean McMillan Recovery at MROC at 020916 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	043845263	180954	7.247	85.010	1009.4	229°/3	7	28.2		combo BT & drop SW flow	03	10
✓ 2	043835086	191712	9.999	90.003	1009.4	275°/8	7				06	10
✓ 3	043835007	193029	10.000	91.000	1008.6	—	—			no launch detect, no winds "bad pressures"	07	
✓ 4	043845194	194356	9.999	92.003	1006.3	255°/10	4	28.2		combo BT & drop, pressure bias +2.3 mb; Wind gap 803-975 mb	09	10
✓ 4A	043845195	194927	10.000	92.402	1007.2	246°/11	7			backup to 4, press. bias -2.8 mb	10	10
✓ 5	043835105	195743	10.000	93.000	1009.1	278°/11	7			late winds 1 min.	11	10
✓ 6	043845198	201135	10.000	94.002	1009.6	286°/10	7	28.3		combo BT & drop	12	
✓ 7	043845191	202640	10.000	95.072	1009.4	257°/9	8				14	
✓ 8	044415192	203933	10.000	96.00	1008.8	—	—			no launch detect, no winds	15	
✓ 8A	043625164	204313	10.029	96.258	1008.9	229°/10	7			backup to 8	17	
✓ 9	043845190	205336	10.013	97.009	1008.3	237°/14	7	28.9		combo BT & drop	18	
✓ 10	043845261	211415	10.73	95.68	1007.2	—	—			no launch detect, no winds	19	
✓ 11	043845262	213313	11.368	94.325	1009.1	281°/15	7			late winds 65 s	21	
✓ 12	044415193	215218	11.981	92.973	1007.8	278°/10	6	28.5		combo BT & drop, press. bias -2.3 mb remnants of cirrus anvil outside	23	
✓ 13	043845208	221409	12.731	94.348	1007.5	169°/2	7			DLD 12 s; late winds 6 s	24	
✓ 14	043845090	223407	13.372	95.676	1007.4	250°/8	4			DLD 5 s	26	
PAL ✓ 15	043845072	225333	14.0	97.0	1006.9	—	—	28.8		combo BT & drop, No Launch Detect no winds, "bad pressures in file"	28	

IFEX TCSP

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

Storm Genesis Dropwindsonde Scientists Shirley Murillo Page 2 of 2

Flight ID 20050714H1 Flight Director Paul Flaherty Takeoff from MROC at 175050 UTC

Mission ID WXWXE SUSPECT AVAPS Operators Sean McMillen Recovery at MROC at 020910 UTC

Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd ~~(kt)~~ ~~mps~~	hgt (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #
PAL 15A	04441519 1	225411	14.027	97.039	1007.3	85°/4	7	28.8		Backup to 15, temp equilibration not properly flagged	29
16	04384519 9	230827	14.063	95.978	1006.9	3°/7	7			dynamic temp. correction applied	31
17	04383510 4	232113	14.04	95.000	1006.4	—	7			no launch detect, no winds	32
18	04384527 1	233448	14.035	93.984	1007.0	253°/6	7				33
19	04441618 7	234807	14.026	92.995	1007.4	192°/5	7			dynamic temp. correction applied	35
20	04384519 7	000129	13.997	91.983	1008.1	163°/6	7	29.2		combo drop & BT	36
21	04271507 3	002018	13.01	90.97	1008.5	—	8			no launch detect, no winds, "bad press"	38
22	04413523 8	003845	11.99	90.00	1008.3	—	7	28.5		combo BT & drop, no winds, no launch detect	39
22A	04282502 7	003914	11.96	89.97	1008.5	—	7			no winds back up to 22, no launch detect	41
23	04282502 9	010032	10.971	88.748	1009.3	295°/2	7			last drop	42