

Dropsonde Scientist

Flight ID _____ Storm _____ 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 or workstation. 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, dropwindsonde data tapes, DVDs, or CDs.
[Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]
- _____ 4. Debrief at the base of operations.
- _____ 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 Lane Dropwindsonde Scientists Selwood Page 1 of 2
 Flight ID 1114E Flight Director Henning Takeoff from HNL at 143 UTC
 Mission ID 248082H AVAPS Operators Patel Recovery at HNL at 055 UTC

Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd hgt (kt) (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #
1	023959.1	240	1825	15645	1011.7	025/15 10			Environment/DWL	1
2	032457.1	339	1469	15574	1006.6	20/27 10			IP	3
3	033904.2	339	1465	15403	1004.9	310/28 10			Mid	4
4	035127.3	351	1453	15402	961.7	28/15 10			EW W	5
5	035533.6	355	1444	15383	943	00/16 10			EW E	6
6	035352.5	354	1445	15394	927	165/3 10			center	7
7	040919.7	409	1449	15293	1005.9	135/30 10		Mid	center	9
8	041602.8	416	1454	15268	1006.3	135/30 10		Combo	center	11
9	050455.1	504	1445	15214	1010.6	150/24 10		End leg 1	center	12
10	054100.2	541	1632	15420	1009.8	70/27 10			End DW leg	14
11	055241.3	552	1556	15426	1006.5	65/41 10			Mid	15
12	060601.4	605	1464	15426	944.1	31/140 10			EW N	16
13	060750.5	607	1452	15423	931.6	235/08 10			Center	17
14	060923.6	609	1442	15423	922.4	21/105 10			EW S	18
15	060957.7	610	1438	15423	968.2	22/97 10			EW S	19
16	062210.8	622	1355	15429	1006.7	240/27 12			Mid	21
17	063446.1	634	1276	15423	1009.7	250/18 10			End leg 2	22

(1) dry layer 700 mb

(4) bad lat/lon

(7) manually edited bad sfc lat/lon

(15) first full at start

(12) by update

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

Storm Lane Dropwindsonde Scientists Sellwood Page 2 of 2
 Flight ID 114E Flight Director Hearing Takeoff from HNL at 143 UTC
 Mission ID 2080822H1 AVAPS Operators Patel Recovery at HNL at 953 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 #
18	065146.2	651	1334	15312	1008.1	180/20	12			end PW leg 2	24
19	070614.3	706	1408	15380	1003.6	185/40	10			mid	25
20	071457.4	715	1453	15425	992.4	95/11	12			EW SE	26
21	071701.5	717	1455	15437	935.8	225/19	12			center	27
22	071934.6	719	1462	15448	954.0	310/100	10			EW NW	28
23	071956.7	720	1463	15449	944.3	NA				EW NW	29
24	073321.8	733	1533	15490	1005.9	NA	14			mid	31
25	074534.1	745	1509	15545	1009.8	25/20	10			end leg	32
26	085008.1	850	1830	15682	1014.4	15/23	10			clear air at altitude	33

→ center 936-225/19
 (23) unlogged lowest wind but couldn't get str in temp drop
 → flight aborted due to vibrations + 36 up/down