

Dropsonde Scientist

Flight ID 20110728H1

Mission ID 0304A-DON

Dropsonde Scientists Rogers

AVAPS Operators Olney

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 are often 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 _____ Dropwindsonde Scientists _____ Page ____ of ____

Flight ID _____ Flight Director _____ Takeoff from _____ at _____ UTC

Mission ID 0304A Don AVAPS Operators _____ Recovery at _____ at _____ 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	102025126	212000	25.56	91.43	1012.2	171/18	29	29.4	1P		36
2	102515087	213300	25.15	90.25	1009.6	141/28	6	29.3	mid pt		38
3	102515043	214130	24.79	90.82					NE RMW	fast fall	—
4	102145016	215130	24.29	91.31	1005.3	183/40	6		center	FL ~ 12 kt, SF ~ 45 kt	26
5	103515206	215234	24.25	91.37	1007.4	199/19	7		center 2		24
6	102525274	215740	24.08	91.68	1007.5	287/15	16	24.8	SW RMW	suspect BT SST → no forecast	41
7	102515106	220420	23.86	92.10	1008.6	256/13	11	29.1	mid pt		43
8	102525301	222000	23.32	93.01	1009.4	283/9	6	28.7	SW end pt		44
9	101425180	2312	22.81	91.62	1010.5	187/9	8	—	S end pt		47
10	102535078	232011	23.41	91.64	1010.1	236/14	23	—	mid pt		48
11	102815310	233250	24.26	91.70				—	S RMW	very spotty data below ~ 800 mb	—
12	102515253	233421	24.35	91.72	994.7	217/50	102	—	N RMW	in convection, saturated moist adiabatic in whole profile	51

lots of missing data