

Dropsonde Scientist

Flight ID 20110823 H1 Storm Hurr. Irene Dropsonde Scientist KLOTZ

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 Hurr. Irene Dropwindsonde Scientists B. KLOTZ Page 1 of 1
 Flight ID 20110823H1 Flight Director SEARS Takeoff from MacDill at 1952 UTC
 Mission ID 1009A Irene AVAPS Operators OLNEY Recovery at MacDill at 0347 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 #
✓ J.P.	01	102525014	220538	-74.01	22.14	1005.6	043/37	5.8	J. P. (west-northwest of eye)	020
X	02	102815145	220621	-73.97	22.11	1006.3	039/23	6.8	Backup to first; not transmitted	← NO DROP
✓	03	102815119	222123	-73.06	21.65	1001.1	047/47	5.7	Midpoint	023
✓	04	102815068	223555	-72.17	21.19	995.5	357/58	5.3	RMW - eyewall (WNW)	025
✓	05	102815132	224224	-71.74	21.04	969.4	117/21	6.6	eye	027
✓	06	102815111	224611	-71.49	20.92	981.2	167/70	10.1	eyewall (ESE)	028
✓	07	101655189	225629	-70.88	20.58	998.2	151/29	6.7	midpoint (use 2nd)	031
✓	08	102815169	231103	-70.04	20.19	1001.0	120/27	6.7	end leg pt. (1)	036
✓	09	102815073	233752	-70.16	21.96	1003.9	099/41	7.7	start leg pt. (2)	042
✓	10	102125015	234905	-70.85	21.62	999.4	096/49	7.4	midpoint - rainband	044
✓	11	102815168	000205	-71.71	21.21	979.1	086/78	8.9	eyewall (NE)	046 ← NO eye d rop
✓	12	102815074	001018	-72.17	20.86	981.4	298/50	3.9	eyewall (SW)	048
✓	13	102815137	002120	-72.85	20.54	999.8	332/25	8.4	midpoint	054 - have backup
✓	14	102815103	002905	-73.15	20.27	1001.7	330/27	5.1	end leg pt. (2)	059
✓	15	102815084	004751	-71.95	20.20	997.3	232/37	7.1	start leg pt. (3)	063
✓	16	103515260	005726	-71.95	20.91	973.9	188/43	6.4	eyewall (S)	065
✓	17	103515226	010022	-72.08	21.03	968.9	247/04	7.0	eye	067
✓	18	101655185	010548	-72.15	21.33	998.2	151/29	6.7	eyewall (N)	070
✓	19	102815104	011726	-72.12	22.07	999.0	055/56	7.4	rainband/midpoint	076
✓	20	102815120	012916	-72.14	22.84	1005.9	071/37	6.6	end leg pt. (3)	079