

NOAA P-3 GPS Dropwindsonde Scientist Log (MS Word version 2020)

Flight ID 20221030I2 Storm AL15 Dropsonde Scientist Sellwood

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.]

3. Copy all raw and processed dropsonde files to portable drive for archival

4. Debrief at the base of operations.

5. Determine the status of future missions and notify MGOC as to where you can be contacted.

Storm AL15 Flight ID 20221030I2 Dropsonde Scientist Sellwood AVAPS Operator Brian

Mission ID 0415A Take Off 2146UTC St. Croix Landing 0357UTC St.Croix Page 1 of 2

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Dir/Spd (deg/kt)	Lowest Wind Hgt (m)	SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
1	210910044	2248	17.09	-69.80	1010	060-17	10		IP(CPA)	1
<b>Comments: No manual QC</b>										
2	21020786	2300	17.30	-71.01	1011	070-17	12		Pt 2 leg 1 <-	2
<b>Comments: Set end 533.50 - dry layers between 700-800mb</b>										
3	210240785	2313	17.30	-72.21	1008	095-23	10		Pt 3 leg 1 <-	3
<b>Comments: Set end 541.25 - dry layer below 800mb</b>										
4	210240787	2324	17.30	-73.41	1008	095-28	10		Pt 4 leg 1 <-	4
<b>Comments: Set end 541.25 dry at top of sounding</b>										
5	211450595	2336	17.30	-74.61	1008	070-25	10		EP N W leg 1	5
<b>Comments: Set end to 573.50 - no GPS first few seconds dry at top of sounding</b>										
6	210731115	2348	16.2	-74.53	1006	060-21	12		EP SW start leg 2	6
<b>Comments: End 540.75</b>										
7	210930208	0000	16.2	-73.39	1007	135-23	10		Pt2 leg 2 ->	7
<b>Comments: No manual QC dry at 500mb</b>										
8	210850223	0013	16.2	-72.13	1009	120-12	10		Pt 3 leg 2 ->	8
<b>Comments: No manual QC dry from 700-800mb</b>										
9	210710333	0025	16.2	-70.99	1010	085-13	10		Pt 4 leg 2 →	9
<b>Comments: Set end 527.00 dry layer 625mb</b>										
10	211450597	0038	16.17	-69.82	1011	100-14	10		EP NE leg 2	10
<b>Comments: No manual QC dry 500-700mb</b>										
11	210420092	0050	15.02	-69.83	1010	085-10	10		EP SE start leg 3	11
<b>Comments: No manual QC Pretty dry throughout</b>										
12	210731139	0103	15.00	-71.12	1010	130-12	10		Pt 2 leg 3 ←	12

Comments: No manual QC , dry 500-700mb

Page 2 of 2

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Dir/Spd (deg/kt)	Lowest Wind Hgt (m)	SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
13	210710258	0114	15.00	-72.2	1009	185-05	N/A		Pt 3 leg 3 <-	X
<b>Comments: no T RH backed up so did not transmit</b>										
14	210710331	0119	15.00	-72.65	1009	205-24	10		Backup for Pt 3	13
<b>Comments: no manual QC ; Dry 800-900</b>										
15	210240891	0127	15.00	-73.41	1009	160-32	10		Pt 4 leg 3 <-	14
<b>Comments: set end 534.50 meridional motion + wind shift at 700mb indicates sonde is just west of center of circulation or trof axis</b>										
16	210430073	0137	14.93	-73.34	1006	180-20	10		EP leg 3	15
<b>Comments: similar sonde motion and wind shift as previous drop</b>										
17	210920887	151	13.78	-74.49	1008	195-15	10		EP start leg 4	16
<b>Comments: Descended to 12k ft due to icing / convection ; set end to 317.75</b>										
18	213430297	0206	13.8	-73.39	1010	235-08	12		Pt 2 leg 4 →	17
<b>Comments: Back up to ~ 15k ft or 500mb</b>										
19	210430440	0219	13.8	-72.19	1010	160-06	10		Pt 3 leg 4 →	18
<b>Comments: Back up to 20k ft. ; dry 500-700mb</b>										
20	210930254	0232	13.8	-70.99	1011	095-13	12		Pt 4 leg 4 ->	19
<b>Comments: end 548.75 ; dry throughout</b>										
21	213570211	0244	13.8	-69.92	1011	080-09	10		EP leg 4	20
<b>Comments: Released early to avoid ship; set end to 552.75; dry throughout</b>										
<b>Comments: 21 drops 20 transmitted all charged to NHC</b>										

