Dropsonde Scientist

Flight ID 20210925H1 **Storm** Sam **Mission ID** WB18A

Dropsonde Scientists Jun Zhang

AVAPS Operators Mai

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

- [x] 1. Determine the status of the AVAPS and 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.
- [x] 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.
- [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.
- [ ] 4. Report the transmission of each drop and fill in the Dropwindsonde Scientist Log.

Post flight

- [x] 1. Complete Dropwindsonde Scientist Log.
- [x] 2. Download all raw and processed AVAPS files to thumbdrive
- [x] 3. Brief the LPS on equipment status and turn in completed forms and thumbdrive.
- [x] 4. Debrief at the base of operations.
- [x] 5. Determine the status of future missions and notify Field Program Director as to where you can be contacted.

NOAA P-3 GPS Dropwindsonde Scientist Log (revised March 2019)

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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to Dir/Spd (deg/kt)	Wind closest to Hgt (m)	SST (°C)	Eye/Eyewall, Rainband, etc.	Ob #
1	-41159	2135	13.5	50.5	1011.9	025/17	10			01
Comments	~~IP combo~~ – satellite overpass HRD									
2	-30658	2149	13.35	49.8	1008.4	345/18	10			02
Comments	IP combo									
3	-40140	2159	13.34	49.19	1008	345/25	10			03
Comments	1st MBL pt									
4	-40223	2204	13.31	48.84	946.2	305/59	10			04
Comments	1st RMW									
5	30666	2206	13.297	48.665	965.3	260/93	10			05
Comments	2nd RMW									
6	40375	220705	13.296	48.633	950.2	25/120	10			06
Comments	eyewall 3 - W -									
7	50545	220750	13.293	48.578	94[illegible]	120/104	10			07-08
Comments	Center									
8	40395	220928	13.284	48.462	966.5	56/130	10			08
Comments	Outbound E 1st RMW 62m/s									
9	31075	220954	13.281	48.431	973.4	086/213	10			09
Comments	eyewall E. 2nd 63m/s									
10	20757	2215	13.255	48.108	1005.0	130/48	10			10
Comments	Mid zone E									

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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to Dir/Spd (deg/kt)	Wind closest to Hgt (m)	SST (°C)	EyeEyewall, Rainband,etc,	Ob #
11	50516	222314	13.202	47.546	1010.4	120/35	10			11
Comments	END Dark E combo									
12	10046	2242	14.336	48.132	1005.8	105/43	10			12
Comments	New IP IVB									
13	———	2238	———	———	———	———	———	———	bad	
Comments	BAD Sonde									
14	50570	225725	14.44	48.57	963.9	011/105	10			13
Comments	Eyewall -									
15	20772	225743	13.427	48.586	957.6	330/99	10			14
Comments										
16	40144	225757	13.413	48.543	950.7	016/04	10			15
Comments	eyewall3									
17	30736	2259	13.345	48.651	945	120/16	10			16
Comments	Center2									
18	50567	230101	13.247	48.704	972.4	206/03	10			17
Comments	RMW1 SW									
19	20770	230112	13.238	48.711	974.2	205/99	10			18
Comments	RMW2 SW									
20	30476	230156	13.202	48.737	984	220/95	10			19
Comments	RMW3 SW									

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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to Dir/Spd (deg/kt)	Wind closest to Hgt (m)	SST (°C)	Eye/Eyewall, Rainband, etc,	Ob #
21	40479	2308	12.866	48.977	1005.8	260/35	10			20
Comments	MID SW									
22	50547	2322	12.337	49.382	1006.9	295/21	10			21
Comments	MID PT. SE. combo									
23	20799	2340	12.387	49.126	1011.8	170/21	10			22
Comments	3rd IP combo SE									
24	41006	2349	12.427	48.459	1006.1	210/40	10			23
Comments	MID - SE									
25	30479	2355	13.305	48.685	965	126/57	10			24
Comments	RMW1 SE			80 m/s						
26	50543	235605	13.348	48.706	955.5	111/62	10			25
Comments	RMW2 SE			83.4 m/s						
27	50526	235608	13.35	48.709	953	09132	10			26
Comments	RMW3 SE			68 m/s						
28	40775	2357	13.445	48.767	945	09524	10			27
Comments	Center									
29	51136	235848	13.52	48.822	965.9	32134	10			28
Comments	RMW1 NW			69.2 m/s						
30	30702	235854	13.527	48.826	—	—	10			~~29~~
Comments	RMW2 NW — not send bad sonde. End at 600 m 8									

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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to Dir/Spd (deg/kt)	Wind closest to Hgt (m)	SST (°C)	Eye/Eyewall, Rainband, etc.	Ob #
31	20801	2359	13.535	48.833						bad
Comments	RMW 3 NW — data ends at ~800m no sent									
32	30735	0005	13.924	49.108	1007.3	050/47	10			29 ✓
Comments	MID NW									
33	20760	0012	14.327	49.347	1011.6	050/27	10			30 ✓
Comments	EWP PT NW - combo —									
34	50849	0035	14.375	50.908	1011.2	055/23	10			31 ✓
Comments	Alamo Combo Navy									
Comments										
Comments										
Comments										
Comments										
Comments										
Comments										
Comments										