Dropsonde Scientist

Flight ID 20190928I1 **Storm** Lorenzo **Mission ID** WD13A

Dropsonde Scientists Kelly Ryan

AVAPS Operators Todd Richards

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

reg sondes processed & sent = 11
reg sondes not sent = 3
mini sondes (not sent) = 10

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

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Mission ID WDRA (exp. 0213A) Dropsonde Scientist AVAPS Operator

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	19223095 9	1736	22.76	46.20	995	335/42	10	—	IP	
Comments	splash @ 22.70N/46.21W Quite a bit of subsidence (FL-825mb)									
2	19164017 8	1752	22.87	45.01	952	150/14	10	—	center	
Comments	splash @ 22.88N/45.01W obvious tilt (NNE); not as saturated as expected (85-95% below 800mb)									
3	161635012	1819							NE	
Comments	Mini sonde									
4	161545045	1820							NE	
Comments	Mini Sonde									
5	19164017 1	1828	23.10	44.51	973	95/70	10		NE	
Comments	almost fully saturated to surface on this side									
6	19164017 6	1828	23.10	44.53	970	110/82	10	—	NE	
Comments	hints of an onion; mostly saturated									
7	19172086 2	1829	23.08	44.56	964	106/14	10	—	NE	
Comments										
8	19164014 4	1830	23.05	44.67	—	139/104	782	—	NE	
Comments	stopped transmitting; rain; very saturated									
9		1913								
Comments	mini 5									
10		1914								
Comments	mini									

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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 #
11	19172O845	1917	23.26	44.51	974	7/37	12	—	NNE	
Comments										
12	1917208 32	1917	23.24	44.56	968	115/122	29[illegible]	—	NE	
Comments	no winds near surface or at altitude (no sats)									
13	191640172	1918	23.23	44.58	963	105/91	10	—	NNE	
Comments										
14	1917208 48	1919	23.21	44.62	962	86/111	3L	~~3~~	NNE	
Comments	mostly saturated, no winds near surface									
15	191940557	1936	2339	44.73	962	70/65	10	—	NNE	
Comments										
16	191640165	1937	23.42	44.71		109/126	720		NNE	
Comments	lost transmission									
17	191640169	1937	2344	44.70	967	75/81	10	—	NNE	
Comments										
18	191720785	1938	2348	44.68	973	70/	25	—	NNE	
Comments	bad wind near surface									
19		1954							NNE	
Comments	mini									
20		1955							NNE	
Comments	mini									

21 1955
mini
22 1955
mini

23 2004
mini

24 2004
mini