

Dropsonde Scientist

Flight ID 190903H1 **Storm** DORIAN **Mission ID** 3005A

Dropsonde Scientists B. Dahl

AVAPS Operators _____

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.

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

Storm **DORIAN** Flight ID **3905A**
 Mission ID **190903H** (exp. 0213A)

Dropsonde Scientist **B. Dahl**
 Dropsonde Scientist

AVAPS Operator **J. Greene**
 AVAPS Operator

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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Eyewall, Rainband, etc.	Ob #
						Dir/Spd (deg/kt)	Hgt (m)			
✓ 1		081445	27.0	79.94	999	355/41	—	—	—	1
Comments end inbound W good										
✓ 2		082610	26.99	79.08	986	350/60	—	—	—	2
Comments mid inbound W good										
✓ 3		083517	26.84	78.43	954	240/32	—	—	CENTER	3
Comments ctr flag launch RH										
✓ 4		084919	26.78	77.80	946	145/54	—	—	—	4
Comments mid outbound E good										
✓ 5		085958	26.78	76.49	1003	145/35	—	—	—	5
Comments end outbound E good										
✓ 6		093723	26.87	78.42	1002	075/45	—	—	—	6
Comments end inbound N good										
✓ 7		095233	27.48	78.41	990	065/61	—	—	—	7
Comments mid inbound N good										
✓ 8		095820	27.33	78.41	973	045/83	—	—	EYEWALL N	8
Comments mmw inbound N good										
✓ 9		101812	26.12	78.53	994	245/43	—	—	—	9
Comments mid outbound S										
10		10322A								
Comments end outbound S BAD										

(missed drop)

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						Dir/Spd (deg/kt)	Hgt (m)			
✓ 11		103306	25.21	78.64	1003	235/34		—	—	10
Comments	end outbound S. Kept t=234 - 235.50 s wind to encode sfc in WMO.									
✓ 12		105434	25.83	77.06	1003	190/42		—	—	11
Comments	end inbound SE good									
✓ 13		111002	26.51	77.82	991	185/50		—	—	12
Comments	mid inbound SE good									
✓ 14		113602	27.74	79.28	995	040/58		—	—	13
Comments	mid outbound NW good									
✓ 15		114946	28.42	80.00	1005	035/32		—	—	14
Comments	end outbound NW good									
✓ 16		122137	26.29	79.30	998	290/49		—	—	15
Comments	end inbound SW. Kept winds w/ wind err ≤ 0.8 m/s to encode sfc in WMO.									
✓ 17		123008	26.72	78.82	981	270/61		—	—	16
Comments	mid inbound SW. set end t=218.00s									
✓ 18		123755	27.16	78.55	956	005/20		—	CENTER	17
Comments	ctr. flagged launch winds									
✓ 19		124948	27.72	78.03	991	005/76		—	—	18
Comments	mid outbound NE. Flagged launch RH									
✓ 20		1303								
Comments	end outbound NE — bad gps DO NOT process									

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						Dir/Spd (deg/kt)	Hgt (m)			
✓ 21		1304	28.42	77.37	1005	080/36		-	-	19
Comments: wind outbound NE flagged launch RH										
✓ 22		132731	27.68	78.32	984	055/70		-	EYEWALL	20
Comments: mmw, flagged launch RH NE										
✓ 23		133058	27.48	78.38	Ma	^{900 mb} 916/50.6 m/s		-	EYEWALL	21
Comments: mmw. Ended early, set ht missing: will not transmit. NE										
✓ 24		1347	26.44	78.54	988	235/60		-	-	22
Comments: ctr edge of eyewall. flagged data t ≤ 6.5 s + launch RH wind - spike in lat/lon at top										
✓ 25		135456	26.77	77.96	986	175/60		-	-	23
Comments: moat good										
✓ 26		135841	27.12	77.86	985	145/61		-	-	24
Comments: flag launch RH, wind.										
✓ 27		140310	27.49	77.89	987	105/64		-	-	25
Comments: flagged RH data t ≤ 5.0 s - sat dropout										
✓ 28		1408	27.78	78.29	988	070/72		-	-	26
Comments: flagged launch wind, RH for t ≤ 10 s - spike in lat										
✓ 29		141222	27.88	78.71	991	050/71		-	-	27
Comments: flagged launch RH										
— END —										
Comments										