

Dropsonde Scientist

Flight ID 20190905HI Storm DORIAN Mission ID 4705A

Dropsonde Scientists Brittany Dahl

AVAPS Operators Nick Underwood

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 190905H1 Dropsonde Scientist B. Daw AVAPS Operator N Underwood Page# 1/
 Mission ID 470SA (exp. 0213A)

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		091755	31.00	77.08	1007	195/30		-	-	1
Comments	ID end. Flaged flight UVER TH winds									
✓ 2		093052	31.43	78.52	986	175/62		-	-	2
Comments	mid. inbound S. good									
✓ 3		095549	32.25	80.29	990	345/68		-	-	3
Comments	inbound mid outbound N. good									
4		1019.								
Comments	inbound end. N NO launch detect BAD									
✓ 5		102028	30.80	80.82	1004	275/32		-	-	4 ✓
Comments	blk up inbound end N. good									
✓ 6		1049	31.76	79.90	982	315/93	013	-	-	5 ✓
Comments	inbound mid SW. flaged launch winds									
✓ 7		1111	32.45	78.50	989	135/50		-	-	6 ✓
Comments	flaged launch winds,									
✓ 8		1117	32.65	78.09	997	140/54		-	-	7 ✓
Comments	flaged launch winds. set end t= 214.75 s.									
✓ 9		113601	32.82	78.13	997	130/42		-	-	8 ✓
Comments	flaged launch TH winds.									
✓ 10		113934	33.00	78.42	996	130/53		-	-	9 ✓
Comments	flaged launch TH winds									

premin for by later ob. call back

" "

" "

6 ✓ sent back

7 ✓ sent back

8 ✓

9 ✓

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Storm _____ Flight ID _____ Dropsonde Scientist _____ AVAPS Operator _____ Page# ___/___
 Mission ID _____ (exp. 0213A)

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)			
✓ 11		114818	32.86	79.19	988	060/51		-	-	10 ✓
Comments		flagged launch winds								
✓ 12		121834	30.88	79.18	999	235/53		-	-	11 ✓
Comments		set nd t = 211.75s to make sure end does not get in.								
✓ 13		122559	30.38	79.18	1004	240/34		-	-	12 ✓
Comments		flag launch TH winds...								
✓ 14		125121	31.89	78.88	975	200/82		-	✓ EYEWALL SE	13 ✓
Comments		mmw - paul good								
✓ 15		125313	31.98	78.97	964	195/81		-	✓ EYEWALL SE...	14 ✓
Comments		mmw - paul flag launch TH								
✓ 16		131430	32.23	78.73	970	155/79		-	✓ EYEWALL E	15 ✓
Comments		mmw - paul set end t = 198.00s.								
✓ 17		133620	32.41	78.67	974	140/51		-	-	16 ✓
Comments		flagged DTH for t < 9.0s - jump in lat/lon + winds at t = 10.0 + 10.25s.								
✓ 18		1400	32.79	78.89	978	075/57		-	✓ EYEWALL N	17 ✓
Comments		mmw N good								
✓ 19		1401	32.71	78.92	974	085/77		-	✓ EYEWALL N	18 ✓
Comments		mmw N good								
✓ 20		1415	32.82	79.00	975	075/76		-	✓ EYEWALL N	19 ✓
Comments		mmw N flag DTH t < 7.5s, wind < 11s spike in lat near top								

