Dropsonde Scientist

Flight ID 20180910H1 **Storm** Florence **Dropsonde Scientist** Holbach

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.]

_____ 4. Debrief at the base of operations.

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

N42/3RF HRD GPS Dropwindsonde Scientist Log (Revised 5/2002)

Storm Florence Dropwindsonde Scientists Holbach Page 1 of 3

Flight ID 20180910H1 Flight Director Holmes Takeoff from BOA at 1322 UTC

Mission ID WC06A AVAPS Operators Underwood Recovery at STX at 2242 UTC

	Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd (kt)	hgt (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #	Temp	Bufr
ch.1	1	1636151O1	1512	24.15	61.46	1008	220/27	10	X	—	IP SW	02	X	X
ch.2	2	163525175	1526	24.65	60.67	1000	300/34	10	X	—	Midpoint SW	03	X	X
ch.3	3	163335065	1533	24.91	60.26	960	—	—	Fail	Eyewall	Eyewall combo SW Fast fall/warming	06	X	X
ch.4	4	163525173	1535	24.99	60.14	947	050/09	10	X	Eye	Center	04	X	X
ch.5	5	163525077	1537	25.08	59.99	958	080/04	10	Fail	Eyewall	Eyewall combo NE	07	X	X
ch.6	6	164015089	1538	25.10	59.97	965	075/95	10	X	Eyewall	Eyewall NE	09	X	X
ch.7	7	144315067	1546	25.34	59.80	1000	110/48	10	X	—	Midpoint NE	10	X	X
ch.8	8	144315064	1559	25.65	58.85	1009	105/40	10	X	—	EP NE	11	X	X
ch.1	9	163525040	1620	26.27	60.25	1007	075/44	10	X	—	EP N	12	X	X
ch.2	10	163525170	1628	25.74	60.25	1000	070/60	10	X	—	Midpoint N	13	X	X
ch.3	11	163615107	1640	25.18	60.20	954	055/102	10	X	Eyewall	Eyewall NE	14	X	X
ch.4	12	163525074	1642	25.06	60.31	—	—	—	X	Eye	Center Bad	X	—	—
corrected ch.5	13	163525188	1644	24.94	60.32	949	220/143	10	X	Eyewall	Did not hit Sfc Eyewall hit S	17	X	X
ch.6	14	164625057	1654	24.35	60.31	1002	250/30	10	X	—	Midpoint S	19	X	X
ch.7	15	164625062	1703	23.78	60.32	1006	245/25	10	X	—	EP S	20	X	X
ch.8	16	163625013	1716	24.23	59.41	1007	190/32	10	X	—	EP SE	21	X	X
ch.1	17	164625063	1727	24.80	59.97	998	155/51	10	X	—	Midpoint SE	22	X	X

early launch detect seems like a very small difference. Maybe 1sec early

40 out of 43 sent

N42/3RF HRD GPS Dropwindsonde Scientist Log (Revised 5/2002)

Storm: Florence   Dropwindsonde Scientists: Holbach   Page 2 of 3

Flight ID: Flight Director: Takeoff from: at   UTC

Mission ID: AVAPS Operators: Recovery at: at   UTC

	Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd (kt)	hgt (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #	Temp	Bufr
ch.2	18	163525182	1734	25.09	60.35	950	120/99	10	Fail	Eyewall	Eyewall Combo SE	23	X	X
ch.3	19	164445086	1736	25.15	60.51	944	085/09	10	X	Eye	Center	22	X	X
ch.4	20	163525189	1738	25.25	60.66	963	325/102	10	Fail	Eyewall	Eyewall Combo NW	24	X	X
ch.5	21	164625061	1748	25.64	61.18	1001	025/41	10	X	—	Midpoint NW	26	X	X
ch.6	22	164625052	1757	25.97	61.73	1007	035/35	10	X	—	EP NW	28	X	X
ch.7	23	163455086	1816	25.30	60.71	955	315/82	12	X	Eyewall	Eyewall NW	30	X	X
ch.8	24	144545087	1818	25.19	60.61	942	—		X	Eye	Center lower winds suspicious	29	X	X
ch.1	25	164445064	1829	25.08	60.65	953	200/103	10	X	Eyewall	Eyewall S	31	X	X
ch.2	26	163615104	1916	25.13	60.76	953	190/85	10	X	Eyewall	Eyewall S	33	X	X
ch.3	27	164345028	1918	25.27	60.80	941	075/13	10	X	Eye	Center	32	X	X
ch.4	28	163525179	1922	25.20	60.89	953	250/122	10	X	Eyewall	Eyewall SW	34	X	X
ch.5	29	164445166	1923	25.16	60.95	969	260/87	12	X		Just outside eyewall SW	37	X	X
ch.6	30	164015075	1928	25.21	60.93	953	260/87	10	X	Eyewall	Eyewall SW	35	X	X
ch.7	31	143315049	1932	25.40	60.70	952	060/116	10	X	Eyewall	Eyewall NE	36	X	X
ch.8	32	164345026	1933	25.46	60.66	968	—		X		Just outside eyewall NE	40	X	X
ch.1	33	163615103	1957	25.43	60.75				X	Eyewall	Eyewall NE early launch detect			
ch.2	34	163525183	2000	25.31	60.91	942	115/07	10	X	Eye	Center	38	X	X
ch.3	35	144535077	2002	25.26	61.03	—	—		X	Eyewall	Eyewall SW Did not hit sfc, sfc heights missing	42	X	X
ch 4	36	163525069	2022	25.25	60.94	949	185/98	10	X	Eyewall	Eyewall S	43	X	X
ch.5	37	163525191	2024	25.36	61.00	941	125/16	10	X	Eye	Center CPA	39	X	X
	38		2027						X	Eyewall	Eyewall NE early launch detect			

N42/3RF HRD GPS Dropwindsonde Scientist Log (Revised 5/2002)

Storm Florence Dropwindsonde Scientists Holbach Page 3 of 3

Flight ID _____ Flight Director _____ Takeoff from _____ at _____ UTC

Mission ID _____ AVAPS Operators _____ Recovery at _____ at _____ UTC

Drop #	Sonde ID #	Time (UTC)	Lat (°N)	Lon (°W)	Surface Pressure (mb)	Wind closest to surface dir/spd (kt)	Wind closest to surface hgt (m)	BT SST (°C)	Eye, Eyewall, Rainband (direction)	Comments	Ob #	Temp	Bufr
40	164015159	2055	25.48	60.98	952	—		X		Eyewall NE	45	X	X
41	163615115	2058	25.34	61 13	941	255/15	10	X	Eye	Center	41	X	X
42	164345041	2100	25.25	61.17	960	—		X		Eyewall SW	46	X	X
43	163845167	2161	25.18	61.19	973	—		X		Outside Eyewall SW	47	X	X
										late launch detect			
										21:01:12 → 21:01:10			