

POST TROPICAL CYCLONE REPORT

Storm Name	Ophelia
NWS Office	Wakefield, VA
Begin/End Date	09/22/2023-09/25/2023
Fatalities	0 - Direct 0 - Indirect
Tornadoes	1

Event Summary

Tropical Storm Ophelia formed about 150 miles southeast of Wilmington, NC during the afternoon of Friday (9/22) when a non-tropical area of low pressure acquired some tropical characteristics (including convection near the center which had a warm core). Ophelia steadily tracked northward before making landfall in Emerald Island, NC (in the southeast part of the state) at 6:20 AM on Saturday, 9/23 as a tropical storm with 70 mph winds. Ophelia gradually weakened (and lost tropical characteristics) as it tracked northward toward the Wakefield CWA during the day on Saturday. Ophelia tracked northward roughly along the I-95 corridor during the afternoon and evening hours on Saturday, reaching the Richmond Metro Area while weakening to a depression. Ophelia became a post-tropical cyclone shortly thereafter and exited to the north/northeast on Sunday. Northeast winds gusted as high as 50-65 mph near the VA/NC coast well in advance of Ophelia Friday evening-early Saturday morning (due to a tight gradient between high pressure over New England and the tropical storm to the south), with 25-45 mph gusts farther inland. Winds turned to the SE near the coast on Saturday and a few gusts to 40-45 mph were observed (while winds remained NE inland west of the low track). Bands of rain (with embedded squalls/thunderstorms near the coast) began to move in late Friday and persisted through much of Saturday (although the rain largely ended near the coast by midday Saturday). As the center of the storm tracked up I-95 during the afternoon and evening, an area of heavy rain accompanied it, with rainfall rates of 0.5-1.5"/hour observed for a few hours from Emporia, VA to the Richmond Metro Area. Some areas saw 3-4" of rain from this band. As a result, there were numerous road closures.

In addition to the rainfall, moderate to major tidal flooding was observed across much of the area Friday night through Saturday evening. Water levels approached +3ft MHHW in a couple spots in the lower bay/lower James River. In fact, water levels at Jamestown were the highest observed since 2016 (which caused disruptions to the Jamestown-Scotland Ferry). Tidal flooding was even observed as far up the James River as Hopewell. Last but not least, one brief EF-0 tornado was observed in Belvidere, NC in the northern part of Perquimans County during the morning on 9/23.

NOTE: It is unlikely that the point-based observations provided in this report sampled the peak values for the event.

Highest 10 Land Winds (kts)*

<i>Station</i>	<i>State</i>	<i>Type</i>	<i>Sustained</i>	<i>Gust</i>
Norfolk Intl Airport	VA	ASOS	37	48
Wallops Island	VA	ASOS	33	49
Elizabeth City Airport	NC	ASOS	31	43
Oceana NAS Souce	VA	AWOS	31	49
Norfolk NAS Cham	VA	AWOS	28	45
Langley AFB Hamp	VA	AWOS	27	36
Ocean City	MD	ASOS	26	42
Edenton	NC	AWOS	25	34
Richmond Intl Airport	VA	ASOS	24	33
Currituck	NC	AWOS	24	36

* Anemometer heights < 20 m

Highest 10 Marine Winds (kts)*

<i>Station</i>	<i>Type</i>	<i>Sustained</i>	<i>Gust</i>
Third Island	WXFLOW	44	54
Middle Ground Lighthouse	WXFLOW	43	48
Rappahannock Light	NOS	42	48
Rudee Inlet	WXFLOW	39	47
6 NW Cape Henry	NDBC	39	54
Willoughby Deguassing Station	NOS	39	45
Ocean City	WXFLOW	38	51
New Point Comfort	WXFLOW	38	48
Poquoson River Light	WXFLOW	38	47
Lynnhaven Inlet Light 2	WXFLOW	38	48

* Anemometer heights < 20 m

Highest 10 Rainfall Totals

<i>Station</i>	<i>State</i>	<i>Type</i>	<i>Inches</i>
Hartfield	VA	CWOP	5.83
Edenton 4.3 SE	NC	COCORAHS	5.15
Manakin-Sabot 1.6 SW	VA	COCORAHS	5.00
Richmond 2.5 WNW	VA	COCORAHS	4.97
Chesapeake	VA	CWOP	4.90
Elizabeth City 7.7 SSW	NC	COCORAHS	4.83
Richmond	VA	CWOP	4.82
Montpelier 1.6 NE	VA	COCORAHS	4.79
Richmond 0.6 SW	VA	COCORAHS	4.78
Richmond	VA	CWOP	4.76

Highest NOAA Tide Gage Observations

<i>Station</i>	<i>State</i>	<i>Datum</i>	<i>Water Level (ft)</i>
Wachapreague	VA	MLLW	6.78
Money Point	VA	MLLW	6.06
Chesapeake Bay Bridge Tunnel	VA	MLLW	5.77
Sewells Point	VA	MLLW	5.74
Yorktown	VA	MLLW	5.27
Kiptopeke	VA	MLLW	5.21
Ocean City Inlet	MD	MLLW	4.40
Chincoteague Inlet	VA	MLLW	4.17
Bishops Head	MD	MLLW	4.13
Cambridge	MD	MLLW	4.02

Lowest 10 Pressures

<i>Station</i>	<i>State</i>	<i>Type</i>	<i>Millibars</i>
Edenton	NC	AWOS	999.7
Third Island		WXFLOW	1001.0
Elizabeth City Airport	NC	ASOS	1001.4
Norfolk Intl Airport	VA	ASOS	1001.9
Middle Ground Lighthouse		WXFLOW	1002.0
Poquoson River Light		WXFLOW	1002.0
Cape Henry		WXFLOW	1002.0
Newport News	VA	ASOS	1002.2
Currituck	NC	AWOS	1002.3
Richmond Intl Airport	VA	ASOS	1002.4

Report Last Updated on [MM/DD/YYYY] 9/28/2023

The following files have been updated: Wind/Pressure, Rainfall, Water Level, and Tornadoes