# WINTER STORM SUMMARY FOR

# DECEMBER 19, 2009 TO DECEMBER 20, 2009 EVENT

# **Synopsis**

A significant Nor'easter impacted the Mid Atlantic region from Saturday December 19th through the morning of Sunday December 20th. An area of low pressure developed in the Gulf of Mexico on Friday December 18th, and this low then tracked to just east of the Carolina coast by Saturday morning December 19th. This low pressure system intensified Saturday as it continued to track northeastward along the East Coast. With ample cold air in place, snow began falling across much of the area during the pre-dawn hours of Saturday. As the low strengthened, heavier bands of snow developed and tracked through the Delmarva Peninsula and southern New Jersey. By late afternoon and evening, significant snow accumulations were occurring in these areas. Some mixing with rain occurred along the southern New Jersey coast during the afternoon, and sleet was also reported during the afternoon along the eastern shore of Maryland. Farther north, snow began during the late afternoon and persisted into the night across northern New Jersey and the Lehigh Valley in northeast Pennsylvania. Accumulating snow continued across much of the Mid Atlantic region through midnight, and light snow showers lasted across portions of central to northern New Jersey through mid-morning on Sunday December 20th. The low pressure system tracked northeast and away from the region through the remainder of Sunday.

# Watches/Warnings/Advisories

A Winter Storm Watch was issued at 330 pm on Thursday December 17th for the following areas: New Castle, Kent, and Sussex in Delaware; Cecil, Kent, Queen Annes, Talbot, and Caroline in Maryland; Salem, Gloucester, Camden, Northwestern Burlington, Ocean, Cumberland, Atlantic, Cape May, and Southeastern Burlington in New Jersey; Delaware and Philadelphia in Pennsylvania. At 1012 pm on Thursday December 17th, a Winter Storm Watch was issued for the following areas: Hunterdon, Somerset, Middlesex, Western Monmouth, Eastern Monmouth, and Mercer in New Jersey; Berks, Chester, Montgomery, and Bucks in Pennsylvania. A Winter Storm Warning was issued at 440 am on Friday December 18th for the following areas: New Castle, Kent, and Sussex in Delaware; Cecil, Kent, Queen Annes, Talbot, and Caroline in Maryland; Salem, Gloucester, Camden, Northwestern Burlington, Ocean, Cumberland, Atlantic, Cape May, and Southeastern Burlington in New Jersey; Delaware and Philadelphia in Pennsylvania. Also on Friday December 18th at 440 am, a Winter Storm Watch was issued for the following areas: Sussex, Warren, and Morris in New Jersey; Carbon, Monroe, Lehigh, and Northampton in Pennsylvania. At 114 pm on Friday December 18th, a Winter Storm Warning was issued for the following areas: Hunterdon, Somerset, Middlesex, Western Monmouth, Eastern Monmouth, Mercer, Sussex, Warren, and Morris in New Jersey; Carbon, Monroe, Lehigh, Northampton, Berks, Chester, Montgomery, and Bucks in Pennsylvania.

## Precipitation/Temperatures/Winds

Significant snow accumulations were recorded from this event. In fact, Philadelphia recorded its third highest snowfall ever for any single event, with 23.2 inches at the Philadelphia International Airport. Snowfall totals ranging from 20 to 25 inches extended from central Ocean and Burlington counties in New Jersey southwestward to Kent county in Maryland. Farther south, snowfall amounts of 10 to 20 inches occurred from Atlantic county New Jersey southwestward to Caroline and Talbot counties in Maryland. A band of 5 to 10 inch snowfall accumulations occurred from central Cape May county in New Jersey southward into Sussex county Delaware. North of the Philadelphia area, 10 to 15 inch accumulations were tallied from Monmouth county in New Jersey westward into northern Chester county in Pennsylvania. Meanwhile, 5 to 10 inch accumulations occurred across much of northern New Jersey and westward into Berks and Lehigh

counties in Pennsylvania. Temperatures remained in the 20s for most areas throughout the event, yielding a light, fluffy snow. Winds averaging 15 to 25 mph for most areas resulted in blowing and drifting snow with reduced visibilities.

# Significant Impacts/Aspects

This was the first heavy snowfall of the winter season, and as the fluffy snow fell, it quickly accumulated on roadways. Blowing and drifting snow also proved to be a challenge as road crews across the region tried to keep up with the accumulating snow. Snowfall rates of 1 to 2 inches per hour along with thunder and a few lightning strikes were reported across portions of Gloucester and western Atlantic counties. Even though the storm exited the region by Sunday morning, schools across central to southern New Jersey, as well as schools in Philadelphia, were closed on Monday because additional time was needed to clear roads and sidewalks across the area.

## **Notes**

Information contained in this summary is preliminary. More complete and/or detailed information may be contained in subsequent monthly NOAA storm data publications.

ZCZC PHLWRKJJM ALL TTAA00 KPHL 071538 DEZ001>004-MDZ008-012-015-019-020-NJZ001-007>010-012>027-PAZ054-055-060>062-067>071-210533-

PUBLIC INFORMATION STATEMENT SPOTTER REPORTS NATIONAL WEATHER SERVICE MOUNT HOLLY NJ 1045 AM EST THU JAN 07 2010

THE FOLLOWING ARE UNOFFICIAL OBSERVATIONS TAKEN DURING THE PAST 16 HOURS FOR THE STORM THAT HAS BEEN AFFECTING OUR REGION. APPRECIATION IS EXTENDED

TO HIGHWAY DEPARTMENTS...COOPERATIVE OBSERVERS...SKYWARN SPOTTERS AND MEDIA FOR THESE REPORTS. THIS SUMMARY IS ALSO AVAILABLE ON OUR HOME PAGE AT WEATHER.GOV/PHI

LOCATION	STORM TOTAL	TIME/DATE	COMMENTS
	SNOWFALL	OF	
	(INCHES)	MEASUREMENT	

DELAWARE

KENT COUNTY DOVER	18.0	925	AM	12/20				
FELTON	13.0			12/20				
NEW CASTLE COUNTY								
BEAR	17.0	715	AM	12/20				
WILMINGTON	17.0	100	AM	12/20	NEW (	CASTLE	COUNTY	APT
CLAYMONT	16.3	1213	PM	12/20				
NEWARK	16.1	1001	AM	12/20				
WILMINGTON	15.0	944	AM	12/20	CITY			
NEWPORT	13.0	945	AM	12/20				
SUSSEX COUNTY				/				
SEAFORD				12/20				
FRANKFORD	4.1	1205	AM	12/20				
MARYLAND								
MAKILAND								
CAROLINE COUNTY								
GREENSBORO	17.5	1002	AM	12/20				
01	27.00	1002		12,20				
CECIL COUNTY								
COLORA	17.5	1141	AM	12/20				
KENT COUNTY								
KENT COUNTY MILLINGTON	22.0			12/20				
	22.0			12/20 12/20				
MILLINGTON FAIRLEE	21.5							
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY.	21.5	1150	AM	12/20				
MILLINGTON FAIRLEE	21.5	1150	AM					
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLE	21.5	1150	AM	12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY	21.5	1150 1155	AM AM	12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN	21.5  13.0	1150 1155 800	AM AM AM	12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA	21.5  13.0 18.0 16.0	1150 1155 800 800	AM AM AM	12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN	21.5  13.0 18.0 16.0 15.0	1150 1155 800 800 800	AM AM AM AM AM	12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON	21.5  13.0 18.0 16.0 15.0	1150 1155 800 800 800 800	AM AM AM AM AM	12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD	21.5  13.0 18.0 16.0 15.0 15.0	1155 800 800 800 800 800	AM AM AM AM AM AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE	21.5  13.0 18.0 16.0 15.0 15.0 15.0	1155 800 800 800 800 800 800	AM AM AM AM AM AM AM AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 800	AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB	21.5  13.0 18.0 16.0 15.0 15.0 15.0	1155 800 800 800 800 800 800 800	AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 800	AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB SAINT MICHAELS	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 800	AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB SAINT MICHAELS	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 800	AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB SAINT MICHAELS	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 948	AM AM AM AM AM AM AM AM AM	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB SAINT MICHAELS NEW JERSEYATLANTIC COUNTY	21.5  13.0 18.0 16.0 15.0 15.0 14.0 13.0	1155 800 800 800 800 800 800 948	AM A	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				
MILLINGTON FAIRLEEQUEEN ANNE'S COUNTY. CENTREVILLETALBOT COUNTY QUEEN ANN CORDOVA BOZMAN EASTON OXFORD TRAPPE NEWCOMB SAINT MICHAELS NEW JERSEYATLANTIC COUNTY FOLSOM	21.5  13.0 18.0 16.0 15.0 15.0 14.0 10.5	1155 800 800 800 800 800 800 948 800 730 1045	AM A	12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20				

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PLEASANTVILLE	12.1	717	AM	12/20
ESTELL MANOR	12.0	1008	AM	12/20
BURLINGTON COUNTY				
TABERNACLE	24.8	728	AM	12/20
MEDFORD	24.0	1050	PM	
SOUTHAMPTON	21.4	130		12/20
MEDFORD LAKES	21.0	1031	AM	12/20
WILLINGBORO	19.6	1100	PM	
CINNAMINSON	19.2	807		12/20
MOORESTOWN	19.0			12/20
WESTAMPTON	17.7	814		12/20
BURLINGTON	17.5	1211	PM	
BORDENTOWN	17.0	1132	AM	
PEMBERTON	17.0	912		12/20
MOUNT HOLLY NWS	16.6	720		12/20
WRIGHTSTOWN	16.0	719		
DELRAN	15.0	1205	AM	12/20
CAMPEN COUNTY				
CAMDEN COUNTY	24.0	1100	DM	10/10
ATCO	24.0	1100		
BERLIN PARK	22.5	1010	AM	
ATCO	22.0	1002		12/20 12/20
BLACKWOOD MERCHANTVILLE	22.0	1000		
SICKLERVILLE	22.0	1205		
LINDENWOLD	21.5	1027		12/20
MERCHANTVILLE	20.0	1050		12/20
STRATFORD	20.0	1158		
CHERRY HILL	19.5	1158		
SOMERDALE	18.5	1153		12/20
PENNSAUKEN	18.1	807		12/20
ERIAL	17.5	930		
WINSLOW	14.0	1008		12/20
WINDEN	11.0	1000	1111	12/20
CAPE MAY COUNTY				
ELDORA	18.3	1202	PM	12/20
SEAVILLE	11.5	919		
DENNISVILLE	10.0			12/20
SOUTH DENNIS	9.5			12/20
GREEN CREEK	9.3	857	AM	12/20
SWAINTON	9.0	1126		
NORTH CAPE MAY	8.3	918	AM	
DIAS CREEK	8.0	1204		12/20
VILLAS	7.8	919		
GOSHEN	7.5	1203	PM	12/20
CLERMONT	7.0	1030		12/19
ERMA	6.0	927	AM	

WEST CAPE MAY	5.0	918		12/20
WHITESBORO	5.0			12/20
CAPE MAY	3.0	920	AM	12/20
SCOTCH BONNET	1.5	918	AM	12/20
CUMBERLAND COUNTY				
NEWPORT	24.0	200	AM	12/20
VINELAND	23.6	925	AM	12/20
SHILOH	20.0	958	AM	12/20
CEDARVILLE	19.0	1030	PM	12/19
BRIDGETON	16.0	1016	AM	12/20
GLOUCESTER COUNTY				
SWEDESBORO	25.0	1130	AM	12/20
NATIONAL PARK	23.2	717	AM	12/20
SEWELL	22.5	1014	AM	12/20
FRANKLINVILLE	22.0	1017	AM	12/20
MALAGA	22.0	908	AM	12/20
MONROEVILLE	22.0	809	AM	12/20
TURNERSVILLE	20.5	1045	PM	12/19
CROSS KEYS	19.0	940	PM	12/19
TURNERSVILLE	19.0	940	PM	12/19
FRANKLINVILLE	17.0	930	PM	12/19
GIBBSTOWN	17.0	930	PM	12/19
HUNTERDON COUNTY				
FLEMINGTON	10.3	1020	AM	12/20
LEBANON	7.5			12/20
HIGH BRIDGE	7.0	1019	AM	12/20
MERCER COUNTY				
HAMILTON PARK	15.7	1148	AM	12/20
HAMILTON SQUARE	14.0	1045	PM	12/19
HIGHTSTOWN	12.0			12/20
LAWRENCEVILLE	12.0	909	AM	12/20
PRINCETON	12.0	1149		
HOPEWELL	12.0			12/20
ROBBINSVILLE	10.5	852		12/20
EWING	10.0	730		12/20
PENNINGTON	8.5	1022	AM	
				, -
MIDDLESEX COUNTY				
EAST BRUNSWICK	12.5	1157	AM	12/20
CRANBURY	12.0	1032	AM	
METUCHEN	10.0			12/20
NORTH BRUNSWICK	10.0	1024		12/20
METUCHEN	9.3			12/20
MILLTOWN	9.0	1136		
	J . U	0		, _ 0

WOODBRIDGE	9.0	1137	AM	12/20	
SOUTH PLAINFIELD	8.0	1045	AM	12/20	
NEWTOWN	8.0	852	PM	12/19	
SAYREVILLE	8.0	1137	AM	12/20	
EDISON	6.0	1110	PM	12/19	
MONMOUTH COUNTY					
COLTS NECK	22.5	1147	AM	12/20	
WAYSIDE	19.0	904	AM	12/20	
RED BANK	17.5	1034	AM	12/20	
MORGANVILLE	17.0	948	AM	12/20	
NEPTUNE CITY	17.0	1201	PM	12/20	
CREAM RIDGE	15.8	1153	AM	12/20	
FAIR HAVEN	14.0	1035	AM	12/20	
HOLMDEL	14.0	1136	AM	12/20	
MANALAPAN	14.0	1205	AM	12/20	
LONG BRANCH	11.0	729	AM	12/20	
WEST LONG BRANCH				12/19	
MARLBORO	6.5	1045	PM	12/19	
MORRIS COUNTY					
WHIPPANY	10.0	1138	AM	12/20	
MORRIS PLAINS	9.5	1141	AM	12/20	
LINCOLN PARK	9.0	1045	PM	12/19	
RANDOLPH#MORRIS	7.0	1040	AM	12/20	
BUTLER	6.5	1205	AM	12/20	
MILTON	6.5	810	AM	12/20	
PARSIPPANY	6.5	1040	AM	12/20	
BOONTON	6.0	1036	AM	12/20	
ROCKAWAY	6.0	1036	AM	12/20	
MARCELLA	5.5	920	AM	12/20	
FLANDERS	4.0	1045	PM	12/19	
OCEAN COUNTY					
JACKSON#OCEAN	23.5	1045	PM	12/19	
BRICKTOWN	22.0	723	AM	12/20	
SHIP BOTTOM	21.0	1205	PM	12/20	
TOMS RIVER	21.0	1045	PM	12/19	
POINT PLEASANT BEACH	20.5	1042	AM	12/20	
HOLIDAY CITY	20.0	1046	AM	12/20	BERKELEY TWP
SURF CITY	20.0	1205	PM	12/20	
BEACHWOOD	18.5	1205	AM	12/20	
BAYVILLE	17.5	900	PM	12/19	
BROOKVILLE	16.0			12/19	OCEAN TWP
WHITING	16.0			12/19	
MANAHAWKIN	14.5			12/19	
FORKED RIVER	14.0			12/19	
POINT PLEASANT	14.0			12/19	

LANOKA HARBOR	13.0	1045	PM	12/19
ONT THE COLLEGE				
SALEM COUNTY				/
PITTSGROVE	23.5	959	AM	12/20
SOMERSET COUNTY				
BRANCHBURG	12.0	1154	AM	12/20
BRIDGEWATER	10.0	1155	AM	12/20
HILLSBOROUGH	9.5	1202	PM	12/20
SOMERVILLE	8.5	1026	AM	12/20
ROCKY HILL	8.0	1100		12/19
				,
SUSSEX COUNTY				
HARDYSTON	4.5	1049	AM	12/20
NEWTON	4.0	1132	PM	12/19
SPARTA	3.9	1145	PM	12/19
HOPATCONG	3.0	938		12/19
WANTAGE	3.0	728		12/20
LAFAYETTE	2.5	734		12/20
				,
WARREN COUNTY				
STEWARTSVILLE	7.6	813	AM	12/20
HACKETTSTOWN	6.5	809	AM	12/20
BROADWAY	5.0	1210	PM	12/20
HOPE	4.5	1248		12/20
WASHINGTON	4.0	1025		12/19
BLAIRSTOWN	3.5	1155		12/19
				,
PENNSYLVANIA				
BERKS COUNTY				
MAPLE GROVE	10.0	1140	PM	12/19
MOHNTON	8.5	1058	AM	12/20
BOYERTOWN	7.0	920	AM	12/20
DOUGLASSVILLE	7.0	1200	PM	12/20
WEST LAWN	6.5	1052	AM	12/20
BUCKS COUNTY				
FEASTERVILLE	13.8	954	AM	12/20
BENSALEM	12.5	1100	PM	12/19
RICHBORO	11.5	1115		12/20
NEWTOWN	11.4	101		12/20
FURLONG	11.2			12/20
BENSALEM	11.0	900		12/19
WARRINGTON	11.0	957		12/20
MORRISVILLE	10.2	856		12/20
PERKASIE	9.6			12/20
LUITUU	J. 0	200	7 77.1	12/20

CHESTER COUNTY								
WEST CALN	19.3	1220	AM	12/20				
EXTON		910		•				
WEST CHESTER		100						
EAST NANTMEAL		737						
DOWNINGTOWN		1216						
EXTON				12/20				
HONEY BROOK	10.0	732	AM	12/20				
FRICKS LOCK	8.5			12/20				
DELAWARE COUNTY								
SHARON HILL	23.0	1003	AM	12/20				
FOLCROFT	19.0	1000	PM	12/19				
UPPER CHICHESTER	18.0	1000	PM	12/19				
CLIFTON HEIGHTS	16.7	230	AM	12/20				
DREXEL HILL	16.0	729	AM	12/20				
SWARTHMORE	14.8	1144	AM	12/20				
LEHIGH COUNTY								
ALLENTOWN	5.6	100	AM	12/20	LEHIGH	VLY	INTL	AIRPORT
EMMAUS	5.2	115	AM	12/20				
ALLENTOWN	5.1	1105	PM	12/19				
SCHNECKSVILLE	5.0	1045	PM	12/19				
MONROE COUNTY								
EAST STROUDSBURG	5.1	130	AM	12/20				
TOBYHANNA	4.3	1240	AM	12/20				
MONTGOMERY COUNTY								
ROCKLEDGE	16.5	1114	AM	12/20				
WYNNEWOOD	16.5	1230	AM	12/20				
KING OF PRUSSIA	14.2	1230	AM	12/20				
ROYERSFORD	14.2	1158	AM	12/20				
WILLOW GROVE	13.3	1100	PM	12/19				
ABINGTON	13.2	1100	PM	12/19				
TRAPPE	12.6	1200	PM	12/20				
ELKINS PARK	11.3	1015	PM	12/19				
ELKINS PARK	11.3	1014	PM	12/19				
MONTGOMERYVILLE	11.0	1246	AM	12/20				
EAGLEVILLE	10.0	930	PM	12/19				
KULPSVILLE	10.0			12/20				
AMBLER	9.5			12/20				
SPRING MOUNT	8.8			12/20				
ROYERSFORD	8.3	910	PM	12/19				
HARLEYSVILLE	8.0			12/20				
POTTSTOWN	8.0	729	ΔM	12/20				
	0.0	123	2311	12,20				
UPPER POTTSGROVE	8.0			12/20				

NORTH WALES	6.0	1104	AM	12/20	
NORTHAMPTON COUNTY					
MARTINS CREEK	3.5	935	PM	12/19	
PHILADELPHIA COUNTY					
PHILADELPHIA	23.2	717	AM	12/20	INTERNATIONAL
PHILADELPHIA	18.3	1119	AM	12/20	
SOMERTON	10 5	1030	ΡМ	12/20	