= December 1992 nor 'easter =

The December 1992 nor 'easter produced record high tides and snowfall across the northeastern United States . It developed as a low pressure area on December 10 over Virginia , and for two days it remained over the Mid @-@ Atlantic states before moving offshore . In Maryland , the snowfall unofficially reached 48 in ( 1 @,@ 200 mm ) ; if verified , the total would have been the highest in the state 's history . About 120 @,@ 000 people were left without power in the state due to high winds . Along the Maryland coast , the storm was less severe than the Perfect Storm in the previous year , although the strongest portion of the storm remained over New Jersey for several days . In the state , winds reached 80 mph ( 130 km / h ) in Cape May , and tides peaked at 10 @.@ 4 ft ( 3 @.@ 2 m ) in Perth Amboy . The combination of high tides and 25 ft ( 7 @.@ 6 m ) waves caused the most significant flooding in the state since the Ash Wednesday Storm of 1962 . Several highways and portions of the New York City Subway and Port Authority Trans @-@ Hudson systems were closed due to the storm . Throughout New Jersey , the nor 'easter damaged about 3 @,@ 200 homes and caused an estimated $ 750 million in damage ( 1992 USD ) .

The nor 'easter increased tides across the northeastern United States for several days due to its slow movement . In New York City , tides reached 8 @.@ 04 ft ( 2 @.@ 45 m ) at Battery Park , which flooded Franklin D. Roosevelt East River Drive . Along Long Island , the nor 'easter destroyed over 130 homes and left 454 @,@ 000 people without power . In New England , 230 @,@ 684 people lost power during the storm . Five houses were destroyed in Massachusetts , and flooding reached 5 ft ( 1 @.@ 5 m ) deep in Boston . Further inland , the storm produced significant snowfall , estimated at around 4 ft ( 1 @.@ 2 m ) in The Berkshires . The high snow totals closed schools for a week in western Massachusetts . Overall , the storm caused between $ 1 ? 2 billion in damage ( 1992 USD ) and 19 deaths , of which four were directly related to the storm . In March of the following year , the Storm of the Century caused worse damage across a larger region of the eastern United States .

= = Meteorological history = =

A storm complex moved eastward from the Texas coast into Georgia on December 9 . On December 9 , the National Weather Service ( NWS ) issued a coastal flood watch in anticipation of the developing storm . On December 10 , an upper @-@ level trough was located along the East Coast of the United States . At around 1200 UTC that day , cyclogenesis ? the development of an low pressure area ? occurred over southeastern Virginia . The cyclone moved quickly northward through the Chesapeake Bay until reaching a position just west of Chestertown , Maryland on December 11 . By that time , the system had intensified to a pressure of 985 mbar ( 29 @.@ 1 inHg ) , while the parent trough extended from Maryland through the New York metropolitan area to around Cape Cod . On December 11 , the NWS issued gale warnings and advised for boats to avoid the ocean . The storm turned to the southeast and briefly stalled near Georgetown , Delaware . This was due to a high pressure area north of Maine halting its motion . The interaction between the two systems produced strong easterly winds from Virginia to New England . The nor 'easter finally moved offshore on December 12 , and later that day passed to the southeast of Long Island .

= = Impact = =

The storm affected a large region of the northeastern United States from West Virginia to Massachusetts with heavy snowfall , sleet , rain , and high winds . The Centers for Disease Control and Prevention attributed four deaths to the nor 'easter , but only included those directly related ; the agency did not include storm @-@ induced traffic accidents or heart attacks . The National Climatic Data Center reported 19 deaths related to the nor 'easter , although news reports shortly after the storm reported 20 deaths . Overall damage was estimated between $ 1 ? 2 billion ( 1992 USD ) , mostly in New England .

The storm 's widespread snowfall ranked it as the equivalent of a Category 2 , or " significant " ,

on the Regional Snowfall Index scale .

= = = Mid @-@ Atlantic = = =

 In the Eastern Panhandle of West Virginia , the nor 'easter dropped over 30 in ( 760 mm ) of snow . Officials restricted travel on roads to emergency vehicles only in the state 's two easternmost counties . In the state , the storm left 15 @,@ 000 people without power . In northern Virginia , 2 ft ( 0 @.@ 61 m ) of snow stranded 2 @,@ 500 people in Winchester . In western Maryland , snowfall totals unofficially reached 42 in ( 1 @,@ 100 mm ) in Garrett County . If verified , the total would have been the highest snowfall amount in the state 's history . High winds produced up to 20 ft ( 6 @.@ 1 m ) snow drifts , which stranded trucks on Interstate 68 . High winds knocked down trees and power lines , leaving 120 @,@ 000 people across the state without power , including some without any heat . At least 10 people required rescue from their homes . In the Washington Metropolitan Area , the mixture of rain and snow caused hundreds of traffic accidents .
 The nor 'easter struck about 14 months after the 1991 Perfect Storm produced similarly high tides across the region , and only 11 months after another nor 'easter in January 1992 . In Wilmington , North Carolina , the storm dropped 1 @.@ 79 in ( 45 mm ) of rainfall , which broke the daily rainfall record set in 1888 . High tides damaged much of the dune system along the Assateague Island National Seashore and about a third of the newly installed dunes in Ocean City , Maryland . Along the Maryland coast , the storm dropped heavy rainfall , with a total of 2 @.@ 90 in ( 74 mm ) in Salisbury ; the high rains flooded local streams . At Assateague National Seashore , wind gusts peaked at 54 mph ( 87 km / h ) . The storm struck shortly after a full moon , and the combination of high tides and waves breached dunes in some locations . Despite its longevity , the nor 'easter was less severe than its predecessors along the Delaware Bay , mostly because the stronger northeast quadrant was over the coastline for one tidal cycle , and the predominant southeast winds were blocked by Cape Henlopen . However , there were still high tides and flooding along the Delaware Bay . In Lewes , the nor 'easter produced a high tide of 6 @.@ 33 ft ( 1 @.@ 93 m ) , which at the time was the seventh highest on record . High tides continued in Delaware until December 15 . Several days of high tides caused minor beach erosion and damaged dune systems . In Dewey Beach , there was property damage from coastal flooding . The storm produced significantly more rainfall than the storm in January 1992 , including a total of 3 @.@ 12 in ( 79 mm ) in Wilmington , Delaware . A station in New Castle County reported a record 24 ? hour rainfall total of 3 @.@ 25 in ( 83 mm ) . The rains caused flooding and the third highest discharge on record at Duck Creek in Smyrna . Wind in Delaware peaked at 46 mph ( 74 km / h ) at a station along the Indian River . Further north along the Delaware River , a high tide of 7 @.@ 69 ft ( 2 @.@ 34 m ) was reported in Philadelphia , Pennsylvania . High winds in the city broke the steeple of a church , and the resulting debris briefly closed the Ben Franklin Bridge . Hurricane @-@ force wind gusts left about 160 @,@ 000 residents without power . Heavy snowfall spread across the state , reaching 37 in ( 940 mm ) . State College reported a total of 18 @.@ 1 in ( 460 mm ) , which contributed to its snowiest December on record .
 In contrast to Delaware and Maryland , the strong northeast portion of the nor 'easter affected New Jersey for several days , producing strong winds and record high tides . Wind gusts reached 80 mph ( 130 km / h ) in Cape May , which were the strongest winds in association with the storm . Sustained winds were around 30 mph ( 48 km / h ) in the region . High winds in Atlantic City destroyed the windows of storefronts . Along the Jersey coast , the nor 'easter produced waves of up to 25 ft ( 7 @.@ 6 m ) in height . About 25 mi ( 40 km ) offshore Long Branch , waves reached heights of 44 ft ( 13 m ) . In South Jersey , the storm surge struck the coast near low tide , which restricted flooding . The highest tide in South Jersey was 7 @.@ 89 ft ( 2 @.@ 40 m ) in Ocean City , which broke the previous record of 7 @.@ 53 ft ( 2 @.@ 30 m ) set in 1984 . Further north , the surge coincided with several days of high tides and a lunar tide , causing significant flooding and beach erosion . The highest tide was 10 @.@ 4 ft ( 3 @.@ 2 m ) in Perth Amboy along the Raritan River , which broke the record set in 1960 . In many locations , the storm produced the highest tides since the Ash Wednesday Storm of 1962 . The storm also dropped rainfall across the state ,

peaking at 3 @.@ 80 in ( 97 mm ) in Morristown , along with gusts peaking at 58 mph ( 93 kph ) at Morristown Municipal Airport . The rainfall caused higher discharge rates along rivers . The storm also produced high snowfall totals , including 14 in ( 360 mm ) in Sussex County . Throughout the coastline , the cost to replace the lost beach from erosion was estimated at $ 300 million ( 1992 USD ) .

 Most of the impact in New Jersey was from the high tides , which caused the worst flooding in 30 years in some locations . In Hoboken , high tides flooded portions of the New York City Subway and Port Authority Trans @-@ Hudson systems , leaving them closed for a few days . High tides destroyed portions of the boardwalks in Bradley Beach and Belmar , and also destroyed a century @-@ old fishing pier in Ocean Grove . Flooding closed portions of roads across North Jersey , including the Garden State Parkway near Cheesequake State Park and six state highways . At Newark International Airport , dozens of flights were canceled . The storm left 102 @,@ 000 customers of Jersey Central Power & Light without power . Damage to short circuits caused house fires in Monmouth County . Damage was heaviest near Raritan , Newark , and Sandy Hook along Raritan Bay . High winds in Jersey City destroyed the roof of an apartment ; the debris struck and killed a woman walking along a nearby sidewalk . Throughout the state , the nor 'easter damaged about 3 @,@ 200 homes , primarily in Monmouth and Ocean counties , and caused an estimated $ 750 million in damage ( 1992 USD ) . Then @-@ governor Jim Florio declared a state of emergency and activated the New Jersey National Guard . About 19 @,@ 000 people were evacuated in six towns in Monmouth County . Statewide , about 2 @,@ 000 people in 20 towns had to be evacuated by helicopter or National Guard truck . The American Red Cross opened at least 30 shelters across the state , housing over 5 @,@ 000 people affected by floods or lack of heat . Damage in the state was less than the nor 'easter of 1962 due to 30 years of disaster mitigation , including beach replenishment , dune construction , and improved building codes .

= = = New York and New England = = =

 Before the storm 's circulation passed the New York area , its associated trough produced sustained easterly winds of 50 mph ( 80 km / h ) along Long Island . Wind gusts reached 77 mph ( 124 km / h ) at LaGuardia Airport . The strong easterly winds produced high tides in the region that increased gradually after three consecutive tidal cycles ; this was due to the nor 'easter 's slow movement . There was a storm surge of about 3 ft ( 1 m ) at Battery Park at the southern end of Manhattan . The same station reported a high tide of 8 @.@ 04 ft ( 2 @.@ 45 m ) above sea level , which was high enough to surpass the sea walls for a few hours . The ensuing flooding submerged portions of Franklin D. Roosevelt East River Drive to about 4 ft ( 1 @.@ 5 m ) deep . At least 50 cars were stuck , and some drivers required rescue . Low @-@ lying neighborhoods of New York City were also flooded . High waves canceled ferry service to Staten Island . A power outage closed the New York City subway system for about five hours . The highest tide in Long Island was 11 @.@ 27 ft ( 3 @.@ 44 m ) at Willets Point , Queens . The tides and flooding decreased after the winds shifted to the north , ending on December 14 . High tides canceled ferry service to Fire Island , and the only bridge onto the island was closed to all but emergency personnel and homeowners . High waves washed away dunes and severely eroded beaches along the island , destroying over 100 summer homes . On nearby Westhampton Beach , 30 homes were destroyed , and about 100 houses were isolated due to two new inlets created during the storm . Flooding closed all three bridges connecting Long Beach Island to the mainland . Flooding up to 8 ft ( 2 @.@ 4 m ) forced about 3 @,@ 000 people to evacuate from one village on northern Long Island . About 700 homes were damaged in Bayville along the north coast . High winds downed trees and power lines , leaving more than 454 @,@ 000 Long Island Lighting Company customers without power . In Mamaroneck to the northeast of New York City , a man drowned after being swept away by floodwaters . In the Albany area , where the storm was known as the Downslope Nor 'easter , there was little snow accumulation during the storm 's closest approach due to above freezing temperatures . After the storm moved by the region and the winds shifted to the north , about 6 in ( 150 mm ) fell in the city . To the west of Albany in the Helderberg Escarpment and the Catskill Mountains , snowfall totals

reached 39 in ( 990 mm ) . Heavy snowfall spread across the state , including a total of 14 in ( 360 mm ) in Niagara Falls .

In New England , local TV stations named the storm Beth . Across the region , the Northeast Utilities power company reported that 230 @,@ 684 customers lost electricity during the storm , although all outages were restored within three days . In Connecticut , the nor 'easter produced a storm surge of about 3 ft ( 1 m ) , and a high tide of 7 @.@ 2 ft ( 2 @.@ 2 m ) was reported in Bridgeport . This was the highest tide since Hurricane Carol in 1954 . The rising tides killed one man in the state , and there was also one fatality in neighboring Rhode Island . Along Cape Cod , 15 ft ( 4 @.@ 6 m ) waves eroded beaches , and evacuations were recommended in two cities . The storm destroyed four houses on Nantucket and one in Plymouth . During the storm , more than 20 pilot whales were beached along the cape , of which seven died . Boston reported a peak tide of 9 @.@ 35 ft ( 2 @.@ 85 m ) , which was 1 @.@ 05 ft ( 0 @.@ 32 m ) less than the record set in 1978 . The high tides caused up to 5 ft ( 1 @.@ 5 m ) of flooding . The nor 'easter produced 27 in ( 690 mm ) of snowfall in a 24 period to the west of the city . Further west , snowfall totals reached around 4 ft ( 1 @.@ 2 m ) in The Berkshires , which created 10 ft ( 3 @.@ 0 m ) snow drifts . The high accumulations closed schools for a week in the Berkshires , and the cities required National Guard assistance to remove the snow . To the west of the Berkshires , strong east winds prevented significant snow accumulation in valleys . High tides extended as far north as Portland , Maine , which reported a peak of 7 @.@ 71 ft ( 2 @.@ 35 m ) .

= = Aftermath = =

On December 17 , President George H. W. Bush declared three Connecticut counties as disaster areas . The next day , the president declared 12 New Jersey counties as disaster areas , including all of the counties along the Atlantic coast . The declaration allowed for $ 46 million in relief for public damages and $ 265 million for insured damage in the state . On December 21 , the president declared 9 Massachusetts counties and 5 New York counties as disaster areas . On January 15 , 1993 , Sussex County , Delaware was also declared a disaster area . Across the nor 'easter 's path , 25 @,@ 142 people received assistance from Federal Emergency Management Agency , equating to $ 346 @,@ 150 @,@ 356 in federal aid . Only three months after the nor 'easter struck , another nor 'easter caused more severe damage across a larger region of the eastern United States . The March nor 'easter , known as the Storm of the Century , killed 310 people and left over $ 1 @.@ 5 billion in damage ( 1993 USD ) .