

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ALABAMA, North Central									
ALZ001>038	Lauderdale - Colbert - Franklin - Lawrence - Limestone - Madison - Morgan - Marshall - Jackson - Dekalb - Marion - Lamar - Fayette - Winston - Walker - Cullman - Blount - Etowah - Calhoun - Cherokee - Cleburne - Pickens - Tuscaloosa - Jefferson - Shelby - St. Clair - Talladega - Clay - Randolph - Sumter - Greene - Hale - Perry - Bibb - Chilton - Coosa - Tallapoosa - Chambers								
	06	2000CST			0	0	380K	38K	Winter Storm
	07	1500CST							
	A winter storm brought a mixture of freezing rain, sleet, and snow to the northern two-thirds of Alabama. Precipitation began as freezing rain and sleet but quickly changed to snow. The precipitation coated roads and caused serious travel problems across the northern sections of the state that lasted into Monday morning (the 8th). Some higher elevations of the northeast corner of Alabama had travel problems into Tuesday. Amounts were generally light with the highest snowfall reported at Huntsville International Airport with 2 inches. Most other locations across North Alabama reported one-quarter of an inch to an inch and a half. On Sunday the 7th, one fatality occurred in an automobile/train collision in Calhoun County that was attributed to icy roads. The teenage driver of the car was not wearing a seat belt and was thrown from the vehicle.								
Tuscaloosa County									
8 NW Tuscaloosa	18	1705CST			0	0			Hail (0.75)
	Dime size hail was reported in western section of Tuscaloosa County about 1 mile north of Lake Lurleen State Park. Hail reportedly lasted about six minutes but there was no wind and little rain with the hail.								
ALZ001>018-020-022	Lauderdale - Colbert - Franklin - Lawrence - Limestone - Madison - Morgan - Marshall - Jackson - Dekalb - Marion - Lamar - Fayette - Winston - Walker - Cullman - Blount - Etowah - Cherokee - Pickens								
	18	1800CST			0	0	400K		High Wind (G40)
	19	0500CST							
	High wind over the northern third of Alabama generally along a cold front caused widespread scattered damage. Damage was primarily to downed trees, limbs, and power lines but some roof damage occurred in several locations.								
Lamar County									
Vernon	19	1220CST			0	0	12K		Thunderstorm Wind (G50)
	Several trees were reported blown down in the Vernon area.								
Elmore County									
8 NE Wetumpka	24	0340CST			0	0	8K		Thunderstorm Wind (G50)
	Elmore Sheriff's Department reported one large tree and several smaller trees down in the Santuck area of central Elmore County.								
Montgomery County									
23 S Montgomery to Montgomery	24	0345CST			0	0	12K		Thunderstorm Wind (G50)
	Several trees and power lines were reported downed in the Davenport area along Highway 97.								
Tuscaloosa County									
Tuscaloosa	26	1200CST 2000CST			0	0			Heavy Rain
	Four to five inches of rain fell across Tuscaloosa County especially in the Northport-Tuscaloosa area causing road closures and snarly traffic. The heavy rain swamped drainage system capability with numerous roads closed due to high water.								
Jefferson County									
Birmingham	26	1400CST 1800CST			0	0	75K		Flash Flood
	Heavy rain caused flash flooding in the Village Creek area where some people were evacuated. A number of underpasses were flooded in the heavy rain especially on the north side of Birmingham and in the Tarrant area. Shades Creek was out of its banks in the Eastwood Mall area. Additional flash flooding was reported in Vestavia Hills and in the Oxmoor Valley area of Patton Creek.								
St. Clair County									
Pell City	26	1500CST 2100CST			0	0			Heavy Rain
	Heavy rains in St. Clair County forced the closing of several roads especially in the Pell City area.								
Lee County									
8 SE Opelika	26	2220CST			0	0	15K		Thunderstorm Wind (G50)
	Several large trees were reported down in the Beauregard area of central Lee County. A storage shed was also damaged.								
Sumter County									
Bellamy	30	1820CST			0	0			Hail (0.75)
	Dime size hail was reported at Bellamy by the Sumter County EMA.								
Talladega County									
Childersburg	30 31	2145CST 0000CST			0	0			Flash Flood
	Flash flooding was reported in Childersburg where an apartment house was threatened by rising water. Highway 76 from Childersburg to Winterboro was also reported to be flooded.								
ALABAMA, Southeast									
Coffee County									
5 N Kinston	11	1835CST 1836CST	1	75	0	0	100K		Tornado (F1)
	A tornado destroyed 4 house trailers that were unoccupied. Debris was scattered for about 1 mile, according to county emergency management.								
Coffee County									
Enterprise	11	1845CST			0	0	3K		Thunderstorm Wind
	Several trees were blown down and two backyard sheds were destroyed according to newspaper reports and county emergency								

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ALABAMA, Southeast								
								management.
Dale County Pinckard	11	1905CST			0	0	5K	Thunderstorm Wind
								County emergency management confirmed that three sheds were destroyed, and several houses received superficial damage.
Henry County Headland	11	1938CST			0	0	2K	Thunderstorm Wind
								County emergency management reported that a porch roof was lifted off a home and a shed was destroyed.
ALABAMA, Southwest								
Clarke County Thomasville	26	1405CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES WERE BLOWN DOWN IN THE THOMASVILLE AREA. SEVERAL PEOPLE SAW A FUNNEL CLOUD BUT IT NEVER TOUCHED DOWN.
Mobile County Creola	26	1525CST 1526CST			0	0	5K	Thunderstorm Wind (G88)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN IN ABOUT A 600 YARD WIDE AREA ALONG RADCLIFF ROAD. THE WIND DOWNBURST ALSO DAMAGED THE ROOFS ON FOUR HOMES AND DEBRIS FROM THE STORM KNOCKED SOME WINDOWS OUT.
Baldwin County Latham	26	1615CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN ALONG ALABAMA HWY 59 NEAR LATHAM.
Washington County Mc Intosh	26	1710CST 1711CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN ALONG US HWY 43 NEAR McINTOSH.
Clarke County Jackson	26	1720CST 1721CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES WERE BLOWN DOWN IN THE SOUTHEAST PART OF JACKSON.
Mobile County Gulf Crest	26	1727CST 1734CST	2	500	1	3	100K	Tornado (F1)
								A TORNADO TOUCHED DOWN ALONG US HWY 45 NEAR GULF CREST AND THEN MOVED NORTHEAST FOR ABOUT 2 MILES. THREE PEOPLE WERE INJURED AND ONE OF THESE DIED IN A LOCAL HOSPITAL ABOUT A WEEK LATER. TWO ELDERLY WOMEN WERE IN A TRAILER THAT WAS TURNED OVER BY THE TORNADO. ANOTHER OF THE INJURED WAS IN A MOTOR HOME NEXT TO THE TRAILER. THE TRAILER WAS LOCATED ON A HILL AND THIS WAS WHERE THE TORNADO FIRST TOUCHED DOWN. OTHER HOMES AWAY FROM THE TRAILER SUFFERED ROOF DAMAGE AS THE TORNADO MOVED NORTHEAST. TREES WERE BLOWN DOWN AND TWISTED ALONG THE PATH OF THE TORNADO. F85MH
Monroe County Frisco City	26	1740CST 1741CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN ALONG ALABAMA HWY 21 SOUTH OF FRISCO CITY.
Mobile County Mt Vernon	26	1800CST 1801CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN ALONG US HWY 43 NEAR MOUNT VERNON.
Wilcox County Camden	26	1805CST 1806CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN IN THE CITY OF CAMDEN.
Baldwin County Tensaw	26	1810CST 1811CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN JUST WEST OF ALABAMA HWY 59 NEAR TENSAW.
Clarke County Alma	26	1825CST 1826CST			0	0	2K	Thunderstorm Wind (G50)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN ALONG COUNTY ROAD 19 NEAR THE CITY OF ALMA.
Monroe County Jeddo	26	1850CST 1851CST			0	0	2K	Thunderstorm Wind (G55)
								SEVERAL TREES AND POWER LINES WERE BLOWN DOWN NEAR JEDDO WHICH IS NORTH OF URIAH OFF OF COUNTY ROAD 8.
ALZ061 Upper Mobile	27	0200CST 0205CST			0	0	150K	High Wind (G40)
								A NURSERY IN WILMER SUFFERED MAJOR DAMAGE AS A COLD FRONT MOVED THROUGH THE AREA. A 150

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ALABAMA, Southwest

FOOT LONG PIECE OF GLASS ON THE BUILDING AND PART OF A WALL FELL. SIXTEEN PLASTIC HOUSES WERE ALSO DAMAGED. IT APPEARS THE BUILDING AND THE PLASTIC HOUSES WERE DAMAGED FROM THUNDERSTORMS EARLIER THAT DAY. WHEN THE FRONT CAME THROUGH THE WINDS WERE BLOWING FROM THE NORTHWEST AND CAUSED PART OF THE BUILDING TO COLLAPSE.

ALASKA, Northern

AKZ024

St. Lawrence Island-Bering Strait Coast

06	0400AST 0600AST				0	0			High Wind (G40)
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High pressure building rapidly over the Chukotsk Peninsula brought increasing North winds. Gambell on Saint Lawrence Island reached 35 kts for two hours. Tin City on the Bering Strait coast had a maximum sustained wind of 40 kts.

AKZ001

Arctic Slope Coastal

19	0900AST 2000AST				0	0			High Wind (G40)
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A low pressure center moved east across the Beaufort Sea. Area affected was from east of Flaxman Island, namely Barter Island (Kaktovik) which had a maximum sustained wind of 40 kts.

AKZ024

St. Lawrence Island-Bering Strait Coast

20	1100AST 1800AST				0	0			High Wind (G37)
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A strong high pressure center over Russia Far East and a low pressure center near Saint Matthew Island produced high winds at Gambell on Saint Lawrence Island. Maximum sustained wind was 37 kts.

AKZ005>006-024

Lower Kobuk Valley-Northern Seward Peninsula - Southern Seward Peninsula-Eastern Norton Sound - St. Lawrence Island-Bering Strait Coast

27	1800AST				0	0			High Wind (G44)
28	2300AST								

A strong high over Alaska and several low pressure centers moving north in the far western Bering Sea. Maximum sustained wind speeds were 42 kts at Kotzebue, 44 kts at Cape Prince of Wales, and 38 kts at Unalakleet.

AKZ005

Lower Kobuk Valley-Northern Seward Peninsula

28	0700AST 2100AST				0	0			Blizzard
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A strong high over Alaska and several low pressure centers moving north over the far western Bering Sea; and an occluded front from one of the centers moving over western Alaska.

AKZ007

Tanana Valley

29	1800AST				0	0			Heavy Snow
30	1800AST								

Moist southwest flow at middle and upper levels produced a snowfall over the central interior of Alaska which exceeded 6 inches. Tanana reported 5.7 inches, Nenana 5 inches, and McGrath 10 inches, so an amount of 6 to 8 inches was likely to have fallen over the far northwest Tanana Valley (from Minchumina to south of Tanana and west of Nenana).

AKZ001

Arctic Slope Coastal

31	1400AST 2100AST				0	0			Blizzard
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High pressure building over the North Slopes of the Brooks Range toward the Arctic Coast produced blizzard conditions at Kuparuk, and near-blizzard conditions at Prudhoe Bay, Deadhorse, and possibly Barter Island/Kaktovik (AWOS unavailable for some of this time).

ALASKA, Southeast

AKZ012

Lynn Canal-Glacier Bay

06	0500AST				0	0	0	0	Heavy Snow
07	1430AST								

Most communities in northern Southeast Alaska received 12 to 18 inches during the first 24 hours of this event. The highest snowfall total was 2 feet reported by the Haines Police Department.

AKZ012

Lynn Canal-Glacier Bay

13	0630AST				0	0	0	0	Extreme Windchill
15	1700AST								

Northerly winds at 25 mph with gusts to 45 mph produced wind chill temperatures to 50 below zero in Lynn Canal and Glacier Bay.

AKZ012

Lynn Canal-Glacier Bay

18	0500AST				0	0	0	0	Extreme Windchill
20	1100AST								

Northerly winds at 30 mph with gusts to 45 mph produced wind chill temperatures to 50 below zero across northern Southeast Alaska.

ALASKA, Southern

AKZ010>011-021>022

Yukon-Kuskokwim Delta - Bristol Bay Coastal - Western Alaska Peninsula - Eastern Aleutians

01	0000AST				0	0			High Wind (G57)
02	2359AST								

A strong 953 mb low just south of Adak Monday drifted north into the Central Bering and weakened to 986 mbs late Tuesday. On Monday, wind gusts reached 66 mph at Dutch Harbor, 54 mph at Saint Paul and 62 mph at Cold Bay. On Tuesday, winds gusted to 64 mph at Cape Newenham and 50 mph at Mekoryuk (on Nunivak Island).

AKZ022

Eastern Aleutians

03	0000AST 2359AST				0	0			High Wind (G39)
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<u>ALASKA, Southern</u>									
AKZ021	Western Alaska Peninsula								
	23	0000AST			0	0			High Wind (G40)
	24	2359AST							
	A moderate 974 mb low in the northcentral Pacific curved northwest to between Attu and the Kamchatka Peninsula, weakening to 985 mbs Wednesday afternoon. Winds reached 46 mph at Cold Bay Wednesday. On Tuesday, winds reached 43 mph at Dutch Harbor and 40 mph at Shemya.								
AKZ022	Eastern Aleutians								
	24	0000AST			0	0			High Wind (G54)
	25	2359AST							
	An intense 958 mb low moved slowly northward to offshore areas just southeast of the Russian Kamchatka Peninsula Thursday. The strong weather front associated with this low elongated both north and east before slowly weakening in the Bering Sea and extreme eastern Aleutians Thursday. At Shemya winds reached 60 mph on Wednesday and 62 mph on Thursday.								
AKZ022>023	Eastern Aleutians - St. Paul Island								
	26	0000AST			0	0			High Wind (G42)
		2359AST							
	A moderate low moved out of the northcentral Pacific, deepened to 978 mbs and moved into the central Bering Sea Friday. Winds reached 43 mph at Dutch Harbor, 48 mph at Adak and 41 mph at Saint Paul Island.								
AKZ009>011-021>023	Kuskokwim Valley - Yukon-Kuskokwim Delta - Bristol Bay Coastal - Western Alaska Peninsula - Eastern Aleutians - St. Paul Island								
	27	0000AST			0	0			High Wind (G58)
	28	2359AST							
	Another, in a series, of lows moved through the central Aleutians deepening to 966 mbs before curving northwestward toward Cape Navarin along the Russian coast and weakening. The front associated with this low moved eastward across the Bering and into southwest Alaska Sunday. Strong winds occurred with the low and ahead of the front. On Saturday, winds reached 45 mph at Adak, 56 mph at Saint Paul, 47 mph at Mekoryuk (on Nunivak Island) and 55 mph at Cape Romanzof. On Sunday, winds reached 67 mph at Cold Bay, 55 mph at Farewell Lakes (western Alaska Range), 43 mph at Shemya, 40 mph at Sand Point, 47 mph at Port heiden, 48 mph at Togiak, 45 mph at Egegik, 41 mph at Iliamna and King Salmon and 47 mph at Bethel and Saint Mary's.								
AKZ022	Eastern Aleutians								
	30	0000AST			0	0			High Wind (G53)
	31	2359AST							
	As the track of major lows shifted further west, an intense low deepened to 965 mbs just southeast of the tip of the Kamchatka Peninsula, curving northwestward into the Sea of Okhotsk where it weakened Wednesday. The front associated with this low moved into the western Aleutians. A frontal low developed in the northcentral Pacific and moved to 300 miles south of Attu as a 980 mb center Wednesday afternoon. Winds reached 61 mph at Shemya on Tuesday and 48 mph Wednesday.								
<u>ARIZONA, Central and Northeast</u>									
AZZ012	Mogollon Rim/Plateau								
	02	0100MST			0	0	0	0	High Wind
		0300MST							
	Wind Damage in Flagstaff, AZ. Non-convective winds knocked down trees, large branches, and power lines. No estimated or measured wind speeds at damage location. No damage estimate.								
AZZ011	Little Colorado River Valley								
	19	1300MST			0	0	0	0	High Wind (G50)
		1330MST							
	Non-convective wind gusts measured to 50 kts/58mph at the St. Johns airport. No damage reported								
Yavapai County 10 NE Camp Verde	Little Colorado River Valley								
	25	1120MST			0	0	0	0	Thunderstorm Wind (G62)
		1230MST							
	Thunderstorm wind gusts experienced at Lake Montezuma.								
AZZ011	Little Colorado River Valley								
	25	1600MST			0	0			High Wind (G59)
		1630MST							
	Non-convective winds gusted in excess of 50 kts/58 mph measured at the St. John's airport. Peak gust of 59 kts/68 mph occurred at 16:40.								
<u>ARIZONA, Northwest</u>									
NONE REPORTED.									
<u>ARIZONA, South</u>									
AZZ026	Cochise County								
	17	1100MST			0	0	50K		High Wind (G56)
		1800MST							
	A dry cold front moving through the area brought widespread strong winds to southeast Arizona. Low visibilities in blowing dust were common with some areas near zero visibility. A roof was blown off a 200 foot long agriculture shed near Bowie.								
<u>ARIZONA, Southwest</u>									
AZZ015	Lower Colorado River Valley								
	17	0730MST			0	0			High Wind
		0745MST							
	Strong gradient winds associated with a vigorous storm system produced wind damage in Poston. Three power poles snapped and several trees blew over.								

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ARIZONA, Southwest									
AZZ019			Phoenix Metro/Central Deserts						
	17	1220MST			0	17			Dust Storm
	Blowing dust reduced visibility to near zero which caused 25 vehicles to pile up on Interstate 10 about 10 miles south of Phoenix.								
ARKANSAS, Central and North Central									
ARZ003>007-012>016-020>024-030-037>038-040			Boone - Marion - Baxter - Fulton - Sharp - Newton - Searcy - Stone - Izard - Independence - Franklin - Johnson - Pope - Van Buren - Cleburne - Logan - Scott - Yell - Polk						
	01	2200CST			0	0			Heavy Snow
	02	1900CST							
	Heavy snow fell over parts of north-central and west-central Arkansas from late evening on the 1st until late afternoon on the 2nd. Accumulations of 2 to 6 inches were common, with locally heavier amounts of 8 to 12 inches, especially in higher elevations. A number of traffic accidents occurred as a result of snow-covered roads.								
Hot Spring County									
Bonnerdale	18	0315CST			0	0			Thunderstorm Wind (G50)
	Some trees were blown down.								
Garland County									
Hot Spgs	18	0325CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds downed several trees. Some buildings also sustained roof damage.								
Pope County									
Russellville	18	0340CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds downed some trees and damaged some roofs at Russellville.								
Pope County									
Atkins	18	0350CST			0	0			Thunderstorm Wind (G50)
	Some trees were downed and several roofs were damaged.								
Conway County									
Morrilton	18	0405CST			0	0			Thunderstorm Wind (G50)
	Several trees were knocked down and some buildings sustained roof damage.								
Saline County									
Benton	18	0410CST			0	0			Thunderstorm Wind (G50)
	A home in Benton sustained roof damage.								
Conway County									
Center Ridge	18	0415CST			0	0			Thunderstorm Wind (G50)
	Several buildings sustained roof damage.								
Baxter County									
Mountain Home	18	0415CST			0	0			Thunderstorm Wind (G43)
	Thunderstorm winds gusting up to 50 mph damaged a few out buildings.								
Van Buren County									
Clinton	18	0420CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds damaged several buildings and caused some roof damage to others. Some trees were also blown down.								
Faulkner County									
Conway	18	0430CST			0	3			Thunderstorm Wind (G50)
	Thunderstorm winds caused significant damage in part of the city of Conway. Two hangars were damaged at the airport, with 4 to 5 airplanes receiving severe damage. A nearby trailer park had 4 mobile homes destroyed, with 6 or 7 sustaining heavy damage. 3 people from the trailer park received minor injuries. A local business, located near the airport, also had several buildings with roof damage.								
White County									
Rose Bud	18	0500CST			0	0			Thunderstorm Wind (G50)
	A few trees were blown down onto a building.								
Cleburne County									
Heber Spgs	18	0505CST			0	0			Thunderstorm Wind (G50)
	Several trees were knocked down.								
White County									
5 N Searcy	18	0520CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds blew down a tree onto a house and camper trailer. Both the house and trailer sustained some damage.								
Prairie County									
Slovac	18	0545CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds blew down a large tree onto a house.								
Prairie County									
Des Arc	18	0600CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds damaged a camper trailer at Des Arc.								
Woodruff County									
Augusta	18	0615CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds destroyed a farm shed near Augusta.								
Woodruff County									
Mc Crory	18	0630CST			0	0			Thunderstorm Wind (G50)
	A house trailer was destroyed near McCrory.								

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ARKANSAS, Central and North Central									
Jackson County 10 ESE Newport	18	0630CST			0	0			Thunderstorm Wind (G50)
									Thunderstorm winds damaged 4 houses and several outbuildings.
ARKANSAS, East									
Lawrence County 7 SW Hoxie to 6.5 SW Hoxie	18	0655CST 0657CST	0.5	25	0	0	10K		Tornado (F0)
									A tornado touched down along Highway 228 between Minturn and Clover Bend. Two buildings were blown over along with several trees and power lines.
Cross County 5 E Hickory Ridge to 5 E Tilton	18	0700CST 0715CST			0	0	10K		Thunderstorm Wind
									A few trees were knocked down east of Tilton. One tree fell on a mobile home. Five power poles were knocked down east of Hickory Ridge.
Randolph County Pocahontas	18	0705CST 0710CST			0	0	5K		Thunderstorm Wind
									Several power lines were blown down.
Lawrence County Walnut Ridge	18	0715CST 0720CST			0	0	5K		Thunderstorm Wind
									Several power lines were knocked down.
Poinsett County 6 SE Harrisburg	18	0715CST 0720CST			0	0	0.50K		Tstm Wind/Hail
									A few small trees were damaged.
St. Francis County Hughes	18	0720CST 0725CST	1	50	0	0	50K		Tornado (F1)
									A tornado touched down in Hughes. The tornado damaged a service station destroying two service bays and sending some of the debris into a nearby pickup truck. A lumber company lost its roof. Several outbuildings near the high school's football field were destroyed. Several other buildings including Hughes High School were damaged. Numerous trees and power lines were downed as well.
Phillips County 4 W Marvell to 2 W Marvell	18	0730CST 0735CST	2	25	0	3	30K		Tornado (F1)
									A mobile home was lifted off its foundation and carried 30 feet before rolling over three times. Three persons in the mobile home were injured. Two homes were partially damaged. Two sheds were damaged as well.
Poinsett County 3 SW Lepanto to 1 SW Lepanto	18	0740CST 0745CST	2	50	0	0	50K		Tornado (F0)
									Substantial wind damage occurred southwest of Lepanto. Several homes were damaged as were some storage sheds and outbuildings. A mobile home was overturned. An awning was destroyed. Numerous trees and power lines were downed.
Crittenden County West Memphis	18	0745CST 0750CST			0	0	10K		Thunderstorm Wind
									Several trees and power lines were blown down. One house was damaged.
Craighead County Jonesboro	18	0750CST 0755CST			0	0	20K		Thunderstorm Wind
									Numerous buildings in Jonesboro were damaged. Some of these buildings sustained minor roof damage. Several storage buildings and fences were destroyed. A few homes sustained roof damage. Numerous trees and power lines were downed.
Greene County Paragould	18	0750CST 0800CST			0	0	5K		Thunderstorm Wind
									The roof of a tavern was partially blown off. A billboard was blown into a few storage buildings.
Clay County Rector	18	0810CST 0815CST			0	0	20K		Thunderstorm Wind
									Several awnings were torn off some businesses. A few homes were damaged as well. Several power lines were blown down.
Mississippi County Burdette	18	0810CST 0815CST			0	0	70K		Thunderstorm Wind
									A home under construction was destroyed. Numerous farm and outbuildings were destroyed. Many other buildings were damaged.

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ARKANSAS, East

Numerous trees and power lines were knocked down.

ARKANSAS, Northwest

ARZ001>002-010>011-019-029 **Benton - Carroll - Washington - Madison - Crawford - Sebastian**

01	2000CST								
02	0600CST			0	0				Heavy Snow

Rain changed to snow across northwest Arkansas during the evening of January 1st and continued into the early morning of January 2nd. Snowfall amounts of 4 to 8 inches were common, with local amounts of up to 12 inches in extreme northwest Arkansas.

Washington County
Fayetteville

17	2045CST					1K			
				0	0				Thunderstorm Wind

A severe thunderstorm produced strong winds which downed street signs, trees, and power lines in Fayetteville.

Benton County
Siloam Spgs

17	2355CST								
				0	0				Thunderstorm Wind (G52)

Benton County
2 S Gravette

18	0015CST					1.5K			
				0	0				Thunderstorm Wind

Benton County
Bentonville

18	0030CST								
				0	0				Thunderstorm Wind (G52)

Sebastian County
Midland

18	0050CST					4K			
				0	0				Thunderstorm Wind

Severe thunderstorms moved into northwest Arkansas during the late evening of January 17th and early morning of January 18th. Strong thunderstorm winds blew a large flagpole down onto State Highway 59 2 miles south of Gravette. Strong winds caused roof damage and blew shingles off several homes in Midland, and thunderstorm winds gusted to 60 miles an hour in Siloam Springs and in Bentonville.

ARKANSAS, Southeast

NONE REPORTED.

ARKANSAS, Southwest

Little River County
Ashdown

18	0145CST								
	0155CST			0	0				Thunderstorm Wind (G60)

Several trees blown over.

Miller County
1 S Kiblah to Kiblah

18	0150CST								
	0200CST			0	0				Thunderstorm Wind (G58)

Trees were reported to have fallen across power lines knocking out power to customers in Kiblah.

Miller County
5 S Texarkana to Texarkana

18	0200CST								
	0215CST			0	0				Thunderstorm Wind (G65)

Several trees were blown down across Hwy 71.

CALIFORNIA, Extreme Southeast

NONE REPORTED.

CALIFORNIA, North Central

CAZ006-009 **Sacramento Valley - Northern Sierra Nevada-West Slopes**

15	2300PST								
17	1200PST			0	0				Winter Storm

A strong Pacific storm full of subtropical moisture left 12 to 18 inches of snow above the 7000 foot level in the Sierra Nevada. Winds in the Sierra Nevada gusted to more than 50 kt. At lower elevations, some minor flooding occurred in Solano County with valley locations reporting winds as strong as 30 kt.

CAZ006-009 **Sacramento Valley - Northern Sierra Nevada-West Slopes**

18	0400PST								
19	0600PST			0	0				Winter Storm

A very powerful Gulf of Alaska storm brought very cold air to the Sacramento valley, with snow reported as low as 500 feet. WSO Redding had 5.4 inches accumulate. Strong winds also accompanied the storm with gusts to 46kt as far south as Yuba County Airport with even higher gusts north of the airport. In the Sierra Nevada, winds gusted to 60kt along the ridges.

CAZ006-009 **Sacramento Valley - Northern Sierra Nevada-West Slopes**

23	0400PST								
24	2200PST			0	0				Winter Storm

A storm that originated in the Gulf of Alaska rotated two fronts through northern California, eventually bringing snow levels to the 1500 foot level with large accumulations in the Sierra Nevada. The second front was much stronger with 3-foot accumulations in the mountains and winds strong enough to cause white-out conditions. Interstate 80 and other major roads were closed by

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

CALIFORNIA, North Central

transportation officials, and the US Forest Service issued avalanche warnings due the heavy, fast snowfall.

CAZ006-009	Sacramento Valley - Northern Sierra Nevada-West Slopes								
	26	2100PST			0	0			Winter Storm
	27	1800PST							

This Pacific storm carried abundant amounts of subtropical moisture and packed winds of 65kt in the Sierra Nevada. Snowfall in the mountains measured as much as 3 feet. Major highways across the Sierra Nevada were closed during the overnight hours. Cold dry air trapped in the northern end of the Sacramento Valley, coupled with the warm moist air riding over the top of this cold air, caused a freak snowfall in the Redding area. WSO Redding reported 6 inches of snow. The surprise snowfall caused a number of vehicle accidents in the city of Redding and the surrounding area.

CALIFORNIA, Northeast

NONE REPORTED.

CALIFORNIA, Northwest

CAZ001	Northwest California								
	18	0600PST 1800PST			0	0			High Wind (G61)

Strong winds associated with a Pacific cold front downed numerous trees and caused many power outages. Peak wind speeds were 70 mph at Maple Creek around 7 am and 63 mph at Cooskie Mountain around 10 am.

Del Norte County 1 NW Smith River to .7 NW Smith River	20	1130PST 1133PST	0.3	30	0	0	2K	0	Tornado (F0)
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A waterspout came ashore near the mouth of the Smith River. About two dozen trees were snapped off at the 20 foot level. The largest trees were up to two feet in diameter. A portion of one tree fell on the porch of a residence, demolishing the porch.

Del Norte County .3 W Crescent City to .2 W Crescent City	20	1200PST 1202PST	0.1	20	0	0	1K	0	Tornado (F0)
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A second waterspout came ashore, passed between several homes, across a vacant lot and up the middle of a street before dissipating. A wood fence in the vacant lot was damaged.

CAZ001	Northwest California								
	20	1200PST 1700PST			0	0			High Wind (G50)

Strong winds from a Pacific storm system spread across much of the North Coast. Peak winds included: 51 mph at Shelter Cove, 57 mph at Maple Creek and 48 mph at the Eureka NWS office.

CAZ001	Northwest California								
	23	1400PST			0	0	1M		Flood
	24	1500PST							

Several creeks around Humboldt Bay quickly rose over their banks during a heavy rain event. Numerous roads were closed due to water with considerable damage to the road surface. The streams mainly affected were Jacoby, Freshwater and Salmon Creeks.

CAZ001	Northwest California								
	24	1900PST			0	0			Flood
	25	0900PST							

Heavy rain caused many streams in Mendocino County to rise over their banks. Highway 175 was closed in Hopland when Feliz Creek flooded. Highway 128 was closed from Navarro to the coast by the Navarro River.

CAZ001	Northwest California								
	27	1500PST			0	0			Flood
	28	0300PST							

Jacoby and Freshwater Creeks flooded southeast of Arcata.

CALIFORNIA, South Central

NONE REPORTED.

CALIFORNIA, Southeast

CAZ019	Antelope Valley/Mojave Desert/Death Valley								
	16	1400PST 2300PST			0	0	10K		High Wind

A cold front moving through San Bernadino County produced gusty winds which caused property damage in Barstow including downed power poles, tattered signs and broken windows.

CALIFORNIA, Southwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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CALIFORNIA, Upper

NONE REPORTED.

CALIFORNIA, West South Central

CAZ011>013-015>017-020>021-023	Southern California Coastal Valleys - Southern California Intermediate Valleys - Southern California Mountain Areas - Santa Barbara-Ventura Coastal Area - Santa Monica Bay Area - Long Beach And Orange Co. Metropolitan Areas - Laguna Beach To Mexican Border Coastal Area - Santa Clarita Valley - Santa Barbara-Mountains And Interior Valleys	01	0000PST	0	0	0	0	0	High Wind (G87)
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A strong surface high pressure area building into Nevada, and strong winds aloft, combined to produce powerful Santa Ana winds. Gusts of 100 mph were measured at La Canada with gusts to 75 mph over the Cajon Pass and Fremont Canyon. Trees and power lines were damaged or blown down in many areas, knocking out power to some 200,000 residences, and igniting numerous small fires. In Orange, fire spread from a flaming palm tree to a nearby two story duplex while at the Mall of Orange, twelve power poles snapped off. In Montrose, a storage barn lost its roof and some businesses in the area had windows blown out.

CAZ011>013-020	Southern California Coastal Valleys - Southern California Intermediate Valleys - Southern California Mountain Areas - Laguna Beach To Mexican Border Coastal Area	02	0100PST	0	0	1M	0	0	High Wind (G50)
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Strong Santa Ana winds caused widespread tree and crop damage and downed power lines. Premature fruit was knocked off trees, causing many farmers to collect what they could from the ground. Downed power lines caused two minor fires which burned less than an acre.

CAZ012	Southern California Intermediate Valleys	10	0900PST	0	0	0	0	0	High Wind
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Gusty winds in Fontana tipped over a mobile home parked on the shoulder of I-15 near Duncan Canyon Road.

CAZ013	Southern California Mountain Areas	11	1259PST	0	6	0	0	0	Fog
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Dense fog over the Tejon Summit in Kern County contributed to a 34 vehicle pileup on the southbound lanes of the Grapevine section of the I-5 despite the fact that traffic was being escorted by the California Highway Patrol. Six people were sent to area hospitals with minor injuries.

CAZ013-023	Southern California Mountain Areas - Santa Barbara-Mountains And Interior Valleys	16	1000PST	0	0	10K	0	0	High Wind (G73)
		17	0900PST	0	0	0	0	0	0

A strong Pacific storm system brought rain and strong winds over a wide area of Southern California. Highest winds occurred in the northern deserts and in the mountains. Burns Canyon in the East San Bernardino mountains logged a gust to 82 mph while Ranchita, in the San Diego County mountains had a gust to 61 mph. In Shelter Valley, 45 miles northeast of San Diego, winds blew the roofs off many trailers.

CAZ013	Southern California Mountain Areas	22	1000PST	0	0	0	0	0	Heavy Snow
		23	1500PST	0	0	0	0	0	0

Unstable conditions associated with a strong upper level low pressure trough set off showers, and gusty winds. There were reports of tree damage and a power outage. Heavy snow fell above 4000 feet in the mountains with 6000 foot Laguna Peak reporting around one foot.

Riverside County	15 W Twentynine Palms	22	1630PST	0	0	0	0	0	Thunderstorm Wind (G61)
			1730PST	0	0	0	0	0	0

A thunderstorm produced a wind gust to 70 mph at the Joshua Tree National Park visitor center.

CALIFORNIA, Western

NONE REPORTED.

COLORADO, Central and Northeast

COZ033>036-039>040	Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks - Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Boulder County/Boulder And Vicinity - Denver Metropolitan Area	01	0600MST	0	0	0	0	0	Heavy Snow
			2300MST	0	0	0	0	0	0

The first snowstorm of the New Year dumped over a foot of snow across portions of the Northern Mountains and Front Range Foothills with lesser amounts along western and southern sections of the the Urban Corridor.

Some of the more impressive totals included: 16 inches at Loveland Ski Area, 14 inches at Conifer, 11 inches at Evergreen and Keystone, 10 inches at Berthoud Pass, Winter Park and Eldora. Elsewhere the snowfall generally ranged from 4 to 9 inches.

COZ035>036-038>040	Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Larimer And Northwestern Weld Counties - Eastern Boulder County/Boulder And Vicinity - Denver Metropolitan Area	03	0700MST	0	3	150K	0	0	High Wind
			2100MST	0	3	150K	0	0	0

Very strong chinook winds gusting to 104 mph (90 kts) blasted across the Front Range Foothills and portions of the Urban Corridor. Three people were injured in separate incidents. One man was injured when strong crosswinds toppled his moving van into oncoming traffic along highway 93, south of Boulder. Two other people received minor injuries from flying debris. At the Rocky Flats Environmental Test Facility, eleven hazardous waste storage facilities were damaged. Initial estimates indicated at

Storm Data and Unusual Weather Phenomena

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Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
COLORADO, Central and Northeast									
									least \$100,000 damage to the shelters. In addition, several power lines were downed leaving 3,000 homes and businesses without power. Hundreds of cars windows were also blown out and several signs ripped off buildings.
									Some of the strongest wind gusts included: 90 kts at the Boulder Municipal Airport, 85 kts at South Boulder, 83 kts at Jefferson County Airport, 82 kts at the National Center for Atmospheric Research (NCAR) southwest of Boulder, 79 kts at the Rocky Flats Environmental Test Facility and 78 kts at Wondervu.
COZ033>034									Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks
		03 0800MST			0	0	0		Heavy Snow
		05 1500MST							A very strong west to northwesterly flow over the state combined with a series of upper level disturbances to produce very heavy snowfall in the Northern Mountains. Up to 3 1/2 feet of new snow fell in the Colorado High Country over a two day period. 170 avalanches were reported in the mountains. Berthoud Pass was closed on the 4th when an avalanche buried an 80 foot section of U.S. Highway 40. Hundreds of skiers were left stranded and forced to spend the night at Winter Park before the road could be cleared off.
									The most impressive snowfall totals included: 43 inches at Keystone, 42 inches at Loveland Ski Area, 35 inches at Winter Park, 34 inches at Arapahoe Basin and Breckenridge, 29 inches at Copper Mountain and 18 inches at Eldora.
COZ035>036-039>040									Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Boulder County/Boulder And Vicinity - Denver Metropolitan Area
		04 0800MST			0	0	0		Heavy Snow
		05 0030MST							Heavy snow finally began falling across the Front Range Foothills and portions of the Urban Corridor on the 4th. Allenspark picked up 10 inches of snow with most other locations reporting anywhere from 4 to 6 inches. Icy roads and blowing snow caused a 22-car pileup along Interstate 25 near the Mead exit. All but one of the northbound lanes were closed. As a result, the accident caused an 8 mile back-up for several hours.
COZ040									Denver Metropolitan Area
		10 1000MST			0	0	0		High Wind (G56)
		1600MST							Strong northwest winds developed behind a pacific cold front that moved rapidly across Northeast Colorado. A peak wind gust to 64 mph (56 kts) was recorded at the Rocky Flats Environmental Test Facility in Jefferson County.
COZ035>036									Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin
		11 0300MST			0	0	0		High Wind (G83)
		0400MST							Very strong winds blew for a brief time in the Front Range Foothills. Peak wind gusts to 85 mph (74 kts) and 95 mph (83 kts) were recorded at Golden Gate Canyon and Wondervu respectively.
COZ042>044-048									Northeastern Weld County - Southern Weld County/Greeley And Vicinity - Morgan County/Fort Morgan And Vicinity - Logan County/Sterling And Vicinity
		17 1200MST			0	0	0		Winter Storm
		1900MST							Very strong winds behind an arctic cold front blasted across the Northeast Plains. High winds gusting at an estimated 93 mph (81 kts) whipped across Morgan County. Some highway and road signs were blown down along with several trees. A few power poles were broken but no outages were reported. High winds combined with cold arctic air to create dangerous wind chill temperatures from 45 to 55 degrees below zero. As a result, area schools were forced to close early.
									Other strong wind gusts included: 70 kts at Haxtun, 62 kts at Greeley, and 58 kts at New Raymer and Sterling.
COZ033>034									Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks
		18 1800MST			0	0	0		Heavy Snow
		19 1500MST							Another winter storm system added more snow to an already heavy snowpack in the Northern Mountains. Snowfall generally ranged from 6 to 8 inches.
COZ035>036									Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin
		20 1300MST			0	0	0		High Wind (G78)
		1700MST							High winds developed for a short time in the foothills in the wake of a weak upper level disturbance that brushed Northern Colorado. Wondervu recorded a peak gust to 90 mph (78 kts) while winds gusted to 84 mph (73 kts) atop Squaw Mountain near Idaho Springs.
COZ033>034									Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks
		24 1800MST			0	0	0		Heavy Snow
		25 2030MST							More heavy snow fell in the Northern Mountains where a few locations received from 1 to 1 1/2 feet of fresh snow. Snowfall totals included: 18 inches at Arapahoe Basin and Cameron Pass, 17 inches at Keystone, 16 inches at Loveland Ski Area, 13 inches at Winter Park, and 10 inches at Eldora and Granby
COZ035>036-038>040									Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Larimer And Northwestern Weld Counties - Eastern Boulder County/Boulder And Vicinity - Denver Metropolitan Area
		25 0600MST			0	0	0		Heavy Snow
		2030MST							

Storm Data and Unusual Weather Phenomena

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Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Property Damage	Crops	Character of Storm
<u>COLORADO, Central and Northeast</u>									
			Heavy snow began falling along the Front Range Foothills and over portions of the Urban Corridor on the 25th. 4 to 8 inches of snow fell from Interstate 25 west into the foothills, with lighter accumulations reported elsewhere.						
COZ033>034			Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks						
		27 1800MST			0	0			Heavy Snow
		28 0600MST							
			Another fast moving pacific storm system dropped 7 to 9 inches of additional snowfall in the Northern Mountains.						
COZ035>036-039>040			Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Boulder County/Boulder And Vicinity - Denver Metropolitan Area						
		27 2100MST			0	0			High Wind (G105)
		28 1730MST							
			Hurricane Force winds blew across portions of the Front Range Foothills in the wake of a pacific storm system that moved across Northern Colorado. Estes Park registered a peak wind gust to 121 mph (105 kts). Some other reports included: 75 kts at the National Center of Atmospheric Research (NCAR) southwest of Boulder, 75 kts atop Squaw Mountain near Idaho Springs and 65 kts at Jefferson County Airport.						
COZ033>036			Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks - Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin						
		30 0800MST			0	0			Heavy Snow
		31 1159MST							
			The final snowstorm of a record month in the Colorado High Country, brought more heavy snow to the Northern Mountains and Front Range Foothills. More avalanches were triggered leading to the closure of several roads and passes. In the mountains, some of the snowfall totals included: 36 inches at Winter Park, 33 inches at Breckenridge, 30 inches at Loveland Ski Area, 29 inches at Arapahoe Basin, 28 inches at Keystone and 22 inches at Eldora. In the foothills, Allenspark and Estes Park registered 18 and 10 inches respectively, with 5 to 8 inches reported elsewhere.						
<u>COLORADO, East Central</u>									
COZ090>092			Yuma County - Kit Carson County - Cheyenne County						
		17 1100MST			0	0			High Wind (G56)
		18 0300MST							
			High winds and extreme cold hit the area around midday and continued until early morning. Wind chills were down to 60 degrees below zero.						
<u>COLORADO, South Central and Southeast</u>									
COZ070-072-074			Wet Mountains - Northern El Paso County/Monument Ridge - Upper Huerfano River Basin/Walsenburg And Vicinity						
		01 1300MST			0	0			Heavy Snow
		02 0900MST							
			A weather disturbance moved southeast from northern Colorado and brought 1 to 4 inches of snow from Colorado Springs south to the New Mexico border. Heavy snow accumulations occurred in the Palmer Divide area and in the Wet mountains to the Spanish Peaks, where 7 to 10 inch amounts were common.						
COZ071>072			Southern El Paso County/Colorado Springs And Vicinity - Northern El Paso County/Monument Ridge						
		03 1100MST			0	0			High Wind (G60)
		1600MST							
			A strong pressure gradient produced wind gusts to 60 knots in the extreme western portions of El Paso County.						
COZ060>061-065>068-070-072>075-077			La Garita Mountains - Eastern San Juan Mountains - Northern Sangre De Cristo Mountains - Southern Sangre De Cristo Mountains - Teller County/Rampart Range/Pikes Peak - Western Fremont And Northern Custer Counties - Wet Mountains - Northern El Paso County/Monument Ridge - Pueblo And Eastern Fremont Counties/Pueblo And Vicinity - Upper Huerfano River Basin/Walsenburg And Vicinity - Upper Purgatoire River Basin/Trinidad And Vicinity - Eastern Las Animas County						
		17 0100MST			0	0			Winter Storm
		2200MST							
			A potent winter storm brought heavy snow and strong winds to south central and southeast Colorado. Snow amounts were from one to two feet in the San Juan and La Garita Mountains. The Sangre De Cristo and Wet Mountains collected 6 to 12 inches. A burst of snow, bringing 3 to 5 inches, and near blizzard conditions extended from near Pueblo to the New Mexico border during the late afternoon and evening.						
COZ070>081			Wet Mountains - Southern El Paso County/Colorado Springs And Vicinity - Northern El Paso County/Monument Ridge - Pueblo And Eastern Fremont Counties/Pueblo And Vicinity - Upper Huerfano River Basin/Walsenburg And Vicinity - Upper Purgatoire River Basin/Trinidad And Vicinity - Crowley And Otero Counties/La Junta And Vicinity - Eastern Las Animas County - Kiowa County - Bent County/Las Animas And Vicinity - Prowers County/Lamar And Vicinity - Baca County/Springfield And Vicinity						
		17 1900MST			0	0			Extreme Windchill
		18 0800MST							
			Behind a potent winter storm, strong north winds and low temperatures combined to produce dangerously low wind chills in the -30 to -50 degree range from Colorado Springs south to the New Mexico border and east to the Kansas border.						
COZ060>061			La Garita Mountains - Eastern San Juan Mountains						
		22 0100MST			0	0			Heavy Snow
		23 0200MST							
			A moist west-southwesterly airflow brought strong winds and 6 to 12 inches of snow to the San Juan and La Garita Mountains of southwest Colorado.						
COZ067-071>072			Teller County/Rampart Range/Pikes Peak - Southern El Paso County/Colorado Springs And Vicinity - Northern El Paso County/Monument Ridge						
		24 1200MST			0	0			High Wind (G62)
		1600MST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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COLORADO, South Central and Southeast

A strong northwest flow brought high winds, with gusts between 52 and 62 knots, to western sections of El Paso County and western Colorado Springs.

COZ060>061-065>067-070 **La Garita Mountains - Eastern San Juan Mountains - Northern Sangre De Cristo Mountains - Southern Sangre De Cristo Mountains - Teller County/Rampart Range/Pikes Peak - Wet Mountains**

25	0100MST	0	0	
26	0200MST			Winter Storm

A potent winter storm brought strong winds and 6 to 12 inches of snow in the San Juan and La Garita Mountains and 4 to 6 inches of snow to the Sangre De Cristo and Wet Mountains and Rampart Range.

COZ060>061 **La Garita Mountains - Eastern San Juan Mountains**

27	0200MST	0	0	
29	0100MST			Heavy Snow

A prolonged period of snow, caused by a moist southwest airflow occurred over the San Juan and La Garita Mountains, dumping 5 to 10 inches of snow, along with strong winds.

COZ065>068-070>081 **Northern Sangre De Cristo Mountains - Southern Sangre De Cristo Mountains - Teller County/Rampart Range/Pikes Peak - Western Fremont And Northern Custer Counties - Wet Mountains - Southern El Paso County/Colorado Springs And Vicinity - Northern El Paso County/Monument Ridge - Pueblo And Eastern Fremont Counties/Pueblo And Vicinity - Upper Huerfano River Basin/Walsenburg And Vicinity - Upper Purgatoire River Basin/Trinidad And Vicinity - Crowley And Otero Counties/La Junta And Vicinity - Eastern Las Animas County - Kiowa County - Bent County/Las Animas And Vicinity - Prowers County/Lamar And Vicinity - Baca County/Springfield And Vicinity**

27	2200MST	0	0	
28	1700MST			High Wind (G68)

A strong upper level flow from the west-southwest brought high winds to the Sangre De Cristo and Wet Mountains and to the Rampart Range. Winds gusted to between 58 and 68 knots in and near the mountains to near 50 knots in the southeast plains.

COZ060>061 **La Garita Mountains - Eastern San Juan Mountains**

31	0200MST	0	0	
	2359MST			Heavy Snow

A strong and moist airflow from the west brought another round of heavy snow to the San Juan and La Garita Mountains. As the month closed out, 1 1/2 to 2 feet of snow had fallen in the mountains of southwest Colorado.

COLORADO, West

COZ004>005-009>010-012-017>019 **Elkhead And Park Mountains/Flat Tops/White River Plateau - Upper Yampa River Basin/Steamboat Springs And Vicinity - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Uncompahgre Plateau - Northwestern San Juan Mountains - Southwestern San Juan Mountains**

02	1200MST	0	0	
05	1500MST			Heavy Snow

Snowfall totals included: Vail 46 inches, Steamboat Springs 45 inches, Beaver Creek 38 inches, Arrowhead ski resort 30 inches, Cooper ski area 19 inches, Monarch Pass 13 inches, Crested Butte 11 inches, and the Grand Mesa with 11 inches.

COZ010-012-017>019-021>022 **Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Uncompahgre Plateau - Northwestern San Juan Mountains - Southwestern San Juan Mountains - Four Corners/Upper Dolores River/Cortez And Vicinity - Animas River Basin/Durango And Vicinity**

17	0000MST	0	0	
18	0600MST			Winter Storm

New snow generally ranging from 12-24 inches fell in the Central and Southern Mountains. Specific reports included the Grand Mesa with 36 inches, 29 inches at Telluride, 15 inches at Ouray, 8 inches at Durango and Dove Creek, and 6 inches at Crested Butte. The weight of the snow downed some power lines in Durango. Blowing and drifting snow in the mountains resulted in hazardous driving conditions. Numerous accidents were reported.

COZ004>005-009>010-012-017>019 **Elkhead And Park Mountains/Flat Tops/White River Plateau - Upper Yampa River Basin/Steamboat Springs And Vicinity - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Uncompahgre Plateau - Northwestern San Juan Mountains - Southwestern San Juan Mountains**

22	1200MST	0	0	
23	0300MST			Winter Storm

Snowfall totals included: Steamboat Springs 24 inches, Grand Mesa 18 inches, Ridgeway 12 inches, Marble 10 inches, Monarch Pass 9 inches, Snowmass 8 inches, and Vail 7 inches. There was blowing and drifting snow in the mountains with numerous traffic accidents.

COZ002-004>005-008>010-012 **Central Yampa River Basin/Craig-Hayden And Vicinity - Elkhead And Park Mountains/Flat Tops/White River Plateau - Upper Yampa River Basin/Steamboat Springs And Vicinity - Central Colorado River Basin/Eagle And Vicinity - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park**

24	1800MST	0	0	
25	1800MST			Winter Storm

Snowfall totals included: 24 inches on Rabbit Ears Pass, 16 inches at Steamboat Springs, 15 inches at Craig, 15 inches at Hayden, 14 inches on the Grand Mesa, 13 inches at Marble, and 5 inches at Eagle. Blowing and drifting snow in the mountains added to the driving hazard. There were many accidents.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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COLORADO, West

COZ002-004>005-009>010-012-017>019 **Central Yampa River Basin/Craig-Hayden And Vicinity - Elkhead And Park Mountains/Flat Tops/White River Plateau - Upper Yampa River Basin/Steamboat Springs And Vicinity - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Uncompahgre Plateau - Northwestern San Juan Mountains - Southwestern San Juan Mountains**

30	0000MST								
31	2359MST								Winter Storm

Snowfall totals included: Steamboat Springs 26 inches, Crested Butte 25 inches, Yule Creek 24 inches, Vail 23 inches, Monarch Pass 19 inches, Beaver Creek 18 inches, Grand Mesa 16 inches, Hayden 14 inches, Telluride 12 inches, Eagle 12 inches, Craig 12 inches, and Avon with 10 inches. Brisk winds resulted in blowing and drifting snow in the mountains. There were numerous traffic accidents.

CONNECTICUT, Northeast

CTZ002>004 **Hartford - Tolland - Windham**

02	2100EST								
03	0900EST								Heavy Snow

A strong low pressure system moved from Tennessee to the Virginia coast and then northeast off the New Jersey coast, passing southeast of Cape Cod. This system produced heavy snow with totals in the range of 7 to 14 inches. Storm totals, which included some light snow that fell late on the 3rd into the early morning of the 4th included: Bradley International Airport, Windsor Locks, 14.0 inches; Vernon and Union, 10.8 inches; E. Granby, 9.5 inches; Avon, 8.5 inches; Mansfield, 7.3 inches; and Putnam, 6.8 inches. The heaviest snow fell during the early morning hours of the 3rd and resulted in a difficult morning commute. Most schools and some businesses were closed on the 3rd.

CTZ002>004 **Hartford - Tolland - Windham**

07	1600EST								
08	1600EST								Heavy Snow

An intense east coast low pressure system moved northeast from eastern Georgia, passing along the coast of the Carolinas and then close to 40 degrees North and 70 degrees West. This storm was one of the most significant winter storms to hit southern New England in the past 20 years and was named the "Blizzard of '96" from the Middle Atlantic states to southern New England. However, by National Weather Service definition, no actual blizzard conditions occurred in the state. Snowfall across the north and northeast portions of the state ranged from 15 to 23 inches. In Hartford County, Bradley International Airport recorded 18.2 inches. New Britain had 18 inches and Wethersfield, 15.3 inches. In Tolland County, there was 22.5 inches in Mansfield and in Windham County, 22.5 inches at Putnam. This storm disrupted transportation systems and closed schools and businesses. A barn roof collapsed in Simsbury within a week or so following this very heavy snowfall.

CTZ002>004 **Hartford - Tolland - Windham**

19	1400EST								
	1830EST								High Wind (G50)

Hartford County
Hartford

19	1800EST								
	2100EST								Flash Flood

CTZ002 **Hartford**

20	2300EST								
24	1300EST								Flood

Strong south winds with gusts to 40 to 60 mph and isolated gusts to hurricane force preceded a sharp cold front, which was approaching the region from the west. Peak wind gusts to 58 mph were recorded at both Bradley International Airport in Windsor Locks and at Glastonbury. There were scattered reports of wind damage including downed trees, downed tree limbs, and scattered power outages. Part of a roof of a Hartford apartment building was damaged, displacing about 15 people. Power outages affected up to 41,000 electric customers statewide, with the most people affected in the northeast corner of the state, where 11,000 electric customers lost power. The high winds also brought a strong January thaw with temperatures rising into the 50s. This combined with rain and melting snow to cause some street flooding.

Flash flooding occurred in West Hartford and Hartford, where homes flooded and roads washed out along the upper portion of the South Branch of the Park River and also along the North Branch of the Park River in the parking lots at the University of Hartford and Hartford Community College. The South Branch crested at 10.9 feet at 6 PM on the 19th; flood stage is 10.0 feet. Flooding occurred on the North Branch of the Park River, which reached 11.8 feet at 10 PM on the 20th; flood stage is 8.0 feet. The Connecticut River crested at 17.2 feet at Hartford at 1:30 PM on the 21st; flood stage is 16.0 feet.

CTZ002>004 **Hartford - Tolland - Windham**

27	1200EST								
	1800EST								High Wind (G53)

CTZ002 **Hartford**

27	1400EST								
29	1700EST								Flood

CTZ002 **Hartford**

27	1900EST								
28	0100EST								Flood

CTZ002 **Hartford**

28	0500EST								
29	1400EST								Flood

CTZ002 **Hartford**

28	0700EST								
30	0100EST								Flood

Gale force south winds with gusts to 60 mph, heavy rainfall of from 1 to 2 inches, and very mild temperatures rising into the 50s

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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CONNECTICUT, Northeast

preceded a sharp cold front that was approaching from the west. A peak wind gust to 61 mph was reported in East Windsor and a gust to 60 mph was reported in East Hartford, both in Hartford County. In New Britain, a brick facade of a six family apartment house was blown down. In Windham County, trees were blown down, blocking several roads. Street flooding was reported in the town of Thompson, closing several roads. Falling trees and tree limbs cause scattered power outages throughout the region. Power outages affected 60,000 electric customers statewide.

Minor river flooding occurred in Hartford County along the North Branch of the Park River in Hartford, which crested at 9.9 feet at 8:30 PM on the 28th; flood stage is 8.0 feet. Flooding occurred along the Connecticut River at Thompsonville, which crested at 6 PM on the 28th at 5.7 feet; flood stage is 5 feet. At Hartford, a crest of 20.7 feet occurred at 10 AM on the 29th; flood stage is 16 feet. The Farmington River crested at Simsbury at 1 AM on the 29th at 13.7 feet; flood stage is 12.0 feet. The Quinnipiac River crested at 3.5 feet at Southington at 1 AM on the 28th; flood stage is 3.0 feet.

CONNECTICUT, Northwest

CTZ001	Litchfield	02 2000EST			0	0			Heavy Snow
		03 2000EST							

A major winter storm developed over the Gulf coast states on January 2nd and tracked northeast along the eastern seaboard during January 3rd. Heavy snow fell across Litchfield County Connecticut with the average snowfall ranging from 10 to 12 inches.

CTZ001	Litchfield	07 1400EST			0	0	80K		Heavy Snow
		08 1800EST							

An intense winter storm formed off the coast of South Carolina on January 7th. The system moved northeast along the east coast on Monday January 8th and into Nova Scotia by the 9th. Heavy snow fell across Litchfield County Connecticut causing many power outages and several roofs to collapse. Some specific snowfall totals included 24 inches in New Hartford and 22 inches in Harwinton.

CTZ001	Litchfield	12 1200EST			0	0			Heavy Snow
		13 0300EST							

A winter storm formed off the coast of North Carolina on January 12th and moved northeast along the coast through January 13th. Heavy snow fell across Litchfield County Connecticut with snowfall totals ranging from 6 to 10 inches.

CTZ001	Litchfield	19 0800EST			0	0	10K		High Wind
		19 1900EST							

An intense area of low pressure located over the Mid-Atlantic Region on Friday morning January 19th produced damaging winds across Litchfield County Connecticut. This storm was associated with a strong southerly flow which resulted in scattered reports of downed trees, limbs and power lines.

CTZ001	Litchfield	19 1845EST			0	0	300K		Flood
		21 1800EST							

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in numerous reports of flooding across Litchfield County including many small streams, the Housatonic River and the East Aspetuck River. Ice jam flooding occurred at Cornwall along the Housatonic River and a mudslide damaged a house near Cornwall. At Stevenson the Housatonic River crested at 17.6 feet which was over 5.5 feet above flood stage.

CTZ001	Litchfield	24 1800EST			0	0	50K		Flood
		25 1100EST							

A low pressure system which tracked across the northern Great Lakes on the 24th of January produced additional rain across the already ground soaked region. This created more runoff which, along with an ice jam near New Milford caused the Housatonic River to flood from Gaylordsville south to the Long Island Sound.

CTZ001	Litchfield	27 0700EST			0	0	20K		High Wind
		27 2100EST							

A strong low pressure system developed over the Great Plains on Friday January 26th and tracked northeast to the upper Great Lakes by the 27th. This system produced damaging winds across Litchfield County Connecticut from Saturday morning through the evening hours. The damaging winds downed many trees, limbs and power lines across this area.

CTZ001	Litchfield	27 1545EST			0	0	200K		Flood
		30 1800EST							

A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across Litchfield County Connecticut. This amount of rainfall on already saturated soil brought many small streams across the county out of their banks. The Housatonic River also flooded from Gaylordsville downstream.

CONNECTICUT, Southern

CTZ005	Northern Fairfield	03 0400EST			0	0			Heavy Snow
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CTZ006	Northern New Haven	03 0400EST			0	0			Heavy Snow
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Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

CONNECTICUT, Southern

CTZ007	Northern Middlesex	03	0400EST			0	0			Heavy Snow
CTZ008	Northern New London	03	0400EST			0	0			Heavy Snow
A low pressure system moved northeast across the area and produced some heavy snow. Snowfall ranged from 6 to 8 inches.										
CTZ005	Northern Fairfield	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ006	Northern New Haven	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ007	Northern Middlesex	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ008	Northern New London	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ009	Southern Fairfield	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ010	Southern New Haven	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ011	Southern Middlesex	07	1600EST			0	0			Blizzard
		08	1500EST							
CTZ012	Southern New London	07	1600EST			0	0			Blizzard
		08	1500EST							

A storm of historic proportion moved northeast across the region. Extremely heavy snow accompanied this storm. Snowfall totals ranged from 14 to 26 inches. For some areas, this was a record snowfall. The heavy snow combined with strong winds to create blizzard conditions for several hours. All forms of transportation were crippled. All area airports were closed, some for a couple of days. Millions of dollars were spent for snow removal. Millions of dollars were lost for area businesses that had to close. Schools were closed throughout the region. Several people were injured during the next several days as numerous roofs collapsed due to the extremely heavy load of snow. This storm was dubbed the BLIZZARD OF '96.

Fairfield County										
Southern Fairfield	12	1900EST	2100EST			0	0			Urban/Sml Stream Fld
Middlesex County										
Southern Middlesex	12	1900EST	2100EST			0	0			Urban/Sml Stream Fld
New Haven County										
Southern New Haven	12	1900EST	2100EST			0	0			Urban/Sml Stream Fld
New London County										
Southern New London	12	1900EST	2100EST			0	0			Urban/Sml Stream Fld

A low pressure system over Virginia during the morning moved across Southern New England during the evening. The form of precipitation changed quickly along the coast from snow to heavy rain. The heavy rain and melting snowpack from the blizzard a few days earlier, caused extensive and serious flooding problems.

CTZ005>012	Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex - Southern New London	19	0900EST	1400EST		0	0			High Wind
CTZ012	Southern New London	19	0900EST	1400EST		0	0			High Wind
Strong southerly winds gusting in excess of 50 MPH produced widespread wind damage across the region. Most of the damage occurred to trees and power lines. Two ponies died as winds collapsed a shed.										
CTZ005>011	Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex	19	1400EST	20	1400EST	0	0			Flood
CTZ012	Southern New London	19	1400EST	20	1400EST	0	0			Flood

Strong southerly winds ushered very mild and moisture laden air into the region. Street and poor drainage flooding became a major problem early on due to the rains and significant snowmelt. River and stream flooding occurred later in the afternoon of the 19th and continued well into the next day. Several roofs collapsed during the next few days in response to an extremely heavy load

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

CONNECTICUT, Southern

of water brought on by the past blizzard and the heavy rains. Flooding was so widespread and severe that this event became known as the DELUGE OF '96.

Fairfield County									
Countywide	19	1507EST			0	1			Thunderstorm Wind (G53)
New London County									
Countywide	19	1715EST			0	0			Thunderstorm Wind
A line of thunderstorms that moved over the area produced winds that downed numerous trees and power lines. A motorist was injured by a tree limb that fell across the roof of his car.									
CTZ005>011	Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex								
	27	0800EST			0	0			High Wind
		1900EST							
CTZ012	Southern New London								
	27	0800EST			0	0			High Wind
		1900EST							
A strong southerly wind, at times in excess of 50 MPH, caused numerous trees and power lines to fall.									
Fairfield County									
Southern Fairfield	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
Middlesex County									
Southern Middlesex	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
New Haven County									
Southern New Haven	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
Heavy rains from 1 to 2 inches caused extensive and severe flooding of roads, poor drainage areas, and small streams.									
CTZ006	Northern New Haven								
	27	1300EST			0	0			Flood
	28	0000EST							
Heavy rains from 1 to 2 inches caused flooding along the Pomeraug River near Southbury. Numerous roads became impassable and some evacuations occurred along Floodridge Road.									

DELAWARE

DEZ002>004	Kent - Inland Sussex - Delaware Beaches								
	06	2300EST			0	0	1M		Winter Storm
	08	0900EST							
DEZ001	New Castle								
	07	0100EST			0	0	1M		Blizzard
	08	1200EST							
DEZ003>004	Inland Sussex - Delaware Beaches								
	07	1500EST			0	0	2M		Erosion/Cstl Flood
	08	1200EST							
DEZ003>004	Inland Sussex - Delaware Beaches								
	07	1800EST			0	0			High Wind
	08	0100EST							

The Blizzard of '96, the second coined "STORM OF THE CENTURY" of this decade, brought record breaking snow to the northern half of Delaware and paralyzed the state for a couple of days and caused most municipalities to exceed their annual snow budgets during this one storm. Its high winds caused 5,000 homes to lose power, suspended operations on the Cape May-Lewes Ferry for five days, caused directly or indirectly 10 deaths and numerous injuries and produced moderate flooding with moderate to severe beach erosion along the shore. All the deaths were caused by persons shoveling, using snow blowers or trying to walk through the snow.

The number of deaths and injuries was reduced by the storm starting before dawn on Sunday with blizzard conditions in full force in northern areas during the afternoon. The storm formed in the Gulf of Mexico on the morning of the 6th, moved south of Alabama the evening of the 6th, reached Savannah Georgia the morning of the 7th, Cape Hatteras the evening of the 7th, moved just to the west of the Delaware Bay Buoy the morning of the 8th before reaching the Southern New England Coastal Waters the evening of the 8th. This was a classic track for a Nor'easter. Precipitation was mainly snow in New Castle County; fell as snow and sleet through sunset on the 7th, then some freezing rain the night of the 7th before changing back to snow before ending on the 8th in Kent County; it started as snow, but changed to sleet and freezing rain and then rain for a while Sunday evening (7th) before ending as snow the morning of the 8th in Sussex County. Snow began falling around Midnight in Sussex County and spread through the rest of the state during the predawn hours on the 7th and became heavy at times by sunrise. Blizzard conditions developed during the afternoon and evening in New Castle County as strong northeast winds developed around the intensifying low. Precipitation was lighter after midnight on the 8th, before some wraparound snow returned during the daylight hours.

A state of emergency was declared by Governor Carper on the 7th, was replaced by a limited state of emergency the morning of the 9th and was not lifted completely until the evening of the 10th. The state was also declared a disaster area with storm related costs topping 4 million dollars, \$725,000 within Wilmington. This damage estimate did not include the amount of sand lost by erosion. Some colleges started opening on Wednesday the 10th with some elementary schools opening on the 11th. The National Guard helped with snow removal and four wheel drive vehicles were used to transport medical personnel and patients to and from

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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DELAWARE

hospitals. The high winds and powdery snow made it very difficult for road crews to keep roadways open. Drifts reached around 6 feet. The weight of the snow caused several building collapses, one of the worst was the roof collapse of the Talleyville Shopping Center on the 10th.

Snowfall accumulations averaged 18 to 24 inches in New Castle County, 12 to 20 inches in Kent County and 6 to 16 inches in Sussex County with the highest amounts well inland. The 22.7 inches of snow that fell at the New Castle County Airport set a new 24 hour snowfall and all-time single storm snow record. Other accumulations from around the state included 24 inches in Odessa and Prices Corner, 22 inches in Middletown and Newark, 20 inches in Pennyhill and Smyrna, 18 inches in Newark and Harrington, 11.5 inches in Georgetown, 10 inches in Lewes and Bridgeville and 8 inches in Dewey Beach.

In addition to the heavy snow, wind gusts reached hurricane force along the coast during the evening of the 7th. An 84 mph gust was recorded at the Pilot Tower at Cape Henlopen and wind gusts reached 60 mph in Bethany Beach. The strong winds helped topple power lines in Sussex County and the freezing rain caused some power outages in Kent County. The Delaware Electric Cooperative reported about 5,000 homes without power mainly between 7 pm and midnight on the 7th. The wind was strong enough to overturn a tractor trailer in Sussex County.

While accumulations were lighter along the shore, the strong northeast flow around the low produced moderate tidal flooding around the high tide the evening of the 7th. Tides were three to four feet above normal. Luckily this did not coincide with spring tides or the higher of the two high tides for the day. Dunes were breached in Dewey Beach, South Bethany Beach and along "the curve" just north of Fenwick Island. In Dewey Beach there was a washover onto Delaware State Route 1. Debris clogged the roadway. Flooding from both the ocean and Assawoman Bay closed both Delaware State Routes 1 and 54. Tidal flooding from Assawoman Bay flooded side streets on Fenwick Island and South Bethany Beach. Two feet of water was reported along side streets in Bethany Beach. Northwest winds Monday morning prevented tidal flooding from getting worse.

The worst problem was the severe beach erosion, especially on the ocean side of Sussex County. In Dewey Beach, 75 percent of a \$3 million dollar beach replenishment project was washed away. In South Bethany the erosion rivaled the January 1992 storm. In Bethany Beach a \$23,000 plastic mesh fence was ruined. Seven staircases and two wave bulkheads were damaged. The sea wall in Rehoboth Beach was damaged and a set of stairs were washed away.

The state was declared a disaster area on the 16th.

DEZ001

New Castle

**12 0600EST
1500EST**

0 0

Heavy Snow

For the second time within a week heavy snow moved into Northern Delaware. Fortunately this second storm was weaker than its predecessor. The storm moved from the Lower Tennessee Valley on the evening of the 11th, to eastern North Carolina the morning of the 12th and passed just to the east of New Jersey during the late afternoon of the 12th into Southern New England on the 13th. Less cold air was in place than with the blizzard and although precipitation started as snow during the early morning of the 12th, it changed to rain by the afternoon. Accumulations averaged three to four inches in New Castle County, around 2 inches in Kent County and 2 inches or less in Sussex County. The weight of the snow from the two recent storms caused a 35 foot section of a roof to collapse at the Border's Book Store near the Christina Mall.

DEZ001>002

New Castle - Kent

**19 0800EST
1400EST**

0 0

High Wind (G52)

Strong southerly winds preceding and westerly winds accompanying a cold front brought down large tree limbs and power lines in Kent and New Castle Counties. A peak wind gust of 60 mph was recorded in Harrington.

**New Castle County
Northern**

**19 0900EST
1900EST**

0 0

Flash Flood

The combination of snowmelt from the previous week's two snowstorms, the unseasonably warm temperatures and one to two inches of additional rain all combined to produce flash flooding of roads and streams in the northern half of the county. The Christina River reached flood stage at 9 a.m. on the 19th. After a squall line moved through the region around noon, a steady stream of cars stuck in high water began. One of the more dramatic rescues occurred at 4 p.m. when a Hickory Hill woman and her two children were rescued near the flooded Red Clay Creek near the NVF plant. Numerous roads were closed including Delaware State Route 82 and Delaware State Route 273 in Christina. Ice jams compounded the flooding along the Brandywine Creek. Thirteen Wilmington persons were made temporarily homeless by the flooding.

DEZ001

New Castle

**19 1900EST
20 1200EST**

0 0

Flood

While the small stream and roadway flooding subsided during the early evening of the 19th, the major rivers and streams remained above flood stage throughout the night. The Christina River at Cooch's Bridge crested at 11.8 feet at 6 p.m. on the 19th. Flood stage is 9 feet. It was back within its banks around 3 a.m. on the 20th. The White Clay Creek at Delaware Park in Newark reached its flood stage of 13 feet around 11 a.m. on the 19th, crested at 15.9 feet at 11 p.m. on the 19th and was back within its banks at noon on the 20th. The Brandywine Creek in Wilmington crested at 12.72 feet at 4 a.m. on the 20th. Flood stage is 11 feet. The Red Clay Creek at Woodale crested at 8.98 feet at 7 p.m. on the 19th. Flood stage is 5.5 feet.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

DELAWARE

DEZ003

Inland Sussex

24 1805EST

0 0

High Wind

A strong cold front was accompanied by damaging wind gusts and blew over several fences and mail boxes and ripped off one fence in Georgetown.

DEZ001-004

New Castle - Delaware Beaches

27 1200EST
1600EST

0 0

High Wind

High winds preceding a cold front downed trees and power lines along State Highway 141 in New Castle County. Wind gusts also reached 65 mph at the Pilot Tower in Cape Henlopen.

DISTRICT OF COLUMBIA

DCZ001

District Of Columbia

07 0300EST
08 1200EST

0 0

Blizzard

An historic winter storm, known as the "Blizzard of '96", crippled the Greater Washington, DC metropolitan region during the first full weekend of January. In general, snow totals ranged from 17.1 inches at Washington/National airport (DCA) to 21 inches in Northwest Washington. Gusty winds produced drifts to 5 feet in some places. The storm produced the largest storm total since the "Megalopolitan Storm" of February 11th, 1983. Numerous 24-hour accumulation records were shattered at airports from southwest Virginia through New England. For the city as a whole, the storm ranked 4th all-time; for modern records (taken at DCA), the storm ranked 2nd, with only the "Presidents Day" storm of February 18th-19th, 1979, dumping more (18.7 inches).

The storm was induced by a digging upper level trough over the eastern Great Plains. At the surface, an inverted trough extended from the Gulf of Mexico through the Deep South. Surface pressures began falling as the upper trough approached on the afternoon of the 7th. Meanwhile, confluent flow, behind an upper-level arctic vortex over the Canadian Maritimes, maintained strong (1034 mb) surface high pressure over northern New York state. As the upper-level trough approached the southeast U.S. on the 8th, a new surface low developed along the Georgia coast. The low deepened explosively while the arctic high remained in place. Copious Gulf of Mexico and Atlantic moisture was entrained into the system, producing heavy snow; the increasing gradient between the intensifying low and the arctic high caused winds to strengthen to 25 mph with gusts to 35 mph.

The system moved slowly from South Carolina to the mouth of the Chesapeake Bay overnight on the 7th. The slow movement prolonged near-blizzard conditions into the 8th. The storm finally moved towards New England later on the 8th, ending the snow but maintaining gusty north winds (and substantial blowing and drifting snow) until evening.

All major highways were effectively closed through the 7th, as snow removal equipment fought a losing battle with the considerable blowing and drifting snow. However, residential areas remained unplowed for up to one week following the storm; FEMA provided funding for additional snow removal equipment to clear the streets by the weekend of the 13th/14th. Subway transit was impacted as well, as the Washington subway system was effectively shut down through Tuesday, and above-ground stations opened sporadically throughout the following work week. The combination of warming temperatures and concerted snow removal efforts opened all roads by the 17th.

All federal, state, and local governments, as well as public schools, were closed Monday (the 8th) and Tuesday (the 9th). Road damage - especially from potholes and related pavement failures - was excessive. Estimated commercial losses to the northeastern U.S. for the week of January 7-13 were between \$7 and \$10 billion - this on top of a sluggish holiday season and federal government shutdowns.

DCZ001

District Of Columbia

09 1500EST
1700EST

0 0

Heavy Snow

Low- and mid-level lift ahead of an "Alberta Clipper" added insult to injury only a day after the "Blizzard of '96" ended, dumping 4 more inches of snow in a 4-hour period on the beleaguered city. The snow forced road crews to re-double their efforts on main highways, keeping most residential streets unplowed for yet another day.

DCZ001

District Of Columbia

12 0900EST
1200EST

0 0

Heavy Snow

Less than one week after the crippling "Blizzard of '96", a new winter storm dumped substantial snow on the city. Additional snowfall totalled generally 5 to 6 inches, with lesser amounts (4 inches) along the Potomac and Anacostia Rivers. The weekly snowfall of 23.9 inches at DCA broke the all-time record at that location, and ranked it second (since official city records have been kept) behind the famous "Knickerbocker" storm of January 25-27, 1922.

The storm developed as an area of low pressure in the midwest, which became an elongated trough extending from the Tennessee Valley through southeastern North Carolina. As the upper-level trough approached the North Carolina low became dominant, intensifying slowly as it moved through the mouth of the Chesapeake Bay by midday, then off the Delaware coast, by late afternoon. Unlike the "Blizzard of '96", a lack of cold air behind the surface low, combined with the somewhat weaker and more progressive upper-level trough, kept the surface low from intensifying rapidly.

Travel was hampered yet again, and federal offices closed for a record fourth day in one week. Numerous residential streets remained unplowed, and main arteries continued to have only one of two lanes (per right-of-way) open. The storm forced the

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

DISTRICT OF COLUMBIA

Federal Emergency Management Agency (FEMA) to release funds to help with snow removal. Some of the snow was reportedly dumped into the Potomac River.

Several residences reported "ice dams" at the base of roofs. Some ice dams caused gutters to collapse; others forced water leakage into the homes.

**District Of Columbia
All**

19	1100EST 1300EST				0	0			Flash Flood
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An unusually intense squall line, feeding on an unseasonably warm moist tropical air mass, dumped between 0.8 and 1.2 inches of rain in a two-hour period during the late morning of the 19th. The rain fell on oversaturated soil, a result of the previous night's rapid snow melt, producing flash floods throughout the city. During the overnight hours, the remaining water-logged snow pack of 3 to 6 inches was eaten away by strong southeasterly winds which carried low 60s temperatures and near 100 percent relative humidity into the area.

Prior to the onset of heavy rain, numerous creeks and streams feeding the Anacostia and Potomac Rivers were near bank full due to the rapid snow melt. Substantial flash flooding, in the form of overflowed creeks and streams and high standing water due to clogged storm drains, began around 1100EST and continued into the early afternoon. Rock Creek sustained the most flooding, causing the closure of Beach Drive and the Rock Creek Parkway over much of its route through the city. The flash flooding also inundated low-lying businesses and residences, and flooded several parking garages in Foggy Bottom and Georgetown.

DCZ001

District Of Columbia

20	0730EST				0	0	10M		Flood
23	0500EST								

*** Potomac River Flooding ***

High dew point temperatures melted the entire snow pack within 12 hours, with liquid equivalents averaging 1 to 2 inches. Snowmelt combined with 1 to 3 inches of rain caused the worst regional flooding in over 10 years. No tidal variations were noted once the stage surpassed 10 feet. The river crested at 13.88 feet (Wisconsin Avenue in lower Georgetown) on the 21st, dropping below flood stage (7 feet) by the 23rd.

River flooding in the city was limited to Georgetown, Foggy Bottom, and the Haines Point/Washington Marina area. High water forced the closure of some waterfront property for several days, damaged homes and businesses, and brought heavy debris to the city's edge. Portions of the George Washington Memorial Parkway, as well as ramps to the Memorial Bridge and Clara Barton Parkway, were closed on the 22nd, causing the morning commute from the western suburbs to back up for miles. Portions of Independence Avenue and Water Street SW, Wisconsin Avenue and K Street NW (Georgetown), and the Jefferson Memorial were closed. A family of 7 deer was washed through the streets of lower Georgetown before making it to dry land.

FLORIDA, East Central

**Brevard County
Melbourne**

01	1225EST 1230EST	0.5	35		0	0	40K		Tornado (F0)
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A small F-0 tornado touched down in the Eau Gallie area of Melbourne near U.S Highway 1. It moved east northeast about one half mile and lifted as it approached the Indian River Lagoon. The tornado blew down trees on top of houses and garages and overturned a large travel trailer.

**Brevard County
Melbourne**

02	2223EST				0	0			Thunderstorm Wind (G45)
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A severe thunderstorm blew down power lines and damaged a large sign. Melbourne International Airport reported a wind gust to 52 MPH.

FLORIDA, Northeastern

**Clay County
Orange Park to
Camp Blndg**

02	1130EST 1145EST				0	0	1.5K	0	Thunderstorm Wind (G55)
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Numerous reports of large tree limbs and power lines blown across the entire county.

**Clay County
Middleburg to
Camp Blndg**

02	1230EST 1300EST				0	0	2K	0	Thunderstorm Wind (G55)
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Several reports of large tree limbs and power lines blown down.

**Clay County
Green Cove Spgs to
1 NE Green Cove Spgs**

02	1340EST 1345EST				0	0	5K	0	Waterspout
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Waterspout damaged the Green Cove Marina Pier #1.

**St. Johns County
2 N Sampson to
8 SE Hastings**

02	1400EST 1430EST				0	0	1.5K	0	Thunderstorm Wind (G55)
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Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

FLORIDA, Northeastern

Large tree limbs and power lines were blown down.

Flagler County

10 NW Palm Coast to
12 S Bunnell

02	1415EST 1430EST				0	0	3.5K	0	Thunderstorm Wind (G55)
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Numerous reports of large tree limbs and power lines blown down.

FLORIDA, Northwest

NONE REPORTED.

FLORIDA, Southern

Dade County

12 SW (Mia)Miami Intl
to
5 SW (Mia)Miami Intl

03	0807EST 0812EST	7	40	0	9	1.2M		Tornado (F1)
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A squall line from the Gulf of Mexico moved inland across the south Florida Peninsula. A bow echo developed along the squall line as it approached the western suburbs of Miami, and a tornado formed in conjunction with the bow echo. The tornado first touched down near S.W. 96 Street and 144 Avenue, knocking down a small tree. The tornado's path was intermittent for the first three and one-half miles then became continuous from S.W. 67 Street and 123 Avenue to where it lifted, on the north side of S.W. 24 Street and 93 Court. From its initial touchdown until it crossed Westwood Lake, intensity was rated as F0, with minor roof damage and downed trees and fences. Near S.W. 42 Street and 108 Avenue, the tornado intensified to a strong category F1, with wind gusts estimated around 110 mph, and it maintained this intensity until lifting. Throughout its lifetime, the tornado moved on a northeast track at a forward speed of 35 mph. Along the F1 portion of the track, nine persons were injured, three requiring hospitalization. Two of the more serious injuries occurred when the victim's cars were rolled. Major damage occurred to 26 buildings, mostly residences, but two churches, a lumber yard and a strip shopping center also sustained damaged. Another 50 buildings sustained minor damage. Six vehicles were overturned or blown several yards. Power lines were blown down leaving 20,000 users without electricity for up to 12 hours.

Broward County

7 SW (Fl)Ft Laudrdl
Intl to
6.5 SW (Fl)Ft Laudrdl
Intl

03	0840EST 0842EST	0.4	10	0	0	100K	0	Tornado (F0)
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The same thunderstorm cell that produced the F1 tornado in Dade, 33 minutes earlier, produced an F0 tornado in eastern Pembroke Pines. Maximum winds gusts are estimated near 70 mph. The tornado touched down near S.W. 7 Street and 67 Avenue, travelled about 600 yards toward the north northeast, and lifted on the south side of Pines Boulevard at 6 Street. Two house roofs were damaged, with other damage to awnings, antennae, outbuildings, and wooden fences. At least two large trees were uprooted and utility lines were blown down, cutting service to about 1500 users.

Dade County

7 NNE (Mia)Miami Intl

07	0615EST			0	0	10K		Thunderstorm Wind (G50)
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The Coast Guard reported a severe thunderstorm wind gust, estimated at 50 knots, blew down a six foot high concrete wall at Opa Locka Airport.

FLZ077

Monroe/Middle Keys

07	1600EST			0	1	5K		High Wind (G35)
08	1200EST							

Strong gradient winds did minor damage to several sailboats in the middle keys and a parasailer was injured when a tow line snapped. Two men were rescued from Key West harbor after their powerboat capsized.

FLZ068

Coastal Palm Beach

08	1100EST			0	5	20K	0	High Wind (G35)
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Wind gusts of 40 mph toppled a 14-foot high cinder block wall at a construction site at Woodfield Country Club. Five workers were injured, one critically.

Dade County

45 E (Mia)Miami Intl

29	1630EST 1640EST			0	0			Waterspout
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An aircraft reported a waterspout 10 miles west of Bimini.

FLORIDA, West Central

Highlands County

Lake Placid

01	1345EST			0	0	5K		Tstm Wind/Hail
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Thunderstorm winds estimated at near 45 mph damaged a few carports, aluminum trimming and screen enclosures of homes in the Lake June Hills area.

Polk County

2 N Lake Wales to
Lake Wales

01	1545EST			0	0	10K		Tstm Wind/Hail
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Thunderstorm winds estimated at near 45 mph damaged a few carports, aluminum trimming and screen enclosures of homes in the Lake June Hills area.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm
					Killed	Injured			
<u>FLORIDA, West Central</u>									
Pinellas County									
St. Petersburg	01	2300EST			0	0			Urban/Sml Stream Fld
	02	0200EST							
Heavy rain of up to four inches in less than an hour caused standing water six inches deep in parts of St. Petersburg.									
Polk County									
Winter Haven	02	0210EST 0230EST			0	0	50K		Thunderstorm Wind
Thunderstorm winds downed several large trees, one of which damaged the roof of a home in Winter Haven. Twelve mobile homes, two sheds and a screen enclosure were also damaged by thunderstorm winds. Most of the damage occurred on North Lake Lulu Drive and Rolling Oaks Drive in the Oakwood Estates subdivision. The wind blown debris was scattered over a four block area.									
Sumter County									
Lake Panasoffkee	02	1845EST 1955EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds damaged a carport in the vicinity of Lake Panasoffkee.									
Pasco County									
Zephyrhills	02	1930EST			0	0	3K		Tstm Wind/Hail
Thunderstorm winds estimated at 45 mph caught a large overhanging eave of a single story home and uplifted and damaged a portion of the roof.									
FLZ039-048>049									
Levy - Hernando - Pasco									
	08	0510EST 0535EST			0	0			Snow
Snow flurries were reported from Crystal River to New Port Richey with no accumulation.									
FLZ039-042>043-048>049-051>052-055>057-061>062-065									
Levy - Citrus - Sumter - Hernando - Pasco - Hillsborough - Polk - Manatee - Hardee - Highlands - De Soto - Charlotte - Lee									
	09	0100EST 0900EST			0	0	8M		Damaging Freeze
In Pasco county, temperatures as low as 22 degrees for up to six hours caused minor damage to the dormant citrus crop. However, the duration of temperatures below freezing caused an electrical overload at the Withlacoochee River Electric Co-op which eliminated service to nearly 4,500 customers from New Port Richey to Zephyrhills.									
In Hernando county, temperatures in the low 20's for up to eight hours caused an electric overload at the Withlacoochee River Electric Co-op which eliminated service to nearly 8,000 homeowners in Weeki Wachee and Timber Pines for two hours.									
In Hillsborough county, several tropical fish farms lost over 50 percent of their harvest due to temperatures in the middle 20's for up to six hours. The estimated loss to tropical farms was 5.5 million dollars. Much of the tomato crop in southern Hillsborough county was also severely damaged by the freeze. Total estimated crop damage in Hillsborough county was two million dollars.									
In Lee county, 75 acres of squash, and 400 acres of cucumbers were killed by up to eight hours of sub-freezing temperatures.									
FLZ050>052									
Pinellas - Hillsborough - Polk									
	31	0400EST 0800EST			0	0			Fog
Dense fog reduced visibilities to as low as 200 yards for several hours over a broad area of West Central Florida.									
<u>FLORIDA, West Panhandle</u>									
Santa Rosa County									
Pace	06	1320CST			0	0	1K		Lightning
LIGHTNING STRUCK A HOME AND KNOCKED TWO HOLES IN THE CORNER OF THE MOBILE HOME. THE LIGHTNING ALSO WELDED A CHAIN-LINK FENCE GATE SHUT.									
Escambia County									
Pensacola Regional	24	1114CST 1115CST			0	0			Thunderstorm Wind (G50)
<u>GEORGIA, East Central</u>									
Burke County									
Keysville	02	1738EST			0	0			Hail (1.75)
Richmond County									
8 S Augusta	02	1740EST			0	0			Hail (1.75)
Richmond County									
Augusta Airport	02	1745EST			0	0			Hail (1.00)
Richmond County									
West Augusta	24	0822EST			0	0			Thunderstorm Wind (G50)
A line of severe thunderstorms moved through northwest Richmond county and took down powerlines causing power outages in the western part of Augusta toward the Columbia county line.									
McDuffie County									
5 N McDuffie	27	0240EST			0	0			Thunderstorm Wind (G50)
Sheriff reports a severe thunderstorm took down trees on highway 10 north of McDuffie.									
Columbia County									
Appling	27	0249EST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, East Central									
Utility company reports s severe thunderstorm broke off large tree limbs and took down powerlines.									
GEORGIA, Lower									
NONE REPORTED.									
GEORGIA, North and Central									
Lamar County 6 NE Barnesville	02	1545EST			0	0	0.20K		Thunderstorm Wind
Thunderstorm winds uprooted and broke several trees.									
Washington County Deepstep	02	1600EST			0	0			Hail (0.75)
Wilkinson County Gordon	02	1610EST			0	0	0.50K		Hail (0.75)
Hail damaged automatic doors.									
Washington County Sandersville	02	1650EST			0	0			Hail (0.75)
GlascocK County Mitchell	02	1650EST			0	0			Hail (0.75)
Jefferson County 1 NE Wrens	02	1705EST			0	0	60K		Thunderstorm Wind
Thunderstorm winds destroyed 4 mobile homes and 2 RVs in Meadowland Estates outside of Wrens on Highway 1.									
GAZ001>009-011>016-019	Dade - Walker - Catoosa - Whitfield - Murray - Fannin - Gilmer - Union - Towns - Chattooga - Gordon - Pickens - Dawson - Lumpkin - White - Floyd								
	06	1500EST			0	0	10K		Winter Storm
	07	1500EST							
A low pressure area which developed near the Louisiana coast tracked east-northeastward across Georgia and the Carolinas and became a major winter storm over the Mid-Atlantic and New England states. Precipitation in Georgia began on the 6th as rain except as a mixture of rain, sleet, and snow in the higher elevations. The heavy snow track was generally north of a line from Rome to Toccoa. Amounts were around 3 inches in northwest and north central Georgia but increased to 3 to 6 inches in Union, Towns, and Rabun counties of northeast Georgia. From 7 to 12 inches were reported on the ground in the higher elevations of northeast Georgia by mid- afternoon on the 7th. A state of emergency was declared in Habersham, Rabun, Stephens, and White counties where property damage was reported. 2500 homes in northeast Georgia were without power because of accumulating snow and falling trees knocking down power lines. Snow fell in the Atlanta and Athens areas but amounted to only an inch, which was still enough to cause traffic problems.									
GAZ001>009-011>016	Dade - Walker - Catoosa - Whitfield - Murray - Fannin - Gilmer - Union - Towns - Chattooga - Gordon - Pickens - Dawson - Lumpkin - White								
	11	1600EST			0	0			Heavy Snow
	12	0200EST							
A mixture of snow and sleet caused numerous traffic accidents and closed some roads in north Georgia. Amounts were generally around 2 inches, but 6 inches were reported in Clayton in Rabun County.									
Chattooga County Lyerly	18	1910EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds destroyed a mobile home and a car. 25 to 35 trees were downed.									
Gilmer County Elijay	18	2100EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds knocked a few trees down on power lines.									
Paulding County Hiram	24	0415EST			0	0	0.50K		Hail (1.00)
1/2 to one inch hail damaged the roof of a home.									
Clayton County 4 S Jonesboro to 2 S Jonesboro	24	0515EST 0530EST			0	0	2M		Thunderstorm Wind
Severe thunderstorm winds knocked down many trees in a 4 mile long path. As many as 75 homes in the Mundy's Mill Road area were damaged from shingles being blown off and by falling trees. Straight line winds destroyed 2 warehouse-type buildings on Highway 41 about 1/2 mile north of Munday's Mill Road. Damage to these buildings was placed at \$1.3 million. The thunderstorms were part of a line of storms associated with a fast moving cold front that moved through Georgia.									
Banks County Lula	24	0615EST			0	0	15K		Thunderstorm Wind
The same line of thunderstorms produced winds that destroyed half of the Crawford Pottery business on the county line road between Hall and Banks counties.									
Floyd County Rome	26	1600EST 1930EST			0	0			Flash Flood
Thunderstorms dumped over 3 inches of rain in the Rome area. Several roads were closed and 2 families were evacuated from apartments on West Butler street.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Chattooga County									
Summersville	26	1700EST 2100EST			0	0			Flash Flood
			Heavy rains and flooding closed as many as 20 roads, many of them secondary. Flood waters forced the evacuation of several people from their homes.						
Fannin County									
Countywide	26	1800EST 2100EST			0	0	30K		Flash Flood
			Flood waters caused a house to collapse. Humphrey Mill and Mobile roads were washed out and several other roads were closed. Mudslides caused by heavy rains closed Curtis Switch road.						
Gordon County									
Calhoun	26	1800EST 2115EST			0	0			Flash Flood
			Flood waters closed 25 roads county-wide. 12 people were evacuated from apartments in Calhoun.						
Lumpkin County									
Countywide	26	1900EST			0	0			Flash Flood
			Flood waters covered several roadways.						
Gilmer County									
Countywide	26	1900EST 2100EST			0	0	20K		Flash Flood
			Flood waters washed out culverts, a road, and a bridge.						
Catoosa County									
Ringgold	26	2050EST			0	0			Flash Flood
			An apartment complex was evacuated due to high water.						
White County									
Helen	26	2100EST			0	0	20K		Flash Flood
			An RV park on highway 129 was evacuated due to flood waters. Several roads were closed county-wide when they suffered bridge damage or had culverts washed out.						
Pickens County									
Whitestone	26	2200EST			0	0			Flash Flood
			Flood waters caused 4 people to be evacuated from their home.						
Cherokee County									
Countywide	26	2200EST 2300EST			0	0	10K		Flash Flood
			Flood waters closed roads in the southern part of the county. Several cars were washed off the road in the northern part of the county.						
Carroll County									
Carrollton	26	2243EST			0	0			Flash Flood
			Flooding was reported at 4 Notch, Strickland, and around Beulah Church roads. Several secondary roads were also flooded.						
Cobb County									
Austell	26	2255EST			0	0			Flash Flood
			Flooding caused a mudslide.						
Union County									
Blairsville	26 27	2300EST 0000EST			0	0			Flash Flood
			Mud slides due to heavy rains were reported in Blairsville. Most creeks were out of their banks.						
Coweta County									
Grantville	26	2330EST			0	0	10K		Flash Flood
			Around 3.5 inches of rain caused the concrete block basement wall of a home to collapse. The wall had been previously weakened by Hurricane Opal.						
Harris County									
Mulberry Grove	26	2337EST			0	0	0.30K		Thunderstorm Wind
			Thunderstorm winds knocked down 3 trees near Highway 315.						
Lumpkin County									
Countywide	27	0000EST 0115EST			0	0			Flash Flood
			Flood waters caused mudslides on Oakgrove and Ridley roads. Clay Creek road was closed due to flooding.						
Meriwether County									
Durand	27	0005EST			0	0	0.50K		Thunderstorm Wind
			Thunderstorm winds knocked a few trees down near Perry road and August road.						
Meriwether County									
Warm Spgs	27	0030EST			0	0	10K		Thunderstorm Wind
			Buildings were damaged by thunderstorm winds.						
Fannin County									
Blue Ridge	27	0030EST			0	0	1K		Flash Flood
			Flooding caused 7 families to be evacuated at Camp Creek. Mill Road was washed out and several mudslides were reported.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Fayette County Countywide	27	0030EST 0115EST			0	0			Flash Flood
			Heritage Lake Drive and White Road near Highway 92 in Fayetteville were closed due to flooding. Crabapple Lane in Tyrone was closed.						
Polk County Cedartown	27	0100EST 0230EST			0	0			Flash Flood
			A mobile home park on Benedict School Road was evacuated. 6 roads were closed.						
GEORGIA, Northeast									
GAZ010									
			Rabun						
		06 0900EST 07 0600EST			0	0			Heavy Snow
			Heavy snow developed early, ahead of the main precipitation area. By mid day 5 to 7 inches had accumulated in part of Rabun county. Snow continued to accumulate until the next morning.						
GAZ010-017									
			Rabun - Habersham						
		06 2100EST 07 0700EST			0	0			Heavy Snow
			Heavy snow continued to fall. by the end of the storm the next day, maximum accumulations in Habersham and Rabun counties varied from 14 to 17 inches. Numerous traffic accidents were reported along with minor injuries.						
GAZ018-026-028>029									
			Stephens - Franklin - Hart - Elbert						
		06 2100EST 07 0800EST			0	0			Winter Storm
			Rain gradually changed over to freezing rain and snow resulting in accumulations ranging from an inch or two in Hart and Elbert counties to 2 to 3 inches in Franklin and Stephens counties. Extremely cold weather and windy conditions followed the snow in all of northeast Georgia. winds chills dropped to 20 degrees below zero or colder in the mountains.						
GAZ028									
			Hart						
		07 1200EST			1	0			Extreme Cold
			A man died of hypothermia after the car in which he was a passenger went into the water near Hartwell Dam. He escaped the car and walked, apparently to seek help, toward the Ranger station. He was found later. It is not clear how the car ended up in the water. His companion, the driver, drowned. The water temperature was reported to be about 48 degrees. the weather was windy and quite cold with freezing or near freezing temperatures. M24OT						
GAZ010-017>018-026-028>029									
			Rabun - Habersham - Stephens - Franklin - Hart - Elbert						
		11 1800EST 2200EST			0	0			Heavy Snow
			Heavy snow began to fall late in the afternoon and early in the evening. This snow only fell for about four hours but accumulated to a depth of 7 inches in Rabun county with up to 4 inches in Habersham and Stephens counties. The snow was a little later and did not last as long in Franklin, Hart and Elbert counties where a little freezing rain was mixed in. However, a number of traffic accidents resulted from the icy conditions. This snow was not nearly as much of a problem as the storm earlier in the week. Relatively warm weather followed the snow which resulted in rapid melting.						
GAZ010-017>018									
			Rabun - Habersham - Stephens						
		18 2000EST 2100EST			0	0	1K		High Wind (G60)
			Generally high wind conditions, with gusts frequently to about 60 mph, caused some property damage across the mountains. Power was out in some locations and numerous trees were downed. A small line of thunderstorms developed and boosted gradient winds to damaging levels in Toccoa where signs were reported blown down and off of buildings in the downtown area. Trees and power lines were also reported downed. Several inches of rain fell but no significant flooding was reported, except in Rabun county where small streams flooded.						
GAZ010									
			Rabun						
		18 2330EST 2359EST			0	0			Flood
			Several inches of rain fell but no significant flooding was reported, except in Rabun county where small streams flooded.						
GAZ010									
			Rabun						
		26 1100EST 1500EST			0	0			Ice Storm
			Cold air was trapped in mountain valleys as rain moved in. There was a relatively brief period of freezing rain during the late morning and early afternoon. Some icy roads developed with light accumulations on trees and power lines.						
GAZ010-017									
			Rabun - Habersham						
		26 2330EST 27 1300EST			0	0			Flood
			Prolonged heavy rain produced flooding across the extreme northeast mountains. The water continued to rise during the night with more roads and bridges involved. No serious flooding occurred.						
GAZ010									
			Rabun						
		29 0500EST 1800EST			0	0			Heavy Snow
			Light snow accumulated on roads causing some icy spots.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, Southeast									
									NONE REPORTED.
GEORGIA, Southwest									
									NONE REPORTED.
GEORGIA, West Central									
GAZ089>090-102-120			Muscogee - Chattahoochee - Stewart - Quitman						
	10	0000EST			0	0			Extreme Cold
		2359EST							
			A blast of Arctic air established new record low temperatures across the west-central portion of Georgia. At the Columbus airport, the mercury fell to 19 degrees setting a new record low for the 10th.						
HAWAII									
HIZ002-004			Oahu - Island Of Hawaii						
	10	2100HST			0	0	150K		High Surf
	12	1800HST							
			An intense storm over the north Pacific generated large swell which produced high surf ranging from 10 to 20 feet. Heavy beach erosion occurred along the north shore of Oahu. Many county and state beach parks were closed along the Kona Coast of the Island of Hawaii and the road pavement was washed away from the road surface of Alii Drive in Kailua Kona.						
Hawaii County									
Kohala, South Kona	24	1445HST			0	0			Flash Flood
		1700HST							
			Flash flooding briefly closed the Kohala Mountain Road. North Kohala received 2.8 inches of rain, easing the ongoing drought. Nearly 1.5 inches of rain fell at Kealakekua and Honaunau in the South Kona District.						
Honolulu County									
.5 S Diamond Head	24	1505HST			0	0			Funnel Cloud
			Funnel cloud south of Diamond Head observed by weather spotter.						
Maui County									
10 E Kaunakakai	24	1550HST			0	0			Funnel Cloud
			Funnel cloud over southeast Molokai.						
Maui County									
East Molokai	24	1610HST			0	0			Waterspout
			Three waterspouts observed north of Molokai.						
Hawaii County									
Volcano	24	1700HST			0	0			Funnel Cloud
			Funnel cloud observed above village of Volcano.						
Honolulu County									
Windward Oahu	25	0200HST			0	0	800K		Flash Flood
		0600HST							
			A mesoscale low was detected by the Kauai WSR-88D during the early evening of the 24th just north of Oahu. Velocity and Storm Relative Velocity products indicated cyclonic circulation from 15 to 20 thousand feet. After 0100 HST on the 25th, the low began a slow drift south over Oahu. Heavy rains occurred over windward Oahu as the low moved over the island. Rainfall totals (inches) included: 9.02 at Olomana, 9.00 at Kailua, 7.78 at Maunawili, 6.15 at Kaneohe, 4.48 at Punaluu, and 5.00 at Kahuku. 60 Waimanalo residents were evacuated as flooding and mudslides closed many windward Oahu roads. 15 homes were damaged on Kakaina and Mekia Streets in Waimanalo. A bridge over the Makawao Stream was washed out, isolating 30 residents near the top of Maunawili Valley. Mudslides closed the Pali Highway, a major traffic artery between windward Oahu and Honolulu. High water closed the Kapaa Quarry Road, Kalaniana'ole Highway in Waimanalo, and the Kahekili Highway.						
HIZ004			Island Of Hawaii						
	25	0600HST			0	0			Heavy Snow
	26	0600HST							
			Heavy snow accumulating to 8 inches, with winds to 50 mph causing considerable drifting snow of 4 to 6 feet closed the road from 10,000 ft to the 13,796 ft summit of Mauna Kea.						
Maui County									
Haleakala	26	0115HST			0	0	10K		Lightning
			Lightning struck the Maui Space Surveillance Complex at the summit of Haleakala sparking an electrical fire in a power distribution panel. Three people were treated for smoke inhalation.						
Hawaii County									
Kau, Lower Puna	26	0400HST			0	0			Lightning
			Lightning that struck electric lines caused power outages in the Kau and lower Puna Districts.						
Hawaii County									
5 SE Hilo	27	1520HST			0	0			Funnel Cloud
			Funnel cloud southeast of Hilo Airport.						
Honolulu County									
Pearl Harbor	27	1630HST			0	0	2K		Thunderstorm Wind
			Two warehouse roofs were damaged at Pearl Harbor.						
HIZ001-004			Kauai - Island Of Hawaii						
	30	1130HST			0	0			High Wind (G80)
	31	2300HST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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HAWAII

Strong south and southwest winds ahead of low pressure and a cold front approaching the Hawaiian Islands produced winds to 90 mph over the summits and upper slopes of Mauna Kea and Mauna Loa. High winds also buffeted Waimea and Kamuela where winds accelerated between the Kohala Mountains and Mauna Kea.

Kauai County West Kauai

30	1530HST 1600HST	0	0	40K	20K	Thunderstorm Wind
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Severe thunderstorm winds blew down numerous trees. An employee at the Pacific Missile Range Facility at Barking Sands on the west coast of Kauai reported the heaviest squall line he had seen in 17 years of observing weather. Winds at Kokee were estimated at 60 mph.

Honolulu County Kaneohe Bay

30	1850HST	0	0			Waterspout
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Waterspout stationary on Kaneohe Bay.

Honolulu County Oahu

30	1915HST 1945HST	0	0			Thunderstorm Wind (G40)
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Wind gusts to 45 mph were reported at Barbers Point, and by weather spotters in Honolulu, Kailua, and Kahuluu. Trees downed on highway near Kuoloa.

IDAHO, Extreme Southeast

NONE REPORTED.

IDAHO, North

NONE REPORTED.

IDAHO, Northwest

NONE REPORTED.

IDAHO, Southeast

NONE REPORTED.

IDAHO, Southwest

IDZ003

Upper Snake River Valley

05	1300MST 1600MST	0	0			Fog
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Dense fog formed in the Sage Junction Port of Entry reducing visibility to one-eighth of a mile.

IDZ002

Magic Valley

16	1800MST 2200MST	0	0	10K		High Wind
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A cold front moved through Southern Idaho downing trees and powerlines in Cassia County.

IDZ002

Magic Valley

16	2000MST	0	0	6K		Heavy Snow
17	1200MST					

A storm produced 4 - 8 inches of snow closing Interstate 84 and the Interstate 84-86 Junction. In the Mini-Cassia area, some schools and roads were closed. Six inches of wet snow fell overnight at St. Anthony dropping power lines causing several power outages. Several schools were closed in the Idaho Falls area.

IDZ001-003-006-010-012

Treasure Valley - Upper Snake River Valley - West Central Mountains - East Central Mountains - Upper Snake Highlands

18	0600MST	0	0			Heavy Snow
19	1000MST					

A snowstorm moved through all of Idaho except the Panhandle. In the West Central mountains, Placerville in Boise County received 9 to 14 inches, Idaho City reported 10 inches, and Cascade in Valley County received 7 inches. Other amounts reported across the state included 5-7 inches in the Magic Valley at Gooding, Burley, Jerome, and Hagerman. In the Treasure Valley amounts were 1-4 inches. In the Sun Valley and Camas Prairie area...Fairfield and Hailey received 6 inches. Pomerelle in the Southeast Highlands received 18 inches. Other locations in Southeast Idaho reporting heavy snowfall were: Arbon Valley 5 inches...Island Park and Palisades Dam 4 inches...Victor, Pebble Creek, and Arco 3 inches with a spotter 4 miles east of Pocatello reporting 6 inches of snow with 3 to 4 foot drifts. Highway 95 was closed three miles inside of the Idaho Border.

IDZ003>004-010-012

Upper Snake River Valley - Southeast Highlands - East Central Mountains - Upper Snake Highlands

20	0800MST	0	0			Heavy Snow
21	1200MST					

Overnight, snow combined with gusty winds decreasing visibilities and creating dangerous driving situations. Snow totals and snow drift sizes included: Island Park 17 inches new with 4 to 6 foot drifts. Victor 9 inches...Blackfoot and Soda Springs 4 to 6 inches new with 2 to 4 foot drifts...Arco 5 inches new...Rigby and Idaho Falls 2-3 inches new with visibilities reduced to one-quarter of a mile.

IDZ002>005-010-012

Magic Valley - Upper Snake River Valley - Southeast Highlands - Southwest Highlands - East Central Mountains - Upper Snake Highlands

23	0700MST	0	0	18K		Winter Storm
24	1400MST					

A strong cold front produced snow and areas of blowing and drifting snow across the state. The areas most affected were in Southern Idaho and in the West Central Mountains. Snow totals included Delamar Mines 12-14 inches with 6 to 8 foot drifts...12 inches at Placerville...10 inches at Idaho City and Ketchum...9 inches at Powell...7 inches at McCall...5 inches Elk River...18

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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IDAHO, Southwest

inches at Island Park...9-10 inches at Soda Springs and Ashton...6 inches at Dubois...5 inches at Lava Hot Springs and Inkom and 3-4 inches at Stone, Bancroft, Driggs and Victor. Schools in several areas were closed on the 24th due to new snow and drifting. Interstates 84 and 86 were closed for over 8 hours while a number of state highways and smaller roads were closed for extended periods of times. Strong winds associated with the storm also destroyed a sign in Burley and downed power poles in the Malta area.

IDZ003-006-012

Upper Snake River Valley - West Central Mountains - Upper Snake Highlands

27	1300MST	0	0						High Wind
28	0800MST								

A cold front swept through the state producing 1-3 inches of snow in most valley locations. This front, however produced winds at 20 to 30 miles per hour with gusts to 45 miles per hour in Southeast Idaho. The strongest gusts, 68 miles mph, were recorded at Palisades Dam and 2 miles northeast of Pocatello. Blowing and drifting snow created problems in Southeast Idaho throughout the period. Visibilities were reduced to zero closing roads at times...including Interstate 15 and US 12 and 91. Schools were closed and the airport in Hailey was closed for several hours.

ILLINOIS, Central

ILZ043>046-052>057-061>063-066>068-071>073

De Witt - Piatt - Champaign - Vermilion - Christian - Macon - Moultrie - Douglas - Coles - Edgar - Shelby - Cumberland - Clark - Effingham - Jasper - Crawford - Clay - Richland - Lawrence

02	0200CST	0	4	0					Winter Storm
03	0300CST								

The second major winter storm of the season moved through Central Illinois January 2nd and 3rd. The storm dumped up to 8 inches of snow across the area. Also, gusty northwest winds from 30 to 40 mph accompanied the storm, creating near whiteout conditions, making travel hazardous, and closing numerous roads. There were numerous minor accidents, though only two accidents resulted in 4 serious injuries.

ILZ027>031-036>038-040>057-061>063-066>068-071>073

Knox - Stark - Peoria - Marshall - Woodford - Fulton - Tazewell - Mclean - Schuyler - Mason - Logan - De Witt - Piatt - Champaign - Vermilion - Cass - Menard - Scott - Morgan - Sangamon - Christian - Macon - Moultrie - Douglas - Coles - Edgar - Shelby - Cumberland - Clark - Effingham - Jasper - Crawford - Clay - Richland - Lawrence

04	0300CST	0	0						Winter Storm
	1900CST								

Following on the heels of the January 2nd/3rd storm, another winter storm moved through Central Illinois on January 4th. Snowfall ranged from 2 to 7 inches. Numerous minor accidents were reported across the area, though no major injuries were reported.

ILZ027>031-036>038-040>057-061>063-066>068-071>073

Knox - Stark - Peoria - Marshall - Woodford - Fulton - Tazewell - Mclean - Schuyler - Mason - Logan - De Witt - Piatt - Champaign - Vermilion - Cass - Menard - Scott - Morgan - Sangamon - Christian - Macon - Moultrie - Douglas - Coles - Edgar - Shelby - Cumberland - Clark - Effingham - Jasper - Crawford - Clay - Richland - Lawrence

18	1000CST	0	2						Winter Storm
19	0600CST								

A major winter storm moved through Central Illinois January 18th and 19th. Severe thunderstorms moved through the area during the late morning and early afternoon hours. Afterward, temperatures began to drop quickly. Most locations recorded a 60 degree drop over a 12 hour period. The rain changed to ice than snow causing numerous power outages and minor accidents. Two people were injured when the driver of the RV lost control of the vehicle when a strong gust of wind moved through the Farmer City area in DeWitt county. Gusty winds of 25 to 35 mph created winds chills near 40 below zero across most of Central Illinois.

Shelby County

1 SE Shelbyville

18	1045CST	0	0						Thunderstorm Wind
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Thunderstorm winds blew down several signs 1SE of Shelbyville.

De Witt County

Kenney/Clinton/ to Wapella

18	1050CST	0	0						Thunderstorm Wind (G52)
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Thunderstorm winds blew down several trees in Kenney and DeWitt County ESDA reported 60 mph winds in Clinton. Also, a barn was destroyed 1 NE of Wapella.

McLean County

Bloomington/McLean/ to Heyworth

18	1100CST	0	0						Thunderstorm Wind (G58)
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Thunderstorm winds destroyed a large shed, blew down numerous power lines, and blew off the roof of a home in McLean. Also, 59 mph winds were reported at McLean County Airport and 67 mph winds were reported by the ESDA office in Bloomington. The winds also blew off the roof of an apartment building in Bloomington and blew down a house that was under construction in Hayworth.

Macon County

Warrensburg/Forsyth to Decatur/Maroa

18	1100CST	0	0						Thunderstorm Wind
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Thunderstorm winds blew down numerous trees, tree limbs and power lines in Warrensburg, Forsyth, Decatur, and Maroa.

Effingham County

1 E Montrose

18	1110CST	0	0						Thunderstorm Wind
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Thunderstorm winds blew down one cinder block wall of a barn located 1E of Montrose. Also, a gasoline tank was blown over a hundred feet. On another farm nearby, a metal shed was destroyed.

Piatt County

1 W Milmine/Cerro Gordo

18	1120CST	0	0						Thunderstorm Wind
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Thunderstorm winds blew down numerous power lines and power poles in Cerro Gordo and 1 W of Milmine.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ILLINOIS, Central									
De Witt County Farmer City	18	1120CST			0	0		0	Thunderstorm Wind
									Thunderstorm winds destroyed several sheds in Farmer City.
McLean County Cooksville	18	1135CST			0	0		0	Thunderstorm Wind
									Thunderstorm winds blew a large TV antenna off of a house in Cooksville.
Douglas County Atwood/Arcola	18	1140CST			0	0		0	Thunderstorm Wind
									Thunderstorm winds uprooted a tree in Atwood and blew down several power poles in Arcola.
Champaign County Mahomet/Champaign	18	1157CST			0	0			Thunderstorm Wind (G61)
									Thunderstorm winds blew down a large tree in Mahomet and gusted to 71 mph at Champaign County Airport.
Edgar County 3 NW Chrisman	18	1230CST			0	0		0	Thunderstorm Wind
									Thunderstorm winds ripped off the roof of a large frame barn and blew down a large tree, which broke out several windows in a home located on the farm.
Vermilion County 1 W Ridge Farm/Danville/ to Hoopeston	18	1245CST			0	0		0	Thunderstorm Wind
									Thunderstorm winds blew down numerous trees and power lines 1W of Ridge Farm, in Danville and in Hoopeston. Also, a carport roof was blown off of one home in Danville.
ILLINOIS, Northeast									
Grundy County Morris	18	1210CST			0	0			Thunderstorm Wind (G50)
Livingston County Dwight	18	1220CST			0	0			Thunderstorm Wind (G56)
									A 65 mph wind gust was reported at Dwight Airport.
Will County Joliet	18	1253CST			0	0			Thunderstorm Wind (G55)
									A NWS employee on the west side of Joliet reported a wind gust to 63 mph.
Will County (Jot) Joliet Distric	18	1257CST			0	0			Thunderstorm Wind (G52)
Will County Bolingbrook	18	1300CST			0	0			Thunderstorm Wind
									The steeple of a church was toppled by winds.
Will County Lockport	18	1310CST 1315CST			0	0		0	Thunderstorm Wind
									Townhouses under construction were damaged by wind gusts in Lockport. The roof was torn off a house in Homer Township east of Lockport. Debris from the roof damaged a pickup truck. A barn was also damaged and windows were broken in another house.
Will County Frankfort	18	1310CST			0	0	45K	0	Thunderstorm Wind
									The roof was peeled off in industrial building on highway 45 near Frankfort.
Iroquois County Gilman	18	1315CST			0	0	10K	0	Thunderstorm Wind
									Winds knocked down 23 power poles along U.S. 24 near Gilman. Tree limbs and sheds were also damaged.
Kankakee County Momence	18	1315CST			0	0			Thunderstorm Wind
									Large tree branches were blown down.
Cook County Palwaukee Airport	18	1340CST			0	0			Thunderstorm Wind (G53)
ILLINOIS, Northwest									
ILZ001>002-007-009- 015>018-024>026- 034>035	Jo Daviess - Stephenson - Carroll - Whiteside - Rock Island - Henry - Bureau - Putnam - Mercer - Henderson - Warren - Hancock - McDonough								
	18	0430CST 2000CST			0	0			Winter Storm
									A powerful cold front steamed through the region around sunrise dropping temperatures 20 degrees in less than half an hour. Temperatures fell from the mid 50s into the teens within a few hours and the single digits below zero that night. 1 to 3 inches of freezing rain, sleet, and snow fell and caused icy roads and disruption of electrical power. Most Schools canceled classes or dismissed early. Many others had trouble getting home with icy roads and difficulty just getting into there cars due to doors and door locks being iced over. Glaze was so thick that Muscatine Postmaster Dyann Roby said "most of the 35 collection boxes were frozen shut"; however other mail services continued.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

ILLINOIS, Northwest

ILZ001>002-007-009-015-024 Jo Daviess - Stephenson - Carroll - Whiteside - Rock Island - Mercer

26	0400CST	0	0						Winter Storm
27	0400CST								

A winter storm system moving northeast over the Mississippi river brought 1 to 3 inches of rain, sleet, and snow to northwestern Illinois. Significant travel problems occurred due to a layer of glaze which came down first and was then covered by 2 to 3 inches of snow. 20 to 30 mph winds caused blowing and drifting and limited visibilities.

ILZ001>002-007-009-015>018-024>026-034>035 Jo Daviess - Stephenson - Carroll - Whiteside - Rock Island - Henry - Bureau - Putnam - Mercer - Henderson - Warren - Hancock - Mcdonough

30	2000CST	0	0						Extreme Cold
31	2359CST								

After Winter Storms on the 19th and 26th a blanket of snow lay across much the area north of I80. A re-enforcing shot of cold air pushed over the area on the 30th and took temperatures below zero through the first few days of February. All time record low temperatures occurred at many locations during a 6 day period. Record lows ranged from -25 to -32 for 2 to 3 nights with highs reaching only -10 to -15 degrees during the day for 2 to 3 days.

ILLINOIS, South

ILZ075-080>082-084>086-088>094 Jefferson - Perry - Franklin - Hamilton - Jackson - Williamson - Saline - Union - Johnson - Pope - Hardin - Alexander - Pulaski - Massac

02	1000CST	0	0						Winter Storm
	2300CST								

A major winter storm affected parts of southern Illinois. Snowfall amounts increased from south to north, with up to 8 inches reported at Mount Vernon. Warmer temperatures closer to the Kentucky border resulted in a mixture of precipitation types. Only an inch of snow was measured in northern Pope County, less than 20 miles from the Ohio River. Benton reported 5 inches, Anna had 3 inches, and Pinckneyville reported 4 inches. In the most affected areas, including Mount Vernon, hotels were booked with holiday travelers seeking to avoid dangerous travel conditions. In Jefferson County alone, 36 weather-related accidents occurred, none with serious injuries. A school bus carrying 30 students slid into a ditch, but nobody was hurt. Most schools cancelled classes the following day. Gusty winds and very cold temperatures hampered snow removal efforts. Winds gusted to 25 MPH with temperatures in the teens.

ILZ075-080>082-084>086-088>094 Jefferson - Perry - Franklin - Hamilton - Jackson - Williamson - Saline - Union - Johnson - Pope - Hardin - Alexander - Pulaski - Massac

06	0400CST	0	0						Winter Storm
	2300CST								

A moderate snowfall, averaging 3 to 4 inches, affected all of southern Illinois. Strong gusty winds piled the dry, powdery snow into waist-high drifts in some spots. This contributed to dozens of auto accidents, including a van that slid into a guard rail on Interstate 57 near Mount Vernon. Several people were injured in this mishap. A man in Benton suffered a fatal heart attack while he was shovelling snow. Five people were treated for slip-and-fall injuries, including three fractures. The deep drifts were over car roofs in open farm country of one southeast Illinois county. Several vehicles became stuck. State Highway 161 was reduced to one lane of travel in spots due to drifts.

Alexander County
5 W Tatumville

18	0940CST	0	0						Thunderstorm Wind
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Two trees down.

Union County
2 S Anna

18	0945CST	0	0	5K					Thunderstorm Wind
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Power poles were broken.

Pulaski County
1 SE Wetaug

18	0955CST	0	0	10K					Thunderstorm Wind
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A machine shed was blown across a road. Debris from the shed damaged a house trailer.

Massac County
3 E Brookport

18	1008CST	0	0	40K					Thunderstorm Wind
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At least five buildings, mostly barns, were damaged or destroyed.

Johnson County
.5 S Vienna

18	1015CST	0	0						Thunderstorm Wind
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Trees and power lines were down near Vienna.

Pope County
.2 W Homberg

18	1017CST	0	0						Thunderstorm Wind
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Trees were down on power lines.

Saline County
.2 N Raleigh

18	1030CST	0	0	20K					Thunderstorm Wind
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A barn was blown down near Raleigh.

Hardin County
.5 N Rosiclare

18	1030CST	0	0	5K					Thunderstorm Wind
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Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

ILLINOIS, South

A trampoline was blown into power lines.

ILZ090>091-093>094

Pope - Hardin - Pulaski - Massac

26 1000CST
31 2359CST

0 0 5K Flood

The Blizzard of '96 that fell in New England and the Mid-Atlantic around the 6th began to melt towards the middle of the month, sending a flood wave down the Ohio River. This in turn sent backwater up many of the smaller rivers that feed into the Ohio. The lower Ohio River crested 3 to 5 feet above flood stage. At Lock and Dam 52 near Brookport, IL, the river crested at 43.8 feet on the 31st. Flood stage there is 37 feet. Most of the flooding was confined to bottomlands. Portions of Fort Massac State Park were underwater, including some roads and recreational equipment.

ILLINOIS, Southwest

ILZ097>102

Pike - Calhoun - Jersey - Madison - St. Clair - Monroe

02 0200CST
03 2300CST

0 0 Winter Storm

A snowstorm moved east into west central and southwest Illinois, dropping from 6 to 10 inches of snow. Strong winds caused blowing and drifting snow resulting in the closing of many county roads. Classes were cancelled at many area schools on the 3rd. Numerous auto accidents were attributed to slick roads and poor driving conditions. Some power outages in Belleville, New Athens, and Columbia were caused by strong winds.

Randolph County

Tilden

18 0930CST

0 0 Thunderstorm Wind (G50)

Thunderstorm wind gusts blew down a few trees and power lines and took shingles off some roofs.

Washington County

2 SE Okawville

18 0945CST

0 0 Thunderstorm Wind (G50)

Thunderstorm wind gusts downed power lines along Route 160 between Adeville and Okawville.

Montgomery County

Nokomis

18 0955CST

0 0 Thunderstorm Wind (G50)

Thunderstorm wind gusts blew down numerous trees in the Nokomis area.

Clinton County

Bartelso

18 1010CST

0 0 Thunderstorm Wind (G50)

Thunderstorm wind gusts blew shingles off a roof.

Fayette County

Vandalia

18 1020CST

0 0 Thunderstorm Wind (G50)

Thunderstorm wind gusts downed trees and power lines in Vandalia. The roof of a car wash was also blown off.

INDIANA, Central

INZ021>023-028>031-035>049-051>057-060>065-067>072

Carroll - Cass - Miami - Warren - Tippecanoe - Clinton - Howard - Fountain - Montgomery - Boone - Tipton - Hamilton - Madison - Delaware - Randolph - Vermillion - Parke - Putnam - Hendricks - Marion - Hancock - Henry - Vigo - Clay - Owen - Morgan - Johnson - Shelby - Rush - Sullivan - Greene - Monroe - Brown - Bartholomew - Decatur - Knox - Daviess - Martin - Lawrence - Jackson - Jennings

02 0100EST
03 0700EST

0 0 Winter Storm

The first big snowstorm of 1996 impacted all but northwest Indiana. In central sections, snowfall amounts averaged six to twelve inches. Twenty four counties declared snow emergencies.

INZ021>023-028>031-035>049-051>057-060>065-067>072

Carroll - Cass - Miami - Warren - Tippecanoe - Clinton - Howard - Fountain - Montgomery - Boone - Tipton - Hamilton - Madison - Delaware - Randolph - Vermillion - Parke - Putnam - Hendricks - Marion - Hancock - Henry - Vigo - Clay - Owen - Morgan - Johnson - Shelby - Rush - Sullivan - Greene - Monroe - Brown - Bartholomew - Decatur - Knox - Daviess - Martin - Lawrence - Jackson - Jennings

06 1300EST
08 0300EST

0 0 Winter Storm

A major winter storm produced one to ten inches of snow across central and southern Indiana. Five to ten inch snows were concentrated in south central Indiana from Bloomington east to Greensburg. Strong winds also caused three to ten foot drifts leaving many roads impassable. Snow emergencies were declared in 41 counties.

INZ021>023-030>031-038

Carroll - Cass - Miami - Clinton - Howard - Tipton

11 0600EST
2300EST

0 0 Winter Storm

Southeast moving snowstorm spread six inch snows across central Indiana between Kokomo and Indianapolis. One to four inch amounts occurred in the Indianapolis area and the rest of central Indiana.

INZ029>030-039>040-044>045-047-052>054-064

Tippecanoe - Clinton - Hamilton - Madison - Parke - Putnam - Marion - Clay - Owen - Morgan - Bartholomew

18 1315EST
1600EST

0 0 21.5K High Wind (G60)

Strong low pressure system produced sustained winds of 20 to 35 mph and frequent gusts to 40 mph. A line of showers ahead of a cold front moved east across the state producing wind gusts from 35 to 70 mph with most counties receiving 60 mph wind gusts.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Central									
Vermillion County Newport	18	1345EST 1350EST			0	0			Hail (1.75)
Tippecanoe County 8 NW Lafayette to 7 N Lafayette	18	1430EST 1435EST	3.5	50	0	0			Tornado (F0)
Weak tornado damaged several barns and homes and also overturned two tractor trailers on I-65. No injuries or fatalities.									
INZ047	Marion	18	1519EST 1522EST		1	0	0.01K		High Wind
A tree fell on a man in Indianapolis during a brief peak gust which occurred within a longer duration high wind event. M48OU									
INZ064-071	Bartholomew - Jackson	19 21	0100EST 1800EST		0	0			Flood
Heavy rains from previous days combined with melting snow to bring the East Fork of the White River to reach over four feet above flood stage. This impacted farm fields and required closing of some roads along the rivers edge.									
INDIANA, Northeast									
INZ018	Allen	02 03	0700EST 1200EST		0	0			Winter Storm
Six inches of snow fell across Allen County with with 6.0 inches recorded at the Fort Wayne International Airport from 7 AM EST on January 2 to Noon on January 3. Numerous accidents were reported in the City of Fort Wayne and numerous school closings were reported.									
INZ024	Wabash	02 03	0700EST 1200EST		0	0			Winter Storm
Six to eight inches of snow fell across Wabash County on January 2 through the morning hours of January 3 prompting the closing of schools and resulting in a number of accidents.									
INZ026	Wells	02 03	0700EST 1200EST		0	0			Winter Storm
Eight inches of snow fell across Wells County during the period from January 2 through the morning hours of January 3. Drifts to 6 foot in height were reported. The snow shutdown the county with all schools and most businesses closed. The county declared a snow emergency with only essential traffic allowed. Few snow related accidents were reported in the county due to the limitation of essential traffic only being allowed.									
INZ027	Adams	02 03	0700EST 1200EST		0	0			Winter Storm
Eight inches of snow fell across Adams County prompting Emergency Management officials to post a snow emergency with only essential traffic allowed. The snow which began during the morning hours of January 2 and ending the morning of January 3 left the county virtually at a standstill with all schools closed and most businesses and industries shutdown. Snow related accidents were few due to the absense of motorists on the road due to the snow emergency called by county officials.									
INZ032	Grant	02 03	0700EST 1200EST		0	0			Winter Storm
Seven inches of snow fell across Grant County causing the closing of all schools and producing a number of minor automobile accidents. The snow began the morning of January 2 and ended the morning of January 3.									
INZ033	Blackford	02 03	0700EST 1200EST		0	0			Winter Storm
One of the worst snowstorms in Blackford Counties history began on the morning of January 2 and ended the morning of January 3. Before the storm was over it dropped a total of 11 inches of snow on Hartford City with drifts as high as 9 feet being reported. The heavy snow prompted county officials to issue a snow emergency with no travel allowed except emergency vehicles. The snow made travel virtually impossible with all schools closed and most businesses and industries.									
INZ034	Jay	02 03	0700EST 1200EST		0	0			Winter Storm
Ten inches of snow fell across Jay County during a 30 hours period shutting down schools, industries and businesses. Traffic was at a standstill with most roads impassable. The county declared a snow emergency with essential traffic only allowed. Drifts to nine foot in depth were reported.									
INZ024	Wabash	18	1400EST 1800EST		0	0	30K	0	High Wind
High winds gusting to 60 MPH produced wind damage in and around Wabash with 70 foot of roof blown off Swingset Inc. on Indiana 15 north of LaFontaine. Also, trees and lines were reported down.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Northwest									
Jasper County									
Remington	18	1348CST			0	0			Thunderstorm Wind
			Barns were damaged and antennas were blown down.						
Jasper County									
Rensselaer Jasper Ar	18	1348CST			0	0			Thunderstorm Wind (G52)
Porter County									
Kouts	18	1350CST			0	0			Thunderstorm Wind
			Tree limbs were blown down south and east of Kouts.						
Starke County									
North Judson	18	1415CST			0	0			Thunderstorm Wind
			The roof of a house was damaged by wind.						
Benton County									
Fowler	18	1424EST			0	0			Thunderstorm Wind (G64)
White County									
8 NW Lafayette to .5 W Brookston	18	1430EST 1438EST	6	50	0	0			Tornado (F0)
			A small tornado or gustnado crossed into White County from Tippecanoe County about 3.5 miles south southwest of Brookston and ended just west of Brookston. In White County, there was minor damage to the siding of a house about 2 miles southwest of Brookston. There was also damage to a shed and a swing set overturned. At a nearby farm several buildings were damaged. A large pine tree was snapped. A TV antenna was blown off a house on the southwest side of Brookston. See Tippecanoe County report for information on damage from this tornado in Tippecanoe County.						
White County									
Monticello	18	1440EST 1450EST			0	0			Thunderstorm Wind
			Tree limbs and power lines were knocked down throughout the county.						
Pulaski County									
Medaryville	18	1515EST			0	0			Thunderstorm Wind
			Trees were blown down.						
Marshall County									
Plymouth	18	1545EST			0	0			Thunderstorm Wind (G53)
St. Joseph County									
North Liberty	18	1550EST			0	0	0		Thunderstorm Wind
			Tree limbs and power lines were blown down in the southwest part of the county.						
Fulton County									
Delong	18	1557EST			0	0			Thunderstorm Wind
			Trees were blown down.						
Elkhart County									
Elkhart	18	1620EST			0	0			Thunderstorm Wind (G63)
			A wind gust to 69 mph was reported at the Elkhart Airport and a gust to 73 mph occurred at a radio station. Tree limbs and power lines were damaged.						
INDIANA, South Central									
INZ076>079-083>084-089>092			Orange - Washington - Scott - Jefferson - Dubois - Crawford - Perry - Harrison - Floyd - Clark						
	06 07	1500EST 0600EST			0	0			Heavy Snow
			A major snow storm hit south central Indiana on January 6-7, 1996. The snow began around noon est and effected all the counties in the Louisville CWA before it stopped Sunday afternoon. The heavy snow began around 1500 est on the 6th and ended around 6 am est on the 7th. A strong double-barreled low pressure system moved from the Gulf states on the 6th to Georgia and then the South Carolina coast by the afternoon of the 7th. The snow became light and moved East of the Louisville CWA by 0000 est on the 8TH. By 6 am est January 7, accumulations ranged from 6 inches across Jefferson and Floyd counties to 14 inches across Orange County.						
INZ079			Jefferson						
	17 18	0700EST 0730EST			0	0			Flood
			Heavy rain and snowmelt caused minor flooding on the Mucatatuck River near Deputy, Indiana. The river crested at 17.4 feet at 530 pm on January 17. Flood stage is 15 feet.						
INZ091			Floyd						
	18	1315EST			0	0			High Wind (G45)
			Power lines down from gradient winds in New Albany.						
INZ091			Floyd						
	18	1315EST			0	0			High Wind (G45)
			Power lines down across the county due to gradient winds.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, South Central									
INZ090	Harrison	18	1415EST 1430EST			0	0		High Wind (G45)
			Power lines were down across the county. report from the Sheriff's Office.						
INZ090	Harrison	18	1455EST			0	0		High Wind (G53)
			Harrison County High School reported a wind gust to 53 mph.						
Floyd County Floyds Knobs		18	1530EST			0	0		Thunderstorm Wind (G50)
			Trees and power lines were down from thunderstorm winds.						
INZ092	Clark	18	1600EST			0	0		High Wind (G45)
			Power lines down across State Road 362 due to gradient winds.						
INZ079	Jefferson	19	0330EST 2000EST			0	0		Flood
			The Muscatatuck River near Deputy went over flood stage due to snowmelt and heavy rain. The river crested at 21.1 feet at 8 am on January 19. Only minor flooding was reported.						
INZ079-084-090>092	Jefferson - Crawford - Harrison - Floyd - Clark	22 31	0700EST 1159EST			0	0		Flood
			Snowmelt and heavy rain caused widespread flooding all along the Ohio River. Flooding approached moderate levels near Louisville and was the worst in 5 years. By the end of the month, the river remained above flood stage at most locations. McAlpine Lock crested at 59.4 feet on the lower gauge at 8 am on January 26(4.4 feet above flood stage). The upper gauge crested at 28.1 feet on January 26 at 5 am(5.1 feet above flood stage). Many homes along the river reported substantial flooding, but no injuries were reported.						
INZ079	Jefferson	23 24	0900EST 2245EST			0	0		Flood
			The Muscatatuck River near Deputy flooded due to heavy rain and snowmelt. The river crested at 20.6 feet on January 24, 1996 at 5 am. Only minor flooding was reported.						
INDIANA, Southeast									
INZ050-058>059-066-073	Wayne - Fayette - Union - Franklin - Ripley	02 03	1200EST 1200EST			0	0	200K	Winter Storm
			Low pressure strengthening in the Tennessee Valley passed southeast of Indiana. The heaviest snow fell across East Central Indiana, near Interstate 70. In this area there was up to 1 foot of snowfall, and blizzard conditions. Wind gusts up to 40 mph were common in this area with snow drifts between 3 and 5 feet across Wayne, Fayette, and Union counties. Roads oriented east to west were particularly hazardous as strong north winds produced large snow drifts shortly after the roads were plowed. Snow amounts dropped off rapidly to the south as rain and mixed precipitation preceded the snowfall. Parts of Northern Ripley county reported 8 inches of snow, while in the southern part of the county there was only 3 inches reported.						
INZ050-058>059-066-073>075-080	Wayne - Fayette - Union - Franklin - Ripley - Dearborn - Ohio - Switzerland	06 08	1400EST 0100EST			0	0	1.1M	Winter Storm
			This massive storm system developed in the Gulf Coast and moved up the East Coast. The heaviest snow fell across Southeast Indiana where up to a foot of snow occurred near the Kentucky border. Farther north, around 6 inches fell in Wayne county. Strong winds caused significant blowing and drifting snow, especially to the north where the snow was lighter and more powdery.						
Fayette County Connersville		18	1643EST			0	0	2K	Thunderstorm Wind (G50)
			Large tree limbs blown down.						
Ripley County Batesville		18	1654EST			0	0	2K	Thunderstorm Wind (G50)
			Power poles and lines blown down.						
Wayne County Richmond		18	1710EST			0	0	2K	Thunderstorm Wind (G50)
			Trees blown down.						
INZ050-058>059-066	Wayne - Fayette - Union - Franklin	18 20	1800EST 1200EST			0	0	0	Flood
			The combination of prior snow cover, unusually mild temperatures and recent rain produced flooding on the Whitewater river. The river crested on the morning of the 19th at 14.2 feet at Alpine. Flood stage is 12 feet.						
INZ050-058>059-066-074>075-080	Wayne - Fayette - Union - Franklin - Dearborn - Ohio - Switzerland	24 30	1200EST 1200EST			0	0	300K	Flood
			On the 23rd, many areas received around an inch of rainfall which pushed the Whitewater river back into flood. The river crested at Alpine at 12.3 feet where the flood stage is 12 feet. The worst flooding occurred on the Ohio river. Markland Dam which is						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Character of Storm
					Killed	Injured	Property Crops	

INDIANA, Southeast

downstream from Cincinnati, crested at 51.8 feet and flood stage is 51 feet. However, points between Markland and Cincinnati suffered from significant flooding.

INDIANA, Southwest

NONE REPORTED.

IOWA, Central

IAZ004>006-015

Emmet - Kossuth - Winnebago - Palo Alto

17	1200CST	0	0	25K	Ice Storm
	1900CST				

An arctic cold front sagged slowly south into Iowa during the day on the 17th. Since this front moved south ahead of a major developing storm system, the intrusion of Arctic air was very shallow. Temperatures dropped into the upper teens and 20s in the wake of the front. Rain developed during the afternoon to the south of the front and moved north into the area of colder temperatures. Freezing rain became widespread during the afternoon with upwards of 1/4 to 1/2 inch of freezing rain reported in the Estherville area. Most of the rest of the area received under 1/4 inch. Roads became slippery with numerous accidents reported. No major damage was reported, however a few areas lost power briefly due to branches falling onto power lines.

IAZ004>011-015>019-023>029-033>039-044>050-057>062-070>075-081>086-092>097

Emmet - Kossuth - Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee - Palo Alto - Hancock - Cerro Gordo - Floyd - Chickasaw - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis

17	2100CST	0	0	250K	High Wind (G55)
19	0100CST				

IAZ004>011-015>019-023>029-033>039-044>050-057>062-070>075-081>086-092>096

Emmet - Kossuth - Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee - Palo Alto - Hancock - Cerro Gordo - Floyd - Chickasaw - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose

18	0200CST	0	0		Extreme Windchill
19	0800CST				

IAZ004>011-015>019-023>029-033>039-044>050-057>062-070>075-081>086-092>097

Emmet - Kossuth - Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee - Palo Alto - Hancock - Cerro Gordo - Floyd - Chickasaw - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis

18	0900CST	1	0		Blizzard
	2100CST				

M72OU

IAZ009>011-019-028>029-039-050

Howard - Winneshiek - Allamakee - Chickasaw - Bremer - Fayette - Black Hawk - Tama

18	1100CST	0	0	40K	Heavy Snow
	2200CST				

A major winter storm system moved through the central U.S. during the night of the 17th and into the day on the 18th. Actually, there were two storm centers which affected Iowa. The first developed over the Rockies and advanced across Kansas before turning northeast across western Iowa. Later on, during the 18th, a second low developed over Arkansas and southern Missouri, then advanced northeast through Illinois before merging with the parent low over northeast Wisconsin. A very sharp Arctic front moved across the state during the early morning hours of the 18th. Ahead of this front, very warm air was drawn north with surface temperatures near 60 degrees F. and dew point temperatures in the middle 50s. Thunderstorms broke out over most of the east half of the state. Behind the cold front, temperatures fell quickly into the single digits above zero on very strong northwest winds. Rain changed to freezing rain and sleet briefly before changing to snow. Icing was not a major problem due to the short period of freezing rain. High winds became a problem for all of Iowa during the predawn and morning hours of the 18th. Winds were sustained in the 30 to 45 MPH range through the entire day with numerous gusts over 55 MPH. Some of the strongest winds were reported at Sioux City with several gusts to 63 MPH. Other high gusts included 60 MPH at Algona, 59 MPH at Mason City, and 54 MPH at Waterloo and Storm Lake. Most places were buffeted by winds in excess of 50 MPH. Though not extreme, some damage occurred due to the high winds. Scattered reports were received of minor tree damage and power outages. The heaviest damage was over the northwest part of the state where trees were already ice coated from the freezing rain of the previous day. The combination of strong winds and falling temperatures led to very cold wind chill values. Wind chill values dropped to between 45 and 65 degrees below zero over all of Iowa by the later afternoon hours. One death occurred in Butler County near Bristow. A 72 year old man became stranded and died of exposure as he attempted to walk to a nearby house for help. Snow fell across much of the state, though amounts were generally light with 1 to 4 inch amounts common. During the day, as the secondary low pressure moved northeast, heavy snow fell over the northeast counties of the state. Anywhere from 5 to 8 inches fell in a band extending from east of Marshalltown, through Waterloo, to Decorah. Some of the heavier amounts included 8.3 inches in Waterloo, 7 inches at New Hampton, and 6 inches at both Postville and Dorchester. The main problem was not the snow, which was fairly light in consistency, but the wind and cold. High winds produced blizzard conditions over all of Iowa with visibility reduced to under 1/8 mile in most areas. Many reports of whiteout conditions and near zero visibility were received from rural areas. The blizzard conditions resulted in the cancellation of most events during the afternoon and evening hours. Travel became nearly impossible across the state.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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IOWA, Central

<p>IAZ006>011</p>	<p>Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee</p>	<p>25</p>	<p>0100CST 0900CST</p>	<p>0</p>	<p>0</p>	<p>10K</p>	<p>Heavy Snow</p>
<p>A fairly weak storm system moved across northern Iowa. Actually, most of the snowfall from the storm fell to the north of the state, however heavy snowfall brushed the north tier of counties from north central into northeast Iowa. Snowfall in these areas was generally right around the 6 inch range along the Minnesota border. The heaviest total was in Decorah, with 8 inches of new snow. The snow was of the light and fluffy variety, so travel problems were minimal.</p>							
<p>IAZ007>011-016>019-024>029-033>039-044>050-057>062-070>075-081>086-092>097</p>	<p>Worth - Mitchell - Howard - Winneshiek - Allamakee - Hancock - Cerro Gordo - Floyd - Chickasaw - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis</p>	<p>26</p>	<p>0000CST 2300CST</p>	<p>2</p>	<p>0</p>	<p>600K</p>	<p>Heavy Snow</p>
<p>M24VE, M19VE</p>							
<p>IAZ004>011-015>019-023>029-033>039-044>050-057>062-070>075-081>086-092>097</p>	<p>Emmet - Kossuth - Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee - Palo Alto - Hancock - Cerro Gordo - Floyd - Chickasaw - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis</p>	<p>26 27</p>	<p>1200CST 0100CST</p>	<p>0</p>	<p>0</p>	<p>50K</p>	<p>Blizzard</p>
<p>Polk County Ankeny Airport</p>	<p>26</p>	<p>1254CST</p>	<p>0</p>	<p>0</p>	<p>5K</p>	<p>Thunderstorm Wind (G56)</p>	
<p>Polk County Ankeny Airport</p>	<p>26</p>	<p>1500CST</p>	<p>0</p>	<p>0</p>	<p>1K</p>	<p>Thunderstorm Wind (G51)</p>	
<p>A strong low pressure area developed over the Texas Panhandle and tracked northeast across Missouri, through southeast Iowa. Very strong dynamics were in place with the low and the result was a rather explosive development of the precipitation shield. An Arctic cold front had passed through the state the previous day, setting the stage for an extended period of over running snow. Snow broke out during the the early morning hours of the 26th and expanded rapidly over the southeast three quarters of Iowa. During the mid day hours, thunderstorms developed in many areas, especially over the central part of the state. The most intense thunderstorm activity was centered in the Des Moines area. Thunderstorms produced hail up to one half inch in diameter in Ankeny and produced a wind gust of 64 MPH just before 1300 CST. A second storm produced a 59 MPH wind gust around 1500 CST in Ankeny. Snowfall around the thunderstorms accumulated at the rate of nearly 3 inches per hour. A broad band of heavy snow fell over southwest, into central, and northeast Iowa. The heaviest band was about 35 miles wide and extended from southwest of Des Moines, northeast to just south of Waterloo, to north of Dubuque. Snowfall in excess of 12 inches occurred in this area. Some of the heavier totals included 17 inches at Derby, 15 inches in Calmar and Cascade, 14.5 inches in Lowden, 14 inches at Cascade, 13.7 inches at Johnston, Ankeny, and Webster City, and 13 inches at Carlisle, Strawberry Point, and Conrad. Many places reported around a foot of new snow. Snow tapered off on either side of the heavy snow band, however all areas received at least 4 to 6 inches, even outside of the heavy snow area. The only part of the state that received less was a small area in west central Iowa where amounts were in the 2 to 4 inch range. There were some reports of roof collapses due to the heavy accumulation of snow. One was the roof of the Vogel Paint Center in Waterloo. A 20 x 30 foot section of the roof collapsed under the weight of the snow causing an estimated \$200,000 in damage. Blizzard conditions developed by the mid day hour. North winds of 30 to 40 MPH were reported statewide, with occasional gusts to between 50 and 55 MPH. Whiteouts were reported everywhere with visibility no greater than 1/8 mile anywhere in the state. All school districts were closed, most businesses closed early, and travel became impossible. Thousands of cars and trucks were in the ditches with many thousands of people stranded or in shelters. By evening, most highways were impassible and road crews were called off the roads. Interstate 35 was closed from Ames north to the Minnesota border. Interstate 80 was closed east of Grinnell. The Governor declared a state of emergency at 1745 CST. Snow drifts of 6 to 8 feet were common, with several reports of drifts 10 to 15 feet high. By the evening of the 26th, nearly all activity in the southeast half of the state had ceased. The storm claimed two lives near Grinnell. Two males became stranded in deep snow out on the highway. Attempting to keep out of the elements and avoid freezing to death, they succumbed to carbon monoxide poisoning. The engine of the car subsequently started on fire and they burned to death.</p>							
<p>IAZ004>011-015>019-023>029-033>039-044>050-057>062-070>075-081>086-092>097</p>	<p>Emmet - Kossuth - Winnebago - Worth - Mitchell - Howard - Winneshiek - Allamakee - Palo Alto - Hancock - Cerro Gordo - Floyd - Chickasaw - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Fayette - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis</p>	<p>28 29</p>	<p>2000CST 0800CST</p>	<p>0</p>	<p>0</p>	<p>50K</p>	<p>Blizzard</p>
<p>A strong Arctic cold front dropped southeast across Iowa during the late afternoon and evening hours. At the same time, low pressure intensified to the northeast of Iowa producing a strong pressure gradient. Some light snow fell with the passage of the cold front, but amounts were under one quarter inch. The main problem was the high winds in the Arctic air. Winds of 30 to 45 MPH were common with occasional gusts over 50 MPH. The National Weather Service Forecast Office in Johnston for example recorded a wind gust of 53 MPH. The entire state was under a blanket of deep snow, most of which was loose. The winds picked up the snow resulting in blizzard conditions. Temperatures fell to the single digits with visibility down to 50 feet at times and wind chill values below -50 degrees F. Roads became very dangerous within a short period of time and most of the county roads and</p>							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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IOWA, Central

highways drifted shut. By morning, the situation had become bad enough that many school districts and some businesses across the state were closed for the day.

IOWA, East Central and Southeast

IAZ040>042-051>054-063>068-076>078-087>089-098>099 Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Scott - Keokuk - Washington - Louisa - Jefferson - Henry - Des Moines - Van Buren - Lee

18 0430CST 0 0 Heavy Snow
2000CST

A powerful cold front steamed through the region around sunrise dropping temperatures 20 degrees in less than half an hour. Temperatures fell from the mid 50s into the teens within a few hours and into the single digits below zero that night. Near "white-out" conditions occurred with 3-6 inches of snow. The greatest snowfall occurred across central Iowa with lesser amounts toward the Mississippi. Strong winds throughout the day dropped wind chill temperatures into the 40 to 50 below zero range.

The heavy, blowing, and drifting snow caused most schools to close with many businesses and shopping malls closing early. Surprisingly few accidents occurred on the 18th "because with all the cancellations many people have been staying in", said Sgt. Craig Lihs of the Iowa City Police Dept.

IAZ040>042-051>054-063>067-076>078-087>089-098>099 Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Keokuk - Washington - Louisa - Jefferson - Henry - Des Moines - Van Buren - Lee

26 0400CST 0 0 Winter Storm
27 0400CST

A winter storm system moving northeast over the Mississippi river brought nearly 10 inches of snow to portions of east central Iowa, with snowfall diminishing to 3-6 inches near the Mississippi river. Schools were cancelled due to extreme blowing and drifting of snow. During the afternoon and evening winds of 20 to 30 mph became even stronger and the Winter Storm Warning was upgraded to a Blizzard Warning for many Iowa counties. Numerous motorists were stranded on highways and interstates and a State of Emergency was declared, by the Governor. The State of Emergency mobilized National Guard units to assist local Law Enforcement in the rescue of stranded motorists.

In Cedar Rapids this Winter Storm was followed by a 3 day clean up. This effort was estimated by Don Thomas, the Cedar Rapids Commissioner of Streets, to have cost \$100,000 and required 60 persons to work around the clock.

Schools were either closed early or cancelled on this Friday the 26th, and despite massive clean up efforts, most schools remained closed on Monday. Those schools that did try to go on the 26th experienced significant problems. In Mount Vernon, schools were on a delayed start. The busses were then sent out but as the weather continued to worsen, the decision was made to cancel school. So before the busses made it to school they were returning children to their homes. One bus, after cancellation, about 845 am slid off the snowy road into the ditch. No children were injured and a second bus was sent out to take them home.

IAZ040>042-051>054-063>064 Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson

26 1410CST 0 0 Blizzard
27 0400CST

A Blizzard Warning was issued in the middle of a major winter storm as winds which had been 20-30 mph were forecast to increase into the 30 to 40 mph range with gusts to 50 mph. This combined with continued heavy snow (see the Winter Storm for the same time) produced extreme blowing and drifting of snow. A State of Emergency was issued by the Governor of Iowa. This brought the aid of the Iowa National Guard to local Law Enforcement, which was already involved in rescuing numerous stranded motorists.

Mount Vernon tried to go with a late start on schools. While the busses were out to pick up the children, the weather continued to worsen. Before the children made it to school, school was cancelled and all the busses were told to begin to take the children back home. At about 845 am, while trying to stop at the intersection, one school bus slid off the snow-covered road into the ditch. No children were injured and a second bus was sent to take the children home.

Iowa State Climatologist, Harry Hillaker, called this the worst blizzard for central Iowa since April 8-9th 1973.

Cedar Rapids was hard hit by the blizzard and a three day, round the clock, clean up effort followed after the blizzard. Don Thomas, the Cedar Rapids Commissioner of Streets, estimated the cost of the clean up at \$100,000.

IAZ040>042-051>054-063>068-076>078-087>089-098>099 Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Scott - Keokuk - Washington - Louisa - Jefferson - Henry - Des Moines - Van Buren - Lee

30 2000CST 0 0 Extreme Cold
31 2359CST

After major winter storms on the 19th and 26th a blanket of thick snow lay across much of the area. A re-enforcing shot of cold air pushed over the area on the 30th and took temperatures below zero through the first few days of February. All time record low temperatures occurred at many locations during a 6 day period. Record lows ranged from -25 to -32 for 2 to 3 nights, with highs reaching only -10 to -15 degrees during the day for 2 to 3 days.

IOWA, Northeast

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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IOWA, Northwest

IAZ001>003-012>013-020 **Lyon - Osceola - Dickinson - Sioux - O'Brien - Plymouth**

17	1700CST	0	0	230K	Ice Storm
18	0400CST				

Freezing rain caused severe icing of roads and damage to trees and power lines. Indirect damage occurred because of power failures, including broken pipes. Strong winds following the freezing rain added to the damage. Very cold wind chill readings forced those without power and heat to seek other shelter.

IAZ001>003-012>014-020>022-031>032 **Lyon - Osceola - Dickinson - Sioux - O'Brien - Clay - Plymouth - Cherokee - Buena Vista - Woodbury - Ida**

29	0900CST	0	0	Extreme Windchill
31	2359CST			

Bitterly cold air and strong winds combined to create wind chill readings as cold as 70 below zero.

IOWA, Southwest

IAZ043-055>056-069-079>080-090>091 **Monona - Harrison - Shelby - Pottawattamie - Mills - Montgomery - Fremont - Page**

17	1900CST	0	0	Extreme Windchill
19	0300CST			

A blast of Arctic air invaded southwest Iowa during the evening of the 17th. The day started out with dense fog and temperatures around freezing. By late afternoon, a large temperature gradient had been established with freezing drizzle at Missouri Valley and temperatures in the 50s over much of extreme southwestern Iowa. The strong cold front moved through the area plummeting temperatures and was accompanied by sustained winds from 30 to 40 mph with gusts to 60 mph. Light rain preceded the frontal passage, with light snow behind the front. Extreme wind chills from -40 to -60 degrees persisted for 30 hours.

KANSAS, East

KSZ008>012-020>024-026-034>040-054>056-058>059 **Republic - Washington - Marshall - Nemaha - Brown - Cloud - Clay - Riley - Pottawatomie - Jackson - Jefferson - Ottawa - Dickinson - Geary - Morris - Wabaunsee - Shawnee - Douglas - Lyon - Osage - Franklin - Coffey - Anderson**

17	2000CST	0	0	Winter Storm
18	2200CST			

The worst winter storm in years blasted across northcentral and northeast Kansas beginning Wednesday night and continuing into Thursday night. A powerful cold front led the charge producing scattered thunderstorms that quickly changed to sleet, freezing rain then snow. Total accumulations were under 5 inches but winds of 50 to 60 mph caused blizzard conditions with zero visibility and considerable drifting snow. The winds continued well after the snow had ended causing blowing and drifting snow. Mild temperatures in the 50s and 60s ahead of the cold front plummeted into the teens about an hour later. At the same time, wind chill readings ranged from 40 to 60 below zero. Travel was difficult, if not impossible in some rural areas while many schools and business were closed both Thursday and again Friday, the 19th. Scattered damage occurred to roofs, buildings and homes with power outages common. Water pipes froze in some buildings.

KSZ039

Shawnee

17	2130CST	0	0	75K	High Wind (G55)
	2132CST				

High winds accompanying a powerful cold front gusted to an estimated 60 to 70 mph and caused roof damage to a green house and an adjacent roller ring near 10th and Fairlawn. Freezing rain, sleet, snow and rapidly dropping temperatures in the wake of the front hampered cleanup and caused more damage to plants, flowers and other interior objects. Near blizzard conditions lingered into the next day when many schools, businesses and roads were closed. Winds chills hit 60 below at times.

KSZ008

Republic

18	1100CST	0	0	50K	High Wind (G52)
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High winds along a powerful cold front gusted to around 60 mph tearing down signs and causing roof damage to a some buuildings. Scattered power outages were also reported. Blizzard conditions and rapidly falling temperatures occurred in the wake of the front. The cold temperatures and wind chills of 40 to 60 below zero caused water pipes to freeze in several areas including the Hillcrest school in Cuba where extensive damage occurred. Damage was also reported in other locations around the county.

KSZ012

Brown

18	1200CST	0	0	25K	High Wind (G50)
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High winds in the wake of a powerful cold front and occasional blizzard conditions caused damage to some homes, buildings, roofs and knocked out power in some areas. Wind chill readings ranged from 40 to 65 below zero at times, as winds gusted to 60 mph.

KANSAS, Extreme Southeast

NONE REPORTED.

KANSAS, North Central

KSZ005>007-017>019 **Phillips - Smith - Jewell - Rooks - Osborne - Mitchell**

17	1500CST	0	0	Blizzard
18	1800CST			

A very strong winter storm brought blizzard conditions to parts of North-Central Kansas. Only 4 or less inches of snow fell across the region but this snow was driven by 50 to 70 mph winds. Temperatures fell nearly 30 degrees at the beginning of the event to readings near zero. This produced wind chills of 50 to 60 below. Most of the snowfall was over during the early morning hours of the 18th but the strong winds continued to make for whiteout conditions. No deaths or serious injuries were directly related to this blizzard.

KANSAS, Northeast

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Northeast</u>									
<u>KANSAS, Northwest</u>									
KSZ001>004-013>016-027>029-041>042			Cheyenne - Rawlins - Decatur - Norton - Sherman - Thomas - Sheridan - Graham - Wallace - Logan - Gove - Greeley - Wichita						
	17	1200CST			0	0			High Wind (G56)
	18	0300CST							
			High winds and extreme cold hit the area during midday and lasted through early morning. Winds over 60 mph damaged signs, roofs, trees, and fences. Many water pipes froze with wind chills around 60 degrees below zero.						
<u>KANSAS, Southeast</u>									
KSZ083									
			Sedgwick						
	02	1800CST			1	1	8K	0	Winter Storm
		F20VE							
<u>KANSAS, Southwest</u>									
KSZ030>031-043>046-061>066-074>081-084>090			Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Morton - Stevens - Seward - Meade - Clark - Comanche - Barber						
	17	1700CST			1	0	200K		High Wind (G61)
	18	0900CST							
			Several semi trucks blown off the road. Many structures with roof damage. Numerous power outages. F23VE						
KSZ063-078-080-090			Finney - Ford - Kiowa - Barber						
	28	1824CST			0	0			High Wind (G61)
		2300CST							
			Lots of topsoil blown away.						
<u>KENTUCKY, Central</u>									
KYZ023>068-070>085			Hancock - Breckinridge - Meade - Ohio - Grayson - Hardin - Bullitt - Jefferson - Oldham - Trimble - Henry - Shelby - Franklin - Scott - Harrison - Spencer - Anderson - Woodford - Fayette - Bourbon - Nicholas - Fleming - Nelson - Washington - Mercer - Jessamine - Clark - Montgomery - Bath - Rowan - Larue - Marion - Boyle - Garrard - Madison - Estill - Powell - Menifee - Butler - Edmonson - Hart - Green - Taylor - Casey - Lincoln - Rockcastle - Logan - Warren - Simpson - Allen - Barren - Monroe - Metcalfe - Adair - Russell - Pulaski - Laurel - Cumberland - Clinton - Wayne - McCreary - Whitley						
	06	1500EST			0	0			Heavy Snow
	07	0600EST							
			A major snow storm hit Kentucky on January 6-7, 1996. The snow began around noon est and effected all of the counties in the Louisville CWA before it stopped Sunday afternoon. The heavy snow began around 1500 est on the 6th and ended around 6 am est on the 7th. A strong double-barreled low pressure system moved from the Gulf states on the 6th to Georgia and then the South Carolina coast by the afternoon of the 7th. The snow became light and moved East of the CWA by 0000 est on the 8th. Between 2 and 6 inches of snow fell across the CWA by 2030 est. Meade, Breckinridge, Larue, Bullitt and Hardin Counties all reported up to 6 inches across their respective counties, while Spencer County led the way with 7 inches of accumulation. By 0200 est, between 5 and 12 inch total accumulations were reported. Green and Laurel counties had 12 inches. By 0600 est on the 7th, totals were from 6 inches at several locations to 16 inches in Laurel County. Totals were from 7 to 12 inches across east central Kentucky to 7 to 16 inches across south central Kentucky to 6 to 12 inches across north central Kentucky. Little additional snow was reported after 0600 est. Laurel County still led the way with 16 inches in spots.						
KYZ029			Bullitt						
	18	1245EST			0	0			High Wind (G41)
			47 mph gust from gradient wind						
KYZ054			Marion						
	18	1255EST			0	0	5K		High Wind (G50)
			A tree fell on two mobile homes and knocked them over. Power lines were also knocked down. Relayed from county dispatch.						
KYZ054			Marion						
	18	1315EST			0	0			High Wind (G40)
			Power outages associated with gusty gradient winds						
KYZ065			Taylor						
	18	1315EST			0	0			High Wind (G45)
			Gradient winds knocked down power lines.						
KYZ028			Hardin						
	18	1330EST			0	0			High Wind (G50)
			Shingles blown off roof by gradient winds estimated at 50 mph.						
KYZ024			Breckinridge						
	18	1340EST			0	0			High Wind (G50)
			Several trees blown down. A window was blown out at a bank.						
KYZ034			Shelby						
	18	1348EST			0	0			High Wind (G45)
			Trees and power lines down.						
KYZ031			Oldham						
	18	1400EST			0	0			High Wind (G45)
			Trees and power lines blown down across the county from gradient winds.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
KYZ034	Shelby								
	18	1500EST			0	0			High Wind (G45)
	A tree was down on Highway 12 due to gradient winds.								
KYZ029	Bullitt								
	18	1523EST			0	0			High Wind (G50)
	A barn was blown down 7 miles south of Sheperdsville, and trees and power lines were down.								
KYZ028	Hardin								
	18	1550EST			0	0			High Wind (G50)
	Large oak trees downed by gradient winds.								
KYZ028	Hardin								
	18	1550EST			0	0			High Wind (G45)
	3 trees downed by gradient winds.								
KYZ077	Adair								
	18	1630EST			0	0	10K		High Wind (G40)
	Roofs blown off 2 mobile homes on Rte. 704 in southern Adair county. Relayed from DES.								
KYZ043>044	Nicholas - Fleming								
	19	0700EST			0	0			Flood
		1900EST							
	Minor flooding was observed on the Licking River in Blue Lick Springs due to snowmelt and heavy rainfall. The river crested at 24 feet at 7 am est. This is 2.0 feet above flood stage.								
KYZ024>025-028>032	Breckinridge - Meade - Hardin - Bullitt - Jefferson - Oldham - Trimble								
	22	0700EST			0	0			Flood
	31	1159EST							
	Snowmelt and heavy rain caused widespread flooding all along the Ohio River. Flooding approached moderate levels near Louisville and was the worst in 5 years. By the end of the month, the river remained above flood stage at most locations. McAlpine Lock crested at 59.4 feet on the lower gauge at 8 am on January 26(4.4 feet above flood stage). The upper gauge crested at 28.1 feet on January 26 at 5 am(5.1 feet above flood stage). Many homes along the river reported substantial flooding, but no injuries were reported.								
KYZ043	Nicholas								
	24	0700EST			0	0			Flood
	26	0700EST							
	The Licking River at Blue Lick Springs crested at 28.5 on January 25 at 7 pm est. This is 6.5 feet above flood stage.								
KYZ044	Fleming								
	24	0700EST			0	0			Flood
	26	0700EST							
	The Licking River at Blue Lick Springs river crested at 28.5 feet on January 25 at 7 pm est. This is 6.5 feet above flood stage.								
KYZ045	Nelson								
	25	0700EST			0	0			Flood
	27	0700EST							
	A melting snowpack as well as heavy rainfall caused minor flooding along the Rolling Fork of the Salt River. The river crested at 37.6 feet, which is 2.6 feet above flood stage, on January 26 at 3 am est.								
<u>KENTUCKY, Eastern</u>									
KYZ069-086>088-106-108>118-120	Jackson - Knox - Bell - Harlan - Morgan - Wolfe - Magoffin - Floyd - Lee - Breathitt - Knott - Owsley - Perry - Clay - Leslie - Letcher - Pike								
	06	1500EST			0	0			Heavy Snow
	07	1730EST							
	A major winter storm brought heavy snow to all of southeast Kentucky. By noon EST on the 6th, 3 to 5 inches of snow had fallen across the region. Heavier snow began around 1500 EST on the 6th, when 5 to 6 inches were on the ground. Amateur radio operators reported 9 inches across much of southeast Kentucky at 2100 EST, and 10 to 11 inches by 2300 EST. By 1100 EST on the 7th, 14 to 16 inch amounts were common, with 15 to 17 inches covering much of the area by 1300 EST. Total snowfall reported at 1645 EST on the 7th averaged between 14 and 22 inches, with the heaviest amounts in Pike County. Where rain and freezing rain initially fell in Bell and Harlan Counties, total amounts averaged between 6 and 14 inches.								
KYZ069-086>088-106-108>118-120	Jackson - Knox - Bell - Harlan - Morgan - Wolfe - Magoffin - Floyd - Lee - Breathitt - Knott - Owsley - Perry - Clay - Leslie - Letcher - Pike								
	11	2000EST			0	0			Heavy Snow
	12	1100EST							
	Snowfall of 2 to 5 inches occurred across southeast Kentucky. Snowfall totals at 1036 EST on the 12th ranged from 4 inches in Harlan, Breathitt, Magoffin, and Wolfe Counties, to 5 inches in Bell and Pike Counties.								
<u>KENTUCKY, Northeast</u>									
KYZ101>105-107-119	Greenup - Carter - Boyd - Elliott - Lawrence - Johnson - Martin								
	06	1600EST			0	0	10K		Winter Storm
	08	0200EST							
	The prolong storm resulted in snow depths of 12 to 15 inches across Greenup, Carter, Boyd, and Elliott Counties. For example, Grayson measured 12 inches, while Olive Hill had 13 inches. Snow depths averaged higher in Johnson and Martin Counties, where 15 to 20 inches were common. No snow was on the ground prior to the storm. National Guard units helped in snow removal and								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
KENTUCKY, Northeast									
			to deliver medicine. The dome ceiling of a small roller rink collapsed in the Globe area of Carter County.						
KYZ101>105-107-119			Greenup - Carter - Boyd - Elliott - Lawrence - Johnson - Martin						
		11 2100EST			0	0			Winter Storm
		12 0800EST							
			Four to 6 inches of new snow fell, bringing the snow pack back into the 10 to 20 inch range across northeast Kentucky.						
KYZ101-103			Greenup - Boyd						
		20 1900EST			0	0	40K		Flood
		23 1800EST							
			As a result of rain and melted snow in Pennsylvania, West Virginia, and western Maryland, the Ohio River crested 1 to 3 feet above flood stage. The crest at Ashland was 54.6 feet, while Greenup peaked at 55.3 feet. Flooding had lessened on this reach of the Ohio River, compared to upriver, since the Corps of Engineers flood control dams held back water. Backwater caused minor flooding on smaller tributaries, even 4 miles up the Little Sandy River at Racoon.						
KENTUCKY, Northern									
KYZ089>100			Carroll - Gallatin - Boone - Kenton - Campbell - Owen - Grant - Pendleton - Bracken - Robertson - Mason - Lewis						
		06 1400EST			0	0	2.9M		Winter Storm
		08 0100EST							
			The Blizzard of '96 developed near the Gulf Coast and moved up the East Coast. This massive system brought the greatest snowfall from one storm to Greater Cincinnati/Northern Kentucky airport, as well as the greatest 24 hour snowfall. Total snowfall from this storm at the airport was 14.3 inches, while in a typical entire season this location normally receives only 23 inches of snowfall. Many homes and business experienced partial or total roof collapses due to the weight of the snow. Road conditions remained hazardous in some locations for many days. Many people believed that this was the worst winter storm since the Blizzard of '78.						
KYZ100			Lewis						
		11 1800EST			0	0	1K		Heavy Snow
		12 1000EST							
			A fast moving low pressure system tracked from the Mid-Mississippi Valley to the Kentucky-Tennessee border. This storm brought a fairly wet snow, with accumulations near 4 inches.						
Boone County									
Verona		18 1730EST			0	0	2K		Thunderstorm Wind (G50)
			Trees blown down in Verona.						
Kenton County									
Erlanger		18 1730EST			0	0	2K		Thunderstorm Wind (G50)
			Trees blown down.						
Campbell County									
Ft Thomas		18 1756EST			0	0	2K		Thunderstorm Wind (G50)
			Power lines blown down.						
KYZ089>093-096>097-099>100			Carroll - Gallatin - Boone - Kenton - Campbell - Pendleton - Bracken - Mason - Lewis						
		23 1200EST			0	0	180K		Flood
		30 1200EST							
			The combination of significant prior snow cover, unusually mild temperatures, and recent rainfall led to widespread flooding on the Ohio river, as well as backwater flooding on a few tributaries. The Ohio river at Maysville crested at 54 feet on the 24th, while flood stage is 50 feet. The worst flooding, however, occurred on the Ohio side of the river.						
Mason County									
Countywide		24 0300EST			0	0	5K		Flash Flood
		0700EST							
			Persistent heavy rainfall caused creeks to overflow their banks and caused many roads to be closed.						
Lewis County									
Countywide		24 0300EST			0	0	5K		Flash Flood
		0700EST							
			Persistent heavy rainfall caused roads to be closed due to creeks rising out of their banks.						
KENTUCKY, Southwest									
KYZ001>013			Fulton - Hickman - Carlisle - Ballard - Mccracken - Graves - Livingston - Marshall - Calloway - Crittenden - Lyon - Trigg - Caldwell						
		02 1700CST			0	0			Snow
		2300CST							
			A minor snowfall between 1 and 3 inches occurred during the evening. There were several accidents and a couple of minor injuries.						
KYZ001>013			Fulton - Hickman - Carlisle - Ballard - Mccracken - Graves - Livingston - Marshall - Calloway - Crittenden - Lyon - Trigg - Caldwell						
		06 0400CST			0	0			Winter Storm
		2300CST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm
					Killed	Injured			
KENTUCKY, Southwest									
A weekend snowstorm dumped from 3 to 6 inches over far western Kentucky. The lightest amounts, near 3 inches, were west of Paducah. Amounts increased toward the east and south, with 6 inches measured at Princeton, Fulton, Murray, and Mayfield. Paducah reported 4 inches of dry powdery snow. Strong gusty north winds up to 30 MPH piled the snow into deep drifts. A few rural roads drifted shut in spots. In Trigg County, snow removal equipment got stuck several times in waist-high drifts. In Crittenden County, the rescue squad freed a family whose vehicle was stranded in snow drifts for three hours. Drifts up to 3 feet deep occurred in Graves County. The Kentucky State Police handled 74 accidents over the weekend in far western Kentucky. Road crews were hampered by strong winds causing blowing and drifting of the snow. Salt was relatively ineffective due to frigid temperatures in the single digits at night. Most schools remained closed until Wednesday or Thursday following the weekend storm. On the evening prior to this snowstorm, a dusting of snow caused icy patches on Interstate 24. The result was 20 accidents on the interstate alone, including a fatality near Eddyville. The fatality involved a Japanese woman whose vehicle struck a state police cruiser at the scene of a different accident.									
Fulton County Cayce	18	0925CST			0	0	5K		Thunderstorm Wind
An awning was blown off and a 4 foot diameter tree was blown over.									
Hickman County 4 E Clinton	18	0940CST			0	0	10K		Thunderstorm Wind
A loaded cattle truck was overturned. A barn in the same area was blown over.									
Ballard County .5 NW La Center	18	0942CST			0	0	3K		Thunderstorm Wind
Six roofs were damaged in and around La Center.									
Carlisle County 2 ESE Cunningham	18	0955CST			0	0			Thunderstorm Wind
Trees were blown down. Some fell on wires.									
Graves County 2 W Symsonia	18	1010CST			0	2	60K		Thunderstorm Wind
Three mobile homes were blown over and a roof was blown off. Two female occupants of one of the mobile homes were injured. Elsewhere across northern parts of the county, trees were blown down, and minor damage was done to awnings and outbuildings.									
Mccracken County 4 SE Paducah	18	1010CST			0	0	50K		Thunderstorm Wind
A barn and a shed were destroyed, a front porch was blown away, and 15 to 20 trees were downed.									
Livingston County .5 W Ledbetter	18	1010CST			0	0	20K		Thunderstorm Wind
A roof was blown off an auction barn. A nearby house was partially unroofed.									
Mccracken County .5 S Paducah to .5 SE Paducah	18	1012CST 1015CST	1	50	0	2	75K		Tornado (F1)
A weak, short-lived tornado associated with a line of thunderstorms caused damage to two businesses. Most of the damage was to an auto body shop, which was destroyed. Two workers who were inside received minor cuts and bruises. A large window of a business next door was shattered. A stone pallet four feet high was moved.									
Calloway County .5 SE New Concord	18	1020CST			0	0			Thunderstorm Wind (G50)
Many trees were blown down.									
Crittenden County 3 SW Marion	18	1030CST			0	0	10K		Thunderstorm Wind
Six buildings sustained roof damage.									
Lyon County 1 W Eddyville	18	1030CST			0	0	6K		Thunderstorm Wind
Shingles were blown off 5 buildings near Eddyville and Kuttawa.									
Marshall County 5 NE Benton	18	1032CST			0	0			Thunderstorm Wind (G50)
Trees were downed in several areas around the county. Winds were estimated between 55 and 60 MPH.									
Trigg County 1.5 NE Cadiz	18	1040CST			0	0	10K		Thunderstorm Wind
A dugout, ticket office, and bleachers were damaged at a recreational facility.									
Caldwell County 1 E Fredonia	18	1040CST			0	0	4K		Thunderstorm Wind
Shingles were blown off 5 buildings.									
KYZ004>005-007-010	Ballard - Mccracken - Livingston - Crittenden								
	26	1000CST			0	0	5K		Flood
	31	2359CST							
The Blizzard of '96 that fell in New England and the Mid-Atlantic around the 6th began to melt towards the middle of the month,									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops		Character of Storm
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KENTUCKY, Southwest

sending a flood wave down the Ohio River. This in turn sent backwater up many of the smaller rivers that feed into the Ohio. The lower Ohio River crested 3 to 5 feet above flood stage. At Paducah, where the flood stage is 39 feet, the river reached 42.0 feet on the last day of the month. Portions of the riverfront park at Paducah were underwater. Most of the flooding was confined to bottomlands.

LOUISIANA, Northeast

LAZ026

Concordia

18	0740CST					0	0	10K	0	High Wind (G50)
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High wind not associated with a thunderstorm but gradient wind over turned a mobile home in Vidalia.

LOUISIANA, Northwest

Claiborne Parish

**5 NE Summerfield to
5.5 NE Summerfield**

18	0400CST 0405CST					0	0	0	0	Thunderstorm Wind (G60)
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Numerous trees blown down.

Claiborne Parish

.1 S Junction City

18	0415CST 0420CST					0	0	2K	0	Thunderstorm Wind (G60)
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Gas pumps from a local gas station were blown out of their foundations.

Caddo Parish

Shreveport

23	1438CST 1500CST	7	400			0	30	5M		Tornado (F2)
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Bossier Parish

Bossier City

23	1500CST 1506CST	0.5	100			0	0			Tornado (F2)
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A tornado touched down in south Shreveport just east of the Lucian Airport, moved across the airport and continued northeast across the southeast section of the city. Several retirement homes and numerous housing subdivisions were severely damaged. Thirty utility poles were destroyed leaving 10,000 customers without power. The tornado then moved across the Red River into southern Bossier City, Bossier Parish, knocked down trees and power lines and destroyed a couple of barns then dissipated.

De Soto Parish

Logansport

23	1536CST 1541CST					0	0	0	0	Hail (0.75)
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Bossier Parish

Bossier City

23	1702CST 1710CST					0	0			Hail (0.50)
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LOUISIANA, Southeast

Orleans Parish

(New)Lkfrnt Arpt New

24	0219CST					0	0			Thunderstorm Wind (G53)
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A 53 knot wind gust was reported at Lakefront Airport.

St. Bernard Parish

Chalmette

24	0240CST					0	0	1K		Thunderstorm Wind
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Sheriff's Office reported half of a super market's roof was blown off.

LOUISIANA, Southwest

Beauregard Parish

Longville

01	1520CST					1	1			Lightning
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2 men were working on a roof when lightning struck a tree nearby. The bolt of lightning travelled through the tree and hit the 2 men. M37LS

Calcasieu Parish

2 S Lake Charles

01	1800CST					0	0			Hail (0.75)
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Rapides Parish

**10 S (Aex)England Afb
Alx**

06	0430CST					0	0			Hail (0.75)
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St. Landry Parish

Leonville

23	2359CST					0	0			Thunderstorm Wind (G50)
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Trees blown down on Highway 31.

St. Martin Parish

Breaux Bridge

24	0030CST					0	0	5K		Thunderstorm Wind (G50)
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Numerous trees and power lines blown down.

Calcasieu Parish

Lake Charles

26	0830CST					0	0			Hail (0.75)
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Calcasieu Parish

10 N Lake Charles

26	0900CST					0	0	10K		Thunderstorm Wind (G50)
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Mobile home had roof blown off.

Evangeline Parish

Chataignier

26	0935CST 0940CST	1	20			0	3	15K		Tornado (F1)
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5 hunters sought shelter in a barn when they saw the tornado. The tornado flattened the barn, causing 3 of the men to be injured.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MAINE

MEZ012>030	Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Interior Hancock - Interior Washington - Interior York - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Coastal York - Coastal Cumberland - Sagadahoc - Lincoln - Knox - Coastal Waldo - Coastal Hancock - Coastal Washington								
	03	0100EST 2000EST			0	0			Heavy Snow
	Up to one foot of snow blanketed the southern two-thirds of Maine as a low pressure system moved up the Atlantic Coast before moving out to sea south of Cape Cod.								
MEZ018>020-023>030	Interior York - Interior Cumberland - Androscoggin - Coastal York - Coastal Cumberland - Sagadahoc - Lincoln - Knox - Coastal Waldo - Coastal Hancock - Coastal Washington								
	08	1000EST 2300EST			0	0			Heavy Snow
	Southern and coastal sections of Maine received up to a foot of snowfall in the northern fringes of an intense winter storm that moved up the East Coast before turning out to sea south of New England. This storm had earlier deposited record snowfalls exceeding two feet over much of the mid-Atlantic region and southern New England.								
MEZ024	Coastal Cumberland								
	10	0500EST 1600EST			0	0			Heavy Snow
	An "Alberta Clipper" storm produced 6 to 8 inches of snow over parts of southern Maine as it moved southeastward through southern New England and out over the open water. Slick driving conditions contributed to a 13-car accident on I-95 near Freeport.								
MEZ007>015-018>025	Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot - Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Interior York - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Coastal York - Coastal Cumberland - Sagadahoc								
	12	1545EST			0	0	500K		Heavy Snow
	13	0900EST							
	From 6 to 12 inches of snow fell across the southern two-thirds of Maine as a strong low pressure center moved northeastward through the Gulf of Maine, just off the east coast. The added weight of this snowfall to the previous ones collapsed the roofs of several buildings, including that of an arena at the Litchfield Fairground, crushing farm equipment and antique vehicles.								
MEZ007>030	Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot - Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Interior Hancock - Interior Washington - Interior York - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Coastal York - Coastal Cumberland - Sagadahoc - Lincoln - Knox - Coastal Waldo - Coastal Hancock - Coastal Washington								
	19	1500EST			0	0			High Wind
	20	0300EST							
	Strong south to southeast winds ahead of an intense low pressure center that moved northeast out of the Great Lakes downed trees and power lines in scattered areas across the southern two-thirds of Maine. Wind gusts up to 120 mph were recorded on Sugarloaf Mountain. Wind gusts of up to 60 to 72 mph were recorded in the lower elevations throughout the area.								
MEZ002	Northeast Aroostook								
Frenchville	19	1800EST			0	4			Torrential Rainfall
	20	0000EST							
	Torrential rainfall washed out the bedding under a section of railroad track near Frenchville, causing a derailment. Four crewmen received minor injuries as two locomotives and 5 cars went down an embankment.								
MEZ007>015-019>022-024>028	Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot - Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Coastal Cumberland - Sagadahoc - Lincoln - Knox - Coastal Waldo								
	19	2000EST			0	1	594K		Flood
	22	0200EST							
	Heavy rains associated with strong south to southeast winds ahead of an intense low pressure center that moved northeast out of the Great Lakes combined with snowmelt caused by unseasonably warm air caused flooding along rivers and streams, washed out roads, and flooded some homes and businesses. Ice jams and the resulting backup of water sent the Kennebec, Androscoggin, and Piscataquis Rivers over their banks. A flooding stream injured one man as he was washed down a culvert at the Saddleback Mountain ski resort.								
MEZ005>011	Northern Penobscot - Southeast Aroostook - Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot								
	24	1900EST			0	0	231K		Flood
	25	0700EST							
	Runoff from 1 to 2 inches of rain and melting snow caused flooding in interior Eastern Maine. Several communities were affected, particularly in northern Penobscot County, where culverts were flooded and roads were washed out. Strong south to southeast winds transporting moisture and unseasonably warm air were caused by a low pressure center moving northeastward out of the Great Lakes. This was the second and least intense of three similar storms.								
MEZ018	Interior York								
	27	0800EST 0830EST			0	0			Freezing Rain
	Cold road surfaces quickly iced up at the beginning of a heavy rain event, leading to several automobile accidents in western York								

Storm Data and Unusual Weather Phenomena

January 1996

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MAINE

County over a short period of time. One accident near Sanford resulted in one death and four injuries.

MEZ013>017-020>023-025>030 **Southern Franklin - Southern Somerset - Southern Penobscot - Interior Hancock - Interior Washington - Androscoggin - Kennebec - Interior Waldo - Coastal York - Sagadahoc - Lincoln - Knox - Coastal Waldo - Coastal Hancock - Coastal Washington**

27	1600EST	0	0	200K	High Wind (G68)
28	0400EST				

Damaging winds were produced over much of Maine by the last, and most intense, of three low pressure systems moving northeastward out of the Great Lakes. South to southeast flow brought moist and unseasonably warm air into the area. The high winds mainly affected central and eastern Maine, downing trees and power lines, and causing some structural damage. About 40,000 customers lost power. Gusts over 70 mph were common. The highest official gust was 78 mph at Eastport, where one large tugboat sank and another was heavily damaged. Unofficial gusts of 124 mph were reported in an elevated location nearby. In Searsport, winds and waves did \$200,000 damage to the town wharf.

MEZ002-005>015-020>022-025>026 **Northeast Aroostook - Northern Penobscot - Southeast Aroostook - Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot - Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Androscoggin - Kennebec - Interior Waldo - Sagadahoc - Lincoln**

27	1900EST	0	0	561K	Flood
30	2300EST				

Flooding was produced over sections of Maine when the last and most intense storm in a series of three low pressure centers moved northeastward from the Great Lakes. South to southeast winds brought warm temperatures and heavy rainfall to the area. Rainfall from the storm exceeded 4 inches in the western Maine mountains, with 2 to 3 inches common over much of central Maine. High runoff and ice jams caused flooding on many rivers and streams from the western mountains to the northeastern corner of the state. The Kennebec, Androscoggin, Piscataquis, and Penobscot were among the major rivers flooding. About 150 people had to be evacuated from a trailer park in Milford after an ice jam on the Penobscot River flooded the area on the 30th.

Much of Maine qualified for disaster relief from the three storms. Damage to public property alone was \$1.4 million, with private losses likely much higher.

MARYLAND, Central

MDZ002>007-009>011-013>014-016>018 **Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S - Calvert**

07	0200EST	2	150	160K	Blizzard
08	1300EST				

An historic winter storm, known as the "Blizzard of '96", crippled all of Maryland west of the Chesapeake Bay during the first full weekend of January. In general, snow totals were as follows: 20 inches in lower southern Maryland (MDZ016>018), 20 to 26 inches in central Maryland (MDZ009>011, 013), and 26 to 36 inches to over the northern tier (MDZ002>007). To complicate matters, winds gusting in excess of 35 mph produced drifts of 4 to 7 feet, except over 10 feet in the mountains. The storm produced the largest statewide storm totals since the "Megalopolitan Storm" of February 11th, 1983. Numerous 24-hour accumulation records were shattered at airports from southwest Virginia through New England; Baltimore/Washington International (BWI; MDZ011) nearly equaled its record of 22.8 inches in 24 hours (22.5 inches fell), set in 1983.

The storm was induced by a digging upper level trough over the eastern Great Plains. At the surface, an inverted trough extended from the Gulf of Mexico through the Deep South. Surface pressures began falling as the upper trough approached on the afternoon of the 7th. Meanwhile, confluent flow, behind an upper-level arctic vortex over the Canadian Maritimes, maintained strong (1034 mb) surface high pressure over northern New York state. As the upper-level trough approached the southeast U.S. on the 8th, a new surface low developed along the Georgia coast. The low deepened explosively while the arctic high remained in place. Copious Gulf of Mexico and Atlantic moisture was entrained into the system, producing heavy snow; the increasing gradient between the intensifying low and the arctic high caused winds to strengthen to 25 mph with gusts to 35 mph.

The system moved slowly from South Carolina to the mouth of the Chesapeake Bay overnight on the 7th. The slow movement prolonged near-blizzard conditions into the 8th. The storm finally moved towards New England later on the 8th, ending the snow but maintaining gusty north winds (and substantial blowing and drifting snow) until evening.

The storm effectively closed all major highways on the 7th, but interstates were "open" by the 8th, even though snow removal equipment fought a losing battle with the considerable blowing and drifting snow. The Washington subway system suffered several above-ground mishaps in Maryland. Shortly after the onset of the storm, a train, with three persons aboard (including the driver), slid into another in central Montgomery Co (MDZ009), killing the driver. The following evening, 80 passengers were stranded when a train got stuck between stations. Many above-ground stations remained closed throughout the following work week.

Two persons perished directly from hypothermia the day after the blizzard. Over 150 injuries were reported at area hospitals and clinics shortly after the blizzard, most due to over-exertion from shoveling snow, but some due to slipping on ice.

All federal, state, and local governments were closed Monday (the 8th) and Tuesday (the 9th). Most school districts remained closed for the week. A federal state of emergency was declared the following Friday (the 12th). Snow removal/damage costs exceeded \$70 million (state and county combined), a state record for an individual winter storm. The vast majority was incurred by snow removal operations; another \$3.7 million was budgeted for repairs to highways including potholes, guard rails, and side banks.

The weight of the snow caused several area roofs to collapse. In Clinton (MDZ013), the roof of a nursing home dining room caved

Storm Data and Unusual Weather Phenomena

January 1996

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					Killed	Injured	Property	Crops	

MARYLAND, Central

in at 0730 EST on the 8th, displacing up to 120 residents. Fortunately, disaster was averted because breakfast was served in the dormitories rather than in the dining room due to staff shortages. No injuries were reported. In Frederick Co (MDZ004), a barn collapsed, killing 100 cows and injuring about 100 more. Two barns collapsed in Clear Spring (MDZ003), and 100 cows escaped unharmed.

M500U, M520U

MDZ006>007-011-013>014-016>017

Northern Baltimore - Harford - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S

09	1400EST 1800EST	0	0				Heavy Snow
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Low- and mid-level lift ahead of an "Alberta Clipper" added insult to injury only a day after the "Blizzard of '96," dumping 4 to 6 inches of snow in a 5-hour period from lower southern Maryland through the northern suburbs of Baltimore. The additional snowfall produced total snow depths similar to those over the Maryland and Virginia piedmont.

MDZ002>007-009>011-013>014-016>018

Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S - Calvert

12	0700EST 1300EST	0	0	100K			Heavy Snow
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Less than one week after the crippling "Blizzard of '96," a new winter storm dumped substantial snow across Maryland west of the Chesapeake Bay. The snow changed to freezing rain and sleet from the Chesapeake Bay through the eastern and southern suburbs of the Baltimore/Washington area before tapering off. The changeover suppressed accumulations to 4 to 6 inches in this region. Elsewhere in Maryland, snow amounts ranged from 6 to 8 inches, with amounts up to 1 foot at higher elevations in Frederick and Washington Cos (MDZ003>004).

The storm developed as an area of low pressure in the midwest, which became an elongated trough extending from the Tennessee Valley through southeastern North Carolina. As the upper-level trough approached, the North Carolina low became dominant, intensifying slowly as it moved through the mouth of the Chesapeake Bay, then off the Delaware coast by late afternoon. Unlike the "Blizzard of '96," a lack of cold air behind the surface low, combined with the fact that the upper-level trough was significantly weaker and more progressive, kept the surface low from rapidly intensifying. Nonetheless, west-central Maryland received some of the highest snow totals in the Eastern U.S.

Travel was slowed yet again, but by evening main arteries were cleared. Excessive speed contributed to numerous accidents, the most impressive on the Capital Beltway in Montgomery Co (MDZ009) which involved four tractor-trailers. Most local, state, and federal offices were closed. School districts remained closed, giving children an extra week of winter vacation. Unfortunately, the week of storms also wiped out their allotment of snow days.

The additional snow load caused several structures to partially fail. In Westminster (MDZ005), a bowling alley was damaged when an exterior wall caved in. In Bethesda (MDZ009), a roof partially failed at a printing center. A tire warehouse in Upper Marlboro (MDZ013) collapsed, and another warehouse in nearby Beltsville had a sagging roof. Gutters were torn from numerous homes as a result of "ice dams," which also caused interior leaks.

**Allegany County
All**

19	0300EST 1200EST	0	0	7M			Flash Flood
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**Washington County
All**

19	0500EST 1200EST	0	0	1M			Flash Flood
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Flood/Flash Flood

An unprecedented combination, in recent history, of unseasonably warm, humid air overriding a dense snow pack estimated between 12 and 18 inches (but up to 2 feet or more at higher elevations) caused nearly all of the pack to vanish in a 12-hour period. The unseasonably warm air was drawn northward around the circulation of a deepening storm west of the Appalachians late on the 18th and early on the 19th. The melting snow and heavy rains caused widespread, and in some cases, catastrophic flooding and flash flooding on the 19th.

Strong low-level southeast flow developed by late afternoon on the 18th. Initially, colder temperatures in sheltered valleys slowed the rate of snow melt while the warm moist air mass attacked the snow pack at higher elevations. By mid-evening, however, even lower elevations were warming rapidly. Flash flooding began at around the same time as the onset of heavy pre-frontal rains. These heavier showers fell repeatedly over the region between 0400 and 0800EST, causing acute and widespread flooding and flash flooding. Some areas received between 2 and 4 inches of rain during this period.

Some of the most pronounced damage occurred in Allegany Co, where an estimated \$7 million in damage was reported from the initial floods alone. Two permanent homes were destroyed, 20 had major damage, and 205 had minor damage. Two mobile homes were destroyed, and 8 others had major damage; several apartments were flooded, and 32 businesses were damaged. Washington Co estimated over \$1 million dollars in damage from flood waters. Five single-family homes had major damage; 2 had minor damage. Eleven mobile homes in Funkstown sustained major damage, 13 had minor damage; 2 apartments had major damage and 3 minor damage. An oil spill also occurred in Williamsport.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MARYLAND, Central

Frederick County									
All	19	0700EST 1300EST			0	0	500K		Flash Flood

Carroll County									
All	19	0700EST 1300EST			0	0	300K		Flash Flood

Montgomery County									
All	19	0900EST 1300EST			0	1			Flash Flood

*** Continuation of this event (several flood/flash flood counties grouped together) continues after the following ***

Howard County									
All	19	0900EST 1300EST			0	0	5K		Flash Flood

Baltimore County									
All	19	0900EST 1300EST			0	0			Flash Flood

Harford County									
All	19	0900EST 1500EST			0	0	5K		Flash Flood

MDZ002>004-009									
Allegheny - Washington - Frederick - Montgomery									
	19	0900EST			0	0	60M		Flood
	22	2200EST							
*** River Flooding ***									

High dew point temperatures melted most of the snow on the ground within 12 hours, with liquid water equivalent ranging from 1 to 3 inches. Snowmelt combined with 1 to 3 inches of rain (some locations received 5 inches) to produce, in some cases, catastrophic river flooding. The flooding was the worst in the region since 1985. River flooding began during the flood/flash flood event along the headwaters of the basins and continued downstream through the 22nd. Crests ranged from 3 to 21 feet above flood stage. Record flooding occurred on Wills Creek near Cumberland (MDZ002), damaging all dwellings in the town of Locust Grove. Almost all dwellings in the town of Point of Rocks (MDZ004) were damaged by the flood waters in some way.

Unfortunately, the National Park Service's C&O Canal and towpath was also severely damaged. Improvements made since the 1972 flooding (Tropical Storm Agnes) and 1985 were virtually destroyed once again. Damage was estimated at \$20 million for the park that runs along the Potomac from western Maryland the Washington, DC. Largest losses were sustained just outside of Cumberland and along the southernmost stretch from Great Falls into Northwest Washington (MDZ009). Flood waters covered 80 percent of the 184.5 mile canal. Helicopter rescues continued for 24 hours across much of the state during the onset through peak flooding. Antietam Battlefield National Park (MDZ003) estimated \$11 thousand damage along Antietam Creek.

There were several water and sewage plant failures. Water line breaks occurred in Lavale (MDZ002), and failures at Sharpsburg and Hagerstown (MDZ003) forced residents to boil water for 3 to 5 days (thousands of others were without water for 1 to 2 days). The plants in Brunswick (MDZ004) and Havre De Grace (MDZ007) were shut down for 1 to 3 days due to flood waters and high turbidity.

There was structural damage to several bridges which cross the Potomac. Three counties in central Maryland were declared under a federal state of emergency: Washington, Allegheny, and Frederick.

Refer to the narrative on Flood/Flash Flood for a more detailed breakdown of damage estimates.

Prince George'S County									
All	19	1000EST 1400EST			0	0			Flash Flood

Anne Arundel County									
All	19	1100EST 1500EST			0	0	5K		Flash Flood

Baltimore City (C)									
All	19	1100EST 1500EST			0	0			Flash Flood

*** Flood/Flash Flood Summary ***

A waterlogged snow pack, ranging (roughly) in depth from 3 to 12 inches, was eaten away when subtropical moisture fed into the region ahead of a strong cold front. The warm moist air mass contained temperatures in the upper 50s and lower 60s, along with relative humidity near 100 percent. A deepening storm moving north through the Ohio Valley drew the subtropical air into the region. Minor flash flooding began during the pre-dawn hours, but more significant flooding occurred with the passage of an intense and unusual squall line, which moved through between 0900 and 1200EST. The squall line dumped rainfall amounts of 1.5 to 2.5 inches in less than 3 hours at any one location. Streams quickly overflowed their banks, and water ponded quickly from clogged storm drains and saturated ground.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

MARYLAND, Central

Flash flooding, due to streams and creeks out of their banks, began in northern Montgomery, western Carroll, and much of Frederick Co around 0700EST. The onset of heavy rains, between 0900 and 1000EST over the piedmont, and 1000 and 1200EST elsewhere, produced more substantial flash flooding. In Frederick Co, flash floods caused mud slides, knocked down trees, and closed roads. Numerous rescues were undertaken, mostly due to stranded vehicles. At the height of the storm, 52 roads were closed. Three hundred seventy-eight homes sustained flood-related damage. Fortunately, there were no fatalities, but there were a number of minor injuries. Rapid flooding of the Monocacy River (Frederick Co) caused problems, and there was flooding reported at Point of Rocks. In Carroll Co, 75 acres were reported under water, and several homes were evacuated in Detour, a result of a flood-related HAZMAT incident. Another oil spill also occurred at Owings Mills in Baltimore Co.

In Montgomery Co, an elderly woman was in fair condition after her car was submerged along White's Ferry Road near Poolesville. Numerous creeks and streams were out of their banks countywide, including Rock Creek near Kensington. The flooded creek left large deposits of sediment in its wake. In Prince George's Co, over a dozen cars were towed out of high water along federal highway 1, which was temporarily closed.

Farther east, in the Baltimore vicinity, several water rescues were reported. Just south of Baltimore City, Interstate 695 was closed briefly near Arbutus. An automobile was swept away in Harford Co.

MDZ004

Frederick

	28	0000EST			0	0			
	29	0500EST							Flood

*** River Flooding ***

As river levels receded after the snow melt/rainfall on the 19th, additional rainfall on the 28th caused portions of the Lower Potomac basin to flood once again. Rainfall totals ranging from 0.7 to 3.5 inches over the Potomac Highlands brought crests between 0.5 and 1.5 feet above flood stage.

MARYLAND, Northeast

MDZ012-015-019>020

Kent - Queen Annes - Talbot - Caroline

	06	2300EST			0	0			
	08	1000EST							Winter Storm

MDZ008

Cecil

	07	0100EST			0	0			
	08	1200EST							Blizzard

A winter storm and blizzard of near record proportions affected the entire Middle Atlantic States on January 7th and 8th. The storm formed along the Gulf Coast on Saturday morning the 6th, moved to Alabama the evening of the 6th, reached Savannah the morning of the 7th, Cape Hatteras the evening of the 7th, passed just to the west of the Delaware Buoy the morning of the 8th, before reaching coastal New England the evening of the 8th.

Snow began around midnight on the 7th and became very heavy by the morning 7th. Increasing northeast winds produced blizzard conditions in Cecil County and near blizzard conditions elsewhere along the Maryland Eastern Shore. Warmer air above the ground helped change the snow to sleet across southern parts of the Eastern Shore and held down accumulations. Accumulations averaged 12 to 18 inches in Talbot County, 12 to 24 inches in Caroline, Kent and Queen Anne's Counties and around 24 inches in Cecil County. There was a lull in the precipitation for a while after midnight on the 8th, before a final parting shot came across the region that morning.

A state of emergency was declared noon on Sunday throughout Maryland and the state received disaster area declaration on Wednesday the 10th. Estimates of the clean-up costs and damaged caused by the storm for the state was \$48,000,000. Two-thirds of all schools were still closed on Wednesday. It was fortunate that the snow began falling on a weekend day and by Sunday morning (the 7th) it was obvious that it was going to be a bad storm. This cut down considerably on accidents and rescues as most people were already trapped in their homes. Four wheel drive vehicles were deployed to get emergency personnel to and from work and to bring seriously ill patients to hospitals. Humvees were used to help plow and clear roadways. There was only one reported weather related death along the Eastern Shore, a Cecil County man suffered a heart attack and died after shoveling snow.

MDZ008-012-015

Cecil - Kent - Queen Annes

	12	0500EST			0	0			
		1500EST							Heavy Snow

For the second time within a week heavy snow moved into the Maryland Eastern Shore. Fortunately this second storm was weaker than its predecessor. The storm moved from the Lower Tennessee Valley on the evening of the 11th, to eastern North Carolina the morning of the 12th and passed just to the east of New Jersey during the late afternoon of the 12th and into Southern New England on the 13th. Less cold air was in place than with the blizzard and although precipitation started as snow during the early morning of the 12th, it changed to rain by the afternoon. Accumulations averaged three inches in Caroline and Talbot Counties, three to four inches in Queen Anne's County, four and a half inches in Kent County and 5 to 6 inches in Cecil County.

**Cecil County
Countywide**

	19	1200EST			0	0			
		1900EST							Flash Flood

The combination of the melting snow from the previous week's storms, unseasonably warm temperatures and an additional one to two inches of rain caused the flash flooding of several streams throughout the county. Hardest hit were Elkton (Farr Creek overflowed.), North East (Little North East Creek overflowed.) and Rising Sun. Dozens of people were rescued from stalled

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					Killed	Injured	Property	Crops	
MARYLAND, Northeast									
									automobiles. Maryland State Route 7 in North East was closed and four major roads in Elkton were closed due to flooding. In Rising Sun a house's wall collapsed.
Caroline County Federalsburg	19	1220EST			0	0			Thunderstorm Wind
									A severe thunderstorm blew down the chimney from a home in Federalsburg.
Caroline County Denton	19	1308EST			0	1			Lightning
									A person was struck and injured by lightning in Denton.
MDZ008									Cecil
	20	1600EST			0	2			Flood
	22	2100EST							
									Flooding along the Susquehanna River in Pennsylvania and an approaching ice dam forced officials at the Conowingo Dam to open about 40 of 52 flood gates. This surge of water flooded Port Deposit starting around 4 p.m. on the 20th. About 700 residents were evacuated (almost the whole town), 250 stayed at Red Cross shelters. There were 28 water rescues that involving 80 persons and two were hospitalized for exposure and hypothermia. The initial evacuation was north of Main Street on Saturday (20th), but was extended to the south side of town on Sunday (21st). Evacuations also occurred along U.S. Route 222 from the dam to the Port Deposit line. In all 105 homes were damaged affecting 121 families. Also, 100 condominiums at Tome's Landing suffered extensive damage and six large sailboats and yachts were smashed.
Cecil County Northern	27	1100EST 1800EST			0	0			Flash Flood
									Heavy rains once again produced small stream flooding, especially in the northern half of the county. The Big Elk Creek flooded in Elkton forcing the closure of Delaware Avenue and Howard Street. The creek also caused further damage to Meadow Park.
MARYLAND, South									
MDZ021									Dorchester
	06	2200EST			0	0			Winter Storm
	08	1400EST							
MDZ022>025									Wicomico - Somerset - Inland Worcester - Maryland Beaches
	06	2200EST			0	0			Winter Storm
	08	1400EST							
									A major winter storm (popularly known as the "Blizzard of '96) affected much of the mid-Atlantic region during the weekend of January 6-8, 1996. The storm dumped up to 2 feet of snow on Dorchester county...with somewhat lower amounts in Wi
MDZ025									Maryland Beaches
	07	1200EST 2300EST			0	0			High Wind
									High winds combined with high tides caused significant beach erosion along the Ocean City Md beachfront during the afternoon and nighttime hours Sunday January 7th.
Dorchester County Williamsburg	19	1215EST			0	0			Thunderstorm Wind
									2 large trees uprooted. Chimney destroyed...roof blown off shed.
Wicomico County Wingate	19	1230EST			0	0	10K		Thunderstorm Wind
									High winds severely damaged an abandoned farm home.
Worcester County Central Portion	19	1310EST			0	0			Thunderstorm Wind
									Part of roof blown off house. Several trees down.
MARYLAND, West									
MDZ001									Garrett
	02	1000EST			0	0	3K		Ice Storm
	03	1500EST							
									Ice accumulated to an inch thick in parts of Garrett County. Several trees were downed under the weight of the ice.
MDZ001									Garrett
	06	1600EST			0	0			Heavy Snow
	08	1200EST							
									A major winter storm moved from eastern Tennessee to the mid-Atlantic coast and dumped very heavy snow across the western panhandle of Maryland, halting travel. Reports across Garrett County were between 24 and 36 inches.
Garrett County Oakland	19	0500EST 1900EST			0	0	3M		Flash Flood
									Moderate rains and a melting snow cover (15-25 inches in the Maryland mountains) on saturated soil released an estimated 3.50 to 4.50 inches of runoff into area streams. The runoff also caused major flooding on the Casselman River in Garrett County. The Casselman River flows into the Youghiogheny River, in southwest Pennsylvania and subsequently caused near record flooding downstream on the Youghiogheny River. Damages in the county totaled around \$3 million. Seventy-five to 100 homes were damaged, as well as, bridges, roads, and water treatment plants.

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MARYLAND, West

Garrett County

Oakland

24 0845EST
1500EST

0 0

Flash Flood

Numerous small streams went out of their banks across the county. Roads were closed in and near Oakland, Gorman, and Bittinger.

MDZ001

Garrett

27 1011EST

0 0

High Wind (G56)

A wind gust to 64 miles an hour was measured at McHenry in Garrett County.

MASSACHUSETTS, Central and East

MAZ002>019

Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth

02 2100EST
03 0900EST

0 0

Heavy Snow

A strong low pressure system moved from Tennessee to the Virginia coast and then northeast off the New Jersey coast passing southeast of Cape Cod. This system produced heavy snow across the state, except along the south coast in extreme southern Plymouth and Bristol Counties and over Cape Cod and the Islands. Snowfall totals ranged from 8 to 12 inches. A small area of from 12 to 16 inches was reported in the southwest suburbs of Boston in the Milton-Randolph area. Also, in south-central Worcester County there was a small area that received 12 to 14 inches. The heaviest snow occurred during the early morning hours of the 3rd and made for a difficult commute, especially in the Boston area. The two busiest highways in the state were left poorly plowed at peak travel time. Most schools and some businesses were closed on the 3rd. Some final storm totals, which include light snow that fell late on the 3rd and during the early morning hours of the 4th are as follows: Boston, 13.1 inches; North Amherst, 11.9 inches; Westborough, 11 inches; Springfield, 8 inches; Fall River, 4 inches; New Bedford, 6 inches; Plymouth, 7 inches; and Provincetown, 1 inch.

MAZ002>024

Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket

07 1700EST
08 1700EST

0 0

32M

Heavy Snow

An intense East Coast low pressure system moved northeast from eastern Georgia passing along the coast of the Carolinas and then close to 40 degrees North and 70 degrees West. This storm was one of the most significant winter storms to hit southern New England in the past 20 years and was named "The Blizzard of '96" as it dumped record snowfalls from the mid-Atlantic states to southern New England. Technically, this storm only reached a true blizzard by National Weather Service criteria for a few hours in a small section of eastern Massachusetts around South Weymouth during the early morning hours on January 8th. Very heavy snowfall, which was measured in feet, was the main effect of this storm. It was the most region-wide heavy snowfall since the "Blizzard of '78." Totals ranged from 15 to 25 inches, with many totals of 20 to 25 inches in parts of Plymouth and Bristol Counties. Totals of 13 to 18 inches were reported from Cape Cod and the Islands. There was a brief change to rain on parts of the Cape. More than 20 inches were reported in parts of Hampden and Hampshire Counties of western Massachusetts with more than 30 inches in some places in the Berkshires. Snowfall from this storm totalled 18 inches at Boston and the total snow depth on the ground hit 30 inches, breaking the all-time record of 29 inches set at the end of the "Blizzard of '78."

Strong to gale force northeast winds along the coast threatened to bring coastal flooding, but a wind shift to the north and parallel to the Massachusetts east coast resulted in a decreasing storm surge from around 2.7 feet to 1.9 feet at the Boston tide gauge by the time of the early afternoon high tide on January 8th. Only a few coastal roads were closed due to flooding. However, on the eastern shore of Nantucket Island, high waves and stronger than usual ocean currents eroded sand dunes and did an estimated \$200,000 damage to cottages in an area that suffered damage from previous nor'easters. A building inspector on Nantucket stated that the Gulf Stream had been displaced farther to the north than usual and that greater sea surface temperature differences caused faster currents along the shore. The main impact of this storm, though, was the closure of schools, businesses, airports, and transportation systems for a long duration.

The Massachusetts Emergency Management Agency reported damage claims of \$32 million from approximately 350 communities, mostly for the costs of snow removal (see damage figures above).

The combination of this snowfall, earlier snowfalls, and subsequent rainfall events resulted in the collapse of many roofs within a week to two weeks after the storm. In Whitman, a section of a skating rink roof collapsed, injuring four women. In Foxborough, on January 12th, after several more inches of snow and then some heavy rain, a roof collapsed at one of the water department buildings. On January 13th, a woman was evacuated from her mobile home in Marlborough after the roof collapsed. More than 70 people were evacuated from a condominium in Framingham after the roof cracked and then caved in. In Franklin, a house suffered structural damage from the weight of the snow, while in Townsend a barn roof collapsed killing 8 dairy cows. Other roof collapses were reported at a church in Chelmsford, a business in Tyngsborough, and at a mall in Tewksbury. On January 14th, the roof of a two-story house collapsed in West Springfield, resulting in an estimated \$150,000 damage to the structure. The roof of a garage in Northampton collapsed. The building was reported to be a total loss. In Monson, a barn roof collapsed. A number of people were injured when they fell while clearing snow from their roofs. On January 19th, the roof of a barn collapsed in Framingham, killing two horses.

MAZ005-007-013-019

Western Middlesex - Eastern Essex - Western Norfolk - Eastern Plymouth

10 0000EST
1800EST

0 0

Heavy Snow

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
MASSACHUSETTS, Central and East							
MAZ022		Barnstable					
	10	0000EST 2200EST			0 0		Heavy Snow
	Snowfall accumulations of 4 to 8 inches were reported across the eastern portion of the state, including Cape Cod. This snowfall, although it was of the fluffy variety, added to the headaches of snow removal crews which were still clearing away up to two feet of snow left by the "Blizzard of '96" just two days earlier. Snow on the ground reach two to three feet and all communities, especially cities, had many problems keeping residential streets passable. Boston had 5.4 inches and the snow on the ground total set a new record of 32 inches at noon on January 10th. The old record was 29 inches on February 7, 1978. Maynard and Billerica both had 6 inches from this event and the total depth on the ground reached 35 inches at Maynard. At Hingham, the snowfall totalled 6 inches and the depth on the ground reached 32 inches, beating a record of 31 inches set on February 7, 1978. Even at Plymouth, where 7 inches of snow fell, the total snow depth reached 28 inches. On Cape Cod, Barnstable reported the maximum snowfall from this event of 9 inches, while Eastham had 8 inches. On Martha's Vineyard, there was 4 inches at Vineyard haven. In northeast Massachusetts, Newbury had 9 inches and Gloucester had 8 inches. Southwest of Boston, West Medway reported 7 inches.						
MAZ002>006-008>012		Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester					
	12	1400EST 2300EST			0 0		Heavy Snow
	An intensifying low pressure system moved northeast from the mid-Atlantic coast with its center passing across southeast Massachusetts into Cape Cod Bay near Plymouth around 11 PM on the 12th. This storm brought still another in a seemingly endless series of heavy snowfall events. Snowfall totals from 6 to 8 inches were reported from the slopes of the Berkshires east across central Massachusetts and then northeast across Middlesex and Essex Counties. Somewhat higher totals were reported from the higher elevations of the eastern Berkshire Hills with 10 inches at Ashfield and Worthington. Along the coast and in the southeast part of the state, snow quickly turned to heavy rain after a trace to only a couple of inches accumulation.						
MAZ002>024		Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Southern Norfolk - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket					
	19	1315EST 1930EST			0 0		High Wind
Hampshire County Huntington	19	1900EST 2200EST			0 0		Flash Flood
	Strong to gale force south winds with gusts to 45 to 65 mph and with isolated gusts to hurricane force preceded a sharp cold front extending from a low pressure system moving east across the northern Great Lakes region. Some peak wind gusts included: Logan International Airport, Boston, 66 mph; Naval Air Station, South Weymouth, 63 mph; Norwood Airport, Norwood, 58 mph; and Blue Hill Observatory, Milton, at an elevation of 660 feet, 88 mph. In Wayland, telephone poles were knocked down closing a road from there to Sudbury. In Duxbury, a church steeple was rocked causing an unknown amount of damage. Scattered power outages affected up to 2,000 electric customers. The high winds also brought a strong January thaw with temperatures rising into the 50s. This combined with heavy rain and snowmelt to cause many reports of street flooding. In Worcester County, in the town of Spencer, heavy runoff caused a 5-foot hole to develop in a portion of Route 31. In western Massachusetts, there were numerous reports of street flooding, road closures, and basement flooding. There was a flash flood along the West Branch of the Westfield River in Huntington with a crest of 9.9 feet; flood stage is 9 feet.						
MAZ002		Western Franklin					
	20	1700EST			0 0		Flood
	21	1400EST					
MAZ016-022		Eastern Norfolk - Barnstable					
	24	1300EST 1900EST			0 0		High Wind (G71)
	A strong low pressure system moving northeast through the eastern Great Lakes region and its accompanying trailing cold front produced a period of strong and gusty south to southwest winds. The highest wind gusts of 60 mph and more were confined to higher elevations. Blue Hill Observatory in Milton, at an elevation of 660 feet, recorded the highest peak wind gust to 82 mph around 2:30 PM. A peak gust to 53 mph was recorded in Easton and a gust to 58 mph was reported from Cape Cod.						
MAZ002>024		Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southern Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket					
	27	1400EST 2100EST			0 0		High Wind
MAZ013		Western Norfolk					
	27	2300EST			0 0		Flood
	28	1600EST					
MAZ012		Southern Worcester					
	28	0500EST 1200EST			0 0		Flood
MAZ005		Western Middlesex					
	29	0100EST			0 0		Flood
	30	1600EST					

Preceding a sharp cold front, which was approaching from the west, gale to storm force south winds with gusts to hurricane force,

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

MASSACHUSETTS, Central and East

heavy rainfall of 1 to 2 inches, and very mild temperatures rising into the 50s occurred. There were many wind gusts reported in the range of 50 to 70 mph with isolated gusts to 80 to 90 mph. A peak gust to 67 mph was recorded at the Blue Hill Observatory in Milton at an elevation of 660 feet. This was the strongest wind gust at this weather station since Hurricane Gloria in September, 1985.

There were numerous trees and tree limbs being blown down, causing scattered power outages. There also were many reports of property damage, including an 80-foot section of roof torn from a hangar at Worcester Municipal Airport, where a gust to 52 mph was recorded by the automated weather station. In Tyngsboro, a large tree limb crashed down, crushing and destroying two automobiles and narrowly missing the driver of one of those vehicles. In Newton, a 100-foot by 20-foot section of roof blew off an office building and a tree crashed into the second story of a house. In Quincy, an exterior wall was ripped from a condominium but the building remained habitable. In Marlboro, a large sign broke loose, downing a power cable.

Street flooding was reported in many areas during the heavy rain as snow and ice clogged catch basins. Rainfall totals ranged from 1.5 to 2.0 inches in the Greater Boston area. Minor flooding occurred along several rivers within 12 to 48 hours following the heavy rainfall. Three rivers in eastern Massachusetts had minor flooding, including the Charles, Blackstone, and Nashua. The Charles river crested at 5.1 feet at Dover at 8 AM on the 28th and again at 5.1 feet at 7 PM on the 30th; flood stage there is 5.0 feet. The Blackstone River crested at 9.2 feet at Northbridge at 6 AM on the 28th; flood stage is 9.0 feet. The Nashua River crested at East Pepperell on the 29th at 10 PM at 8.5 feet; flood stage is 8.0 feet.

MASSACHUSETTS, West

MAZ001	Berkshire								
		02 2000EST			0	0			Heavy Snow
		03 2000EST							

A major winter storm developed over the Gulf coast states on January 2nd and tracked northeast along the eastern seaboard during January 3rd. Heavy snow fell across Berkshire County Massachusetts with the average snowfall ranging from 10 to 12 inches.

MAZ001	Berkshire								
		07 1400EST			0	0	80K		Heavy Snow
		08 1800EST							

An intense winter storm formed off the coast of South Carolina on January 7th. The system moved northeast along the east coast on Monday January 8th and into Nova Scotia by the 9th. Heavy snow fell across Berkshire County Massachusetts causing many power outages and several roofs to collapse. Some specific snowfall amounts included 32 inches in Great Barrington and 24 inches in Pittsfield.

MAZ001	Berkshire								
		12 1200EST			0	0			Heavy Snow
		13 0300EST							

A winter storm formed off the coast of North Carolina on January 12th and moved northeast along the coast through January 13th. Heavy snow fell across Berkshire County Massachusetts with snowfall totals ranging from 6 to 10 inches.

MAZ001	Berkshire								
		19 0800EST			0	0	10K		High Wind
		19 1900EST							

An intense area of low pressure located over the Mid-Atlantic Region on Friday morning January 19th produced damaging winds across Berkshire County Massachusetts. This storm was associated with a strong southerly flow which resulted in scattered reports of downed trees, limbs and power lines.

MAZ001	Berkshire								
		19 1500EST			0	0	500K		Flood
		20 0200EST							

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in the flooding of many small streams across Berkshire County. The Green River also flooded which washed out some side roads and the Williams River flooded some farmland.

MAZ001	Berkshire								
		27 0700EST			0	0	20K		High Wind
		27 2100EST							

A strong low pressure system developed over the Great Plains on Friday January 26th and tracked northeast to the upper Great Lakes by the 27th. This system produced damaging winds across Berkshire County Massachusetts from Saturday morning through the evening hours. The damaging winds downed many trees, limbs and power lines across this area.

MICHIGAN, East

Lenawee County									
Morenci	18	1838EST			0	0			Thunderstorm Wind (G50)

Saginaw County									
St Charles	18	1855EST			0	0			Hail (0.75)

Shiawassee County									
Corunna	18	1900EST			0	0			Hail (1.00)

Wayne County									
Countywide	18	1940EST			0	0			Thunderstorm Wind (G50)

A strong storm tracked from the central plains northeast to northern Michigan on the 18th. The storm dragged a cold front across southeast Michigan late on the 18th. With the passage of the front, temperatures fell from the 50s during the evening on the 18th, to the teens by late morning on the 19th. Fast-moving thunderstorms ahead of the front during the early evening on the 18th

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MICHIGAN, East

uprooted trees in Lenawee county, downed powerlines in Wayne county, and produced large hail in Saginaw and Shiawassee counties.

MICHIGAN, Extreme Southwest

NONE REPORTED.

MICHIGAN, North

NONE REPORTED.

MICHIGAN, Upper

MIZ001>007-009>014

Keweenaw - Ontonagon - Houghton - Baraga - Marquette - Alger - Luce - Gogebic - Iron - Dickinson - Menominee - Delta - Schoolcraft

18	0000EST	0	0	Winter Storm
20	0800EST			

A complex synoptic situation lead to a wide variety of precipitation across Upper Michigan. Low pressure moved north into Northern Wisconsin during the morning of the 18th. An associated warm front moved northwest out of Lake Michigan and Lower Michigan reaching as far west as Iron River, Baraga and Keweenaw Bay in Lake Superior before stalling around 6 am on the 18th. Ahead of the

warm front, the precipitation was a mixture of sleet and freezing rain that changed over to rain as the front passed. Areas that remained west of the warm front received a mix of heavy snow, sleet and freezing rain. Between 8 and 10 am on the 18th, the low over Northern Wisconsin weakened and was absorbed into a developing low pressure system over Northern Illinois. The front across Upper Michigan began to move east as a cold front, changing the rain into freezing rain and sleet over Central Upper Michigan. Considerable street flooding was reported in Iron Mountain, Escanaba and Marquette as snow and ice clogged sewer drains. At the same time, Arctic air moved in behind the cold front creating, near blizzard conditions between Ironwood, Ontonagon, Houghton and Copper Harbor. The mixed precipitation over Central Upper Michigan changed to all snow by 1 am on the 19th. As the system snow moved out on the morning of the 19th, lake effect snow remained over the Keweenaw Peninsula and Alger and Luce Counties until the morning of the 20th.

In West Upper Michigan, where the precipitaion was mostly snow, 44 inches fell at Silver City and 40 inches fell at Ontonagon. Other snow reports included 26 inches at Houghton, 23 inches at Copper Harbor, 21 inches at Pelkie, 16 inches at Ironwood, 13 inches at L'anse and 11 inches at Watersmeet.

Over 2 inches of rain and freezing rain fell over parts of South Central Upper Michigan on the 18th. Amounts included 2.70 inches at Spaulding, 2.30 inches at Cornell, 2.20 inches at Stephenson, 2.15 inches at Iron Mountain and 2.12 inches at Fayette.

Over North Central Upper Michigan, a combined total of 10 to 12 inches of snow and ice pellets fell between Champion, Marquette and Skandia during the afternoon and evening of the 18th.

Further east, Alger and Luce Counties received between 1 and 1.5 inches of rain and freezing rain on the 18th. After the precipitation changed to snow during the evening of the 18th, the area received 5 to 9 inches of snow with the heaviest snow at Pine Stump Junction, 15 miles north of Newberry.

MIZ001>007-009>014

Keweenaw - Ontonagon - Houghton - Baraga - Marquette - Alger - Luce - Gogebic - Iron - Dickinson - Menominee - Delta - Schoolcraft

26	2000EST	0	0	Heavy Snow
27	2000EST			

Low pressure moved across Eastern Wisconsin, Northern Lake Michigan and Eastern Upper Michigan on the 27th. Heavy snow developed over Central Upper Michigan around 8 pm on the 26th and spread to West Upper Michigan during the night. Strong northeast winds brought lake-enhanced snow from Lake Superior to Central Upper Michigan. This significantly increased snowfall amounts over

Marquette County where 28 inches of snow fell at Champion and Skandia, 25 inches fell at Marquette and 20 inches fell at Gwinn. Most locations across West and Central Upper Michigan had storm totals between 8 and 14 inches. Wind gusts of 40 to 50 mph created blizzard conditions during the day on the 27th, closing major highways, most businesses and forcing plows off the roads. Several motorists were stranded for a few hours during the late morning and early afternoon, due to blowing and drifting snow, on US41 between Marquette and Harvey.

MIZ001>007-009>014

Keweenaw - Ontonagon - Houghton - Baraga - Marquette - Alger - Luce - Gogebic - Iron - Dickinson - Menominee - Delta - Schoolcraft

29	0600EST	0	0	25K	Blizzard
31	0600EST				

Low pressure moved east from Minnesota through Upper Michigan during the day on the 29th. At the same time a strong cold front moved through the region. Behind the cold front, strong west winds between 25 and 35 mph developed. The result was whiteout conditions due to blowing and drifting snow across the region on the afternoon and evening of the 29th. Peak wind gusts included 51 mph at the Marquette County Airport, and 45 mph at Escanaba and Houghton.

After the winds settled during the early morning of the 30th, Arctic air blowing over the relatively warmer waters of Lake Superior brought heavy lake-effect snow to the Keweenaw Peninsula and to Alger and Luce Counties in North Central Upper Michigan. The snow continued through the morning of the 31st. Snow totals included 28 inches at Silver city, 22 inches at Bumbletown (15NE of Houghton), 21 inches at Rockland, 16 inches at Munising, Pelkie and Pine Stump Junction and 14 inches at Ontonagon.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MICHIGAN, Upper

The weight of the heavy snow caused a roof collapse to the Houghton County Road Commission garage 2 miles east of Houghton.

MIZ002>005-009>012	Ontonagon - Houghton - Baraga - Marquette - Gogebic - Iron - Dickinson - Menominee								
	31	0000EST			0	0			Extreme Cold
		1200EST							
	An Arctic airmass brought extreme cold to parts of Upper Michigan. Some low temperatures included -41 at Amasa, -40 at Iron River, -38 at Champion, -37 at Stephenson, -36 at Kenton and -33 at Iron Mountain and Ironwood.								

MICHIGAN, West

Cass County	Union								
	18	1625EST			0	0			Thunderstorm Wind (G62)
	Spotter reported trees blown down by thunderstorm winds.								
St. Joseph County	4 N Three Rivers to Three Rivers								
	18	1645EST			0	0			Thunderstorm Wind (G63)
	Spotter reported 74 mph wind gust at Three Rivers with large tree limbs blown down.								
Allegan County	5.4 NE Plainwell								
	18	1655EST			0	0			Thunderstorm Wind (G52)
	Trees were blown down blocking a road, and had to be removed by the county road commission.								
Kalamazoo County	Richland								
	18	1701EST	0.1	10	0	0	0.50K		Tornado (F0)
	Richland resident reported seeing a swirling cloud of debris with loud noise passing between his house and a neighboring house. The wind lifted a 10' by 12' metal storage shed that had been tied with guy wires, carried it over a 4 foot chain link fence, and set it down about 100 feet from its original position. Contents of the shed, including a lawn tractor, lawn chairs, mower, bikes, and yard tools remained intact and apparently undisturbed.								
Calhoun County	Battle Creek								
	18	1715EST			0	0			Thunderstorm Wind (G52)
		1716EST							
	A dozen trees with powerlines down on the south side of town. Wind gust to 60 mph reported by fire department.								
Eaton County	Grand Ledge								
	18	1755EST			0	0	0.50K		Thunderstorm Wind (G52)
		1756EST							
	Trees were blown down, one of them onto a house.								
Clinton County	St Johns								
	18	1807EST			0	0			Thunderstorm Wind (G50)
		1808EST							
	Spotter measured 58 mph wind gust.								
MIZ056>057-064>065-072>073	Ottawa - Kent - Allegan - Barry - Kalamazoo - Calhoun								
	27	1130EST			0	0			Winter Storm
		2100EST							
	Winds gusting over 40 mph combined with snowfall of 3 to 5 inches created dangerous driving conditions throughout the region, and prompted the closing of many roads, including Interstate 94 between Kalamazoo and Battle Creek and U.S. 131 north of Grand Rapids, due to accidents. Visibilities were reduced to less than one tenth of a mile at times in snow and blowing snow.								
MIZ037>040	Mason - Lake - Osceola - Clare								
	29	0700EST			0	0			Winter Storm
	30	0700EST							
	Strong winds and 3 to 5 inch snowfall combined to create drifts of 2 to 3 feet and curtailed transportation across the region.								

MINNESOTA, Central and South Central

MNZ058>063-065>070-074>079-083>086	Meeker - Wright - Hennepin - Anoka - Ramsey - Washington - Renville - Mcleod - Sibley - Carver - Scott - Dakota - Brown - Nicollet - Le Sueur - Rice - Goodhue - Wabasha - Blue Earth - Waseca - Steele - Dodge								
	10	1300CST			0	0			Heavy Snow
	11	0300CST							
	The town of Stewart received 7 inches while 6 inches of snow was measured at Chanhassen, Savage, Mankato, Litchfield and Stillwater								
MNZ041>045-047>059-064>066-073>074	Douglas - Todd - Morrison - Mille Lacs - Kanabec - Stevens - Pope - Stearns - Benton - Sherburne - Isanti - Chisago - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Meeker - Wright - Yellow Medicine - Renville - Mcleod - Redwood - Brown								
	17	0900CST			1	0			Blizzard
	18	1800CST							
	A major winter storm brought blizzard conditions with significant snowfall to western and central Minnesota. Snowfall reached a foot or more in Little Falls, Melrose, Alexandria and Staples with 6 to 11 inches in St. Cloud, Benson and Canby. Wind gusts to 60 mph on the 18th also resulted in dangerous wind chills of 70 below to western Minnesota. Many schools and businesses were closed on the 18th. Near Blizzard conditions were found as far south as Fairmont despite significantly less snowfall. Highway 14 from New Ulm to Sleepy Eye was closed for a time due to drifting snow. One man left his car after hitting a snowbank, and became lost in the whiteout conditions. His body was found a week later about 3/4 mile away from his vehicle and about 2 miles north of the town of Foley. M56OU								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MINNESOTA, Central and South Central

<p>MN060>063-067>070-075>076-082>083</p>	<p>Hennepin - Anoka - Ramsey - Washington - Sibley - Carver - Scott - Dakota - Nicollet - Le Sueur - Watonwan - Blue Earth</p>	<p>17 1400CST 18 0100CST</p>			<p>0 0</p>			<p>Ice Storm</p>	
<p>An extended period of rain and freezing rain resulted in significant icing conditions over parts of east central and southern Minnesota. Over 1 inch of rain occurred over much of the area resulting in street flooding due to snow clogged sewers. 1/2 to 1 inch thick ice accumulations over much of the Minneapolis/St. Paul metro area resulted in significant tree damage and power outages. More than 180,000 metro residents were without power for some part of the storm. Sporadic outages continued through the 22nd. The entire town of Lafayette in Nicollet County was without power for a time. 5 Red Cross shelters were opened in the metro area to assist people who were forced from their homes due to a lack of heat. Significantly colder air overspread the area the night of the 17th changing the rain to light snow and caused one foot thick ice to form on roads.</p>									
<p>MN077>078-084>088-093>096</p>	<p>Rice - Goodhue - Waseca - Steele - Dodge - Olmsted - Winona - Freeborn - Mower - Fillmore - Houston</p>	<p>17 1400CST 18 2300CST</p>			<p>0 0</p>			<p>Heavy Snow</p>	
<p>Significant rainfall of 1 inch across the area was followed by an abrupt change to colder weather. Temperatures dropped rapidly below freezing resulting in widespread icing and glaze. In addition, snow redeveloped in the early morning of the 18th with accumulations of 4 to 8 inches. Rochester received 7 inches while Lanesboro and Winona both received 6 inches. Strong winds brought near whiteout conditions at times. Schools were closed Thursday.</p>									
<p>MN041>045-047>070-073>078-082>085-091>093</p>	<p>Douglas - Todd - Morrison - Mille Lacs - Kanabec - Stevens - Pope - Stearns - Benton - Sherburne - Isanti - Chisago - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Meeker - Wright - Hennepin - Anoka - Ramsey - Washington - Yellow Medicine - Renville - McLeod - Sibley - Carver - Scott - Dakota - Redwood - Brown - Nicollet - Le Sueur - Rice - Goodhue - Watonwan - Blue Earth - Waseca - Steele - Martin - Faribault - Freeborn</p>	<p>18 1800CST 19 1700CST</p>			<p>0 0</p>			<p>Extreme Windchill</p>	
<p>More than 475 schools including those in the Minneapolis/St. Paul metro area were closed due to extreme cold and wind chill which lingered from the 18th when very cold air overspread the region. Wind chills were frequently 50 below zero or colder. The winds diminished on the 19th, however very cold conditions persisted into the 20th. Many locations neared record cold the morning of the 20th.</p>									
<p>MN074>079-082>088-091>096</p>	<p>Brown - Nicollet - Le Sueur - Rice - Goodhue - Wabasha - Watonwan - Blue Earth - Waseca - Steele - Dodge - Olmsted - Winona - Martin - Faribault - Freeborn - Mower - Fillmore - Houston</p>	<p>25 0200CST 26 1100CST</p>			<p>0 0</p>			<p>Heavy Snow</p>	
<p>5 to 8 inch snowfall across far southern Minnesota. Rochester and Mankato received 6 inches while Albert Lea received 8 inches.</p>									
<p>MN079-086>088-094>096</p>	<p>Wabasha - Dodge - Olmsted - Winona - Mower - Fillmore - Houston</p>	<p>26 1100CST 27 0300CST</p>			<p>0 0</p>			<p>Blizzard</p>	
<p>Heavy snow and strong winds brought blizzard conditions to a portion of the area. Caledonia reported 14 inches, 10 inches at Lanesboro and Winona, 8 inches at Rochester and Austin. Many roads were closed in Southeast Minnesota due to blowing snow and drifts as high as 15 feet in Houston County. 200 cars were abandoned on Interstate 90.</p>									
<p>MN041>044-047>049</p>	<p>Douglas - Todd - Morrison - Mille Lacs - Stevens - Pope - Stearns</p>	<p>28 0400CST 29 0500CST</p>			<p>0 0</p>			<p>Heavy Snow</p>	
<p>Strong low pressure system tracked across northern Iowa into Great Lakes bringing heavy snowfall to much of central Minnesota. Alexandria and Long Prairie received 7 inches of snow while 6 inches was measured at Melrose, Isle and Morris.</p>									
<p>MN041-047>048-054>057-064>065-073>078-082>088-091>096</p>	<p>Douglas - Stevens - Pope - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Yellow Medicine - Renville - Redwood - Brown - Nicollet - Le Sueur - Rice - Goodhue - Watonwan - Blue Earth - Waseca - Steele - Dodge - Olmsted - Winona - Martin - Faribault - Freeborn - Mower - Fillmore - Houston</p>	<p>28 2300CST 29 1100CST</p>			<p>0 0</p>			<p>Blizzard</p>	
<p>Strong northwest winds with gusts over 40 mph at times along with 2 to 5 inch snowfalls resulted in blizzard conditions over much of western and southern Minnesota. Visibilities were frequently near zero in the open country due to blowing snow. Interstate 90 closed near Austin for a time. Several school districts closed. Snowfall of 2 inches in Rochester resulted in setting new January snowfall record.</p>									
<p>MN041>045-047>070-073>079-082>088-091>096</p>	<p>Douglas - Todd - Morrison - Mille Lacs - Kanabec - Stevens - Pope - Stearns - Benton - Sherburne - Isanti - Chisago - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Meeker - Wright - Hennepin - Anoka - Ramsey - Washington - Yellow Medicine - Renville - McLeod - Sibley - Carver - Scott - Dakota - Redwood - Brown - Nicollet - Le Sueur - Rice - Goodhue - Wabasha - Watonwan - Blue Earth - Waseca - Steele - Dodge - Olmsted - Winona - Martin - Faribault - Freeborn - Mower - Fillmore - Houston</p>	<p>31 0400CST 31 2300CST</p>			<p>0 0</p>			<p>Extreme Cold</p>	
<p>Extremely cold air settled over the area on January 31st, and remained entrenched through February 4th. A new record low temperature for Minnesota was set in the town of Tower on 2/2. Numerous record low temperatures and record low high temperatures were set during the period at St. Cloud, Rochester and the Twin Cities. Minneapolis/St. Paul set three new record low temperatures as well as recording the second coldest day on record on 2/2. A mean temperature of 25 degrees below zero was measured that day with a high of 17 below and a low of 32 degrees below zero. This was within two degrees of tying the all-time record low temperature set in the Twin Cities and the coldest temperature recorded this century. Many central and southern</p>									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MINNESOTA, Central and South Central

Minnesota locations set new record low temperatures the morning of the 2nd. The governor closed all schools that day.

MINNESOTA, Northeast

MNZ012-018>021-025>026-033>038 Northern Cook / Northern Lake - Northern Itasca - Central St. Louis - Southern Lake - Southern Cook - Northern Cass - Southern Itasca - Southern Cass - Crow Wing - Northern Aitkin - Southern Aitkin - Southern St. Louis / Carlton - Pine

17	1800CST	0	0			Heavy Snow
19	0500CST					

An intense winter storm moved across the central plains, toward the Great Lakes, producing a variety of severe winter weather over northeast Minnesota and creating what many considered to be the worst storm since the Halloween Blizzard of 1991. Warm air moved into the region ahead of the storm, causing precipitation initially in the form of freezing rain. The freezing rain then changed over to snow, eventually producing from 9 to 18 inches, with the heavier amounts in the Arrowhead region of extreme northeast Minnesota. Duluth received 14.9 inches. As the storm moved away from the region, northwest winds increased, gusting to over 40 mph and causing near-blizzard conditions and wind chills as low as 70 below zero. Many roads were closed by snow that drifted as deep as 5 feet in places. The extreme weather conditions caused the closing of schools and curtailed mail delivery, bus service, and airport operations.

MNZ012-018>021-025>026-033>038 Northern Cook / Northern Lake - Northern Itasca - Central St. Louis - Southern Lake - Southern Cook - Northern Cass - Southern Itasca - Southern Cass - Crow Wing - Northern Aitkin - Southern Aitkin - Southern St. Louis / Carlton - Pine

28	0415CST	0	0			Heavy Snow
30	0430CST					

A strong winter storm moving through the upper Midwest produced heavy snowfalls over northcentral and northeast Minnesota, ranging from 6 to 16 inches. The heavier amounts fell along the north shore of Lake Superior where wind flow off the lake and terrain effects helped enhance the snowfall. Finland had 16 inches, Grand Marais received 14 inches, and a foot of snow fell on Silver Bay. After the center of the storm passed to the east, strong northwest winds created near-blizzard conditions and wind chills as low as 70 below zero.

MINNESOTA, Northwest

MNZ001>005-007>008-013>015-022-027-029>030 West Polk - Norman - Clay - Kittson - Roseau - West Marshall - East Marshall - Pennington - Red Lake - East Polk - Mahnomon - West Becker - Wilkin - West Otter Tail

17	1500CST	0	0			Blizzard
18	1400CST					

A strong low pressure system over the Central Plains brought a combination of heavy snow, strong wind, and subzero temperatures to northwest Minnesota. 16 inches of snow fell in Moorhead with most areas reporting 8 to 13 inches. A northwest wind gusting up to 55 mph created drifts up to 10 feet high. Law enforcement officials advised no travel and closed Interstate 94 from Moorhead to Fergus Falls, US Highway 10 from Moorhead to Detroit Lakes, and US Highway 2 from East Grand Forks to Crookston. The Clay County Sheriff threatened to arrest any non-emergency travellers. At the height of the blizzard, a National Guard tank was dispatched from Crookston to find a missing snowmobiler and a motorist. 4 people in 3 vehicles were stranded on the night of the 17th. The 4 occupants survived unharmed for several hours before they were found. Many schools closed at noon on the 17th and did not re-open until the 22nd. Several minor power outages were reported in Clay County.

MINNESOTA, Southeast

NONE REPORTED.

MINNESOTA, Southwest

MNZ071>072-080>081-089>090-097>098 Lincoln - Lyon - Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

17	1600CST	0	0	90K		Blizzard
18	1900CST					

A blizzard moved over the area from the northwest with snow and winds up to 45 mph. New snowfall was generally 2 to 4 inches, but schools, businesses, and other activities were brought to a halt and travel was impossible at times with zero visibility and blocked roads. Damage was mainly some downed power lines and broken pipes where furnaces failed.

MNZ081-089>090 Cottonwood - Nobles - Jackson

17	1700CST	0	0	350K		Ice Storm
18	0300CST					

Freezing rain caused severe icing which resulted in damage to trees and power lines. The damage was increased by strong winds which developed as the freezing rain changed to snow. Damage from a building fire near Mountain Lake was aggravated by the inability of firefighters to respond quickly due to the icy roads. Icing of furnace regulators also occurred resulting in furnace shutdowns.

MNZ089>090-097>098 Nobles - Jackson - Pipestone - Rock

24	2300CST	0	0	8K		Heavy Snow
25	1000CST					

Snow accumulating 5 to 10 inches fell over the southwest corner of Minnesota from Pipestone and Luverne east to the Jackson area. Minor drifting accompanied the snow. The only reported damage resulted from a non-injury collision between a semi and a snowplow on Interstate 90 near Beaver Creek.

MNZ071>072-080>081-089>090-097>098 Lincoln - Lyon - Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

29	0900CST	0	0	5K		Extreme Windchill
31	2359CST					

Bitterly cold air and strong winds caused wind chill readings as cold as 80 below zero. The extreme wind chills cancelled some schools and other activities and contributed to a water main break in Marshall.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MINNESOTA, West									
NONE REPORTED.									
MINNESOTA, West Central									
MNZ039-046		Traverse - Big Stone							
		10	1000CST 1400CST			0	0		Ice Storm
		Widespread freezing rain moved across the area from the middle morning to the early afternoon, laying down a thin layer of ice. Travel was significantly slowed as a result.							
MNZ039-046		Traverse - Big Stone							
		17 18	1500CST 1800CST			0	0		Blizzard
		Twelve to 15 inches of snow, high winds from 40 to 60 mph, and cold arctic air resulted in blizzard conditions and extreme wind chills from 40 below to 70 below from the middle afternoon of the 17th to the early evening of the 18th. Schools and some businesses were closed along with various activities canceled. Travel was extremely difficult with the near zero visibility. There were six to eight foot drifts in places with some roads blocked. Snowfall amounts included, 12 inches at Ortonville, 15 inches at Wheaton, Clinton, and Graceville.							
MNZ039-046		Traverse - Big Stone							
		28 29	2200CST 2300CST			0	0		Extreme Windchill
		Extreme wind chills of 50 below to 70 below developed from the late evening of the 28th to the late evening of the 29th as cold arctic air moved in and northwest winds increased.							
MNZ039-046		Traverse - Big Stone							
		29	0400CST 1000CST			0	0		Blizzard
		Two to five inches of snow had fallen from the early morning of the 28th through the middle morning of the 29th. Blizzard conditions developed in the early morning of the 29th as cold arctic air moved in and northwest winds increased to 25 to 45 mph.							
MISSISSIPPI, Central									
MSZ018		Bolivar							
		18	0745CST			0	0	5K	High Wind (G40)
		Several buildings received roof damage. Three vehicles were damaged and one destroyed. Winds were estimated at 40 mph and not associated with thunderstorms.							
MSZ035		Humphreys							
		18	0825CST			0	1	10K	High Wind (G40)
		High wind flipped a tractor trailer on Highway 49. One person was injured and taken to the hospital. The person required a few stitches and was released.							
Marion County Columbia		18	0930CST			0	0	10K	Tstm Wind/Hail
		A large tree was split in half and fell on a house causing extensive damage. Several other trees were blown down.							
MSZ028		Montgomery							
		18	0945CST			0	0	50K	High Wind (G40)
		An old vacant hardware store was destroyed. The roofs of a bank and library were blown off and there was water damage afterwards. Several other trees were blown down in Kilmichael.							
MSZ045		Neshoba							
		18	1030CST			0	0	4K	High Wind (G45)
		Slight damage was done to the roofs of two houses by straight line winds. The damage occurred 9 miles south of Philadelphia on county road 248 off state road 15.							
MSZ057		Jasper							
		18	1216CST			0	0	5K	High Wind (G40)
		Power lines were blown down on Highway 18 north of Bay Springs.							
Scott County 10 NW Forest to Forest		18	1500CST			0	0		Hail (0.75)
Scott County Forest		18	1530CST			0	0		Hail (0.75)
Neshoba County 5 S Philadelphia		18	1540CST			0	0		Hail (1.75)
Newton County Union		18	1540CST			0	0		Hail (0.75)
Washington County Hollandale		23	2030CST			0	0	5K	Tstm Wind/Hail
		Eight power poles were blown down and numerous trees were blown down. Several buildings were damaged.							
Newton County Chunky		26	0700CST			0	0		Hail (0.75)
Hinds County Jackson		26	0725CST			0	0	40K	Thunderstorm Wind (G50)
		The roofs of four buildings were damaged and an observatory was damaged a Millsaps College. Several trees and power lines were blown down.							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSISSIPPI, Central									
Hinds County									
Jackson	26	1300CST 1500CST			0	0			Flash Flood
			Numerous streets were flooded along with small creeks.						
Rankin County									
Brandon	26	1300CST 1500CST			0	0			Flash Flood
			Several small creeks overflowed their banks and numerous streets were flooded.						
Marion County									
Columbia Marion Arpt	26	1455CST			0	0	1K		Thunderstorm Wind (G50)
			Several trees were blown down.						
Jones County									
5 W Laurel	26	1505CST			0	0			Hail (0.75)
Covington County									
Collins	26	1520CST			0	0			Hail (1.00)
Jones County									
Ellisville	26	1530CST			0	0			Hail (1.00)
Jefferson Davis County									
Melba	26	1544CST			0	0			Hail (1.00)
Rankin County									
Pelahatchie	26	1600CST 1730CST			0	0			Flash Flood
			Many streets and road were underwater.						
Marion County									
Sandy Hook	26	1623CST			0	0			Hail (1.75)
Lamar County									
4 NE Oak Grove to Oak Grove	26	1702CST			0	0			Hail (0.75)
Forrest County									
Hattiesburg	26	1730CST			0	0	250K		Hail (2.75)
			Numerous windows were broken out and numerous automobiles were damaged.						
Lauderdale County									
Meridian	30	1735CST			0	0			Hail (0.75)
Simpson County									
Mendenhall	30	1827CST			0	0	1K		Tstm Wind/Hail
			A couple of trees and power lines were blown down and a trailer had minor damage.						
Neshoba County									
5 NE Philadelphia	30	1840CST			0	0			Hail (0.75)
Hinds County									
Clinton	30	1930CST			0	0			Hail (0.75)
Rankin County									
Sand Hill	30	2000CST			0	0	30K		Thunderstorm Wind (G50)
			Three chicken houses were totally destroyed.						
Rankin County									
2 SE Cross Roads	30	2045CST			0	0			Thunderstorm Wind (G55)
			Numerous trees were blown down. Tin was blown off the roof of a volunteer fire department. A barn was totally destroyed.						
Kemper County									
Porterville	30	2125CST			0	0			Hail (0.88)
MISSISSIPPI, North									
De Soto County									
South Haven	18	0850CST 0855CST			0	0	10K		Thunderstorm Wind
			Numerous trees and power lines were blown down.						
Tallahatchie County									
Leverett	18	0850CST 0855CST			0	0	10K		Thunderstorm Wind
			Numerous homes and buildings suffered roof and other damage. One tree was uprooted. Several tree limbs, antennas and power lines were knocked down.						
Marshall County									
Byhalia	18	0905CST 0906CST	0.1	10	0	0	0.05K		Tornado (F0)
			A tornado briefly touched down producing little damage.						
Pontotoc County									
5 SE Pontotoc to 4 SE Pontotoc	18	1040CST 1045CST	1	25	0	1	30K		Tornado (F0)
			A mobile home was destroyed at the Black Zion Community near Pontotoc. One woman sustained minor cuts and bruises. Six other mobile homes were damaged. Trees and power lines were also blown down.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MISSISSIPPI, North</u>									
Lee County Tupelo Arpt	18	1045CST 1050CST			0	0	10K		Thunderstorm Wind
A roof was blown off a maintenance shed at the Tupelo Airport.									
Itawamba County Fulton	18	1100CST 1105CST			0	0	5K		Thunderstorm Wind
A shed was damaged. Several trees and power lines were knocked down.									
Prentiss County Booneville	18	1113CST 1118CST			0	0	5K		Thunderstorm Wind
A few trees were blown down.									
Lee County Tupelo	18	1115CST 1120CST			0	0	5K		Thunderstorm Wind
Several small buildings near a Wal-Mart were blown away. A diesel truck was overturned.									
Lowndes County Columbus	18	1135CST 1140CST			0	0	5K		Thunderstorm Wind
Several signs were blown down. A large tree was knocked down as well.									
Monroe County Smithville	18	1140CST 1145CST			0	0	2K		Thunderstorm Wind
A few trees were blown down.									
Tishomingo County Iuka	18	1153CST 1158CST			0	0	2K		Thunderstorm Wind
Some trees were knocked down.									
<u>MISSISSIPPI, South</u>									
Hancock County Pearlington	18	1315CST			0	0	8.5K		Thunderstorm Wind
A tin roof was blown off a marina.									
Hancock County Waveland	18	1345CST			0	0	1K		Lightning
Lightning struck a transformer and interrupted electric service to several customers.									
Harrison County 10 N Gulfport to Gulfport	18	1410CST			0	0	0.50K		Thunderstorm Wind
A mobile home sustained minor damage.									
Jackson County Hurley	18	1520CST	0.1	10	0	0			Tornado (F0)
The public reported that a tornado touched down momentarily without causing any damage.									
Hancock County 15 N Kiln to Kiln	24	0215CST			0	0	1K		Thunderstorm Wind
Trees were downed on Wolfe Creek Road in Standard Community.									
Hancock County 10 N Kiln to Kiln	24	0230CST			0	0	3K		Thunderstorm Wind
Trees were downed on Wolfe Creek Road in Standard Community.									
Harrison County Biloxi	24	0330CST			0	0	7K		Thunderstorm Wind
Highway lights were blown over on Mississippi State Highway 90.									
Amite County Gillsburg	26	1210CST			0	0			Hail (1.75)
Civil Defense reported hail covered the ground.									
Pike County Chatawa	26	1225CST			0	0			Funnel Cloud
Sheriff's Office reported a funnel cloud. One half inch hail was reported in Magnolia.									
Amite County Liberty	26	1230CST			0	0	2K		Thunderstorm Wind
Trees downed on Bean Road.									
Pike County Mc Comb	26	1235CST			0	0			Hail (1.00)
Quarter size hail was reported.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSISSIPPI, South									
Pike County Fernwood	26	1330CST			0	0			Hail (1.25)
									Golf ball size hail was reported by Civil Defense.
Walthall County 8 N Salem	26	1410CST			0	0			Hail (0.88)
									Nickel size hail was reported.
Jackson County 10 NNE Pascagoula	26	1500CST			0	0	0.50K		Thunderstorm Wind
									Thunderstorm winds damaged a mobile home roof awning.
Pike County 5 NNW Osyka	26	1800CST			0	0	75K		Thunderstorm Wind
									Sheriff's Office reported a house and two sheds damage, a barn destroyed and a few trees downed.
MISSISSIPPI, Southeast									
George County Lucedale	26	1655CST 1656CST			0	0	2K		Thunderstorm Wind (G50)
									SEVERAL TREES AND POWER LINES WERE BLOWN DOWN JUST EAST OF LUCEDALE.
Wayne County Clara	26	1825CST 1826CST			0	0	2K		Thunderstorm Wind (G50)
									SEVERAL TREES AND POWER LINES WERE BLOWN DOWN NEAR CLARA.
Perry County New Augusta	26	1945CST 1946CST			0	0	2K		Thunderstorm Wind (G50)
									SEVERAL TREES AND POWER LINES WERE BLOWN DOWN OFF OF US HWY 98 JUST NORTH OF NEW AUGUSTA.
MISSOURI, East									
MOZ041>042-047>052- 059>065-072>075- 084>085-099					0	0			Winter Storm
		02 0300CST 2300CST							A winter snowstorm moved northeast into central and eastern Missouri, dropping 6 to 9 inches of snow over the area. Two persons were killed in an automobile crash on a snowy road near Mexico MO in Audrain County. Numerous minor accidents also occurred. More than 160 airline flights were cancelled out of Lambert airport in St. Louis. Most schools scheduled to resume classes January 2nd after the Christmas holiday were closed for another day, while some schools in rural areas remained closed for several days.
MOZ026>027-034>036- 041-050-052-060>064					0	0			Winter Storm
		03 1600CST 04 1124CST							A snowstorm with moderate to occasional heavy snow moved across central, northeast, and east central Missouri the night of the 3rd and morning of the 4th. Heavier snow fell in western Missouri but the storm weakened slightly as it moved east. Two to four inches of snow fell across the area with the greatest amounts along the Mississippi river in eastern Marion and Ralls counties. Many schools were closed in the St. Louis metro area on the 4th. More than 40 flights were cancelled at Lambert Airport on the 3rd.
St. Charles County St Peters	18	0720CST			0	0	200K		Thunderstorm Wind (G93)
									Thunderstorm winds gusting to around 80 mph damaged about 12 homes in St. Peters. Several garage doors and associated walls were blown out. Roof and siding damage occurred as well.
St. Francois County Farmington	18	0815CST			0	1	15K		Thunderstorm Wind (G48)
									Thunderstorm wind gusts in association with a strong cold front blew a tree onto a van on Old Fredericktown Road in Farmington. The driver suffered minor injuries. Other trees were downed along County Road N.
MISSOURI, Lower									
Pemiscot County 12 W Caruthersville to 10 W Caruthersville	18	0805CST 0811CST	2	50	0	0	50K		Tornado (F1)
									A tornado touched down destroying a farm shop and heavily damaging other farm buildings and a house with large farm equipment scattered over the area. Several houses were damaged. Numerous trees and power lines were knocked down. Some telephone poles were pulled out of the ground.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, Lower									
Pemiscot County 1 N Wardell	18	0830CST 0835CST			0	0	2K		Thunderstorm Wind
									A satellite dish was pulled out of the ground. A roof was partially damaged.
Pemiscot County Mccarty	18	0830CST 0835CST			0	1	20K		Thunderstorm Wind
									A mobile home was overturned. One child inside the mobile sustained minor injuries. Two automobiles were also damaged.
MISSOURI, Northwest									
									NONE REPORTED.
MISSOURI, Southeast									
MOZ076-086>087-100-107>111	Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott								
	02	0800CST 2200CST			0	0			Winter Storm
									A mixture of winter precipitation types over southeast Missouri resulted in very hazardous driving conditions. Snowfall amounts increased from southeast to northwest, with amounts up to 6 inches over parts of Bollinger and Carter Counties. Southeast of there, only 2 to 3 inches fell from Cape Girardeau to Bloomfield. Many schools dismissed early as road conditions deteriorated. Numerous accidents occurred, but no serious injuries were reported. This part of Missouri escaped a more serious snowfall that affected areas further north.
MOZ076-086>087-100-107>112-114	Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott - Mississippi - New Madrid								
	06	0400CST 2300CST			0	0			Snow
									A light to moderate snowfall resulted in 9 accidents. Snowfall amounts increased from west to east. Generally 2 to 4 inches fell east of Poplar Bluff, and an inch or less fell from Poplar Bluff west.
Carter County 2 W Elsinore	18	0745CST			0	0			Thunderstorm Wind
									Roofs were blown off and trees were down.
Ripley County 8 WSW Doniphan	18	0745CST			0	0	8K		Thunderstorm Wind
									A few trees were down.
Wayne County 3 ENE Piedmont	18	0750CST			0	1	75K		Thunderstorm Wind
									Two mobile homes and a barn were heavily damaged or destroyed by severe thunderstorm winds. One person sustained minor injuries.
Ripley County 1 E Naylor	18	0750CST			0	0	8K		Thunderstorm Wind
									Two barns were damaged, and power lines were down.
Butler County 10 W Poplar Bluff	18	0820CST			0	0	10K		Thunderstorm Wind
									Thunderstorm winds downed trees and power lines.
Stoddard County 5 SE Dexter	18	0830CST			0	0	8K		Thunderstorm Wind
									Large tree limbs were down on power lines.
New Madrid County Risco	18	0839CST			0	0	75K		Thunderstorm Wind
									Part of the roof of the Risco elementary school was blown off. School was in session, but nobody was hurt.
New Madrid County Matthews	18	0845CST			0	0	5K		Thunderstorm Wind
									Power poles were snapped.
Perry County 8 SE Perryville	18	0904CST			0	0	2K		Thunderstorm Wind
									Two utility poles were snapped by wind.
Mississippi County .5 S East Prairie to 1.5 NE East Prairie	18	0907CST 0911CST	2	50	0	1	750K		Tornado (F1)
									The tornado cut through the eastern edge of the city. Three businesses, including a popcorn factory and a tax service office, were heavily damaged. A welding company was destroyed. Several homes received light to moderate damage, mainly to roofs and windows. Uprooted trees fell on cars and power lines. Residents of the affected area remained without power for 12 to 24 hours. One person sustained minor cuts to her legs when a picture window was blown in. Outside the city limits, a barn was destroyed on Highway 105. This tornado struck the same spot where a young girl was killed by a tornado in the spring of 1981.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, Southeast									
Cape Girardeau County									
Jackson	18	0914CST			0	0	50K		Thunderstorm Wind
			The Wal-Mart store lost part of its roof. No injuries occurred, and the store remained open.						
Scott County									
2 NW Sikeston	18	0925CST			0	0	6K		Thunderstorm Wind
			Six utility poles were snapped just north and west of Sikeston.						
MISSOURI, Southwest									
MOZ070>071-081>083-091>092-095>098-104>105									
Pulaski - Phelps - Laclede - Texas - Dent - Webster - Wright - Christian - Douglas - Howell - Shannon - Taney - Ozark									
	01	2200CST			0	0	10K	0	Winter Storm
	02	1700CST							
			A winter storm produced heavy snow across much of southwest into central Missouri during the evening of the first into the early morning of the second. Twelve inches of snow fell from Ava to Houston while greater than eight inches fell from Branson to West Plains northward to Rolla. Damage estimates were due to the cost of snow removal.						
Mcdonald County									
Noel	17	1932CST			0	0			Hail (0.88)
Mcdonald County									
Goodman	17	1935CST			0	0			Hail (1.00)
Christian County									
Oldfield	17	2245CST			0	0	2K	0	Thunderstorm Wind
			Thunderstorm winds downed power lines.						
Newton County									
Neosho	17	2315CST			0	0			Hail (0.88)
Jasper County									
Joplin	17	2340CST			0	0			Hail (0.75)
Christian County									
Ozark	18	0200CST			0	0			Thunderstorm Wind (G52)
MONTANA, Central									
MTZ003>005									
Northwest Chinook Zone - Southwest Montana - North Central Montana									
	01	0000MST			0	0			Heavy Snow
	02	1600MST							
			5 to 7 inches of snow fell at several spots from North central to Southwest Montana. 12 inches was reported at Millegan.						
MTZ003>006									
Northwest Chinook Zone - Southwest Montana - North Central Montana - Central Montana									
	03	0700MST			0	0			Winter Storm
	04	0700MST							
			A winter storm brought heavy snow to central Montana. 5 to 9 inches of snow fell over the area. Ice accumulating on power lines knocked out power for 1800 people in north central Montana, between Kremlin and Chester. Schools were closed due to dangerous road conditions.						
MTZ003									
Northwest Chinook Zone									
	12	0300MST			0	0			High Wind
			High winds blew a shed onto a llama on a farm 4 miles south of Great Falls. Wind gusts of 64 mph at Cut Bank and 52 mph at Great Falls were recorded overnight.						
MTZ003									
Northwest Chinook Zone									
	16	0600MST			0	0			Heavy Snow
	17	2000MST							
			Heavy snow fell over the northern rockies. St. Mary reported 8 inches while East Glacier had 14.						
MTZ004									
Southwest Montana									
	24	0400MST			0	0			Heavy Snow
		1500MST							
			5 inches of snow fell at Fort Logan in southwest Montana.						
MTZ004>006									
Southwest Montana - North Central Montana - Central Montana									
	27	0000MST			0	0			Heavy Snow
	28	1200MST							
			5 to 8 inches of snow fell across north central Montana with up to 18 inches reported in the southwestern mountains.						
MTZ004									
Southwest Montana									
	28	2100MST			1	0			Extreme Cold
	29	1200MST							
			Lorraine Wood, age 75, in Craig, fell on some ice while trying to get into her car, the night of the 28th. She was unable to get up and died of exposure overnight. Temperatures were well below normal for this time of year, estimated to be between zero and 10 below zero. F75OU						
MTZ003>006									
Northwest Chinook Zone - Southwest Montana - North Central Montana - Central Montana									
	30	0300MST			0	0			Extreme Cold
		1400MST							
			Very cold arctic air along with clear skies allowed morning temperatures to fall to record levels. Overnight low temperatures of 30						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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MONTANA, Central

to 45 below zero were common. Some unofficial cold spots included: -50 at Dodsen and Galata, -51 at Loma and -55 at Wild Horse Station. Winds later in the morning caused dangerous wind chills of 80 to 90 below zero.

MONTANA, East

MTZ008

Northeast Montana

03	0120MST 1400MST				0	0		Heavy Snow
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Heavy snow fell in a narrow band from Malta to Glasgow. Amounts ranged from 5 to 8 inches.

MTZ008

Northeast Montana

16	2000MST				0	0		Heavy Snow
17	1500MST							

Heavy snow fell across portions of eastern Montana. Vida reported 5 inches.

MTZ008

Northeast Montana

30	0100MST 1000MST				0	0		Extreme Cold
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Temperatures dipped to record and near-record lows across northeast Montana. 39 degrees below zero was reported at Glasgow, 36 below zero reported in Glendive and 34 below zero in Sidney. Wind chill readings ranged from -64 to -86.

MONTANA, South

MTZ009

Southeast Montana

01	0600MST 1800MST				0	0		Winter Storm
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Seven inches of snow fell at Powderville, northeast Powder River County of southeast Montana.

MTZ009

Southeast Montana

03	0700MST				0	0		Winter Storm
04	0700MST							

Seven inches of snow fell at Albion, in Carter County of southeast Montana.

MTZ007

South Central Montana

03	0700MST				0	0		Winter Storm
04	0700MST							

Seven inches of snow fell at Cooke City, in southern Park County of south central Montana.

MTZ009

Southeast Montana

03	0700MST				0	0		Winter Storm
04	0700MST							

Five inches of snow fell at Fallon, in Prairie County of east central Montana.

MTZ007

South Central Montana

03	1700MST				0	0		Winter Storm
04	0600MST							

Five inches of snow fell at Rapelje, in northern Stillwater County of south central Montana.

MTZ007

South Central Montana

04	0000MST 0700MST				0	0		Winter Storm
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Five inches of snow fell at Nye, in southwest Stillwater County of south central Montana.

MTZ007

South Central Montana

24	0400MST 2200MST				0	0		Winter Storm
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Five inches of snow fell at Gardiner, in southern Park County of south Central Montana.

MTZ007

South Central Montana

24	1000MST 2200MST				0	0		Winter Storm
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Six inches of snow fell at Rapelje, in northern Stillwater County of south central Montana.

MTZ007

South Central Montana

25	0000MST				0	0		Flood
26	2359MST							

Five homes were flooded near Silesia in northern Carbon County of south central Montana due to ice jams on the lower Rock Creek. Damage amounts unknown.

MTZ007

South Central Montana

28	0000MST 1200MST				0	0		Winter Storm
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Five inches of snow fell at Cooke City, southeast Park County in south central Montana.

MONTANA, West

MTZ001>002

Northwest Montana - West Central Montana

03	0800MST				0	0		Heavy Snow
04	0800MST							

In Flathead County, 8 inches of new snow at the base and 20 inches at the summit of Big Mountain Ski Resort; 7 inches of new snow 5 miles south of Whitefish; 12 inches of new snow at Condon; 16 inches of new snow at Hungry Horse Dam; 8 inches at Kalispell; 8 inches at Marion; 6 inches at Eureka, West Glacier, Essex, and Coram; 5 inches at Glacier Park Airport.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MONTANA, West

In Missoula County, 11 inches of new snow at Seeley Lake.

MTZ002	West Central Montana								
	18	2200MST			0	0			Heavy Snow
	19	0915MST							

6 inches new snow at Lolo Pass, Missoula County.

MTZ001>002	Northwest Montana - West Central Montana								
	19	0800MST			0	0			Heavy Snow
	20	0800MST							

In Flathead County, 6 inches new snow at Big Mountain Ski Resort.

In Missoula County, 5 inches new snow in one hour 1015 MST to 1115 MST 1/19/96, 5 miles west of Missoula; 10 inches new snow at Lindberg Lake; 19 inches at Seeley Lake. In Mineral County, 8 inches new snow at St. Regis.

MTZ001>002	Northwest Montana - West Central Montana								
	20	2100MST			0	0			Heavy Snow
	21	0239MST							

6 inches of new snow at Thompson Falls, Sanders County; at Hamilton, in Ravalli County; at Sula, Ravalli County; and at Creston in Flathead County. 8 inches new snow at Heron and 12 inches at Polebrigde of Flathead County. 15 inches of new snow at Potomic of Missoula County 1/19-21/96.

MTZ001>002	Northwest Montana - West Central Montana								
	23	2000MST			0	0			Heavy Snow
	24	1955MST							

8 inches new snow at Huson and 9 inches at Potomic of Missoula County. In Flathead County, 6 inches new snow at Essex and 6 inches at the base and 10 inches at the summit of Big Mountain Ski Resort.

MTZ002	West Central Montana								
	24	1000MST			0	0			Heavy Snow
	25	0925MST							

9 inches new snow at Evaro, Missoula County.

MTZ001>002	Northwest Montana - West Central Montana								
	27	0800MST			0	0			Heavy Snow
	28	0700MST							

In Missoula County, 8.5 inches of new snow 5 miles south of Lolo;

and 11 inches new snow at Potomic. 8 inches new snow at Rocky Mountain Lab in Hamilton of Ravalli County. 6 inches new snow at St. Ignatius of Lake County. 9 inches new snow at Superior of Mineral County.

NEBRASKA, Central

NEZ004>005-022>025-035>038-056>059-069>071
Sheridan - Cherry - Garden - Grant - Hooker - Thomas - Arthur - Mcpherson - Logan - Custer - Deuel - Keith - Perkins - Lincoln - Chase - Hayes - Frontier

17	0900MST			1	0	230K		Winter Storm
18	2100MST							

A major winter storm with sustained winds of 40 mph and gusts to 65 mph dropped 5 to 6 inches of snow over Sheridan, Cherry, Grant, Thomas and Custer counties of North Central Ne. Three inches to trace amounts fell over Southwest and West Central Ne. The wind combined with temperatures from 5 above to 5 below zero produced wind chills from 45 to 65 below zero and reduced visibilities to near zero on the 17th thru the 18th. A portion of Interstate 80 from Ogallala to York was closed from the night of the 17th thru the morning of the 19th.

A 52 year old man was found frozen to death in his garage in Arnold Ne., Custer County on the 18th. Power lines whipped by the high winds caused 200k damage to a power substation in Broken Bow, Custer Co. In Imperial, Chase County, three 21,000 gal fiberglass fertilizer storage tanks were blown over onto a pickup causing extensive damage to the pickup and the 3 tanks. M52PH

NEBRASKA, East

NEZ012-015-030>031-033
Cedar - Thurston - Boone - Madison - Cuming

17	0400CST			0	0	32K		High Wind (G61)
18	0600CST							

Winter storm winds gusting to 65 mph resulted in damage to glass displays, a glass door, a roof, and a portable livestock building in Norfolk. Winds gusting to 70 mph demolished an \$18,000 building in Hartington and destroyed grain bins in Beemer. High winds damaged part of the Albion Elementary School addition that was under construction and did tree and shed damage in Thurston County.

NEZ006>010-026>029	Keya Paha - Boyd - Brown - Rock - Holt - Blaine - Loup - Garfield - Wheeler								
	17	1500CST			0	0	10K		Blizzard
	18	1000CST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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NEBRASKA, East

Deep low pressure moving east across Kansas combined with Arctic high pressure diving southeast to produce blizzard conditions over North Central Nebraska. While most areas received 3 to 5 inches of new snow, parts of Brown County reported 6 to 8 inches. The new snow and northwest winds gusting to 60 mph created near-zero visibilities and snow drifts up to 8 feet. Highways and local roads were impassable. The strong winds and single digit temperatures combined to produce extreme wind chills of 45 to 60 degrees below zero. All schools and most businesses were closed the 18th. Numerous local power outages occurred; lasting an average of 2 to 3 hours. Only minor livestock losses were reported, which included a few hogs in Holt County.

NEZ030

Boone

17	1800CST	0	2					Extreme Windchill
18	0600CST							

In two separate incidents, two men suffered from frostbite after their cars stalled. An 80 year old man from Battlecreek was traveling home when rain changed to snow and froze his accelerator pedal. After trying to flee his vehicle, he turned back and spent the night in his truck. A 46 year old Tilden man slid off the road and with a frozen ignition was unable to run his heater. Bundled up in winter clothes and a blanket he spent the night in his car, but suffered frostbite to his feet. Both men were hospitalized.

NEZ050

Butler

17	1830CST	0	0	5K				High Wind (G56)
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High winds gusting to 65 mph resulted in a gaping 32x40 foot hole in a chicken house roof and the loss of 300 chickens north of David City.

NEZ011>012-015>018-030>034-042>045-050>053-065>068-078-088>093

Knox - Cedar - Thurston - Antelope - Pierce - Wayne - Boone - Madison - Stanton - Cumming - Burt - Platte - Colfax - Dodge - Washington - Butler - Saunders - Douglas - Sarpy - Seward - Lancaster - Cass - Otoe - Saline - Jefferson - Gage - Johnson - Nemaha - Pawnee - Richardson

17	1900CST	0	0					Extreme Windchill
19	0200CST							

A blast of Arctic air invaded eastern Nebraska during the afternoon of the 17th. The day started out with dense fog and temperatures around freezing. By late afternoon, a large temperature gradient had been established as Norfolk had switched over to freezing drizzle and Falls City was in the 60's. A strong cold front moved through the area plummeting temperatures and was accompanied by sustained winds from 30 to 40 mph with gusts to 60 mph. While light rain preceded the frontal passage, only a dusting to 1 inch of snow fell behind the cold front. Extreme wind chills from -40 to -60 degrees persisted for 31 hours.

NEZ066

Lancaster

19	0100CST	0	0	100K				Extreme Cold
	0600CST							

Pipes froze and burst damaging four floors in an office building in Lincoln's Haymarket District.

NEZ011>012-015>018-030>034-042>045-050>053-065>068-078-088>093

Knox - Cedar - Thurston - Antelope - Pierce - Wayne - Boone - Madison - Stanton - Cumming - Burt - Platte - Colfax - Dodge - Washington - Butler - Saunders - Douglas - Sarpy - Seward - Lancaster - Cass - Otoe - Saline - Jefferson - Gage - Johnson - Nemaha - Pawnee - Richardson

26	0800CST	0	0					Winter Storm
	2000CST							

An intense winter storm produced near blizzard conditions and left 3 to 10 inches of snow in its wake. A general 5 to 6 inch band of snow fell from Lincoln and Auburn northeast to Omaha and Tekamah. Heavier amounts of 7 to 10 inches were reported in Papillion and continued into western Iowa. In addition to the snow, strong winds from 30 to 40 mph reduced visibilities to less than one mile for over 12 hours in Lincoln and Omaha areas. Wind chills ranged from 30 to 40 degrees below zero. Numerous schools were closed and several businesses closed by late afternoon.

NEZ052

Douglas

31	2300CST	0	0	750K				Extreme Cold
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As temperatures approached 20 degrees below zero, a water main froze and burst damaging several hundreds of thousands of dollars worth of furniture in a furniture showroom.

NEBRASKA, Extreme Northeast

NEZ013>014

Dixon - Dakota

29	0900CST	0	0					Extreme Windchill
31	2359CST							

Bitterly cold air and strong winds combined to create wind chill readings as cold as 60 below zero.

NEBRASKA, Extreme Southwest

NEZ079>081

Dundy - Hitchcock - Red Willow

17	1100MST	0	0					High Wind (G56)
18	0300MST							

High winds and extreme cold hit the area around midday and lasted until early morning. Damage occurred to trees, fences, power lines, and roofs. Traffic was halted on roads.

NEBRASKA, South Central

NEZ039>041-046>049-060>064-072>077-082>087

Valley - Greeley - Nance - Sherman - Howard - Merrick - Polk - Dawson - Buffalo - Hall - Hamilton - York - Gosper - Phelps - Kearney - Adams - Clay - Fillmore - Furnas - Harlan - Franklin - Webster - Nuckolls - Thayer

17	1300CST	0	0					Blizzard
18	1200CST							

A very strong winter storm brought blizzard conditions to South-Central Nebraska. Only 4 or less inches of snow fell across the region but this snow was driven by 60 to 90 mph winds. Temperatures fell over 30 degrees at the beginning of the event to readings near zero. This produced wind chills of 50 to 70 below zero. Most of the snow was over during the early morning hours

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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NEBRASKA, South Central

of the 18th but the strong winds continued making for whiteout conditions. Interstate 80 was closed until the 19th as it was littered with nearly 300 vehicles. US Highway 30 was also a parking lot for about 250 abandoned vehicles. No deaths or serious injuries were directly related to this blizzard.

NEBRASKA, West

NEZ001>003-019>021-054>055 **Sioux - Dawes - Box Butte - Scotts Bluff - Banner - Morrill - Kimball - Cheyenne**

16	2200MST	0	0						Blizzard
18	1900MST								

Strong winds, snow and cold temperatures combined to produce blizzard conditions. During that time, winds gusted to as high as 55 MPH, creating wind chill temperatures as low as 70 degrees below zero. Two to six inches of snow fell over the panhandle through the evening of the 17th. The wind and snow created very low visibilities in blowing snow. Some schools were cancelled on the 17th.

NEVADA, North

NVZ007

East Central Nevada

24	1200PST	0	0						Winter Storm
25	0900PST								

HEAVY SNOW...24 HOUR TOTAL 24" SINCE NOON 01/24/96 AT CLOVER VALLEY, 30E ELKO.

NVZ006

Northeast Nevada

24	1200PST	0	0						Winter Storm
25	1000PST								

HEAVY SNOW...24 HOUR TOTAL 11" SINCE NOON 01/24/96 AT WILDHORSE RESERVOIR, 60 MILES NORTH OF ELKO.

NVZ006

Northeast Nevada

24	1200PST	0	0						Winter Storm
25	0900PST								

HEAVY SNOW...24 HOUR TOTAL 15" AT SPRING CREEK, 15 MILES SOUTH OF ELKO.

NVZ006

Northeast Nevada

24	1200PST	0	0						Winter Storm
25	0800PST								

HEAVY SNOW...24 HOUR TOTAL 8" AT BATTLE MOUNTAIN, 75 MILES WEST OF ELKO.

NVZ006

Northeast Nevada

24	1200PST	0	0						Winter Storm
25	0900PST								

HEAVY SNOW...24 HOUR TOTAL 8" AT TUSCARORA, 25 MILES NORTHWEST OF ELKO.

NVZ006

Northeast Nevada

24	1300PST	0	0						Winter Storm
25	0900PST								

HEAVY SNOW...24 HOUR TOTAL 18" SINCE NOON 01/24/96 AT WELLS, 50 MILES EAST OF ELKO.

NVZ006

Northeast Nevada

24	1300PST	0	0						Winter Storm
25	1100PST								

HEAVY SNOW...24 HOUR TOTAL 6" AT JACKPOT, 90 MILES NORTHEAST OF ELKO.

NEVADA, South

NVZ009

Extreme Southern Nevada

16	1600PST	0	0	500K					High Wind (G48)
17	1300PST								

Strong winds associated with a vigorous cold front swept across extreme southern Nevada causing considerable damage. Sustained winds over 40 mph around the Las Vegas Valley were recorded during the period. Numerous trees and power poles were toppled damaging cars and homes. Areas of blowing dust on US Highway 95 between Henderson and Searchlight reduced visibility to near zero for several hours resulting in several minor collisions. Notable damage also occurred in the Lake Mead Recreation Area where docks were broken and boats were battered.

NEVADA, West

NVZ004

West Central Nevada

03	0630PST	0	0						High Wind (G53)
	0730PST								

Strong winds were reported across the area with maximum gusts of 45 knots in Gardnerville and 46 knots in Windy Hill.

NVZ004

West Central Nevada

15	0900PST	0	0						High Wind (G61)
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NVZ004

West Central Nevada

15	1312PST	0	0						High Wind (G56)
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NVZ004

West Central Nevada

16	1500PST	0	0						High Wind (G70)
	1700PST								

A strong pacific weather system moved into Northern Nevada bringing very strong west winds along the eastern slopes of the Central Sierra and extreme Western Nevada. Gusts up to 76 knots were reported in Minden where many roofs were damaged along with many trees and fences down. Other strong gusts were 61 knots in Gardnerville, 70 knots in Stead, and 57 knots at Pyramid

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage			Character of Storm
					Killed	Injured	Property	Crops	

NEVADA, West

Lake.

Winds of 52 knots smashed a large plate glass window in a store in Carson City.

NVZ001-003

Truckee-Tahoe Area - Extreme Western Nevada

18	1530PST 2000PST	0	0						High Wind (G84)
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An intense Pacific storm system brought strong gusty winds to the Lake Tahoe/Truckee area and Extreme Western Nevada. Winds sustained at 35 knots were reported in the Yerington area. Winds gusting up to 84 knots were reported at the Kirkwood Ski area. Gusts 63 knots were reported in Minden. A gust of 69 knots was also reported in South Reno. About 3,000 people in the Stead area and 1,100 people in the Carson City area were left without power due to several power lines blown down due to the strong winds.

NVZ001

Truckee-Tahoe Area

18	1530PST	0	0						Heavy Snow
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Heavy snow of up to 12 inches was reported in Incline Village near Lake Tahoe in a 12 hour period.

NVZ003

Extreme Western Nevada

19	0600PST 0900PST	0	0						High Wind (G70)
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A strong Pacific storm system brought strong winds to areas of Western Nevada. Winds of up to 70 knots were reported in Carson Valley area where a motel sign was severely damaged.

NVZ001>002

Truckee-Tahoe Area - Central Sierra East Slopes

21	0030PST 1700PST	0	0						Heavy Snow
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A strong Pacific storm system brought heavy snow to areas around the Lake Tahoe/Truckee areas and the Central Sierra East Slopes. Some of the heavier snow totals include 16-20 inches at Prosser Reservoir, 16 inches at Portola, 14 inches at Sierraville, 14 inches at Markleeville, and 13 inches at South Lake Tahoe. Wind and heavy snow combined brought a large tree down onto a house in the Lake Tahoe area. Severe structural damage occurred to the house along with broken furniture.

NVZ001

Truckee-Tahoe Area

24	0200PST 0400PST	0	0						High Wind (G65)
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A cold low pressure system brought strong winds to areas of the Lake Tahoe/Truckee areas and Extreme Western Nevada. A gust of 65 knots was reported in Southwest Reno along with a gust of 59 knots recorded in the same location about 2 hours later.

NVZ001-003

Truckee-Tahoe Area - Extreme Western Nevada

24	0600PST 2100PST	0	0						Heavy Snow
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Alpine Meadows Ski resort reported 29-34 inches of snow in a 24 hour period. Heavenly Ski resort reported 16-26 inches of snow in a 24 hour period. Mount Rose Ski resort reported 24-32 inches of new snow in a 24 hour period. 15 inches of new snow was recorded overnight in Truckee, CA. Sugar Bowl Ski area received 12 inches of snow in a 12 hour time. 6 inches of snow in 4 hours was recorded in Virginia City.

NVZ003

Extreme Western Nevada

25	0100PST 0400PST	0	0						High Wind (G87)
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Winds gusting at an estimated 87 knots caused several power lines to fall in Washoe Valley. This caused power outages for about 200 people in surrounding areas.

NVZ001-003

Truckee-Tahoe Area - Extreme Western Nevada

27	0300PST 1700PST	0	0						Heavy Snow
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An intense Pacific storm system brought heavy snow to areas of the Lake Tahoe/Truckee areas. 12 inches of new snow was reported at Kings Beach, 12 inches at North Lake Tahoe, 10 inches in Galena, 24 inches of new snow has fallen in the Sugar Bowl Ski area in a 12 hour period.

NEW HAMPSHIRE, North and Central

NHZ002>010-013>014

Southern Coos - Northern Grafton - Northern Carroll - Southern Grafton - Southern Carroll - Sullivan - Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham

02	2300EST	0	0						Heavy Snow
03	1800EST								

From 6 to 18 inches of snow fell over New Hampshire as a low pressure center moved up the Atlantic Coast and then out to sea off Cape Cod. The heaviest accumulations of snow were in the southern and central sections of the state.

NHZ002

Southern Coos

05	1415EST	1	1						Avalanche
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A group of four hikers from Quebec got caught in an avalanche after wandering off a hiking trail on the slopes of Mt. Washington. One hiker was killed while another sustained substantial injuries. M19OT

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm	
					Killed	Injured	Property	Crops		
NEW HAMPSHIRE, North and Central										
NHZ008>010-013>014	Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham	08	0900EST 2100EST			0	0			Heavy Snow
	From 6 to 16 inches of snow fell over southern New Hampshire from the northern fringes of an intense winter storm that moved up the East Coast before turning out to sea south of New England. There were numerous traffic collisions, including a 25 car pile-up on Interstate 95 in Londonderry.									
NHZ013	Interior Rockingham	10	0400EST 1430EST			0	0			Heavy Snow
	An "Alberta Clipper" storm produced 6 to 8 inches of snow over parts of southern New Hampshire as it moved southeastward through southern New England and out over open water.									
NHZ003>010-013>014	Northern Grafton - Northern Carroll - Southern Grafton - Southern Carroll - Sullivan - Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham	12 13	1430EST 0500EST			0	1	400K		Heavy Snow
	From 6 to 12 inches of snow fell across the southern two-thirds of New Hampshire as a strong low pressure center moved northeast through the Gulf of Maine, just off the coast. The added weight of this snowfall to previous snowfalls collapsed the roofs of several buildings, including that of a skating rink in Durham. The collapse occurred just 45 minutes before the building was to be occupied by 40 skaters. One maintenance man received minor injuries.									
NHZ002-004	Southern Coos - Northern Carroll	19	1200EST 1800EST			0	0			High Wind
	Strong south to southeast winds downed trees and power lines in scattered areas around the state, cutting power to several thousand customers.									
NHZ001>005-007	Northern Coos - Southern Coos - Northern Grafton - Northern Carroll - Southern Grafton - Sullivan	19 21	1200EST 2330EST			0	0			Flood
	Strong south to southeast winds ahead of an intense low pressure center moving northeast out of the Great Lakes transported abundant moisture and unseasonably warm air to New Hampshire as a trailing cold front approached from the west. Runoff from the resulting heavy rains and snowmelt generated flooding along rivers and streams across much of New Hampshire. Many roads were washed out. Charleston was particularly hard hit as an ice jam downstream backed up water on the Connecticut River, flooding a trailer park and surrounding businesses with several feet of water.									
NHZ007	Sullivan	25 26	1000EST 0900EST			0	0			Flood
	For the second time in less than a week, the Connecticut River overflowed into Charlestown after an ice jam formed downstream. Runoff from melting snowpack and an inch of rain which fell on the 24th added to the river level which was still high from the flooding event of a few days prior. Moisture and unseasonably warm air had been transported by strong south to southeast winds ahead of a low pressure center moving northeast out of the Great Lakes, similar but not as intense as the previous storm. Though the resulting flooding was not as severe as the previous event, some roads including Highway 12 had to be closed due to high water.									
NHZ006-009>010	Southern Carroll - Belknap - Strafford	27	0715EST 0815EST			0	0			Freezing Rain
	Cold road surfaces quickly iced up at the beginning of a heavy rain event, leading to numerous automobile accidents in southeastern New Hampshire over a short period of time. One woman was killed after she slipped and fell into the path of a skidding car. She had stopped at the scene of a multiple car accident in New Durham to offer assistance. A six-car pile-up in neighboring Wolfeboro injured one person, while a five-car accident occurred near Farmington.									
NHZ002>003-005-007-014	Southern Coos - Northern Grafton - Southern Grafton - Sullivan - Coastal Rockingham	27	1100EST 2030EST			0	0			High Wind
	Damaging winds were produced over New Hampshire when the last and most intense of a series of three low pressure centers moved northeast out of the Great Lakes. Several communities lost power as the high winds downed trees and power lines in the state. One gust of 93 mph was reported in Franconia.									
NHZ002>003-005-007-010	Southern Coos - Northern Grafton - Southern Grafton - Sullivan - Strafford	27 29	2100EST 0400EST			0	0			Flood
	Flooding resulted when the last and most intense of a series of three low pressure centers moved northeast out of the Great Lakes. South to southeast winds ahead of the low brought moist and unseasonably warm air northward. Warm temperatures and heavy rainfall on the 27th caused further melting of the snowpack. Rainfall amounts exceeding 2 inches were common, with over 4 inches reported in the White Mountains. High runoff and an ice jam downstream led to flooding along the Connecticut River in Charlestown for the third time in about ten days. Flooding also occurred along the Pemigewasset River in Grafton County. Street flooding was reported at several locations elsewhere.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW HAMPSHIRE, Southern									
NHZ011>012	Cheshire - Hillsborough								
	02	2300EST			0	0			Heavy Snow
	03	1100EST							
	A strong low pressure system moved from Tennessee to the Virginia coast and then northeast off the New Jersey coast, passing southeast of Cape Cod. This system produced heavy snowfall with totals of 8 to 12 inches. The heaviest snowfall occurred during the early morning of the 3rd. Many school systems and some businesses were closed for the day. Some final snowfall totals, which also some light snow that fell late on the 3rd and early on the 4th were: Francestown, 12 inches; Jaffrey, 11 inches; Walpole, 10 inches; and Amherst, 9 inches.								
NHZ011>012	Cheshire - Hillsborough								
	07	1800EST			0	0			Heavy Snow
	08	1900EST							
	An intense east coast low pressure system moved northeast from eastern Georgia, passing along the coast of the Carolinas and then close to 40 degrees North and 70 degrees West. This storm was one of the most significant winter storms to hit southern New England in the past 20 years and was named the "Blizzard of '96" from the Middle Atlantic states to southern New England. This storm dropped from 9 to 17 inches of snow on Cheshire and Hillsborough Counties. A few selected totals included: Peterborough, 16.3 inches; Nashua, 11.8 inches; Hillsborough, 9.0 inches; and Jaffrey, 16.5 inches. The total snow depth on the ground reached 38 inches at Jaffrey when the snow ended. This storm disrupted transportation systems, closed schools, and closed some businesses.								
NHZ012	Hillsborough								
	10	0000EST			0	0			Heavy Snow
		1800EST							
	Several communities in Hillsborough County reported a moderate snowfall. Six inches fell at Nashua, Greenville, and Temple. This snowfall occurred just a couple of days after a foot or more had fallen on January 7th-8th. The total snow depth on the ground increased to more than 30 inches in many locations.								
NHZ011>012	Cheshire - Hillsborough								
	12	1600EST			0	0			Heavy Snow
	13	0000EST							
	An intensifying low pressure system moved northeast from the Middle Atlantic coast with its center passing across southeastern Massachusetts into Cape Cod Bay near Plymouth around 11 PM during the evening of January 12th. This storm brought still another in a seemingly endless series of heavy snowfall events. Yet another 6 to 12 inches of snow hit the region. Jaffrey reported a total of 11.0 inches and the total snow depth on the ground soared to 46 inches. Peterborough had 12.5 inches and Keene had about 10 inches. The roof of a house collapsed in Hudson two days after the storm, due to the heavy snow load.								
NHZ011	Cheshire								
	19	0800EST			0	0			Flood
		1800EST							
	Strong south winds with gusts to 40 to 60 mph preceded a sharp cold front that was approaching from the west. The strong winds caused scattered power outages. Heavy rainfall, thawing temperatures, and an ice jam on the Connecticut River extending from Bellows Falls, VT to Charlestown, NH, resulted in flooding along Route 112 in Cheshire County in North Walpole. A flash flood occurred farther north in Charlestown.								
NHZ011>012	Cheshire - Hillsborough								
	19	1400EST			0	0			High Wind (G50)
		1900EST							
NHZ011>012	Cheshire - Hillsborough								
	27	1200EST			0	0			High Wind (G50)
		1700EST							
	Strong south winds with gusts to 50 to 60 mph, heavy rainfall of 1 to 2 inches, and very mild temperatures rising into the 40s to lower 50s preceded the front. The strong winds knocked down tree limbs and resulted in scattered power outages. The heavy rainfall and snow melt caused scattered areas of street flooding.								
NEW JERSEY, Northeast									
NJZ002	Western Passaic								
	03	0400EST			0	0			Heavy Snow
	A low pressure system moved northeast across the area and produced some heavy snow. Snowfall ranged from 6 to 11 inches.								
NJZ003	Bergen								
	03	0400EST			0	0			Heavy Snow
NJZ004	Eastern Passaic								
	03	0400EST			0	0			Heavy Snow
NJZ002	Western Passaic								
	07	1600EST			0	0			Blizzard
	08	1500EST							
	A storm of historic proportion moved northeast across the region. Extremely heavy snow accompanied this storm. Snowfall totals ranged from 20 to 30 inches. For some areas, this was a record snowfall. The heavy snow combined with strong winds to create blizzard conditions for several hours. All forms of transportation were crippled. All area airports were closed, some for a couple of days. Millions of dollars were spent for snow removal. Millions of dollars were lost for area businesses that had to close. Schools were closed throughout the region. Several people were injured during the next several days as numerous roofs collapsed due to the extremely heavy load of snow. A state of emergency was declared for this storm that was dubbed the BLIZZARD OF '96.								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW JERSEY, Northeast									
NJZ003	Bergen	07	1600EST			0	0		Blizzard
		08	1500EST						
NJZ004	Eastern Passaic	07	1600EST			0	0		Blizzard
		08	1500EST						
NJZ005	Essex	07	1600EST			0	0		Blizzard
		08	1500EST						
NJZ006	Hudson	07	1600EST			0	0		Blizzard
		08	1500EST						
NJZ011	Union	07	1600EST			0	0		Blizzard
		08	1500EST						
Union County Countywide		12	1800EST 2100EST			0	0		Urban/Sml Stream Fld
A low pressure system over Virginia during the morning moved across Southern New England during the evening. The form of precipitation changed quickly along the coast from snow to heavy rain. The heavy rain and melting snowpack from the blizzard a few days earlier caused extensive and serious flooding problems.									
Bergen County Countywide		12	1800EST 2100EST			0	0		Urban/Sml Stream Fld
Essex County Countywide		12	1800EST 2100EST			0	0		Urban/Sml Stream Fld
Hudson County Countywide		12	1800EST 2100EST			0	0		Urban/Sml Stream Fld
Passaic County Eastern Passaic		12	1800EST 2100EST			0	0		Urban/Sml Stream Fld
NJZ002>006-011	Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union	19	0900EST 1400EST			0	0		High Wind
NJZ002	Western Passaic	19	0900EST 1400EST			0	0		High Wind
Strong southerly winds gusting in excess of 50 MPH produced widespread wind damage across the region. Most of the damage occurred to trees and power lines.									
NJZ002>006-011	Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union	19	1200EST			0	0	3M	Flood
		20	1400EST						
Strong southerly winds ushered very mild and moisture laden air into the region. Street and poor drainage flooding became a major problem early on due to the rains and significant snowmelt. River and stream flooding occurred later in the afternoon of the 19th and continued well into the next day. Several roofs collapsed during the next few days in response to an extremely heavy load of water brought on by the past blizzard and the heavy rains. Flooding was so widespread and severe that this event became known as the DELUGE OF '96.									
Bergen County Countywide		19	1445EST			0	0		Thunderstorm Wind
A line of thunderstorms that moved across the area produced winds that downed trees and power lines.									
NJZ003>005	Bergen - Eastern Passaic - Essex	24	1400EST			0	0		Flood
		25	0000EST						
NJZ011	Union	24	1400EST			0	0		Flood
		25	0000EST						
A melting snowpack and locally heavy rains combined to produce significant river and small stream flooding.									
NJZ002>006-011	Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union	27	0800EST 1900EST			0	0		High Wind
A strong southerly wind, at times in excess of 50 MPH, caused numerous trees and power lines to fall.									
Passaic County Countywide		27	1600EST			0	0		Urban/Sml Stream Fld
		28	0000EST						
Bergen County Countywide		27	1600EST			0	0		Urban/Sml Stream Fld
		28	0000EST						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops

NEW JERSEY, Northeast

Essex County							
Countywide	27	1600EST			0	0	Urban/Sml Stream Fld
	28	0000EST					

Union County							
Countywide	27	1600EST			0	0	Urban/Sml Stream Fld
	28	0000EST					

Heavy rains from 1 to 2 inches caused extensive and severe flooding of roads, poor drainage areas, and small streams.

NJZ003							
Bergen							
	27	1600EST			0	0	Flood
	28	0000EST					

Heavy rains from 1 to 2 inches caused flooding along the Saddle River at Lodi and the Ramapo River at Mahwah.

NEW JERSEY, South and Northwest

NJZ001-008							
Sussex - Morris							
	02	0700EST			0	0	Winter Storm
	03	1000EST					

A low pressure system developed over the Gulf Coast States on the 2nd and moved through New Jersey on the 3rd. The storm produced heavy snow over parts of Northwest New Jersey, but its track through New Jersey helped pull in warmer air from the nearby Atlantic Ocean. Precipitation fell mainly as rain across the Southern half of New Jersey and a mixture of snow, sleet and rain in the Central part of New Jersey between Interstates 195 and 78.

Snow began falling the morning of the 2nd and coincided with the first work day of the new year. It lingered through the morning of the 3rd, although the heaviest snow fell on the 2nd. The heaviest snow fell in Sussex and Morris Counties where accumulations reached six inches. One to four inches of snow fell across Warren, Hunterdon and Somerset Counties.

Three weather related deaths occurred because of the storm in Northern New Jersey. A 64-year-old man died after trying to shovel the snow around his tractor trailer in Parsippany (Morris County). A 29-year-old male died when a car he was a passenger in skidded off of Interstate 80 in Knowlton Township (Warren County) and vaulted into the air striking a tree seven feet from the ground. A 64-year-old woman was killed in Frankford Township (Sussex County) when her car crossed into oncoming traffic on Sussex County Route 655. Interstate 78 slowed to a crawl in Hunterdon and Somerset Counties.

NJZ024>026							
Eastern Cape May - Eastern Atlantic - Eastern Ocean							
	03	0500EST			0	0	Coastal Flooding
		1000EST					

High astronomical tides coupled with a low pressure system bringing an easterly fetch during the night of the 2nd resulted in minor to locally moderate tidal flooding along the back bays of Ocean, Atlantic and Cape May Counties. Both the White and Black Horse Pikes leading into and out of Atlantic City had lane closures because of the flooding. Otherwise, no other significant damage or injuries were reported.

NJZ021>025							
Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic							
	07	0200EST			1	0	2.4M
	08	0700EST					Winter Storm
							F?OU

NJZ001-007>010-012>020-026							
Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Burlington - Western Ocean - Eastern Ocean							
	07	0200EST			3	0	18.8M
	08	1500EST					Blizzard
							F47OU, F88OU, F?OU

NJZ014-024>026							
Eastern Monmouth - Eastern Cape May - Eastern Atlantic - Eastern Ocean							
	07	1500EST			0	0	14.2M
	08	1200EST					Erosion/Cstl Flood

NJZ013>014-020>026							
Western Monmouth - Eastern Monmouth - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean							
	07	1800EST			0	0	High Wind
	08	0100EST					

The Blizzard of '96, the second coined "STORM OF THE CENTURY" of this decade brought record breaking snow to most of New Jersey and paralyzed the region for several days, caused most municipalities to exceed their annual snow budgets during this one storm, caused several building collapses, its high winds caused 57,000 homes to lose power, caused directly or indirectly 28 deaths and countless injuries and produced moderate flooding with moderate to severe beach erosion from Manasquan south along the New Jersey Shore. Four women died of hypothermia, one each in Atlantic, Burlington, Mercer and Ocean Counties. Twenty-three persons suffered heart attacks and died while shoveling snow, using snowblowers or trying to walk in the deep snow. One traffic fatality occurred early in the storm as a car slid off the Atlantic City Expressway and hit a tree during the predawn hours of the 7th in Hammonton.

The number of deaths and injuries was reduced by the storm starting before dawn on Sunday with blizzard conditions in full force during the afternoon. The storm formed in the Gulf of Mexico on the morning of the 6th, moved south of Alabama the evening of the 6th, reached Savannah Georgia the morning of the 7th, Cape Hatteras the evening of the 7th, moved just to the west of the Delaware Bay Buoy the morning of the 8th before reaching the Southern New England coastal waters the evening of the 8th. This was a classic a storm track for heavy snow. Precipitation was all snow in Northwest New Jersey, fell as mostly snow with some sleet in Central and Southwest New Jersey and started as snow, but changed to sleet and freezing rain before ending as snow in Southeast New Jersey. Snow began falling during the predawn hours on the 7th and became heavy at times during the morning.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NEW JERSEY, South and Northwest

Blizzard conditions developed during the afternoon and evening as strong northeast winds developed around the intensifying low. There was a lull in the precipitation after midnight on the 8th, before some wraparound snow returned during the daylight hours.

A state of emergency was declared by Governor Whitman on the 7th and was not lifted until the 13th. The state was also declared a disaster area with storm related costs topping 50 million dollars. A driving ban was in effect from the 7th to the morning of the 9th. There was no postal delivery on the 8th. Some schools started opening on Wednesday the 10th. The National Guard helped with snow removal and four wheel drive vehicles were used to transport medical personnel and patients to and from hospitals. The New Jersey Turnpike was closed for its entire length the first time in its 48 year history. More than 1000 cars had to be towed from major New Jersey highways on Sunday. Persons were trapped at rest stops, especially in the northern half of the state. The high winds and powdery snow made it very difficult for road crews to keep roadways open. Drifts reached 12 feet.

Snowfall accumulations averaged 18 to 28 inches with a few higher amounts across North Central New Jersey and lower amounts in Southeast New Jersey. Accumulations averaged 24 to 27 inches in Sussex County, 20 to 27 inches in Warren County, 23 to 28 inches in Morris County, 20 to 30 inches in Hunterdon, Somerset, Mercer and Monmouth Counties, 19 to 32 inches in Middlesex County, 18 to 31 inches in Burlington County, 16 to 24 inches in Salem, Gloucester and Camden Counties, 24 inches inland and 10 to 14 inches at the coast in Ocean County and 10 to 18 inches in Atlantic, Cape May and Cumberland Counties. Specific accumulations included 32 inches in Edison, 31 inches in Bordentown, 30 inches in Whitehouse Station, Raritan and Howell, 28 inches in Long Valley and Freehold, 27 inches at McGuire AFB, Charlotteburg, Hackettstown and Newton, 24 inches in Pennsauken, Chatham and Dover (Ocean County), 22 inches in Belle Mead, New Brunswick, Mount Holly and Somerdale, 15 inches in Beach Haven, Millville and Pomona and 12 inches in Pleasantville and Cape May City.

In addition to the heavy snow, wind gusts reached hurricane force along the coast during the evening of the 7th. An 81 mph gust was recorded in Ocean Grove. Eight housing additions in Manasquan collapsed. Navigation Tower aides at Point Pleasant and Manasquan were toppled. Jersey Central Power and Light reported 14,500 homes lost power, 8,000 occurred in Middlesex, Monmouth and Ocean Counties. Atlantic Electric reported 45,000 homes lost power between 10 p.m. on the 7th and 2 a.m. on the 8th, 20,000 within Cape May County. The power problems were exacerbated in Southeast New Jersey by the combination of freezing rain and sleet that was falling during the high winds. Public Service Electric and Gas reported about 3,000 homes lost power, mainly in Somerset County.

While accumulations were lighter along the shore, the strong northeast flow around the low produced moderate tidal flooding around the evening high tide on the 7th. Tides were three to four feet above normal. Luckily this did not coincide with spring tides and was the lower of the two high tides for the day. The tide reached 7.5 ft above mean low water in Atlantic City and 8.5 ft above mean low water in Cape May. The winds shifted to the northwest Monday morning just in time to prevent worse flooding.

Evacuations of some coastal residents occurred in Belmar, Port Monmouth, Sea Bright and Manasquan in Monmouth County. Street flooding was reported in these areas and also in Avon. In Sea Bright, flooding from the Shrewsbury River exacerbated the flooding. New Jersey State Route 36 was closed from the Highlands/Sea Bright Bridge through Monmouth Beach. In Ocean County, there was bayside flooding in Point Pleasant. Shelters were open in Stafford and Berkley Townships. In Atlantic County, the Black Horse Pike was closed because of tidal flooding. The 34th St. Causeway flooded in Margate. Red Cross Shelters were opened in Brigantine, Atlantic City, Somers Point and Ventnor. Evacuations included a nursing home in Atlantic City. Minor tidal flooding was reported elsewhere in Atlantic City and also in Longport, Margate and Ventnor. Large sand-filled "geotubes" were given credit for saving Atlantic City from further property damage. In Cape May County, about 60 persons were evacuated from North Wildwood, Ocean City, Sea Isle City and West Wildwood. Cars were stuck in the tidal flooding in North Wildwood. About 100 homes were damaged by bay flooding in West Wildwood. Some tidal flooding was also reported in Avalon on Ocean and Dune Drives. Other roads closed due to flooding were the 9th Street Bridge and West Avenue in Ocean City and the George Redding Bridge in Wildwood.

By far the worst damage done along the coast was the erosion. Its estimated about \$26 million worth of sand was scoured away by the blizzard leaving some locations vulnerable to future storms with the worst damage from Manasquan southward. In Manasquan the storm scoured vertically about four feet of beach for a 500 foot stretch. In Ocean County severe erosion was reported by almost every township along the shore. In Brant Beach, a breach occurred at 51st Street as the dunes washed away. Six homes built atop of pilings were hanging over the ocean. In Harvey Cedars, about 500,000 cubic yards (Estimated cost \$4 million) of sand was lost leaving two to five foot cliffs. Many of its snow fences were torn away. The beaches were in very serious condition in Mantaloking (100,000 cubic yards of sand lost.) and Lavalette (About \$2 million of sand lost.). In Atlantic County, the beaches in front of Atlantic City's Claridge Hotel and Casino and Convention Hall were virtually gone. Ventnor lost about six to eight feet of beach. In Brigantine, damage was done to the north end sea wall. In Cape May County, severe erosion was reported in Sea Isle City (Eight blocks of dune lost on the north side of town with up to 10 feet of beach lost.), Stratmere (Heavy erosion south side of town.), Stone Harbor, Townsends Inlet (Fifteen foot gaps made between the dunes.) and Cape May Point State Park (Lost up to 15 feet of sand.). The pounding surf also washed-up a large number of clams in Upper Township, Sea Isle City and North Wildwood. About 2.5 million clams washed ashore.

The weight of the snow also led to several building or roof collapses throughout the state. These included a TJ Maxx in Edison Township, Schroeder Brother Construction in Warren Township, a Pepsi-Cola bottling plant in Ocean Township, a health club on New Jersey State Route 41 in Deptford with one injury and a Sonoco Products Division in Monmouth Junction.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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NEW JERSEY, South and Northwest

NJZ001-007	Sussex - Warren	12	0800EST 2100EST		0 0		Heavy Snow
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For the second time within a week heavy snow moved into Northwest New Jersey. Fortunately this second storm was weaker than its predecessor. The storm moved from the Lower Tennessee Valley on the evening of the 11th, to eastern North Carolina the morning of the 12th and passed just to the east of New Jersey during the late afternoon of the 12th into Southern New England on the 13th. Snow fell for about a twelve hour period during the day. Accumulations averaged four to six inches in Warren and Sussex Counties, around four inches in Morris, Mercer and Hunterdon Counties and one to three inches in remaining parts of the Watchung/Raritan Basin and Southwest New Jersey. A change from snow to rain kept accumulations down throughout most of the state.

The mixed precipitation closed Interstate 78 during the afternoon in Hunterdon County and U.S. Route 206 North in Somerset County. Two persons were badly injured near Hackettstown when a car collided with a fuel truck near New Jersey State Route 57.

The accumulative effect of the two snowstorms exacerbated roof collapses. In Camden County, the owner of the AFL Printing Company in Voorhees was injured when its roof collapsed. In Middlesex County, a building roof collapse forced the closure of nine businesses in Dunellen.

NJZ007>008-010-012>013-015-017>021	Warren - Morris - Somerset - Middlesex - Western Monmouth - Mercer - Gloucester - Camden - Burlington - Western Ocean - Cumberland	19	0830EST 1430EST		0 0		High Wind (G55)
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Very strong southerly winds preceding a cold front caused wind damage in most of the counties bordering the Delaware River and Bay. The wind damage was exacerbated by a line of thunderstorms that moved through Central New Jersey in the afternoon and uprooted numerous trees and downed power lines. Statewide Public Service Electric and Gas reported 36,500 homes lost power; Jersey Central Power and Light reported 15,600 homes lost power and Atlantic Electric reported 6,000 homes lost power. Most of the power failures in Central New Jersey occurred in the afternoon as the line of thunderstorms moved through. Most homes had power restored by 9 p.m. In Cumberland County, the damaging winds blew out the windows at Bob Novick Chrysler in Bridgeton. In Gloucester County, the roof was ripped from a Turnersville Midas Shop. In Camden County, part of the roof blew away from the TLC University campus in Collingswood. Hackettstown and Mansfield in Warren County were hard hit with many trees down. Wind gusts reached 63 mph in Cumberland County and 61 mph in Hazlet in Monmouth County.

Sussex County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Warren County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Morris County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Hunterdon County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Mercer County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Burlington County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Camden County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Gloucester County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Salem County Countywide		19	1200EST 1900EST		0 0		Flash Flood
Cumberland County Countywide		19	1200EST 1800EST		0 0		Flash Flood
Somerset County Countywide		19	1300EST 1900EST		0 0		Flash Flood

The combination of melting snow from the previous week's record breaking storms, unseasonably warm temperatures and an additional one to two inches of rain caused the flash flooding of almost every ungaged stream as well as severe urban flooding. By the early afternoon on the 19th stranded motorists were rescued in almost every county. Many roads were closed. Above normal tides compounded the problem by slowing the release of water by inland streams. While the flashier type flooding started to abate during the early evening of the 19th, larger streams and rivers continued to rise and flooding continued along some of them until

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NEW JERSEY, South and Northwest

the 21st. No serious injuries were reported. Damage estimates from all the flooding are listed in the next entry.

In Gloucester County, 15 families were evacuated from the Willow Trailer Park by boat in West Deptford after the Woodbury Creek overflowed. In Salem County, the heavy rain caused a cellar to collapse in a Woodstown Road home. In Cumberland County, the Cohansey River flooded in Bridgeton behind city hall. Flooding was also reported along the Maurice River. In Camden County, flooding along the Cooper River forced the closure of the Admiral Wilson Boulevard. In Burlington County several homes along the Rancocas Creek were evacuated in Mount Laurel. Above normal tides along the Delaware River and Bay contributed to the problem in the latter three counties. Also in Burlington County the North Branch of the Rancocas Creek flooded in Pemberton forcing the evacuation of one family and flooding along the South Branch of the Rancocas Creek forced the voluntary evacuations of several other families in Southampton. In Mercer County flooding along the Stony Brook resulted in fourteen water rescues including six children in Princeton. In Monmouth County creek flooding caused several road closures in Freehold. In Somerset County, one of the most dramatic rescues occurred at 2 p.m. on the 19th as a father and son were recovered from the top of their minivan that was stuck in the flooded Lamington River. In Middlesex County U.S. Route 1 was closed in Woodbridge. In Warren County a mudslide closed County Road 609 in Knowlton. Flash flooding of a nearby stream in Allamuchy forced the evacuation of a school. In Hunterdon County, a Lambertville Public School was evacuated at 2 p.m. when flooding from a nearby creek started inundating the building. In Sussex County another mudslide destroyed one home and damaged the two adjoining ones in Sparta.

Middlesex County Countywide	19	1300EST 1900EST			0	0			Flash Flood
Monmouth County Countywide	19	1300EST 1900EST			0	0			Flash Flood
Burlington County Countywide	19	1350EST 1420EST			0	0			Thunderstorm Wind
Monmouth County Countywide	19	1400EST 1425EST			0	0			Thunderstorm Wind
Ocean County Countywide	19	1400EST 1425EST			0	0			Thunderstorm Wind
Somerset County Countywide	19	1410EST 1440EST			0	0			Thunderstorm Wind
Mercer County Countywide	19	1415EST 1440EST			0	0			Thunderstorm Wind
Middlesex County Countywide	19	1415EST 1440EST			0	0			Thunderstorm Wind

Very strong south winds preceding a cold front caused wind damage in most of the counties bordering the Delaware River and Bay. The wind damage was exacerbated by a strong line of thunderstorms that moved through Central New Jersey in the afternoon and uprooted numerous trees and downed power lines. In Burlington County, the wind tore the roof off the Palmyra Ambulance Squad and damaged the roof of the Midway School in Lumberton. In Mercer County, the thunderstorm tore the roof from a Trenton home. A 75,000 pound tree was uprooted in Somerville (Somerset County). Downed trees forced the closure of many roads in western Monmouth County. Jersey Central Power and Light reported 14,000 homes lost power in Middlesex, Monmouth and Ocean Counties. All power was restored by 9 p.m.. Public Service Electric and Gas reported 22,000 homes lost power in Middlesex, Somerset, Burlington, Mercer, Camden and Union Counties.

NJZ001-007>010-015-018 Sussex - Warren - Morris - Hunterdon - Somerset - Mercer - Camden

19 26	1900EST 0800EST			0	1	10.7M		Flood
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The flash flooding of the afternoon and early evening on the 19th led to larger river flooding through the 21st. The worst damage occurred along the Delaware River which crested at its highest stages in most places since the summer of 1955. Widespread flooding along the Raritan was described as the worst in Manville since Tropical Storm Doria in August 1971. Damage estimates exceeded \$10 million dollars including \$2 million dollars at the Delaware Water Gap National Recreational Area. Only one person was seriously injured (hypothermia) in Raritan Township in Hunterdon County. Sussex, Warren, Morris and Hunterdon Counties were declared disaster areas.

In Warren County, the break-up of an ice jam on the Delaware River near the Delaware Water Gap caused a rapid rise of the river on the 20th. About 800 persons were evacuated by boat, half from Harmony Township and most in townships along the Delaware River. Hardest hit (in order of magnitude) were Harmony, Pohatcong, White and Knowlton Townships. Water from the Delaware surrounded many homes. Some homes had water damage up to the second floor. Porches were washed away and chunks of ice were left behind. It was estimated that 130 residences including mobile homes and apartment buildings were badly damaged along with about twenty businesses. Beside the Delaware, flooding along the Musconetcong River inundated homes in Hackettstown; flooding along the Shabbecong Creek forced the evacuation of 50 people and caused water damage to 70 homes and flooding along the Pequest River inundated homes and businesses on Water and Wall Streets in Belvidere.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Property	Crops	Character of Storm
					Killed	Injured			

NEW JERSEY, South and Northwest

In Hunterdon County, flooding continued along the Delaware River and forced the evacuation of over 500 residents on the 20th and 21st. More than half of the evacuations were in Lambertville. The worst damage occurred in Kingwood Township followed by Lambertville and Holland Townships. Homes in Lambertville had up to 5 feet of water in them. The older New Hope-Lambertville Bridge was closed from fear it might have been swept downstream. The footbridge to Lewis Island washed away. Elsewhere in the county, the South Branch of the Raritan River flooded many roads in Tewksbury Township the night of the 19th. In Raritan Boro alone, fire fighters responded to 127 calls of flooded basements.

In Mercer County, more than 2,000 persons were evacuated from Hopewell and Ewing Townships and Trenton (Between New Jersey State Route 29 and the river) as the Delaware rose above flood stage on the 20th and 21st. The worst damage occurred in Trenton and Hopewell Township. The flooding from the river reached the State House Annex and parking lot in Trenton. The Assunpink Creek also flooded basements along Mulberry Street and caused what was described as a "littany of street closures".

In Somerset County, both the Raritan and Millstone Rivers flooded. The flooding in Manville was the worst since Tropical Storm Doria in 1971. Manville became an island for several hours on the 18th as both the Raritan and Millstone crested. About 400 homes in Manville suffered water damage, 70 directly by the river. Some basements had water up to 7 feet deep. About 60 persons were evacuated, mainly in the "Lost Valley" area. Eighteen spent the night at a shelter. In Bound Brook 100 persons were evacuated and about a dozen homes were damaged. In Branchburg 50 persons were evacuated and about 8 homes were damaged. The North Branch of the Raritan River expanded to one-quarter of a mile wide. The flooding along the Millstone River forced the closure of many roadways including U.S. Route 206 and all the crossings into Franklin Township.

In Morris County, dozens of people were evacuated along the Rockaway River in Denville and Boonton. There were numerous road washouts in Washington Township. In Sussex County, the worst damage was in Montague, Sandyston, Vernon and Walpack Townships. There were many washed out roads and damage to culverts and bridges.

The following are crests of the major streams and rivers from this flood. In Sussex County, the Flat Brook at Flatbrookville crested at 6.6 feet at 6 a.m. on the 20th. Flood stage is 6 feet. The Delaware River at Montague crested at 26.6 feet. Flood stage is 25 feet. In Warren County, the Delaware River at Tock's Island crested at 25.7 feet at 1 a.m. on the 20th. Flood stage is 21 feet. Other Delaware River crests included 22.94 feet at Belvidere Bridge (Flood Stage 20 feet.) at 1 p.m. on the 20th, 30.65 feet at Phillipsburg (Flood Stage 22 feet.) and 28.72 feet at Riegelsville (Flood Stage 22 feet) at 6:15 p.m. on the 20th. In Hunterdon County, the Delaware River at New Hope (Opposite Lambertville) crested at 15.34 feet at 11 p.m. on the 20th. Flood stage is 13 feet. The South Branch of the Raritan River crested at 10.43 feet in High Bridge at 2 a.m. on the 20th. Flood stage is estimated at 10 feet. The river crested at 9.75 feet at Stanton at 8 p.m. on the 19th. Flood stage is 8 feet. In Mercer County, the Delaware River at Trenton crested at 22.19 feet at 130 a.m. on the 21st. Flood stage is 20 feet. The Assunpink Creek in Trenton crested at 10.38 feet at 10 p.m. on the 19th. Flood stage is 7 feet. In Somerset County, the North Branch of the Raritan River at Raritan crested at 14.3 feet at 10 p.m. on the 19th. Flood Stage is 10 feet. The river came within 1.2 feet of its all-time record. This flood was described as a once in 50 year event. The main stem Raritan River at Manville crested at 19.94 feet at 430 a.m. on the 20th. Flood stage is 12 feet. This was the highest stage since Tropical Storm Doria in August 1971. In Bound Brook, the Raritan crested at 33.3 feet. Flood stage is 26 feet. The Millstone River at Blackwell Mills crested at 15.2 feet at 915 a.m. on the 20th. Flood stage is 9 feet. In Camden County, the Cooper River at Haddonfield crested at 3.27 feet at 4 p.m. on the 19th. Flood stage is 2.8 feet. It was back within its banks during the early morning hours on the 20th. In Morris County, the Rockaway River above the Boonton Reservoir crested at 5.2 feet at 8 a.m. on the 20th. Flood stage is 5 feet. The Rockaway River below the Boonton Reservoir crested at 6.34 feet at 1 p.m. on the 13th. Flood stage is also 5 feet. The Passaic River at Two Bridges crested at 9.65 feet at 7 p.m. on the 21st. Flood stage is estimated at 9 feet. Other Passaic River crests included 6.4 feet at Chatham (Flood stage is 6 feet.) at 3 p.m. on the 20th and 19.82 feet (Flood stage estimated at 19 feet.) at 11 p.m. on the 21st at Pine Brook. It took several days for the Passaic to return to its banks and it remained barely above flood stage through the 24th.

NJZ021

Cumberland

24	1722EST	0	0	High Wind
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A strong cold front moving through Cumberland County caused wind damage in Bridgeton. The wind knocked down a few telephone poles.

**Burlington County
Tabernacle**

24	1745EST	0	0	Hail (0.88)
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**Burlington County
Chesterfield**

24	1745EST	0	0	Thunderstorm Wind
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A severe thunderstorm uprooted four trees in Chesterfield and pulled the cover off a pool.

**Mercer County
Hamilton Square**

24	1746EST 1758EST	0	0	Thunderstorm Wind
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A severe thunderstorm knocked down poles and wires in Hamilton Township.

NJZ012-015-018>019

Middlesex - Mercer - Camden - Burlington

27	1200EST 1600EST	0	2	High Wind
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High winds preceding a cold front caused wind damage in parts of central New Jersey. Trees brought down power lines which in turn caused outages. Most power was restored by 5 p.m. In Mercer County, about 4,500 homes lost power, mainly in Hopewell Township. In Middlesex County, a temporary wall was blown away from a TJ MAXX store in Edison. In Burlington County, two Cinnaminson Pontiac employees were slightly injured when the wind peeled off part of a roof and blew in a showroom window. Power outages occurred in Willingboro and Lumberton. In Camden County, a tree fell on and damaged a house in Cherry Hill.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops		Character of Storm
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NEW JERSEY, South and Northwest

NJZ001-007>010	Sussex - Warren - Morris - Hunterdon - Somerset								
	27	1500EST			1	0			Flood
	31	2100EST							

One to one and a half inches of rain fell on saturated soil and caused flooding of the larger streams and rivers in Northwest New Jersey. A 71-year-old man died from hypothermia after his rowboat capsized and fell into the Passaic River near Forest Avenue in Lincoln Park in Morris County the evening of the 28th. Elsewhere in Morris County, about 20 roads were closed in Lincoln Park and 5 roads were closed in Pequannock. In Denville, flooding along the Rockaway River forced the evacuation of ten families. The flooding forced road closures in Branchburg and Bridgewater in Somerset County.

The Delaware River along Warren County flooded again, but not as severely as the previous weekend. In Phillipsburg, the Delaware crested at 22.38 feet at noon on the 28th. Flood Stage is 22 feet. In Riegelsville, the river crested at 22.28 feet at 10 a.m. on the 28th. Flood stage is 19 feet. In Sussex County, the Flat Brook at Flatbrookville crested at 7.05 feet at 3 a.m. on the 28th. Flood stage is 6 feet. In Hunterdon County, the South Branch of the Raritan River at High Bridge crested just above flood stage (10 feet) at 10.04 feet at 11 p.m. on the 27th. In Somerset County, the Millstone River at Blackwell Mills crested at 9.96 feet at 8 a.m. on the 28th. Flood stage is 9 feet. The Raritan River in Manville crested at 14.47 feet at 6 a.m. on the 28th. Flood stage is 12 feet. The Raritan River in Bound Brook crested at 28.4 feet at 6 a.m. on the 28th. Flood stage is 26 feet. In Morris County, the Pompton River at Pompton Plains crested at 16.96 feet at 10 a.m. on the 28th. Flood stage is 16 feet. The Rockaway River above the Boonton Reservoir crested at 5.6 feet at 4 a.m. on the 28th. Flood stage is 5 feet. The Rockaway River below the Boonton Reservoir crested at 7.28 feet at 11 a.m. on the 28th. Flood stage is 5 feet. The river did not recede to bankfull until 9 p.m. on the 30th. The Passaic River at Chatham crested at its flood stage of 6 feet at 9 p.m. on the 27th. Elsewhere along the Passaic River, at Pine Brook it crested at 20.36 feet at 7 a.m. on the 29th. Flood stage is 19 feet. At Two Bridges, the river crested at 11.87 feet at 7 a.m. on the 29th. Flood stage is 9 feet. It took until the evening of the 31st for the Passaic to fall below flood stage at these two locations. M71IW

Mercer County Countywide

27	1700EST	0	0	Flash Flood
28	0100EST			

Another day of heavy rain caused the flash flooding of streams within Mercer County for the second time this month. Both Nottingham Way and the Princeton Pike were closed. The Assunpink Creek in Trenton crested at 7.8 feet at 6 p.m. on the 27th. Flood Stage is 7 feet.

NEW MEXICO, Central and North

NMZ002>003-005-011-017	Northwest Mountains Including Jemez - Upper Rio Grande Valley - Northeast Highlands - Central High Plains/Estancia Valley County - Capitan/Northern Sacramento Mountains								
	01	0900MST 2300MST			0	0			Heavy Snow

Heavy snow developed over the Sangre de Cristo and Sacramento mountains and then spread northeastward into the eastern plains. Amounts of 8 to 12 inches closed schools and highways near and east of Santa Fe. Motorists were stranded along Interstate 40 near Clines Corners by 5 to 6 inches of fresh snow. Ruidoso reported 11 inches in town with over two feet of snow at the Ski Apache ski area.

NMZ007-009>010-013-016>021	Far Northeast Plains - Middle Rio Grande Valley - Sandia/Manzano Mountains - Quay - Lincoln County High Plains/Hondo Valley - Capitan/Northern Sacramento Mountains - De Baca - Chaves County Plains - Roosevelt - Curry								
	17	1000MST			0	0	95K		High Wind (G62)
	18	0400MST							

NMZ002-004-007	Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Far Northeast Plains								
	17	1200MST 2200MST			0	0			Heavy Snow

High winds caused damage across southern and central New Mexico and combined with snow to produce near blizzard conditions over the northeastern plains. Damage included numerous reports of roof shingles torn away and porch coverings ripped off in Lincoln, Socorro and Valencia counties as winds gusted 60 to 70 mph. Several workshop building near Carrizozo and the covering over an amphitheater in Socorro were heavily damaged. Flying rocks dented cars and broke windows in Ruidoso. Three women became stranded for over 8 hours in southern Union county as snow drifts blocked roads.

NMZ008>009	Westcentral Mountains - Middle Rio Grande Valley								
	25	1055MST 2101MST			0	0			High Wind (G60)

A cold front swept across northern sections of the state producing localized gusts of 55 to 65 mph.

NMZ005>007-013	Northeast Highlands - Harding - Far Northeast Plains - Quay								
	28	1100MST 1600MST			0	0	25K		High Wind (G52)

Gusty winds again whipped across the state. Several truck trailers were overturned by winds on Interstate 25 near Wagon Mound.

NMZ002-004	Northwest Mountains Including Jemez - Sangre De Cristo Mountains								
	31	0100MST 1200MST			0	0			Heavy Snow

Six inches of fresh snow was reported at Chama and Angel Fire.

NEW MEXICO, South Central and Southwest

NMZ031	Southwest Desert Mimbres Basin								
	17	0900MST 1800MST			0	0			High Wind (G70)

High winds did widespread but minor damage. All roads in the county were closed at one point due to poor visibility in blowing dust.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NEW MEXICO, South Central and Southwest

NEW MEXICO, Southeast

NMZ027	Guadalupe Mountains Of Eddy County				0	0			Heavy Snow
	02	0400MST							
		1100MST							

An strong upper level storm moving to the southeast through western New Mexico and Far West Texas supplied the lift to cause heavy snows over the higher terrain of the region. Six inches of snow fell at Queen.

NMZ028	Eddy County Plains				0	0	16K		High Wind (G63)
	17	1030MST							
		1800MST							

Winds recorded at 68 and 73 mph on anemometers in Carlsbad. Poles were damaged and some lines snapped. Also a vehicle sustained damage at Carlsbad Caverns.

NMZ029	Lea				0	0	25K		High Wind (G57)
	17	1200MST							
		1800MST							

Poles and large trees blown down in Hobbs plus other scattered property damage around town. Winds were recorded at 65 mph in town. In Lovington, six poles were knocked down and part of a porch was thrown about 50 feet.

NEW YORK, Central

NYZ009-015>018- 022>025-036>037- 044>046-055>057-062	Northern Oneida - Yates - Seneca - Southern Cayuga - Onondaga - Steuben - Schuyler - Chemung - Tompkins - Madison - Southern Oneida - Cortland - Chenango - Otsego - Tioga - Broome - Delaware - Sullivan				0	0	73K		Heavy Snow
	02	2100EST							
	03	2000EST							

A major winter storm formed over the Gulf Coast and tracked up the Eastern Seaboard, bringing heavy snow to central New York. Snowfall amounts of 8 to 12 inches were widely observed, but as much as 16 inches fell across the Finger Lakes, in a band from Baldwinsville to Auburn and Dryden. In Chenango County, near zero visibility in heavy snow resulted in a 15-car pileup along Interstate 88. No injuries were reported.

NYZ009-015>018- 022>025-036>037- 044>046-055>057-062	Northern Oneida - Yates - Seneca - Southern Cayuga - Onondaga - Steuben - Schuyler - Chemung - Tompkins - Madison - Southern Oneida - Cortland - Chenango - Otsego - Tioga - Broome - Delaware - Sullivan				0	0			Extreme Cold
	05	2200EST							
	07	1000EST							

An arctic airmass settled into central New York on the afternoon of the 5th and lasted through the 7th, bringing extreme cold to the region. Late in the day on the 5th, record lows were set in Syracuse (-15F which broke the record of -9F in 1910) and Binghamton (-5F which broke the record of -1F in 1981). On the morning of the 6th, record lows were once again set in Syracuse (-24F which broke the record of -12F in 1912) and Binghamton (-7F which broke the record of -2F in 1988). Finally, on the morning of the 7th, the low temperature of -1F in Binghamton tied the record low for the date, which was set in 1968.

NYZ056>057-062	Broome - Delaware - Sullivan				0	0	60K		Heavy Snow
	07	1000EST							
	08	1400EST							

A winter storm brought heavy snow to the Susquehanna Region and Western Catskills as it moved up the East Coast. Snowfall amounts of 6 to 12 inches were common in Broome and Delaware counties, but snowfall of one to two feet was observed in Sullivan County.

NYZ018	Onondaga				0	0	0		Heavy Snow
	10	0200EST							
		2200EST							

A bitterly cold northwest flow of air across Lake Ontario brought lake effect snow squalls to Onondaga County. 10 inches of snow fell in Cedarvale.

NYZ045>046-055>057- 062	Chenango - Otsego - Tioga - Broome - Delaware - Sullivan				0	0	18K		Heavy Snow
	12	1000EST							
	13	0200EST							

A winter storm formed off the coast of North Carolina and moved northward along the Eastern Seaboard. The storm brought a band of heavy snow to central New York from the Catskills to the Susquehanna Region, where accumulations of one to two feet were common. As was the case with several snowstorms during the season, there was a sharp cutoff between areas which received heavy snow and areas with little accumulation. Most of the heavy snow fell south and east of a line from Owego to Norwich and Utica, with very little to the north and west of this line. For example, 26 inches of snow fell in Franklin (Delaware County) and 10 inches fell in downtown Binghamton while only half an inch fell in Elmira and three-tenths of an inch fell in Syracuse.

Steuben County Countywide	Countywide				0	0	4.4M		Flash Flood
	19	0530EST							
	20	0700EST							

The most disastrous flood event in more than twenty years struck central New York from the early morning of the 19th to the evening of the 21st. Significant widespread flooding of streams, rivers, homes and businesses, streets and highways, woodlands, and farmland occurred as a result of rapid snowmelt and nearly simultaneous storm runoff. Every county in central New York experienced road closures due to washouts, mudslides, and failed, damaged, or weakened bridges. There were six known fatalities.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NEW YORK, Central

In Delaware County, five occupants of one car were killed when their vehicle and three others were swept into the Cannonsville Reservoir. A roadway over a sluice from an upstream pond collapsed before a New York City Bureau of Water Supply patrolman could warn the driver. Two occupants of one vehicle and the patrolman were rescued. The driver of the fourth vehicle was found dead several months later. A major fire, destroying two downtown stores, occurred during the flooding in Walton (Delaware County). Nearly every county declared a county-wide State of Emergency with remaining counties having locally declared States of Emergency on January 19th. Most States of Emergency were lifted by late on January 20th. Many counties experienced small-scale evacuations of homes and/or businesses.

A strong low pressure system tracked northward across the Great Lakes on the morning of the 19th, bringing mild air into the region on strong southerly winds gusting to 45 MPH. The strong winds played a significant role in eroding the snowpack - snow depths by sunrise on the 19th ranged from only a few inches to bare ground, down from depths of one to two and a half feet the day before! Water equivalents of the eroded snowpack ranged from two and a half to five inches.

During the early morning hours of the 19th, a line of heavy rain showers and embedded thunderstorms developed ahead of a strong cold front. Streams and creeks were approaching bankfull due to runoff from the snowmelt. Rainfall intensified over the region as the front slowed its eastward progress. Rainfall amounts ahead of the front were generally between one and a half and two and a half inches, with many locations receiving rainfall rates of one-half to one inch in an hour. Serious flooding of streams and creeks began across the Finger Lakes Region and Central Southern Tier Counties during the mid to late morning, and commenced across the remainder of central New York during the afternoon as the heavy rain moved east. The cold front moved across the region during the afternoon, causing temperatures to drop from the 50s into the 20s, and the rain to change to snow (with some areas receiving a period of sleet and/or freezing rain) in only one to two hours. The rapid drop in temperature that caused standing water to freeze rapidly, in concert with the one to two inches of snow that accumulated in most areas by evening, created very slippery conditions throughout central New York.

Flash floods that began early on the 19th gave rise to main stem river floods that persisted until the evening of the 21st. Near record river flooding occurred on January 19th and 20th over the Chemung, upper Susquehanna, and upper Delaware River basins. At Waverly, in Tioga County, the Susquehanna River crested at its third highest level of all time, at 20.35 feet, which was about one foot lower than the all time crest of 21.40 feet recorded on March 19, 1946. Most forecast points had fallen below flood stage by the evening of January 21.

NYZ022-024-044>046-055>057-062

Steuben - Chemung - Cortland - Chenango - Otsego - Tioga - Broome - Delaware - Sullivan

	19 21	0800EST 2100EST			0	0			Flood
Delaware County Countywide	19 20	0830EST 0800EST			6	0	9.3M		Flash Flood
			M27VE, F32VE, M3VE, M1VE, M52VE, M23VE						
Chemung County Countywide	19 20	0830EST 0700EST			0	0	17.8M		Flash Flood
Schuyler County Countywide	19 20	0830EST 0700EST			0	0	1.5M		Flash Flood
Yates County Countywide	19 20	0830EST 0700EST			0	0	7.9M		Flash Flood
Seneca County Countywide	19 20	0830EST 0700EST			0	0	500K		Flash Flood
Cayuga County Countywide	19 20	0830EST 0700EST			1	0	1.4M		Flash Flood
			F29VE						
Tompkins County Countywide	19 20	0830EST 0700EST			0	0	19M		Flash Flood
Tioga County Countywide	19 20	0830EST 0700EST			0	0	4.5M		Flash Flood
Onondaga County Countywide	19 20	0830EST 0700EST			0	0	7.6M		Flash Flood
Cortland County Countywide	19 20	0830EST 0700EST			0	0	5.7M		Flash Flood
Broome County Countywide	19 20	0830EST 0700EST			0	0	7.9M		Flash Flood
Oneida County Countywide	19 20	0830EST 0700EST			0	0	100K		Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, Central									
Madison County									
Countywide	19	0830EST			0	0	1.5M		Flash Flood
	20	0700EST							
Chenango County									
Countywide	19	0830EST			0	0	7.9M		Flash Flood
	20	0700EST							
Otsego County									
Countywide	19	0830EST			0	0	5.4M		Flash Flood
	20	0800EST							
Sullivan County									
Countywide	19	1215EST			0	0	8.7M		Flash Flood
	20	0800EST							
NYZ009-015-018-036>037-044-046-055>057-062			Northern Oneida - Yates - Onondaga - Madison - Southern Oneida - Cortland - Otsego - Tioga - Broome - Delaware - Sullivan						
	27	0700EST 1500EST			0	4	133K		High Wind (G58)
			A spring-like storm system moved toward the Great Lakes, bringing mild air and strong winds to central New York. There were many reports of downed trees and wires, as winds gusted over 60 MPH. Four people were injured in Grand Gorge (Delaware County), when their mobile home was overturned by high winds. Peak wind gusts included 62 MPH at the Oneida County Airport (UCA) near Utica just before 11 AM, 62 MPH in Cazenovia (Madison County) around 830 AM, and 54 MPH in Syracuse just before 10 AM.						
Delaware County									
Fleischmanns	27	1100EST 1800EST			0	0	10K	0	Flash Flood
			A spring-like storm system brought heavy rains to much of Northeast Pennsylvania, and the Western Catskills in New York. Nearly three inches of rain fell in a short period, causing creeks and small streams to rise out of their banks. Flash flooding in the Catskills closed Route 28 between Fleischmanns and Margaretville in Delaware County, and Route 97 near Lumberland in Sullivan County. Pike and Wayne counties were particularly hard hit out of all of Northeast Pennsylvania. Routes 590 and 739 were flooded, in addition to State Route 2009. Salt Lick Creek flooded part of Route 11 in Susquehanna County.						
Sullivan County									
Minisink Ford	27	1115EST 1800EST			0	0			Flash Flood
			Route 97 was undermined by flash flooding near Lumberland. Flooding was also reported along Kortright Road between Bethel and Thompson, along Frost Valley Road near Round Pond, and near Highland and Jeffersonville.						
NEW YORK, Coastal									
NYZ067			Orange						
	03	0400EST			0	0			Heavy Snow
NYZ068			Putnam						
	03	0400EST			0	0			Heavy Snow
NYZ069			Rockland						
	03	0400EST			0	0			Heavy Snow
			A low pressure system that moved northeast across the area produced some heavy snow. Snowfall ranged from 6 to 7 inches.						
NYZ070			Northern Westchester						
	03	0400EST			0	0			Heavy Snow
NYZ067			Orange						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ068			Putnam						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ069			Rockland						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ070			Northern Westchester						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ071			Southern Westchester						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ072			New York (Manhattan)						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ073			Bronx						
	07	1600EST			0	0			Blizzard
	08	1500EST							
NYZ074			Richmond (Staten Is.)						
	07	1600EST			0	0			Blizzard
	08	1500EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm	
					Killed	Injured	Property	Crops		
NEW YORK, Coastal										
NYZ075	Kings (Brooklyn)									
	07	1600EST			0	0			Blizzard	
NYZ076	Queens									
	07	1600EST			0	0			Blizzard	
NYZ077	Nassau									
	07	1600EST			0	0			Blizzard	
NYZ078	Northwest Suffolk									
	07	1600EST			0	0			Blizzard	
NYZ079	Northeast Suffolk									
	07	1600EST			0	0			Blizzard	
NYZ080	Southwest Suffolk									
	07	1600EST			0	0			Blizzard	
			<p>A storm of historic proportion moved northeast across the region. Extremely heavy snow accompanied this storm. Snowfall totals ranged from 19 to 28 inches. For some areas, this was a record snowfall. The heavy snow combined with strong winds to create blizzard conditions for several hours. All forms of transportation were crippled. All area airports were closed, some for a couple of days. Hundreds of Millions of dollars were spent for snow removal. Millions of dollars were lost for area businesses that had to close. Schools were closed throughout the region. Several people were injured during the next several days as numerous roofs collapsed due to the extremely heavy load of snow. A state of emergency was declared for this storm that was dubbed the BLIZZARD OF '96.</p>							
NYZ081	Southeast Suffolk									
	07	1600EST			0	0			Blizzard	
NYZ071	Southern Westchester									
	07	2200EST			0	0			Coastal Flooding	
			<p>A strong and prolonged northeast wind flow caused moderate coastal flooding at times of high tide. Several houses on Fire Island were swept into the ocean.</p>							
NYZ072	New York (Manhattan)									
	07	2200EST			0	0			Coastal Flooding	
NYZ074	Richmond (Staten Is.)									
	07	2200EST			0	0			Coastal Flooding	
NYZ075	Kings (Brooklyn)									
	07	2200EST			0	0			Coastal Flooding	
NYZ076	Queens									
	07	2200EST			0	0			Coastal Flooding	
NYZ077	Nassau									
	07	2200EST			0	0			Coastal Flooding	
NYZ078	Northwest Suffolk									
	07	2200EST			0	0			Coastal Flooding	
NYZ079	Northeast Suffolk									
	07	2200EST			0	0			Coastal Flooding	
NYZ081	Southeast Suffolk									
	07	2200EST			0	0			Coastal Flooding	
Westchester County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld	
	<p>A low pressure system over Virginia during the morning moved northeast across Southern New England during the evening. The form of precipitation changed quickly along the coast from snow to heavy rain. The heavy rain and melting snowpack from the blizzard a few days earlier caused extensive and serious flooding.</p>									
New York County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld	
	Bronx County Countywide	12	1800EST 2100EST			0	0		Urban/Sml Stream Fld	

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, Coastal									
Richmond County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld
Kings County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld
Queens County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld
Nassau County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld
Suffolk County Countywide	12	1800EST 2100EST			0	0			Urban/Sml Stream Fld
NYZ067>081		Orange - Putnam - Rockland - Northern Westchester - Southern Westchester - New York (Manhattan) - Bronx - Richmond (Staten Is.) - Kings (Brooklyn) - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southwest Suffolk - Southeast Suffolk							
	19	0900EST 1400EST			0	0			High Wind
NYZ080		Southwest Suffolk							
	19	0900EST 1400EST			0	0			High Wind
		Strong southerly winds gusting in excess of 50 MPH produced widespread wind damage across the region. Most of the damage occurred to trees and power lines.							
NYZ067>079-081		Orange - Putnam - Rockland - Northern Westchester - Southern Westchester - New York (Manhattan) - Bronx - Richmond (Staten Is.) - Kings (Brooklyn) - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southeast Suffolk							
	19	1200EST			0	0			Flood
	20	1400EST							
NYZ080		Southwest Suffolk							
	19	1200EST			0	0			Flood
	20	1400EST							
		Strong southerly winds ushered very mild and moisture laden air into the region. Street and poor drainage flooding became a major problem early on due to the rains and significant snowmelt. River and stream flooding occurred later in the afternoon of the 19th and continued well into the next day. Several roofs collapsed during the next few days in response to an extremely heavy load of water brought on by the past blizzard and the heavy rains. Flooding was so widespread and severe that this event became known as the DELUGE OF '96.							
Westchester County North Castle	19	1430EST			0	0			Thunderstorm Wind
		A line of thunderstorms moving through the area produced winds that downed numerous trees and power lines.							
Westchester County White Plains	19	1430EST			0	0			Thunderstorm Wind
Rockland County West Nyack	19	1432EST			0	0			Thunderstorm Wind (G54)
Queens County Flushing	19	1500EST			0	0			Thunderstorm Wind
Nassau County Countywide	19	1555EST			0	0			Thunderstorm Wind (G52)
NYZ067>068		Orange - Putnam							
	24	1400EST			0	0			Flood
	25	0000EST							
NYZ069		Rockland							
	24	1400EST			0	0			Flood
	25	0000EST							
		A melting snowpack and locally heavy rains combined to produce significant river and small stream flooding across the area.							
NYZ067		Orange							
	27	0800EST 1900EST			0	0			High Wind
NYZ068>079-081		Putnam - Rockland - Northern Westchester - Southern Westchester - New York (Manhattan) - Bronx - Richmond (Staten Is.) - Kings (Brooklyn) - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southeast Suffolk							
	27	0800EST 1900EST			0	0			High Wind
NYZ080		Southwest Suffolk							
	27	0800EST 1900EST			0	0			High Wind
		A strong southerly wind, at times in excess of 50 MPH, caused numerous trees and power lines to fall.							
Orange County Countywide	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops		Character of Storm
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NEW YORK, Coastal

Rockland County									
Countywide	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
Queens County									
Countywide	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
Nassau County									
Countywide	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							
Westchester County									
Countywide	27	1300EST			0	0			Urban/Sml Stream Fld
	28	0000EST							

Heavy rains from 1 to 2 inches caused extensive and severe flooding of roads and poor drainage areas.

NEW YORK, East

<p>NYZ032>033-038>043-047>054-058>061-063>066</p>	<p>Northern Herkimer - Hamilton - Southern Herkimer - Fulton - Montgomery - Northern Saratoga - Warren - Washington - Schoharie - Western Schenectady - Eastern Schenectady - Southern Saratoga - Western Albany - Eastern Albany - Western Rensselaer - Eastern Rensselaer - Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess</p>								
	02	2000EST			0	0			Heavy Snow
	03	2000EST							
	<p>A major winter storm developed over the Gulf coast states on January 2nd and tracked northeast along the eastern seaboard during January 3rd. Heavy snow fell across all of eastern New York with the average snowfall ranging from 10 to 12 inches. Snowfall amounts reached 20 inches across the Catskills.</p>								
<p>NYZ032>033-038>043-047>054-058>061-063>066</p>	<p>Northern Herkimer - Hamilton - Southern Herkimer - Fulton - Montgomery - Northern Saratoga - Warren - Washington - Schoharie - Western Schenectady - Eastern Schenectady - Southern Saratoga - Western Albany - Eastern Albany - Western Rensselaer - Eastern Rensselaer - Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess</p>								
	06	0200EST 0900EST			0	0			Extreme Cold
	<p>An arctic airmass settled over eastern New York on the 6th of January bringing extreme cold to the region. A record low was set in Albany with a reading of -19 degrees. This broke the old record low of -14 degrees set back in 1972.</p>								
<p>NYZ058>061-063>066</p>	<p>Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess</p>								
	07	1400EST			0	0	640K		Heavy Snow
	08	1800EST							
	<p>An intense winter storm formed off the coast of South Carolina on January 7th. The system moved northeast along the east coast on Monday January 8th and into Nova Scotia by the 9th. Heavy snow fell across southeast New York. President Clinton declared the Hudson Valley and Catskills a federal disaster area. The heavy snow caused many power outages across the region and several roofs to collapse. Some specific snowfall totals included 23 inches in Ancram in Columbia County, 36 inches in Standfordville in Dutchess County and 15.5 inches in Kingston in Ulster County.</p>								
<p>NYZ033-039>043-047>054-058>061-063>066</p>	<p>Hamilton - Fulton - Montgomery - Northern Saratoga - Warren - Washington - Schoharie - Western Schenectady - Eastern Schenectady - Southern Saratoga - Western Albany - Eastern Albany - Western Rensselaer - Eastern Rensselaer - Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess</p>								
	12	1200EST			0	0			Heavy Snow
	13	0300EST							
	<p>A winter storm formed off the coast of North Carolina on January 12th and moved northeast along the coast through January 13th. Heavy snow fell across much of eastern New York except for the central Mohawk Valley Region. Snowfall totals ranged from 6 to 10 inches with a few locations reporting up to a foot. Some specific snowfall totals included 11 inches at the Albany County Airport, 6 inches in Rhinebeck in Dutchess County, 12 inches in Troy in Rensselaer County and 12 inches in Cobleskill in Schoharie County.</p>								
<p>NYZ032>033-038>043-047>054-058>061-063>066</p>	<p>Northern Herkimer - Hamilton - Southern Herkimer - Fulton - Montgomery - Northern Saratoga - Warren - Washington - Schoharie - Western Schenectady - Eastern Schenectady - Southern Saratoga - Western Albany - Eastern Albany - Western Rensselaer - Eastern Rensselaer - Western Rensselaer - Eastern Rensselaer - Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess</p>								
	19	0800EST 1900EST			0	0	120K		High Wind
	<p>An intense area of low pressure located over the Mid-Atlantic Region on Friday morning January 19th produced damaging winds across all of eastern New York. This storm was associated with a strong southerly flow which resulted in scattered reports of downed trees, limbs and power lines.</p>								
<p>NYZ058>059</p>	<p>Western Greene - Eastern Greene</p>								
	19	0900EST			0	0	10M		Flood
	21	1800EST							
	<p>An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Greene County. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many roads being washed out. Extensive flooding also occurred along the Hudson River and Schoharie Creek. In Athens, Coxsackie and New Baltimore flooding resulted in damage to their sewer</p>								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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NEW YORK, East

treatment plants. In Prattsville severe damage was done to their water system. Flooding along the Hudson River damaged several marinas and parks including Riverside Park in Coxsackie, Athens Riverfront Park and the marina section of New Baltimore. Some of the most severe flooding occurred in Palenville, Athens, Windham and Lexington. Residents in Palenville were evacuated due to the flooding of Kaaterskill Creek. Several people in Athens, Coxsackie and New Baltimore were evacuated by boat due to the flooding Hudson River. In the mountainous terrain of Greene County road washouts were more numerous. In the Town of Durham 80% of the roads suffered damage with 6 roads totally ripped apart. State routes which were severely damaged included routes 42, 214, 296, 32 and 81.

NYZ063>064

Western Ulster - Eastern Ulster

19	1100EST	0	0	10M	Flood
21	1800EST				

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Ulster County. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many roads being washed out. Extensive flooding also occurred along the Hudson River and Esopus Creek. In the mountainous terrain of Ulster County road washouts were more numerous. In the Town of Shandaken five town roads were destroyed and several homes were damaged. In the Town of Hardenburg three quarters of the roads were washed out. In New Paltz homes were flooded near the wetlands along route 299 due to the Wallkill Creek. Flooding also occurred in the Towns of Denning, Olive, Woodstock, Saugerties and Kingston. Evacuations occurred in the Phoenicia-Shandaken area and in the Town of Kingston.

NYZ065>066

Western Dutchess - Eastern Dutchess

19	1100EST	0	0	7M	Flood
21	1800EST				

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Dutchess County. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many roads being washed out. Extensive flooding also occurred along the Hudson River and Wappingers Creek. In the higher terrain of eastern Dutchess County road washouts were more numerous. In the Town of Pawling 50% of town roads were washed out. In the Towns of Northeast and Amenia widespread and severe damage also occurred to local roads. Taconic State Parkway in northern Dutchess County was closed Friday night January 19th due to flooding. Fishkill and Wappingers Falls were some of the hardest hit areas. Wappingers Creek in Wappingers Falls crested 2 feet over flood stage. In the City of Poughkeepsie a water contamination warning was issued due to the flooding Hudson River.

NYZ053>054

Western Rensselaer - Eastern Rensselaer

19	1130EST	0	0	6M	Flood
21	1800EST				

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Rensselaer County. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in several road washouts. Extensive flooding also occurred along the Hudson and Hoosic Rivers. The hardest hit areas within the county were East Greenbush and the Cities of Troy and Rensselaer. In the City of Troy extensive damage occurred along the Hudson River where fifteen businesses were flooded. Some of the businesses included Troy Brew Pub, Castaway Grille, City Hall, Taylor Apartments and a submerged mobile home park in Lansingburgh. Severe damage also occurred to the city marina and Riverfront Park. At Leonard Hospital located in Lansingburgh, 50 patients were evacuated due to basement flooding. In Castleton several residents were evacuated and route 9J near Castleton was closed due to flooding.

NYZ051>052

Western Albany - Eastern Albany

19	1200EST	0	0		Excessive Heat
	2200EST				

A strong southerly wind on the 19th of January brought record warmth to parts of eastern New York. In Albany a new record high of 60 degrees was reached during the afternoon hours. This broke the old record high which was 59 degrees set back in 1949.

NYZ047

Schoharie

19	1300EST	2	0	12M	Flood
20	1800EST				

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Schoharie County and a record breaking flood on the Schoharie Creek. Federal Disaster Assistance was made available by presidential declaration. Village of Schoharie and Middleburgh saw the most severe flooding. Along the Schoharie Creek 55 single homes were destroyed, 125 suffered major damage, 316 suffered minor damage, 6 mobile homes were destroyed, 111 cattle were drowned and 375 acres of farmland was damaged. Two Village of Schoharie residents died due to exposure when fast rising waters trapped them in their home. At Priddle Camp near Esperance 15 homes were destroyed and 10 suffered major damage. Many roads were washed out across the county with 8.5 million dollars of damage incurred to county roads and bridges. Heavy damage occurred in the following places Stryker Road in the Town of Gilboa, Junction Road and bridge in Esperance, state route 900v and bridge at Gilboa, Sholtes and Schoonmaker bridges in Wright, River Street and route 30 in Middleburgh and route 7 over Schoharie Creek. In Middleburgh the downtown area was evacuated and in Schoharie several businesses were flooded including the Harva Company, The Printers and Great American.

M72PH, M49PH

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Crops	Character of Storm
					Killed	Injured			
NEW YORK, East									
NYZ041-050	Northern Saratoga - Southern Saratoga								
	19	1320EST			0	0	10M		Flood
	20	2100EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Saratoga County including the flooding of the Mohawk and Hudson Rivers. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county with many roads being washed out. Flooding was most severe in Waterford, Stillwater and Halfmoon. In Waterford the flooding of the Mohawk and Hudson Rivers forced evacuation of 150 people and 180 dwellings had some damage. Many businesses along the Hudson River sustained damage including the Ursula of Switzerland which lost over 1 million dollars worth of women's clothes. Many roads were closed during the event including route 67 between between route 9 and Mechanicville, routes 4 and 32 north of Stillwater and parts of route 50. A seventy foot section of Vischer Ferry Road in Clifton Park was washed out where it crosses the Dwaas Kill. The flooding inundated 250 homes and businesses and over twenty roads were closed throughout the county.								
Hamilton County Inlet	19	1345EST			0	0	5K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees across Inlet in Hamilton County.								
Hamilton County Indian Lake	19	1345EST			0	0	5K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees across Indian Lake in Hamilton County.								
Schoharie County Countywide	19	1345EST			0	0	10K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed many trees across Schoharie County.								
NYZ051>052	Western Albany - Eastern Albany								
	19	1400EST			0	0	4M		Flood
	21	1800EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Albany County including the flooding of the Mohawk and Hudson Rivers. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many roads being washed out. Most road washouts occurred in the rural areas including the Towns of Rensselaerville, Westerlo and Coeymans. In the Town of Rensselaerville over seventy miles of roads were closed or had limited passage. In the Town of New Scotland, Normans Kill Bridge on Krumkill Road was washed out. Along the Hudson River, Coeymans Landing and Marina in Coeymans incurred one million dollars worth of damage due to twenty docks being swept away and fifty boats flooded. Also along the Hudson River, Village One Apartments in Menands was flooded resulting in the evacuation of 300 residents by firetruck and rowboat. Floodwaters also surrounded Interstate 787, flooding parts of downtown Albany including the entrance to Corning Preserve. Severe flooding also occurred along Vly Creek in Voorheesville.								
NYZ040	Montgomery								
	19	1400EST			0	0	4M		Flood
	20	2100EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Montgomery County including the flooding of the Mohawk River and Schoharie Creek. Federal Disaster Assistance was made available by presidential declaration. Flooding was widespread along the Schoharie Creek in the Towns of Florida and Glen. In the Town of Florida eight families were evacuated. Mill Point Bridge which connects the Towns of Glen and Florida over the Schoharie Creek was heavily damaged. Route 5S bridge near the Village of Fort Hunter was also heavily damaged. Flooding along the Mohawk River forced evacuations of many residents along the riverfront. Route 5 from Fonda to Palatine was closed due to the flooding Mohawk River and route 334 was closed north of Fonda. In St. Johnsville the Zimmerman Creek flooded many homes and businesses. Ten homes were evacuated in St Johnsville.								
NYZ048>049	Western Schenectady - Eastern Schenectady								
	19	1400EST			1	0	6M		Flood
	20	2100EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Schenectady County including the flooding of the Mohawk River and Schoharie Creek. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many road washouts. Flooding was extensive along the Mohawk River especially in the Stockade region of Schenectady. Over fifty people were evacuated from this area. In Schenectady heavy rains caused a mudslide in which mud and debris broke loose from a hillside and crushed a man who was fueling a vehicle at a gas station. Gallopville Road in Duanesburg was heavily damaged and Rosendale Road in Niskayuna was damaged by ice moving down the flooded Mohawk River. M420U								
Montgomery County Town Of Root	19	1415EST			0	0	5K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees in the Town of Root in Montgomery County.								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
NEW YORK, East									
Montgomery County									
St Johnsville	19	1425EST			0	0	5K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees in St. Johnsville in Montgomery County.								
NYZ039									
Fulton	19	1445EST			0	0	200K		Flood
	20	0200EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in significant snowmelt along with one to three inches of rain as the system moved northeast along the coast. Several small streams flooded across Fulton County and a few homes suffered damage.								
Albany County									
Countywide	19	1500EST			0	0	15K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed many trees across Albany County.								
Ulster County									
Countywide	19	1500EST			0	0	10K		Thunderstorm Wind
	Severe thunderstorms on the afternoon of the 19th downed trees across parts of Ulster County.								
Saratoga County									
Milton	19	1505EST			0	0	5K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees in Milton in Saratoga County.								
Schenectady County									
Schenectady	19	1505EST			0	0	10K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed trees, limbs and power lines across the City of Schenectady.								
Greene County									
Surprise	19	1515EST			0	0	2K		Thunderstorm Wind
	Severe thunderstorms during the afternoon of the 19th downed large limbs in Surprise in Greene County.								
NYZ042									
Warren	19	1540EST			0	0	3M		Flood
	20	0200EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in the flooding of many small streams and rivers within the county. Federal Disaster Assistance was made available by presidential declaration. In Lake George Village widespread flooding occurred and seven families had to be evacuated. Many roads were closed throughout the county due to flooding including 16 county roads. Significant damage was also incurred to many state roads. Routes 9 and 9N were closed from Lake George north. Route 418 was closed at the Hudson River Bridge and along route 8 a 150 foot section was washed out between Brant Lake and Hague.								
NYZ032-038									
Northern Herkimer - Southern Herkimer	19	1600EST			0	0	4M		Flood
	20	2100EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Herkimer County including the Mohawk River and Fulmer Creek. Federal Disaster Assistance was made available by presidential declaration. Some of the most severe flooding occurred in the German Flats where 100 people had to be evacuated as the Mohawk River and Fulmer Creek flooded. Many roads were also washed out in this area. River Road along the Mohawk River was also severely flooded with several homes destroyed. In Little Falls over 1.25 million dollars worth of damage occurred including damaged paper machines at the Burrows Paper Corp.. In Mohawk flooding was also extensive as the Fulmer Creek rose over its banks. Other routes in the county that were closed due to flooding included route 5 from Little Falls to Herkimer, route 169 across the Wind Bridge, route 168 near Mohawk and routes 51 and 20 in the Town of West Windfield.								
NYZ033									
Hamilton	19	1600EST			0	0	200K		Flood
	20	0200EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced significant snowmelt along with one to three inches of rain. This resulted in the flooding of many small streams throughout the county along with several road washouts.								
NYZ060>061									
Western Columbia - Eastern Columbia	19	1600EST			0	0	4M		Flood
	21	1800EST							
	An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in widespread flooding across Columbia County. Federal Disaster Assistance was made available by presidential declaration. Small streams flooded across the entire county which resulted in many road washouts. The most significant flooding occurred along the Hudson River and in the eastern part of the county near the Berkshire Mountains. Heavy damage occurred to town roads in the Towns of Hillsdale, Austerlitz and Canaan. In the Town of Stuyvesant 12 families were evacuated due to the flooding Hudson River. The sewer plant in the Town of Greenport was damaged. In the city of Hudson heavy damage was incurred to the boat								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm	
					Killed	Injured	Property Crops	
NEW YORK, East								
							launch and Amtrak service from Albany to Poughkeepsie was stopped due to ice on the tracks from the Hudson River.	
NYZ043			Washington					
	19	1600EST			0	0	1.5M	Flood
	20	0200EST						
							An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. Small streams flooded across the entire county which resulted in many roads being washed out. More than 30 roads were heavily damaged across Washington County. The damaged roads included routes 372, 74, 59, 29, 372 and county route 16 in Fort Ann. Fort Ann in the northern part of the county was one of the hardest hit areas. Many homes in South Cambridge were flooded and in Salem several residents were evacuated. Also two large sections of the Battenkill Railroad were damaged as the tracks slid into the Battenkill River.	
NYZ064			Eastern Ulster					
	24	1630EST			0	0	40K	Flood
		1900EST						
							A low pressure system which tracked across the northern Great Lakes on the 24th of January produced addition rain across the already ground soaked region. Additional runoff along with high tides along the Hudson River created flooding along the Rondout Creek between Eddyville and the Hudson River and along the Hudson River in Kingston.	
Herkimer County								
Dolgeville	24	1630EST			0	0	10K	Flash Flood
		2300EST						
							Ice jams on the East Canada Creek caused flooding especially in the village of Dolgeville where streets and basements were flooded.	
NYZ064			Eastern Ulster					
	25	0500EST			0	0	20K	Flood
		0700EST						
							Flooding occurred along the Rondout Creek between Eddyville and the Hudson River and along the Hudson River in Kingston on East Strand street between the museum and Gill Street. The flooding occurred due to runoff and high tides along the Hudson River.	
NYZ032>033-038>043-047>054-058>061-063>066			Northern Herkimer - Hamilton - Southern Herkimer - Fulton - Montgomery - Northern Saratoga - Warren - Washington - Schoharie - Western Schenectady - Eastern Schenectady - Southern Saratoga - Western Albany - Eastern Albany - Western Rensselaer - Eastern Rensselaer - Western Greene - Eastern Greene - Western Columbia - Eastern Columbia - Western Ulster - Eastern Ulster - Western Dutchess - Eastern Dutchess					
	27	0700EST			0	0	260K	High Wind
		2100EST						
							A strong low pressure system developed over the Great Plains on Friday January 26th and tracked northeast to the upper Great Lakes by the 27th. This system produced damaging southerly winds across all of eastern New York from Saturday morning through the evening hours. The damaging winds downed many trees, limbs and power lines across the area. Approximately 10,000 customers lost power within the Capital District. Southern Dutchess County saw some of the worst damage with over 6,000 customers without power. Some other reports included damage to the roof of a gas station in Green Island in Albany County, in Montgomery County a power transformer was blown down in Root, in Schoharie County a tree fell on a house in Cobleskill and in Herkimer County a wind gust to 61 knots was reported in the Town of Litchfield.	
NYZ058>059			Western Greene - Eastern Greene					
	27	1135EST			0	0	300K	Flood
	28	1000EST						
							A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across eastern New York with up to three inches of rain across parts of the Catskills. This amount of rainfall on already saturated soil brought many small streams out of their banks across Green County which washed out several roads. The Schoharie Creek also flooded. Some of the damaged roads included route 296 from Hunter to Tannersville, county route 2 in Lexington, route 32A and Pennsylvania Avenue in Palenville, route 23B in Cairo and route 385 in the village of Cocksackie.	
NYZ063>064			Western Ulster - Eastern Ulster					
	27	1230EST			0	0	400K	Flood
	28	0100EST						
							A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across eastern New York with up to three inches of rain across parts of the Catskills. This amount of rainfall on already saturated soil brought many small streams out of their banks across Ulster County. The Wallkill River, Rondout Creek and Esopus Creek also flooded in Ulster County. Evacuations occurred along the Esopus Creek and route 28 was closed between Phoenicia and Mount Tremper. Along the Rondout Creek at Eddyville flooding was widespread and severe. Numerous roads were washed out across the county and the Towns of Shandaken and Hardenburgh declared a local state of emergency.	
NYZ047			Schoharie					
	27	1800EST			0	0	100K	Flood
	28	1000EST						
							A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across eastern New York with up to three inches over parts of the Catskills. This amount of rainfall on already saturated soil caused minor flooding along the Schoharie Creek.	
NYZ048			Western Schenectady					
	27	1800EST			0	0	70K	Flood
	28	1000EST						
							A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across eastern New York with	

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, East									
			up to three inches in parts of the Catskills. This amount of rainfall on already saturated soil caused minor flooding along the Schoharie Creek.						
NYZ040		Montgomery							
		27 1800EST			0	0	50K		Flood
		28 1000EST							
		A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across eastern New York with up to three inches in parts of the Catskills. This amount of rainfall on already saturated soil caused minor flooding along the Schoharie Creek.							
NEW YORK, North									
NYZ026>031-034>035			Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex						
		03 0600EST			0	0	65K		Winter Storm
		2100EST							
		A storm system along the Mid Atlantic coast Tuesday night (1/2/96) intensified and moved northeast and passed south of Cape Cod Wednesday afternoon (1/3/96). Snow became steady across northern New York Wednesday morning into Wednesday night.							
		Accumulations were generally 3 to 5 inches across the New York Counties of St Lawrence, Franklin and Clinton. Heavier amounts fell in Essex County...with 14 inches reported at Newcomb and 7 inches at Raybrook.							
		Numerous minor automobile accidents were reported. Power outages were widespread in Essex County.							
NYZ026		Northern St. Lawrence							
		07 0000EST			0	0			Record Temperature
		2359EST							
		Record low temperature of minus 27 at Massena NY on January 7, 1996.							
NYZ026>031-034>035			Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex						
		12 1500EST			0	0	40K		Winter Storm
		13 0300EST							
		A storm system over eastern Kentucky Friday morning (1/12/96) reformed along the North Carolina coast and moved to the New Jersey coast Friday evening before continuing to move northeast reaching the Maine coast Saturday (1/13/96).							
		Steady snow spread across the region Friday afternoon and evening before ending early Saturday morning. Accumulations across the counties of Franklin, Essex and Clinton were generally 2 to 4 inches with an inch or less in St Lawrence County.							
		Several minor automobile accidents were reported.							
NYZ026		Northern St. Lawrence							
		18 0000EST			0	0			Record Temperature
		2359EST							
		Record high temperature of 61 set at Massena NY on January 18, 1996.							
NYZ026		Northern St. Lawrence							
		19 0000EST			0	0			Record Temperature
		record high temperature of 66 set at Massena NY on January 19, 1996.							
NYZ026>031-034>035			Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex						
		19 0900EST			0	0	6.5M		Flood
		20 1800EST							
		A strong storm system moved into the Great Lakes Thursday (1/18/96) then into Canada Friday (1/19/96). The associated circulation pattern with this storm system resulted in above normal temperatures, strong winds and flooding due to snow melt, rainfall and icejams.							
		A number of roads were washed out and closed. Essex and Clinton counties were the hardest hit. Numerous reports of power outages.							
		Flooding was reported in Champlain (Clinton County) near Perry's Mills and all along the Great Chazy River. In Essex County flooding was widespread with roads washed out between Jay and Ausable. Flooding was also reported in St Lawrence County...especially in the town of Fine.							
		Clinton and Essex counties reported damage to a number of houses and trailer parks.							
NYZ026>031-034>035			Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex						
		27 1000EST			0	0	600K		Flood
		1600EST							
		A storm system developed over the lower Mississippi Valley Friday (1/26/96) and moved to the central Great Lakes Saturday morning (1/27/96) then into Canada. Light snow spread across the region around 3 AM (1/27/96) but changed to rain around dawn.							
		Winds became strong and gusty (30 to 50 mph and gusty) between 5 AM and 5 PM (1/27/96). There were numerous reports of trees down, power outages and some minor flooding.							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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NEW YORK, North

Some of the more significant damage reports included: Roof damage at the following locations; Norwood Lake at 1120 AM (St Lawrence county), Massena at 1135 AM (St Lawrence County), Malone roof damage to hotel at 12 noon (Franklin County). Wind damage to hangars at Lake Placid Airport (Essex County) and roof damage in Mooers (Clinton County).

NEW YORK, West

NYZ001

Niagara

03 0800EST 0 0 200K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. Youngstown reported 13 inches and 12 inches fell in Lockport. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ002

Orleans

03 0800EST 0 0 200K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ010

Erie

03 0800EST 0 0 200K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. Springville reported 16 inches while at the Buffalo airport 11 inches fell. School closings were the rule and there were numerous delays at the Buffalo airport. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ011

Genesee

03 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 12-20 inches of snow fell across the area with 18 inches being measured in Batavia. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ012

Wyoming

03 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. Warsaw reported 15 inches. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ013

Livingston

03 0800EST 0 0 150K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. Portageville reported 14 inches and Avon 13. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ014

Ontario

03 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 12-18 inches of snow fell across the area. School closings were the rule. The winter road conditions were blamed for many automobile accidents.

NYZ019

Chautauqua

03 0800EST 0 0 150K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. At Sherman 14 inches fell. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ020

Cattaraugus

03 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. At Franklinville 12 inches was recorded and at Olean 10 inches fell. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ021

Allegany

03 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 10-15 inches of snow fell across the area. At Wellsville, 13 inches were recorded. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ003

Monroe

04 0800EST 0 0 300K Winter Storm

A major winter storm brought record snowfall to the area. Enhancement off Lake Ontario due to northeast winds brought snowfall amounts of 18-24 inches to the Rochester metro area. A 24 hour snowfall record was set at the Rochester airport. At Rochester 23 inches fell and at Webster the snow totalled 18 inches. School closings were the rule and there were numerous delays in airline flights at the Rochester airport. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ004

Wayne

04 0800EST 0 0 200K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 16-24 inches of snow fell. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.

NYZ005

Northern Cayuga

04 0800EST 0 0 100K Winter Storm

A major winter storm brought heavy snowfall to the area. In general 16 to 24 inches of snow fell across the area. Fair Haven reported 21 inches. School closings were the rule. The winter road conditions were blamed for many automobile accidents.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, West									
NYZ006		Oswego							
		04	0800EST			0	0	150K	
		A major winter storm brought heavy snowfall to the area. In general 16-24 inches of snow fell across the area. Oswego received 21 inches and Fulton 17. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.							
NYZ007		Jefferson							
		04	0800EST			0	0	100K	
		A major winter storm brought heavy snowfall to the area. In general 12-20 inches of snow fell across the area. School closings were the rule. The winter road conditions were blamed for many automobile accidents.							
NYZ008		Lewis							
		04	0800EST			0	0	100K	
		A major winter storm brought heavy snowfall to the area. In general 12-20 inches of snow fell across the area. Lowville reported 16 inches. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.							
Erie County West Seneca		18							
		0430EST			0	0	1M	500K	
		Rapid snowmelt and heavy rainfall combined with warm temperatures to produce a major ice jam on the Buffalo Creek in West Seneca. Over three feet of water and ice covered some sections of Clinton and Transit Roads. Evacuations occurred and several roads were closed due to the flood waters in West Seneca and Elma. The flood waters washed out an entire strawberry farm.							
Erie County Buffalo		18							
		0745EST			0	0	200K		Flash Flood
		Rapid snowmelt and heavy rainfall combined with warm temperatures to produce an ice jam on the Cazenovia Creek in Buffalo and West Seneca. Some evacuations occurred and several roads were closed. Damage was limited however, since most of the flood waters and ice spilled into Cazenovia Park.							
NYZ021		Allegany							
		19	0800EST			0	0	1M	
		22	0800EST	Rapid snowmelt of 1-2 feet of snow combined with heavy rainfall of over two inches to produce significant flooding. Nearly four hundred homes were damaged by flood waters. There were road closures and evacuations in Wellsville. Power and municipal water supplies were cut for several hours.					
NYZ010		Erie							
		19	0900EST			0	0	500K	
		22	0800EST	Rapid snowmelt of 8 to 12 inches of snow combined with heavy rainfall of about an inch to produce significant flooding. Nearly two hundred homes were damaged by flood waters.					
NYZ020		Cattaraugus							
		19	1000EST			0	0	2.5M	
		22	0800EST	Rapid snowmelt of 1-2 feet of snow combined with heavy rainfall of over two inches to produce significant flooding. Nearly three hundred homes were damaged by flood waters. The Allegheny River caused major flooding and forced the evacuation of scores of people from their homes in Portville.					
NYZ013		Livingston							
		19	1500EST			0	0	400K	
		22	0800EST	Rapid snowmelt of 1-2 feet of snow combined with heavy rainfall of about an inch to produce significant flooding.					
NYZ014		Ontario							
		19	1600EST			0	0	2.2M	
		22	0800EST	Rapid snowmelt of 1-2 feet of snow combined with heavy rainfall of about an inch to produce significant flooding.					
NYZ012		Wyoming							
		19	1800EST			0	0	150K	
		22	0800EST	Rapid snowmelt of 1-2 feet of snow combined with heavy rainfall to produce significant flooding. Nearly 100 homes were damaged by the flood waters. The Genesee River overflowed its banks and evacuations occurred in Portageville.					
NYZ011		Genesee							
		19	1900EST			0	0	20K	
		22	0800EST	Rapid snowmelt of about a foot of snow combined with heavy rainfall to produce significant flooding.					
NYZ007		Jefferson							
		19	2000EST			0	0	1M	
		22	0800EST	Rapid snowmelt of two to three feet of snow combined with heavy rainfall to produce significant flooding on area creeks and the Black River.					
NYZ008		Lewis							
		19	2100EST			0	0	220K	
		22	0800EST	Rapid snowmelt of two to three feet of snow combined with heavy rainfall to produce significant flooding on area creeks and streams and the Black River.					

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, West									
NYZ008		Lewis							
	19	2315EST			0	0	5K		Heavy Snow
	A cold westerly flow across Lake Ontario set up following the passage of a strong cold front. Rain turned to sleet and snow then a lake effect snow squall developed. Six inches of snow fell in Highmarket.								
NYZ007		Jefferson							
	20	0100EST			0	0	5K		Heavy Snow
	A cold westerly flow across Lake Ontario set up following the passage of a strong cold front. Rain turned to sleet and snow then a lake effect squall developed. Six inches of snow fell in Adams.								
NYZ006		Oswego							
	20	0120EST			0	0	10K		Heavy Snow
	A cold westerly flow across Lake Ontario set up following the passage of a strong cold front. Rain turned to sleet and snow then a lake effect squall developed. Ten inches of snow fell in Redfield.								
NYZ010		Erie							
	25	0700EST			0	0	5K		Heavy Snow
	An isolated, very narrow streamer off Lake Huron stalled just north of the Buffalo metro area in the night of the 24th-25th. The lake effect band, only about five miles wide, dropped six inches in Kenmore and Marilla.								
NYZ020		Cattaraugus							
	27	0430EST			0	0	10K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Little Valley.								
NYZ021		Allegany							
	27	0800EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Rushford.								
NYZ002		Orleans							
	27	1000EST			0	0	10K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines.								
NYZ003		Monroe							
	27	1000EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Mendon.								
NYZ013		Livingston							
	27	1000EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Dansville.								
NYZ001		Niagara							
	27	1018EST			0	3	45K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines across the county. In Wilson, a mother and her two young children were seriously injured when the car in which they were driving was crushed by a falling tree.								
NYZ010		Erie							
	27	1030EST			0	0	15K		High Wind (G52)
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines throughout the county. At the Buffalo Coast Guard, a gust of 60 mph was recorded.								
NYZ011		Genesee							
	27	1030EST			0	0	10K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines.								
NYZ012		Wyoming							
	27	1100EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines.								
NYZ014		Ontario							
	27	1130EST			0	0	25K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines. In Bristol, 900 were without power for much of the afternoon.								
NYZ004		Wayne							
	27	1200EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines.								
NYZ005		Northern Cayuga							
	27	1230EST 1320EST			0	0	15K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Fair Haven.								
NYZ007		Jefferson							
	27	1730EST			0	0	20K		High Wind
	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Watertown.								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEW YORK, West</u>									
NYZ006		Oswego							
	28	0500EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produced a lake effect snow squall. Seven inches of snow fell in Redfield.								
NYZ007		Jefferson							
	28	0500EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produced a lake effect snow squall. Fifteen inches of snow fell in Montague. At one point, the snow was falling at the rate of four inches per hour.								
NYZ008		Lewis							
	28	0700EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produced a lake effect snow squall. Eight inches of snow fell in Rodman.								
NYZ007		Jefferson							
	30	1630EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produced a lake effect snow squall. Six to eight inches fell across the southern portion of the county.								
NYZ008		Lewis							
	30	1730EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produced a lake effect snow squall. Seven inches of snow fell at Montague.								
NYZ006		Oswego							
	31	0720EST			0	0	5K		Heavy Snow
	A brisk northwest flow of cold air across Lake Ontario produce a lake effect snow squall. Fourteen inches of snow fell in Redfield.								
<u>NORTH CAROLINA, Central</u>									
NCZ007		Person							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ008		Granville							
	06	1200EST			0	0			Heavy Snow
		2000EST							
NCZ009		Vance							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ021		Forsyth							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ022		Guilford							
	06	1200EST			0	0			Heavy Snow
		2000EST							
NCZ024		Orange							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ038		Davidson							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ039		Randolph							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
NCZ023		Alamance							
	06	1200EST			0	0			Heavy Snow
	07	2000EST							
	Please Note...this description applies to all central North Carolina counties during the Winter Storm of January 6-7.								
	A major winter storm began early on the 6th and continued until the evening of the 7th. Many areas of central North Carolina received a combination of snow...sleet and freezing rain. Total accumulations of 8 to 12 inches of snow were common near the NC/VA border. To the south, a swath of 4 to 8 inches of snow and ice fell from Davidson county through the Winston-Salem and Greensboro areas, east to Wake County and northeast to Halifax county. In Raleigh, 4 inches of densely packed snow and ice fell, which consisted of at least 2 inches of sleet. Further south, over the Sandhills and Coastal Plain, mostly freezing rain mixed with sleet fell. Glaze collected on trees and power lines, causing extensive power outages from Laurinburg to Fayetteville to Wilson.								
NCZ010		Warren							
	06	1300EST			0	0			Winter Storm
	07	2100EST							
NCZ011		Halifax							
	06	1300EST			0	0			Winter Storm
	07	2100EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NORTH CAROLINA, Central									
NCZ025	Durham								
	06	1300EST			0	0			Winter Storm
	07	2100EST							
NCZ026	Franklin								
	06	1300EST			0	0			Winter Storm
	07	2100EST							
NCZ040	Chatham								
	06	1300EST			0	0			Winter Storm
	07	2100EST							
NCZ041	Wake								
	06	1300EST			0	0			Winter Storm
	07	2100EST							
NCZ027	Nash								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ028	Edgecombe								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ042	Johnston								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ043	Wilson								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ073	Stanly								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ074	Montgomery								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ075	Moore								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ076	Lee								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ077	Harnett								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ078	Wayne								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ083	Anson								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ084	Richmond								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ085	Scotland								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ086	Hoke								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ088	Cumberland								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ089	Sampson								
	06	1300EST			0	0			Ice Storm
	07	2100EST							
NCZ007	Person								
	11	2200EST			0	0			Ice Storm
	12	0900EST							
NCZ021	Forsyth								
	11	2200EST			0	0			Heavy Snow
	12	0900EST							
NCZ008	Granville								
	11	2200EST			0	0			Ice Storm
	12	1100EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NORTH CAROLINA, Central									
NCZ009	Vance	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ010	Warrren	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ011	Halifax	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ022	Guilford	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ024	Orange	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ025	Durham	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ026	Franklin	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ027	Nash	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ028	Edgecombe	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ038	Davidson	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ039	Randolph	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ040	Chatham	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ041	Wake	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ042	Johnston	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ043	Wilson	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ073	Stanly	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ074	Montgomery	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ075	Moore	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ076	Lee	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ077	Harnett	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ078	Wayne	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ083	Anson	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ084	Richmond	11	2200EST			0	0		Ice Storm
		12	1100EST						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NORTH CAROLINA, Central									
NCZ085	Scotland	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ086	Hoke	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ088	Cumberland	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ089	Sampson	11	2200EST			0	0		Ice Storm
		12	1100EST						
NCZ023	Alamance	11	2200EST			0	0		Ice Storm
		12	1100EST						

Please Note...this description applies to all central North Carolina counties during the Ice Storm of January 11-12.

Freezing rain spread across central North Carolina during the evening hours of the 11th and ended around sunrise on the 12th. Snow fell in the northwest portions of the Piedmont with Forsyth county receiving as much as 4 to 5 inches of new snow. The snow mixed with freezing rain before ending in the northwest. From Anson, Stanly, Davidson, and Guilford counties, east into the Coastal Plain, freezing rain coated trees and power lines, causing significant power outages. Total accumulation of glaze was 1/4 to 1/2 inch. This storm, combined with the previous storm on the 6th and 7th, kept schools and businesses closed for over a week. Temperatures remained well below freezing throughout the period.

Davidson County Countywide	19	0600EST			0	0			Thunderstorm Wind
Trees down in several locations throughout the county as a squall line moved through.									
Montgomery County Countywide	19	0615EST 0645EST			0	0			Thunderstorm Wind
Trees uprooted in several locations as a squall line moved through.									
Randolph County Countywide	19	0615EST 0645EST			0	0			Thunderstorm Wind
Trees uprooted in several locations are a strong squall line moved through.									
Guilford County Countywide	19	0615EST 0645EST			0	0			Thunderstorm Wind
Trees uprooted									
Alamance County Countywide	19	0700EST			0	0			Thunderstorm Wind
Trees and power lines down									
Chatham County Countywide	19	0720EST 0740EST			0	0			Thunderstorm Wind
Trees and power lines down									
Lee County Countywide	19	0720EST 0740EST			0	0			Thunderstorm Wind
Trees and power lines down									
Person County Countywide	19	0720EST 0740EST			0	0			Thunderstorm Wind
Trees and power lines down									
Orange County Countywide	19	0720EST 0740EST			0	0			Thunderstorm Wind
Trees and power lines down									
Durham County Durham	19	0758EST			0	0			Thunderstorm Wind
Numerous trees uprooted in Durham									
Durham County Durham	19	0758EST			0	0			Hail (0.75)
Three-quarter inch hail fell in north Durham									
Wake County Countywide	19	0800EST 0820EST			0	0			Thunderstorm Wind
Trees and power lines down									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Central</u>									
Granville County Countywide	19	0800EST 0820EST			0	0	15K		Thunderstorm Wind
Numerous trees down. One large pine tree fell on a mobile home and an amateur radio tower was blown over									
Wake County Wake Forest	19	0820EST 0840EST			0	0			Thunderstorm Wind
Trees and power lines down									
<u>NORTH CAROLINA, Central Coastal</u>									
NCZ029-044>046	Martin - Pitt - Washington - Tyrrell					0	0		Winter Storm
		07 1800EST 08 1200EST							
A coastal low left light snow across Pitt, Martin, Washington and Tyrrell counties. Some schools cancelled classes or delayed openings.									
Carteret County Emerald Isle	12	0450EST 0451EST			0	0	500K		Thunderstorm Wind (G91)
A downburst destroyed 3 homes and damaged 30 others along Ocean and Emerald Drives. An anemometer in the area was pegged at 105 mph.									
Onslow County Richlands	19	0920EST 0921EST			0	0	10K		Thunderstorm Wind
Pitt County Greenville	19	0958EST			0	0	20K		Thunderstorm Wind (G53)
Onslow County Belgrade	19	1000EST			0	0	5K		Thunderstorm Wind
Jones County Comfort	19	1000EST			0	0	15K		Thunderstorm Wind
Carteret County Emerald Isle	19	1045EST			0	0			Thunderstorm Wind
A squall line moved across the region downing trees. A tin building and car were overturned near Comfort. Greenville Utilities measured a gust to 61 mph.									
Dare County Buxton	19	1316EST	0.3	50	0	0	30K		Tornado (F0)
Tornado destroyed a concrete block storage building on the grounds of the Coast Guard station.									
<u>NORTH CAROLINA, Extreme Southwest</u>									
NONE REPORTED.									
<u>NORTH CAROLINA, North Coastal</u>									
NCZ012>014	Northampton - Hertford - Gates					0	0		Winter Storm
		06 1300EST 08 1000EST							
NCZ030>032	Bertie - Chowan - Perquimans					0	0		Winter Storm
		06 1300EST 07 1000EST							
A major winter storm (popularly known as the "Blizzard of '96) affected much of the mid-Atlantic region during the weekend of January 6-8, 1996. The storm dumped 10 to 14 inches of snow and sleet on Northampton, Hertford and Gates counties									
Pasquotank County Northern Portion	19	1215EST			0	0			Thunderstorm Wind
Tree and several power lines down.									
<u>NORTH CAROLINA, Northwest and North Central</u>									
NCZ001>002-018	Ashe - Alleghany - Watauga					0	0		Winter Storm
		05 2230EST 06 1100EST							
NCZ001>002-018	Ashe - Alleghany - Watauga					0	1		Heavy Snow
		06 1100EST 07 1230EST							
NCZ003-019	Surry - Wilkes					1	0	140K	Heavy Snow
		06 1400EST 07 1200EST							
		M72OU							
NCZ004-020	Stokes - Yadkin					1	0		Heavy Snow
		06 1530EST 07 1230EST							
		M71OU							
NCZ005>006	Rockingham - Caswell					0	0	40K	Heavy Snow
		06 1630EST 07 1300EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NORTH CAROLINA, Northwest and North Central

In northwest and north-central North Carolina, up to 2 feet of snow on the 6th and 7th closed schools and businesses for several days, stranded motorists, halted mail deliveries, trash pickups, and church services, closed secondary roads in the mountains, and resulted in one injury and two fatalities.

Light snow developed across the mountains during the late evening hours on the 5th and early morning hours on the 6th. Snowfall amounts were mainly from 1 to 3 inches through the late morning hours on the 6th. The snow became heavy in Watauga, Ashe, and Alleghany Counties during the late morning hours on the 6th and spread eastward. In Stokes, Yadkin, Rockingham, and Caswell Counties, the precipitation was mixed with sleet at times. Snow depths during the early evening hours on the 7th were generally from 18 to 24 inches in the mountains and mostly from 8 to 14 inches east of the mountains. In the mountains, the snow combined with winds of 15 to 30 mph with higher gusts on the 7th and 8th resulted in snow drifts up to 10 feet high.

A man died in Westfield in Surry County after suffering a heart attack while shoveling snow. Another man died in Pinnacle in Stokes County after suffering a heart attack while shoveling snow. A woman suffered hypothermia and frostbite after she fell into a snow drift on her way to work in Alleghany County.

The weight of the snow collapsed a chicken house in Benham in eastern Wilkes County. Approximately 17,000 chickens were killed. Total damage was estimated at nearly \$130,000. In addition, several greenhouses and awnings collapsed under the weight of the snow in Surry and Caswell Counties.

There were numerous traffic accidents and the heavy snow indirectly resulted in several injuries and two fatalities. A traffic accident just west of Mount Airy cost two people their lives and injured another. The National Guard used several humvees and a few armored personnel carriers to transport medical and emergency personnel to work or to those in need.

Numerous storm shelters were established across the area. Prior to the storm and after the storm, many grocery stores sold out of perishable items like bread, milk, and eggs. There were several heroic life saving efforts to get medical attention, medicine, or food to those stranded. There were a few minor power outages in the mountains.

NCZ001>002-018	Ashe - Alleghany - Watauga						
	11	2200EST	0	0			Heavy Snow
	12	0500EST					
NCZ003>004-019>020	Surry - Stokes - Wilkes - Yadkin						
	11	2300EST	0	0	250K		Heavy Snow
	12	0600EST					
NCZ005>006	Rockingham - Caswell						
	12	0030EST	0	0			Winter Storm
		0630EST					

Heavy snow developed across northwest North Carolina during the late evening hours on the 11th and spread eastward. The snow mixed with sleet and freezing rain in Rockingham and Caswell Counties. Snow accumulations were generally from 4 to 6 inches in the mountains, around 4 inches in Surry, Stokes, Wilkes, and Yadkin Counties and from 1 to 4 inches in Rockingham and Caswell Counties.

Hazardous road conditions resulted in numerous traffic accidents. The weight of the snow from this storm in combination with the weight of the snow from the previous storm collapsed the roof of a business in Mount Airy. The 2,500 square foot building was a total loss.

NCZ019	Wilkes						
	19	0000EST	0	0	90K		High Wind
		0240EST					
NCZ018	Watauga						
	19	0040EST	0	0	90K		High Wind
		0130EST					
Watauga County Countywide	19	0045EST	0	0			Flash Flood
		0515EST					
Alleghany County Sparta	19	0050EST	0	0			Flash Flood
		0400EST					
NCZ002	Alleghany						
	19	0050EST	0	0	5K		High Wind
		0215EST					
NCZ001	Ashe						
	19	0130EST	0	0			High Wind
		0330EST					
NCZ003	Surry						
	19	0230EST	0	0			High Wind
		0400EST					
Alleghany County Stratford	19	0245EST	0	0	5K		Lightning
Ashe County Countywide	19	0315EST	0	0			Flash Flood
		0500EST					

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NORTH CAROLINA, Northwest and North Central

Wilkes County Countywide	19	0315EST 0415EST			0	0	40K		Flash Flood
Wilkes County Wilkesboro	19	0330EST			0	0	3K		Thunderstorm Wind
Rockingham County Countywide	19	0600EST 0640EST			0	0			Thunderstorm Wind
Caswell County Leasburg	19	0720EST			0	0			Thunderstorm Wind
NCZ005>006			Rockingham - Caswell						
	19	1200EST			0	0			Flood
	21	1000EST							
NCZ003-019>020			Surry - Wilkes - Yadkin						
	19	1300EST			0	0			Flood
	20	0300EST							

A strong storm system on the 19th brought high winds, damaging thunderstorm winds, heavy rain, and damaging lightning to portions of northwestern and north-central North Carolina. The heavy rain combined with snow melt to produce flash flooding and then minor river flooding on most rivers.

Heavy rainfall and snow melt flooded roads and brought numerous creeks and streams out of their banks in Watauga County. In Boone, floodwaters resulted in the evacuation of Glenstone Health Care. Many secondary roads were covered with flood waters in Sparta. Heavy rainfall and snow melt flooded several creeks and streams and some roads in Ashe County and in Wilkesboro in Wilkes County. Damage to Cub Creek Park in Wilkesboro was estimated at \$2,500. In Wilkesboro, flash flooding resulted in \$17,000 in damage to a business and submerged several vehicles. In addition, there were several mud slides in Wilkes County.

High winds downed trees and resulted in scattered power outages in Ashe, Watauga, Alleghany and Wilkes Counties and in the northern and western portions of Surry County. The winds downed power lines in Alleghany County and ripped the roof off a mobile home northeast of Sparta. Wind gusts were estimated up to 80 mph in portions of Wilkes County.

Thunderstorm winds knocked down trees in Leasburg and across most of Rockingham County and downed trees and damaged awnings in Wilkesboro.

A lightning strike started a fire which destroyed a barn in Stratford.

Runoff from heavy rain and snow melt resulted in minor flooding on the Yadkin River from 3 miles west-southwest of Elkin to 6 miles east of Courtney. The Yadkin River crested about 1.5 feet above flood stage at Elkin at 1600 EST on the 19th.

Runoff from the heavy rain and snow melt resulted in minor flooding on the Dan River.

NCZ001>002-018			Ashe - Alleghany - Watauga						
	26	1130EST 1700EST			0	0			Winter Storm

Freezing rain in the mountains of North Carolina during the late morning and afternoon hours on the 26th resulted in hazardous travel conditions. There were numerous accidents during the afternoon hours with several injuries reported.

Surry County 2 SW Mount Airy	27	0330EST 0520EST			0	0			Urban/Sml Stream Fld
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Surry County Elkin	27	0330EST 0520EST			0	0			Urban/Sml Stream Fld
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As a result of heavy rainfall, water covered roads 2 miles southwest of Mount Airy and in Elkin.

NORTH CAROLINA, South Coastal

NONE REPORTED.

NORTH CAROLINA, Southwest

NCZ033-048>053-058-065			Avery - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - Graham - Henderson						
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	06	1200EST			0	0			Winter Storm
	07	2000EST							

Snow began early in the morning and by mid day had reached heavy criteria over part of the mountains with accumulations exceeding 6 inches in some areas. Remaining mountain locations picked up heavy snow accumulations a bit later in the afternoon. At the start of the storm the snow was very wet and accumulations caused power outages in some places. The heavy snow continued through the night and into the next day. Accumulations in the mountains ranged from 4 to 12 inches over the central and southern mountains with 18 to 30 inches in the northern mountains. Brutally cold conditions followed the snow with very windy conditions reported. Blizzard conditions may have been reached in some areas. Extreme cold followed the storm in much of the mountains with wind chills of 20 to 30 below zero.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NORTH CAROLINA, Southwest

NCZ070>072-082	Gaston - Mecklenburg - Cabarrus - Union								
	06	1800EST			0	0			Winter Storm
	07	2100EST							
	Rain gradually changed to freezing rain and then snow and sleet across the southern Piedmont. The precipitation continued well into the next day. The layer of ice under the 1 to 2 inches of snow (3 to 4 inches in Gaston county) caused serious traffic problems. The ice accumulation was enough to cause widespread power outages around the Charlotte Metro area.								
	All across western and central North Carolina, numerous traffic accidents and sledding accidents were reported. There were numerous indirect injuries and a few fatalities associated with the storm. Most injuries and deaths were traffic related. In Alexander, a man was crushed when an outbuilding collapsed from the weight of the snow.								
NCZ034>037-054>057-066-069	Caldwell - Alexander - Iredell - Davie - McDowell - Burke - Catawba - Rowan - Polk - Lincoln								
	06	2000EST			0	0			Heavy Snow
	07	2100EST							
	By mid evening snow which had been falling much of the day became heavy. The heavy snow persisted through the night and into most of the next day. Total accumulations ranged from 4 inches in the southernmost part of the area to 15 inches in the northern tier. The most snow reported was 20 inches in the western part of Burke county. At the end of the storm, wind chills dropped to dangerous levels.								
NCZ033>037-048>058-065>072-082	Avery - Caldwell - Alexander - Iredell - Davie - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - McDowell - Burke - Catawba - Rowan - Graham - Henderson - Polk - Rutherford - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus - Union								
	11	1800EST			0	0			Winter Storm
	12	0800EST							
	The second snowstorm within a week caused more excitement in North Carolina. Up to a foot of snow was reported in some of the mountains with most mountain and foothill locations receiving 3 to 6 inches. In the piedmont, there was more of a mixture of ice with minimal ice storm conditions reported in and around the Charlotte area. There were some power outages and numerous traffic accidents.								
NCZ033>037-048>058-065>072	Avery - Caldwell - Alexander - Iredell - Davie - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - McDowell - Burke - Catawba - Rowan - Graham - Henderson - Polk - Rutherford - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus								
	18	2000EST			0	0	75K		High Wind
	19	0500EST							
	An extremely strong cold front, preceded by heavy rain all day, moved through the mountains, foothills, and piedmont during the night. High winds affected the mountains first and then the foothills and piedmont as the front swept through. Prefrontal southeast winds were extremely high in the mountains with Flat Top mountain reporting gusts to 72 knots during the early evening. This was the highest wind in 20 years of record. Numerous trees and power lines were blown down in western North Carolina with a large number of power outages as a result. The gradient wind caused considerable damage in the foothills and piedmont as the front moved through. Lincolnton recorded a gust to 52 knots around 1 AM with damage in the area. The damaging winds moved across the Charlotte metro area during the early morning hours.								
	A line of severe thunderstorms boosted the gradient winds to extremely high levels in a few places. The most intense damage occurred around Granite Falls where a gust to 108 mph was recorded before the wind equipment failed. A steeple was blown off a church, the roof of a substantial building was removed, a high school stadium press box was severely damaged and a wall at the school was blown down. In Cleveland county the roofs of some buildings were blown off. The roof of a building was removed in Icard and a few buildings and power lines were damaged in and around Taylorsville.								
NCZ033-050-052>053-055-059-062-064>065	Avery - Mitchell - Haywood - Buncombe - Burke - Northern Jackson - Macon - Transylvania - Henderson								
	18	2200EST			0	0			Flood
	19	0500EST							
	An extremely strong cold front, preceded by heavy rain all day, moved through the mountains, foothills and piedmont during the night. Heavy rain and flooding accompanied the storm system. Several inches of rain fell across the mountains during the day. At Rosman, the French Broad River flooded causing some evacuations in the downtown area.								
NCZ033-050-062	Avery - Mitchell - Macon								
	19	0100EST			0	0			Flood
		0600EST							
	An extremely strong cold front, preceded by heavy rain all day, moved through the mountains, foothills and piedmont during the night.								
Buncombe County Leicester to Barnardsville	24	0445EST			0	0	25K		Thunderstorm Wind
		0645EST							
	A thunderstorm embedded in a line of storms and showers combined with the gradient wind to produce strong gusts. Damage was reported in several locations across northern Buncombe county. A mobile home was deroofed near the Madison county line. More than 1000 people were without power in Buncombe county from the thunderstorm's effects.								
Buncombe County West Asheville	24	0630EST			0	0			Lightning
	Lightning struck a home in Buncombe county causing a small fire and some damage.								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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NORTH CAROLINA, Southwest

Cleveland County 6 E Shelby	24	0745EST 0800EST			0	0	50K		Thunderstorm Wind
Between Shelby and Kings Mountain, a severe thundersotrm downburst caused considerable damage. The damage path was about 100 yards wide and 200 yards long. One tied down mobile home was destroyed and several others were slightly to moderately damaged. A few trees were blown down.									

NCZ033>037-048>058-065>066-069	26	1100EST 2300EST			0	0			Ice Storm
Avery - Caldwell - Alexander - Iredell - Davie - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - Mcdowell - Burke - Catawba - Rowan - Graham - Henderson - Polk - Lincoln									
Rain moved in while cold air was still trapped. Significant freezing rain resulted with numerous traffic accidents reported across the entire area. Ice accumulations neared "ice storm" conditions in the foothills and northern mountains. The freezing temperatures persisted into the evening as the rain became quite heavy. Many roads were closed for a period.									

NCZ034-048>049-051>055-059-062-064>067-082	26 27	2055EST 0630EST			0	0	30K		Flood
Caldwell - Madison - Yancey - Swain - Haywood - Buncombe - Mcdowell - Burke - Northern Jackson - Macon - Transylvania - Henderson - Polk - Rutherford - Union									
Prolonged rain became heavier following the ice. the rain increased into the night when some thunderstorms moved in from the west. Rainfall became excessive, more then 3 and 4 inches in some cases, causing flooding to begin by mid evening. At Asheville the flooding caused a wall to collapse onto several parked cars causing extensive damage. Numerous roads were closed around the mountains and foothills. Several major rivers flooded including the French Broad and the Oconoluftee. Evacuations were required in several counties because of flooding. In this event the flooding was not severe in the northern mountains.									

NORTH DAKOTA, Central and West

NDZ001>053	17 18	0430CST 1300CST			0	0			Blizzard
Divide - Burke - Renville - Bottineau - Rolette - Towner - Cavalier - Pembina - Williams - Mountrail - Ward - Mchenry - Pierce - Benson - Ramsey - Walsh - Mckenzie - Dunn - Mercer - Oliver - Mclean - Sheridan - Wells - Eddy - Foster - Nelson - Grand Forks - Griggs - Steele - Traill - Golden Valley - Billings - Stark - Morton - Burleigh - Kidder - Stutsman - Barnes - Cass - Slope - Hettinger - Grant - Bowman - Adams - Sioux - Emmons - Logan - La Moure - Ransom - McIntosh - Dickey - Sargent - Richland									
A strong low pressure center located over the central plains combined with strong arctic high pressure moving south out of Canada to bring blizzard conditions to North Dakota. Snowfall amounts range from 8 inches at Williston in the northwest to 20 inches at Wahpeton in the southeast. Fargo and Bismarck set new records for 24 hr. snowfall, receiving 18 and 7.9 inches respectively. Winds gusting to 55 mph created 3 to 5 foot drifts in the central, while drifts up to 10 feet were found in the east. Law enforcement officials advised no travel and closed I-29 in North Dakota, I-94 from Bismarck to Fargo, and US Highway 2 from Grand Forks to Devils Lake. Many people who did not heed the travel warnings got stranded for several hours on the interstate and state highways. Fortunately no deaths were reported. Many schools and businesses closed on the 17th and did not re-open until a few days later. With temperatures dropping to 10 to 20 degrees belw zero, wind chills varied from 60 to 80 below zero, snow removal was hampered with hydraulic and cooling systems freezing on snow plows. In Finley (Steele Co.) the water in the water tower froze. In Grafton (Walsh Co.), firemen had trouble fighting a fire due to the water freezing in the hoses before it could be applied to the fire. Mail service was disrupted statewide for the 17th and 18th. The cold also caused several water main breaks and minor power outages.									

NDZ050	26	0001CST 2359CST			1	0			Extreme Windchill
Mcintosh									
An 84 year old Lehr man died of exposure when he went to visit the grave of his wife. The man was found 1 mile from his house. Temperatures that day were around 20 below, and wind chills were estimated to be around 60 below. The man was not wearing a coat or gloves when he was found. M84OU									

NDZ035	29	1200CST 1800CST			1	0			Extreme Windchill
Burleigh									
A 57 year old Bismarck man died from a heart attack while operating a snow blower. The day before the man died, the Bismarck area received 5 inches of snow. On the day he died, high temperatures were in the teens below zero with wind chills from 40 to 60 below. M57OU									

NORTH DAKOTA, East

NDZ007>008-016-026>030-038>039-049-052>053	17 18	1400CST 1300CST			0	0			Blizzard
Cavalier - Pembina - Walsh - Nelson - Grand Forks - Griggs - Steele - Traill - Barnes - Cass - Ransom - Sargent - Richland									
A strong low pressure system located over the Central Plains brought a combination of heavy snow, strong wind, and subzero temperatures to eastern North Dakota. 20 inches of snow fell in Wahpeton, 18 inches fell in Fargo, and amounts of 8 to 13 inches were common over the rest of the area. The 18 inches of snow recorded in Fargo was the second heaviest snowfall on record for a 24 hour period. A north wind gusting up to 55 mph created drifts up to 10 feet high. The wind tore a large siding panel off the west side of the Radisson Hotel in Fargo. Law enforcement officials advised no travel and closed Interstate 29 in North Dakota, Interstate 94 from Fargo to Bismarck, and US Highway 2 from Grand Forks to Devils Lake. 3 people in 2 vehicles who did attempt to travel were stranded for several hours until they were rescued. Many schools closed at noon on the 17th and did not									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

NORTH DAKOTA, East

re-open until the 22nd. Temperatures dropped to 10 to 20 below zero and compounded the snow removal process. Many plows broke down because their hydraulic and cooling systems froze. The cold also caused several water main breaks and minor power outages.

OHIO, East

OHZ039

Tuscarawas

02 1000EST
03 2000EST

0 0

Heavy Snow

Heavy snow (six inches) fell across the northern part of Tuscarawas County.

OHZ049>050-057>059-068>069

Harrison - Jefferson - Muskingum - Guernsey - Belmont - Noble - Monroe

02 1000EST
03 1500EST

0 0

Ice Storm

A major winter storm moved through the Upper Ohio Valley and dumped a mixture of freezing rain and sleet in east central Ohio. One-quarter of an inch of ice accumulated in Monroe, Noble and Belmont Counties. One to two inches of ice was reported in Muskingum, Jefferson, Guernsey and Harrison Counties.

Belmont County

1 NW Powhatan Pt

17 1300EST
18 0200EST

0 0

25K

Flash Flood

Ice jams formed on the Wheeling Creek downstream of Wolfhurst, where water had risen to bankfull. Another jam caused open field flooding along Piper Creek. Flooding was also reported along Captina Creek between Steinersville and Powhatan Point due to an ice jam at the mouth of the creek at Powhatan Point. Some homes and businesses were flooded and roads closed.

Coshocton County

5 E Warsaw

18 0740EST
1700EST

0 0

50K

Flash Flood

Flooding occurred along the Walhonding River, 5 miles east of Warsaw, behind ice jams. Seventy people were evacuated in Warsaw. Water entered some homes.

Tuscarawas County

Dover

18 1800EST
2200EST

0 0

Flash Flood

Sugar creek near Dover went just out of its banks. An ice buildup in the creek caused the water to rise. A couple of roads were closed and water approached, but did not enter, a nearby home.

Tuscarawas County

Dover

18 1800EST
2200EST

0 0

Flash Flood

Sugar Creek near Dover went just out of its banks. An ice build-up in the creek caused the water to rise. A couple of roads were closed and water approached, but did not enter, a nearby home.

Belmont County

St Clairsville

19 0400EST
1300EST

0 0

Flash Flood

Numerous small streams went out of their banks across east-central Ohio. Widespread one to one and a half inch rainfall amounts fell across the area. Numerous roads were closed and some homes and businesses were affected by the flooding. The majority of the damage was confined to the communities along the Ohio River, where major flooding followed (found in later report). Some specific damages in counties not bordering the Ohio River include: Carroll County - a few trailers in low-lying areas had minor damage, 6-8 families evacuated, a few roads flooded. Coshocton County - much of the damage was due to ice jam flooding on the Walhonding River (found in earlier report). Guernsey County - a few houses had some water in their basements and three county roads were closed for a short time. Harrison County - a few roads closed. Muskingum County - a few roads closed. Noble and Tuscarawas Counties - a couple of roads closed. Flood waters in small streams began to recede by late morning. Sharply colder air moving into the region turned wet surfaces icy.

Carroll County

Carrollton

19 0400EST
1300EST

0 0

10K

Flash Flood

Columbiana County

Salem

19 0400EST
1300EST

0 0

20K

Flash Flood

Coshocton County

Coshocton

19 0400EST
1300EST

0 0

Flash Flood

Guernsey County

Cambridge

19 0400EST
1300EST

0 0

10K

Flash Flood

Harrison County

Cadiz

19 0400EST
1300EST

0 0

Flash Flood

Jefferson County

Steubenville

19 0400EST
1300EST

0 0

20K

Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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OHIO, East

Monroe County Woodsfield	19	0400EST 1300EST			0 0	2K	Flash Flood
Noble County Caldwell	19	0400EST 1300EST			0 0		Flash Flood
Tuscarawas County New Philadelphia	19	0400EST 1300EST			0 0		Flash Flood
Muskingum County Zanesville	19	1000EST 1300EST			0 0		Flash Flood

OHZ041-050-059-069 Columbiana - Jefferson - Belmont - Monroe

19	2200EST				0 0	3.7M	Flood
22	1000EST						

Flood waters from the Allegheny and the Monongahela Rivers crested in phase at the Point in Pittsburgh. Water from these two mainstem rivers flow into the Ohio River. Major flooding to communities along the Ohio River occurred in Columbiana, Jefferson, Belmont, and Monroe Counties in east-central Ohio. The Ohio River at East Liverpool went above its 14 foot flood stage on the 19th at 10 pm EST. The river crested at 24.8 feet (10.8 feet above flood stage) on the 20th at 7 pm. Crests downstream were not as high, Hannibal, Ohio crested at 39.4 feet (4.4 feet above flood stage) on the 21st at 1 pm.

Nonetheless, damages to homes and businesses and their contents, public facilities, bridges and roads along the river were enormous. In Columbiana County 318 residences were affected, 14 minimally, 107 minor damage, 136 major damage, and 61 destroyed. Seven businesses sustained minor damage. In Jefferson County, a total of 187 residences were affected by the flooding, 136 minimally, 49 major damage, and 2 destroyed. Eight businesses had minor damage, 1 minor damage, and 4 destroyed. In Belmont County, 318 residences were effected, 14 minimally, 107 minor damage, 136 major damage, and 61 were destroyed. In Monroe County, 85 residences were affected, 35 minor damage and 50 with major damage. Seven businesses had major damage.

OHIO, North

OHZ011>014-020>023-030>033-037>038-047 Cuyahoga - Lake - Geauga - Ashtabula - Medina - Summit - Portage - Trumbull - Ashland - Wayne - Stark - Mahoning - Morrow - Holmes - Knox

02	0900EST				0 0	3.4M	Heavy Snow
03	1300EST						

Snow became heavy at times and heavy snow fell during the overnight hours into the morning of the 3rd. Snow accumulated an average of 8 to 14 inches and northeast winds of 20 mph with gusts to 30 mph produced significant blowing and drifting snow with localized blizzard conditions. A number of counties declared snow emergencies to restrict travel and a number of roads were closed by snow and blocked by abandoned vehicles. Emergency shelters were opened in several towns to provide food and shelter for stranded travelers. Roof collapses began as the snow piled up and continued for days after the storm. An elementary school in Cleveland (Cuyahoga) collapsed but school was not in session. The building may have been damaged beyond repair. No direct injuries or fatalities were reported but a number of injuries and several fatalities were reported from automobile accidents and at least three people (men) died in the Cleveland area from heart attacks while shoveling snow.

OHZ008 Sandusky

05	1400EST				0 0		High Wind
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In Fremont, high winds brought down one side of a manufacturing building under construction on State Route 53 North. A window at a pharmacy in Clyde was blown out.

OHZ019>020-028>033-036>037-047 Huron - Medina - Crawford - Richland - Ashland - Wayne - Stark - Mahoning - Marion - Morrow - Knox

07	0600EST 1800EST				0 1	1.1M	Heavy Snow
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Snow spread from south to north and heavy snow reached as far north as southern Huron and southern Medina counties. Accumulations averaged 4 to 8 inches with a maximum of 12 inches reported in southern Knox County. Northeast winds gusting to 30 mph caused considerable blowing and drifting snow, especially considering there was already a foot or more already on the ground in most of the area before the new snow began. Roads were closed and snow emergencies were declared in several counties. Major roof collapses occurred including a Service Merchandise store in Ontario (Richland County) where a woman was injured. A business in Canal Fulton had a roof collapse and a number of garages were damaged or destroyed in the Youngstown area from roof collapses. Hotels and motels filled up from stranded travelers, especially in the Youngstown area since virtually all roads to the east across Pennsylvania were closed due to heavy snow from what became known along the east coast as the blizzard of 96.

OHZ013>014

Geauga - Ashtabula

09	2100EST				0 0	7K	Heavy Snow
10	0800EST						

Snow and lake effect snow squalls accumulated an average of 4 to 8 inches.

OHZ012

Lake

17	1900EST				0 0	80K	Flood
18	0600EST						

Ice jams developed on the Chagrin River near Eastlake and several other locations as warm temperatures, melting snow, and rain caused the ice to break and water to rise. Some evacuations occurred but the ice jams broke before significant flooding developed. Several roads were flooded as well as some basements. A few boats, boat docks, and automobiles parked near the river were destroyed.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>OHIO, North</u>									
OHZ014	Ashtabula	18	1200EST 2000EST			0	0	30K	Flood
									Ice jams developed on the Ashtabula River in and near the City of Ashtabula flooding several roads and some basements. Significant erosion occurred along the river bank near East 24th Street.
OHZ002>003-005>014-018>023-033	Fulton - Lucas - Henry - Wood - Ottawa - Sandusky - Erie - Lorain - Cuyahoga - Lake - Geauga - Ashtabula - Seneca - Huron - Medina - Summit - Portage - Trumbull - Mahoning	27	0600EST 1800EST			0	0		High Wind (G68)
									High winds downed large limbs, trees, and power lines in a number of locations across northern Ohio. The west to southwest winds gusted to 60 mph after the passage of a cold front with a peak gust measured of 78 mph west of Sandusky (Erie County) at 1020 EST. Some of the downed trees damaged or destroyed property including a garage in Bay Village (Cuyahoga).
OHZ003-006>009	Lucas - Wood - Ottawa - Sandusky - Erie	29	1100EST 1730EST			0	0		High Wind (G50)
									Winds gusted to 60 mph in a few spots downing tree, limbs, and power lines.
<u>OHIO, Northwest</u>									
									NONE REPORTED.
<u>OHIO, Southeast</u>									
OHZ066>067	Perry - Morgan	02 03	1600EST 0400EST			0	0	10K	Ice Storm
									A half to three quarter of an inch of ice formed from freezing rain and sleet across Perry and Morgan Counties.
OHZ066>067-075>076-083>087	Perry - Morgan - Athens - Washington - Jackson - Vinton - Meigs - Gallia - Lawrence	06 08	1800EST 0200EST			0	0	5K	Heavy Snow
									Snow depths increased 8 to 11 inches around the towns of Jackson, McArthur, Athens, and New Lexington. Amounts were higher along the Ohio River counties, where snow depths of 10 to 15 inches were common. Marietta had the most reported with 15 inches on the ground. Newport had 13 inches. In Pomeroy, a foot of snow collapsed a porch roof, trapping the resident inside.
OHZ083>087	Jackson - Vinton - Meigs - Gallia - Lawrence	11 12	2200EST 0800EST			0	0		Heavy Snow
									Four to 6 inches of new snow fell. For example, both South Point and Waterloo measured 6 inches of new snow. Total snow depths of 8 to 12 inches were measured at dawn on the 12th.
OHZ076-085>087	Washington - Meigs - Gallia - Lawrence	20 22	1200EST 0700EST			0	0	1.7M	Flood
									As a result of rain and melted snow in Pennsylvania, West Virginia, and western Maryland, the Ohio River crested 3 to 6 feet above flood stage from Marietta to Ironton. The crest at the Corps of Engineers gauge at Marietta was 39.3 feet, Pomeroy reached 50.5 feet, Gallipolis saw 51.6 feet. This crest was slightly greater than the crest in January, 1994. A flood of equal magnitude occurred in February, 1979. In Washington County, 28 structures were reported destroyed, Meigs County had 20 dwelling destroyed, while Lawrence County had 19 destroyed.
Athens County Countywide		24	0130EST 0600EST			0	0		Flash Flood
Gallia County Countywide		24	0130EST 0600EST			0	0		Flash Flood
Jackson County Countywide		24	0130EST 0600EST			0	0		Flash Flood
Meigs County Countywide		24	0130EST 0600EST			0	0		Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southeast									
Vinton County Countywide	24	0130EST 0600EST			0	0			Flash Flood
Washington County Countywide	24	0130EST 0600EST			0	0			Flash Flood
Rains of 0.75 to 1.5 inches in 6 hours across southeast Ohio caused numerous small streams to flood and block secondary roads in the 6 counties. Salem Center of Meigs County had a 24 hour rainfall of 1.9 inches. Some of the creeks that flooded include Sugar Run in the Amesville area of Athens County, Salt Creek around Allensville of Vinton County, and Leading Creek in Meigs County. No evacuations were reported.									
OHIO, Southwest									
OHZ015>016-024>026-034>035-042>046-051>056-060>062-070			Paulding - Putnam - Van Wert - Allen - Hardin - Mercer - Auglaize - Darke - Shelby - Logan - Union - Delaware - Miami - Champaign - Clark - Madison - Franklin - Licking - Preble - Montgomery - Greene - Butler						
	02 03	1400EST 1400EST			0	0	750K		Winter Storm
Low pressure strengthening in the Tennessee valley passed southeast of Ohio. The heaviest snow fell near and north of interstate 70, across West Central Ohio where there was up to 1 foot of snowfall and blizzard conditions. Wind gusts up to 40 mph were common in this area with snow drifts between 3 and 5 feet. Across parts of Southern Ohio there was a messy mix of precipitation.									
Roads oriented east to west were quite hazardous as strong north winds produced large snow drifts shortly after these roads were plowed. Temperatures during much of this event were in the upper teens and 20s.									
OHZ070>072-077-080			Butler - Warren - Clinton - Hamilton - Highland						
	04	1400EST 2200EST			0	0	20K		Heavy Snow
A quick moving Alberta Clipper system brought around 4 inches of light and fluffy snow to a portion of southern Ohio between Dayton and Cincinnati.									
OHZ034>035-042-046-051>056-060>065-070>074-077>082-088			Mercer - Auglaize - Darke - Delaware - Miami - Champaign - Clark - Madison - Franklin - Licking - Preble - Montgomery - Greene - Fayette - Pickaway - Fairfield - Butler - Warren - Clinton - Ross - Hocking - Hamilton - Clermont - Brown - Highland - Adams - Pike - Scioto						
	06 08	1500EST 0200EST			2	0	14.3M		Winter Storm
The Blizzard of '96 developed near the Gulf Coast and moved up the East Coast. This massive system produced the greatest total and 24 hour snowfall at Greater Cincinnati/Northern Kentucky airport. This one storm brought 14.3 inches of snowfall to the airport which normally receives 23 inches for an entire season. The heaviest snow fell near the Ohio river in the extreme south.									
The worst blizzard conditions occurred over West Central areas as dry and powdery snow was blown around by high winds causing whiteouts. Some areas had more than 30 continuous hours of snowfall, and many people in Southern Ohio felt this was the worst winter storm since the Blizzard of '78. In Fayette county, the airport reported a wind gust to 56 mph during the height of the storm. By the end of the storm many homes and businesses had their roof collapse or partially collapse from the weight of the new snow, and snow from a storm earlier in the week. By late in the day on the 7th arctic air was pouring into the region. A 47 year old man died of exposure under an overpass in Miami county. A 76 year old man died of exposure on his front porch in Montgomery county. M470U, M760U									
OHZ024-034>035-042-045>046-051>054-056-060>065-070>073-077>078-080>081-088			Van Wert - Mercer - Auglaize - Darke - Union - Delaware - Miami - Champaign - Clark - Madison - Licking - Preble - Montgomery - Greene - Fayette - Pickaway - Fairfield - Butler - Warren - Clinton - Ross - Hamilton - Clermont - Highland - Adams - Scioto						
	11 12	1500EST 1000EST			0	0	26K		Heavy Snow
A fast moving low pressure system tracked from the Mid-Mississippi Valley to the Kentucky-Tennessee border. This storm brought a fairly wet snow to the state. Total snow accumulations were near 4 inches.									
OHZ024-034>035-046-055-061-064-070-073-077>082-088			Van Wert - Mercer - Auglaize - Delaware - Franklin - Montgomery - Pickaway - Butler - Ross - Hamilton - Clermont - Brown - Highland - Adams - Pike - Scioto						
	17 23	1200EST 1200EST			0	0	187K		Flood
The combination of significant prior snow cover, warm temperatures, and rainfall produced widespread tributary flooding in the Ohio river basin. Some ice jam flooding also occurred in the northern Scioto basin. Snow water equivalents of nearly 4 inches in portions of the Maumee and St. Mary's basins kept the St. Mary's river out of its banks through the 19th and 20th. Several rescues were made early on the 20th along the St. Mary's when at least 3 feet of flowing water was on a nearby road on the Mercer-Van Wert county line.									
Most of the tributaries were back within their banks by the 21st, but points along the Ohio river were now in flood. Some of the tributaries which experienced significant flooding were the Scioto, Great Miami and Blanchard rivers, as well as Ohio Brush Creek.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property Crops	Character of Storm	
					Killed	Injured			
OHIO, Southwest									
OHZ088	Scioto	18	1600EST			0	0	2K	High Wind (G50)
									Trees blown down.
OHZ024	Van Wert	18	1630EST			0	0	50K	High Wind (G55)
									A barn located northwest of the town of Convoy was blown down. Large tree limbs and utility poles were blown down.
OHZ016	Putnam	18	1809EST			0	0		High Wind (G50)
									Wind gust of 58 mph reported in Columbus Grove.
OHZ064-073-077>082-088	Pickaway - Ross - Hamilton - Clermont - Brown - Highland - Adams - Pike - Scioto	23	1200EST			0	0	5.1M	Flood
		30	1200EST						
									By the 23rd many tributaries to the Ohio river had already crested and were receding back within their banks. However, a significant rain event occurred on the 23rd bringing over 2 inches of rain to South Central areas with lesser amounts to the north. Many tributaries were pushed back into flood on the 24th, and the flood crest moved downstream on the Ohio river. While most tributaries only experienced minor to moderate flooding, backwater flooding from the Ohio resulted in major flooding along some of the tributaries. The Little Miami river was flooded particularly bad just east of Cincinnati. Evacuations took place near the confluence of the Ohio and Little Miami rivers on the 24th as the Ohio river crest travelled through Cincinnati. Cincinnati eventually crested during the evening of the 24th at 57.3 feet, while flood stage is 52 feet. This was the highest crest in Cincinnati since March, 1979.
Scioto County Countywide		24	0530EST 0800EST			0	0	10K	Flash Flood
									Persistent heavy rainfall caused some roads to be closed and a few people were evacuated from buildings.
OKLAHOMA, Extreme Southeast									
									NONE REPORTED.
OKLAHOMA, Northeast									
OKZ068>076	Cherokee - Adair - Muskogee - McIntosh - Sequoyah - Pittsburg - Haskell - Latimer - Le Flore	01	1800CST			0	0		Heavy Snow
		02	0400CST						
									Rain changed to snow across eastern Oklahoma during the evening of January 1st and continued into the early morning of January 2nd. The heaviest snow fell in east central and southeast Oklahoma where some areas received 4 to 7 inches of snow.
Cherokee County Peggs		17	1827CST			0	0		Hail (0.75)
Delaware County Leach		17	1850CST			0	0		Thunderstorm Wind (G52)
Delaware County 3 W Jay		17	1902CST			0	0		Thunderstorm Wind (G52)
Creek County 1 SE Drumright		17	1910CST			0	0		Hail (1.00)
Pawnee County Hallett to 10 E Hallett		17	1940CST			0	0		Thunderstorm Wind (G52)
Tulsa County 2 E Sand Springs		17	1957CST			0	0		Hail (0.75)
Osage County New Prue		17	2010CST			0	0		Thunderstorm Wind (G52)
Creek County Sapulpa-Kiefer		17	2010CST			0	0	0.10K	Thunderstorm Wind
Sequoyah County Muldrow		17	2015CST			0	0		Hail (0.75)
Sequoyah County Muldrow		17	2015CST			0	0	1K	Thunderstorm Wind
Tulsa County 3 S Glenpool		17	2027CST			0	0		Hail (0.88)
Tulsa County Bixby		17	2045CST			0	0		Hail (1.00)
Tulsa County Broken Arrow		17	2045CST			0	0		Hail (1.00)
Wagoner County Coweta		17	2050CST			0	0		Hail (0.75)
Wagoner County Wagoner		17	2050CST			0	0		Hail (0.75)
Wagoner County 6 E Broken Arrow		17	2110CST			0	0		Hail (1.00)

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OKLAHOMA, Northeast									
Rogers County 3 SW Chelsea	17	2112CST			0	0	15K		Thunderstorm Wind
Okfuskee County Bearden	17	2115CST			0	0	8K		Thunderstorm Wind
Mayes County 3 N Adair	17	2123CST			0	0	0.10K		Thunderstorm Wind
Okfuskee County Bearden	17	2125CST			0	0			Hail (0.75)
Mayes County 3 N Chouteau	17	2142CST			0	0			Hail (0.75)
Mayes County 1 S Pryor	17	2147CST			0	0			Hail (1.00)
Mayes County 5 E Pryor	17	2150CST			0	0			Hail (1.75)
Okfuskee County Pharoah	17	2208CST			0	0	5K		Thunderstorm Wind
Okfuskee County Pharoah	17	2210CST			0	0			Thunderstorm Wind (G56)
Okmulgee County Beggs	17	2225CST			0	0			Hail (0.75)
Mcintosh County Hitchita	17	2230CST			0	0			Hail (0.75)
Muskogee County 4 N Wainwright	17	2230CST			0	0	12K		Thunderstorm Wind
Delaware County 3 W Jay	17	2231CST			0	0			Hail (0.88)
Okmulgee County 1 S Schuller	17	2238CST			0	0	200K		Thunderstorm Wind
Muskogee County Muskogee	17	2240CST			0	0	0.10K		Thunderstorm Wind
Muskogee County 5 SW Muskogee	17	2240CST			0	0	20K		Thunderstorm Wind
Muskogee County 2 N Wainwright	17	2240CST			0	0	5K		Thunderstorm Wind
Muskogee County Council Hill	17	2240CST			0	0	5K		Thunderstorm Wind
Pittsburg County Mc Alester	17	2245CST			0	0	3K		Thunderstorm Wind
Wagoner County 7 SE Wagoner	17	2300CST			0	0	0.10K		Thunderstorm Wind
Cherokee County Nr Gideon	17	2330CST			0	0	5K		Thunderstorm Wind
Delaware County West Siloam Springs	17	2350CST			0	0	0.10K		Thunderstorm Wind

Severe thunderstorms moved across eastern Oklahoma during the evening of January 17th. Strong thunderstorm winds caused extensive damage 1 mile south of Schuller. 5 buildings, 2 barns, and 1 trailer were destroyed, 1 trailer was damaged, 1 mobile home was overturned, a roof was blown off a home, and a garage was damaged. The path of damage was about 1 mile long. Strong thunderstorm winds overturned a large travel trailer and caused structural damage to a residence 3 miles southwest of Chelsea. Trees and power lines were also blown down onto State Highway 66 3 miles southwest of Chelsea. Strong winds destroyed a mobile home 5 miles southwest of Muskogee, and a semi was blown off the road near Pharoah.

Thunderstorm winds in Bearden blew part of the roof off a maintenance shop, blew out window panes, and blew shingles off several homes. Strong thunderstorm winds 4 miles north of Wainwright blew the roofs off barns, destroyed outbuildings, downed trees, and blew windows out of pickups. A barn was destroyed by strong winds 2 miles north of Wainwright and also in Council Hill, and strong winds caused roof damage and damaged a barn near Gideon. Strong thunderstorm winds blew the roof off a house on the northeast side of McAlester and downed signs and power lines in Muldrow.

Power lines were blown down onto U.S. Highway 69 3 miles north of Adair, and power lines were also blown down in West Siloam Springs. Trees were blown down near Sequoyah State Park 7 miles southeast of Wagoner, and large tree limbs were downed from Sapulpa to Kiefer and also in Muskogee. Thunderstorm winds gusted to 65 miles an hour in Pharoah and to 60 miles an hour in Leach, 3 miles west of Jay, from Hallett to 10 miles east of Hallett, and in New Prue.

Large hail also accompanied the storms. Golfball size hail fell 5 miles east of Pryor, and quarter size hail fell 1 mile southeast of Drumright, in Broken Arrow, and 6 miles east of Broken Arrow. Nickel to quarter size hail fell in Bixby, and dime to nickel size hail fell at numerous other locations in eastern Oklahoma.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

OKLAHOMA, Panhandle

OKZ001>003	Cimarron - Texas - Beaver								
	17	1100CST			0	0			High Wind (G60)
	18	0000CST							

High winds generated by a strong pressure gradient caused sustained winds of 40 to 50 mph with gusts from 50 to 70 mph.

OKZ001>003	Cimarron - Texas - Beaver								
	17	1900CST			0	0			Winter Storm
	18	0800CST							

Near Blizzard conditions closed down the Oklahoma panhandle. All roads out of Guymon were closed by 10PM CST.

OKLAHOMA, Western, Central and Southeast

OKZ024>032-040>043-045>053	Canadian - Oklahoma - Lincoln - Grady - McClain - Cleveland - Pottawatomie - Seminole - Hughes - Garvin - Murray - Pontotoc - Coal - Jefferson - Carter - Johnston - Atoka - Pushmataha - Love - Marshall - Bryan - Choctaw								
	01	1200CST			0	0			Heavy Snow
	02	2100CST							

A strong cold front moved across Oklahoma early New Year's Day, dropping temperatures into the teens and 20s. Snow began falling during the afternoon of January 1st and continued until evening of the 2nd. The heaviest snow fell in southern Oklahoma in the zones near the Red River, then spread northeastward into east central and northeastern Oklahoma.

In Oklahoma, the southwestern end of a heavy snow band extended into Hughes and Pontotoc Counties, where 4 and 6 inches of snow were measured, respectively. Isolated totals of 5 inches in Hugo in Choctaw County and 4 inches in Durant in Bryan County also fell.

Patchy ice formed on roads in portions of central Oklahoma, including the Oklahoma City metro area. Forty-two injury accidents and over 175 non-injury accidents were reported due to the slick road conditions in central Oklahoma.

OKZ026-028>032-039>040-042-046-048	Lincoln - McClain - Cleveland - Pottawatomie - Seminole - Hughes - Stephens - Garvin - Pontotoc - Carter - Atoka								
	17	1825CST 2135CST			0	0			Summary Jan 17

Severe thunderstorms moved across southern and central Oklahoma during the evening of the 17th, producing large hail and damaging winds. Hail as large as golfballs was reported north of Pink in Pottawatomie County. Wind speeds as high as 60 mph were reported northeast of Washington in McClain County, in Stratford in Garvin County, and north of Pink in Pottawatomie County.

Signs, tree limbs, and power poles were damaged in Carter County in Ardmore and Wilson. See following individual storm reports for further details and additional reports.

Stephens County									
Duncan Copland Arprt	17	1830CST			0	0			Hail (1.50)
Stephens County									
3 S Duncan	17	1832CST			0	0			Hail (1.00)
Cleveland County									
Noble	17	1845CST			0	0			Hail (0.75)
McClain County									
4 NE Washington	17	1850CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
5 NE Avery	17	1910CST			0	0			Hail (1.00)
Atoka County									
Daisy	17	1915CST 1945CST			0	0			Hail (0.75)
Garvin County									
Elmore City	17	1920CST 1930CST			0	0			Hail (0.75)
Pottawatomie County									
4 N Pink	17	1935CST			0	0			Thunderstorm Wind (G52)
Pottawatomie County									
4 N Pink	17	1935CST			0	0			Hail (0.75)
Lincoln County									
3 N Sparks	17	1945CST			0	0			Hail (0.88)
Seminole County									
Cromwell	17	1950CST			0	0			Hail (0.75)
McClain County									
5 ENE Byars	17	1952CST			0	0			Hail (0.75)
Pottawatomie County									
Tecumseh	17	1955CST			0	0			Hail (1.75)
Pottawatomie County									
Pearson	17	2020CST			0	0			Hail (0.75)
Seminole County									
4 W Little	17	2020CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

OKLAHOMA, Western, Central and Southeast

Mcclain County Byars	17	2030CST			0	0			Hail (0.75)
Garvin County Stratford	17	2045CST			0	0			Thunderstorm Wind (G52)
Seminole County 2 W Wewoka	17	2055CST			0	0			Hail (0.75)
Carter County Wilson	17	2100CST			0	0	5K		Thunderstorm Wind
Signs were damaged and a tree was blown onto a police car.									
Carter County Ardmore	17	2100CST			0	0	3K		Thunderstorm Wind
A power pole was blown down and some business signs were downed.									
Seminole County 10 E Seminole	17	2114CST			0	0			Hail (0.88)
Hughes County Lamar	17	2114CST			0	0	15K		Thunderstorm Wind
Severe thunderstorm winds toppled a barn in Lamar.									
Pontotoc County 2 S Byng	17	2130CST			0	0			Hail (0.75)
OKZ004>053									
Harper - Woods - Alfalfa - Grant - Kay - Ellis - Woodward - Major - Garfield - Noble - Roger Mills - Dewey - Custer - Blaine - Kingfisher - Logan - Payne - Beckham - Washita - Caddo - Canadian - Oklahoma - Lincoln - Grady - Mcclain - Cleveland - Pottawatomie - Seminole - Hughes - Harmon - Greer - Kiowa - Jackson - Tillman - Comanche - Stephens - Garvin - Murray - Pontotoc - Coal - Cotton - Jefferson - Carter - Johnston - Atoka - Pushmataha - Love - Marshall - Bryan - Choctaw									
	17	2130CST			0	0	3.2K		High Wind (G45)
	18	1800CST							
A strong cold front moved into Oklahoma during the evening of January 17th. Strong gradient winds with and behind the front were sustained at up to 44 mph at Will Rogers Airport in Oklahoma City with gusts as high as 52 mph.									
The strong winds began with frontal passage and continued until early evening on the 18th. During the almost 24 hours of high winds, tree, sign, and other property damage was widespread across western and central Oklahoma.									
Reports of downed business signs and uprooted trees were received from Norman in Cleveland County, Ponca City in Kay County, Ardmore in Carter County, Weatherford in Custer County, and Woodward in Woodward County.									
Semi-trucks were blown over in Elk City, Clinton, and Cordell in Beckham, Custer, and Washita Counties.									
In Altus in Jackson County a carport was lifted and blown onto the connecting mobile home. In Okeene in Blaine County the roof of a grocery store, housed in a metal building, was taken off and blown into a neighboring business. In Canton, also in Blaine County, the front portion of the roof was blown off of a bank. In Hughes County, high winds toppled a metal barn in Lamar. In Granite in Greer County, high winds damaged the roofs of a church and two city buildings, resulting in about \$2200 in damage.									
Seminole County 6 N Konawa	17	2135CST			0	0			Hail (0.75)
OKZ004>053									
Harper - Woods - Alfalfa - Grant - Kay - Ellis - Woodward - Major - Garfield - Noble - Roger Mills - Dewey - Custer - Blaine - Kingfisher - Logan - Payne - Beckham - Washita - Caddo - Canadian - Oklahoma - Lincoln - Grady - Mcclain - Cleveland - Pottawatomie - Seminole - Hughes - Harmon - Greer - Kiowa - Jackson - Tillman - Comanche - Stephens - Garvin - Murray - Pontotoc - Coal - Cotton - Jefferson - Carter - Johnston - Atoka - Pushmataha - Love - Marshall - Bryan - Choctaw									
	18	0200CST			2	0			Extreme Cold
	20	1200CST							
A strong arctic air mass settled in across Oklahoma early in the morning of the 18th, and remained over the state through the 20th, resulting in two deaths. Low temperatures fell into the single digits and high temperatures rose only to around 20 degrees on the 19th. Wind chill values fell as low as 35 to 40 degrees below zero.									
A fifty-one year old man died of hypothermia overnight after apparently sitting down against a north-facing wall in Midwest City early on the 18th.									
A fifty-six year old man also died of hypothermia on the 20th when he took refuge in an unheated shack in Oklahoma City. M56OT, M51OU									
OKZ012									
Garfield	28	1700CST 1900CST			0	0	0.50K		High Wind
High winds behind a strong arctic cold front blew down a tree 2 miles west of Billings and downed tree limbs in Enid.									
OKZ017									
Blaine	28	1700CST 1900CST			0	0	10K		High Wind
High winds behind a strong arctic cold front blew down a large Pizza Hut sign in Watonga. The sign fell on a car parked in the parking lot.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OKLAHOMA, Western, Central and Southeast									
OKZ022	Washita	28	1900CST			0	0	1K	High Wind
			2100CST						
High winds behind a strong arctic cold front blew down at least one business sign in Canute.									
OREGON, Central and East									
NONE REPORTED.									
OREGON, Northwest									
ORZ010	Columbia Basin Plateau	03	1800PST			0	0		Heavy Snow
		04	0800PST						
Heavy snow hit portions of the Columbia Basin overnight with 4 to 5 inches of snow at Pilot Rock.									
Clackamas County	Carver	15	0300PST			1	0	0	Thunderstorm Wind
			0500PST						
A strong Pacific front moved into Western Oregon early in the morning. A line of strong and severe thunderstorms developed along the front producing damaging wind gusts. Winds gusted to 70 mph at Netarts and 61 mph at Sea Lion Caves. Sustained winds of 58 mph hit Chetco and sustained winds of 46 mph occurred at Yaquina. Sustained winds of 40 mph occurred at Newport and Tillamook. In the Willamette valley winds gusted to 85 mph at Dallas. In Carver, wind blew a tree onto a trailer home, killing one occupant. In Lincoln City, a hotel was destroyed. In nearby Taft, two manufactured homes were destroyed. Lightning and strong winds caused power outages to 10000 customers in Portland and power failures in Tillamook. Lightning damaged a fire station in Clackamas County. F?MH									
Lincoln County	Lincoln City	15	0300PST			0	0	1.5M	Thunderstorm Wind
			0500PST						
Polk County	Dallas	15	0300PST			0	0		Thunderstorm Wind (G74)
Lane County	Sea Lion Caves	15	0300PST			0	0		Thunderstorm Wind (G53)
			0500PST						
Lincoln County	Yaquina	15	0300PST			0	0		Thunderstorm Wind (G40)
			0500PST						
Lincoln County	Newport	15	0300PST			0	0		Thunderstorm Wind (G35)
			0500PST						
ORZ003	Southern Oregon Coast	15	0300PST			0	0		High Wind (G61)
			0500PST						
ORZ001	Northern Oregon Coast	15	0300PST			0	0		High Wind (G36)
			0500PST						
ORZ003	Southern Oregon Coast	15	0300PST			0	0		High Wind (G50)
			0500PST						
ORZ006	Northern Cascades	15	1600PST			0	0		Heavy Snow
		16	0800PST						
A moist Pacific storm system continued to feed moisture into the Cascade Mountains, resulting in heavy snow. 11 inches of snow fell at Mt. Hood Meadows and Bennett Pass. 16 inches of snow fell at Lake of the Woods.									
ORZ009	South Central	16	0000PST			0	0		Heavy Snow
			2000PST						
Moisture from a Pacific storm system pushed into South Central Oregon producing Areas of heavy snow. 13 inches to 15 inches of snow fell in the Chiloquin area with 10 inches at Rocky Point and 9 inches at Lorella.									
ORZ004-009-011	Willamette Valley - South Central - Northeast Mountain Areas	16	1200PST			0	0		Ice Storm
		18	0800PST						
Cold air funneling through the Columbia River Gorge with overrunning moisture created freezing rain with heavy accumulations of glaze ice in the Gorge, Northern Cascades and extreme eastern Portland metropolitan area. Scattered power outages resulted as well as numerous minor traffic accidents. Light amounts of freezing rain were reported in the Willamette Valley as far south as Eugene.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property Crops	Character of Storm
					Killed	Injured		
OREGON, Northwest								
ORZ002		Central Oregon Coast						
		17 1500PST			0	0		Flood
		18 1800PST						
		Heavy rainfall over the Central Oregon Coast caused small stream flooding. In Yachats, where up to 8 inches of rain fell in a 12 hour period, 4 homes were damaged in the flooding. Mudslides were also triggered by the rains. Mudslides damaged at least one home and cut highways in the Central Coast Mountains.						
ORZ006-008>009-013		Northern Cascades - North Central - South Central - Southern Cascades And Siskiyou Mountains						
		18 0300PST			0	0		Heavy Snow
		19 0000PST						
		Moisture from a Pacific system pushes into the Cascades and Eastern Oregon producing heavy snow. In the Cascades 14 inches fell at Santiam Pass, 13 inches at Crater Lake, and 12 inches at Bennett Pass and Tombstone. In Eastern Oregon, 8 inches of snow fell at Bend and LaPine, 9 inches at Chiloquin and Crescent, and 7 to 8 inches at Klamath Falls.						
ORZ001>003		Northern Oregon Coast - Central Oregon Coast - Southern Oregon Coast						
		18 0500PST			0	0		High Wind (G86)
		2200PST						
		A moderately strong low pressure system moves to near Astoria by the evening of the 18th. Strong winds begin on the coast during the morning of the 18th and continue through the evening. Oceanside had gusts to 99 mph, Newport gusts to 95 mph, Waldport gusts of 70-80 mph, Tillamook gusts to 73 mph, Netarts gusts to 72 mph and Sea Lion Caves gusts to 69 mph.						
ORZ001-004-007		Northern Oregon Coast - Willamette Valley - Columbia Gorge						
		18 0800PST			0	0		Heavy Snow
		2000PST						
		Moist Pacific air overran cold air trapped in the Willamette Valley and the Columbia Gorge producing heavy snow. In the Willamette Valley, 3 inches fell at Dallas, with 2 inches at Portland and Beaverton. In the Columbia Gorge 8 inches fell at Hood River with 5 inches at Cascade Locks.						
ORZ004>005		Willamette Valley - Southwest Interior						
		18 0900PST			0	0		High Wind (G57)
		2000PST						
		Strong winds from this Pacific storm spread locally into the interior valleys of western Oregon. Salem had wind gusts to 66 mph and Scio had sustained winds of 40 mph. Ashland had sustained winds 40-50 mph with gusts to 60 mph.						
ORZ011>012		Northeast Mountain Areas - Southeast						
		18 1000PST			0	0		Heavy Snow
		19 0400PST						
		Moisture from this same Pacific storm moved into extreme eastern Oregon late in the morning and continues until early on the 19th. Heavy snow accumulations include 8 inches at Tollgate, 7 inches at Canyon Mountain, and 6 inches at Auston and Tipton with 7 inches at Alkali Lake.						
ORZ007		Columbia Gorge						
		18 2000PST			0	0		Heavy Snow
		19 0800PST						
		Moisture flowing in from the Pacific overran cold air trapped in the Columbia Gorge. This produced heavy snow in the east end of the gorge. 18 inches of snow fell at Hood River and Parkdale.						
ORZ011		Northeast Mountain Areas						
		18 2200PST			0	0		High Wind (G55)
		19 0400PST						
		Before this Pacific storm weakened, some high winds spread locally into portions of northeast Oregon. Joseph had sustained winds of 45 mph with gusts to 63 mph. Trees were blown over portions of highway 204.						
ORZ006-008>009-011-013		Northern Cascades - North Central - South Central - Northeast Mountain Areas - Southern Cascades And Siskiyou Mountains						
		20 0600PST			0	0		Heavy Snow
		21 0600PST						
		A very moist Pacific storm spread major accumulations of snow to the Cascades, the mountains of eastern Oregon and the high plateau of central Oregon. 28 inches fell at Willamette Pass, 22 inches at Santiam Pass, 21 inches at Government Camp, and 12 inches at Crater Lake. In the Eastern Mountains, 12 inches fell at Meacham, 9 inches at Tollgate and 6 inches at Spout Springs. Over the central plateau 8 inches fell at LaPine and 6 inches at Chemult.						
ORZ002>003		Central Oregon Coast - Southern Oregon Coast						
		20 1200PST			0	0		High Wind (G52)
		21 0600PST						
		A Pacific storm system spreads strong winds to portions of the Oregon coast. Sea Lion Caves has wind gusts to 60 mph, with sustained winds of 52 mph at Chetco and 45 mph at Cape Arago.						
ORZ001		Northern Oregon Coast						
		23 1600PST			0	0		Heavy Snow
		24 0800PST						
		A moist Pacific weather system spread heavy snow into the coast mountains of northwestern Oregon. 8 inches fell at Sunset Summit and 6 inches fell at Wilson River Summit.						
ORZ006-008>009-011>013		Northern Cascades - North Central - South Central - Northeast Mountain Areas - Southeast - Southern Cascades And Siskiyou Mountains						
		23 1600PST			0	0		Heavy Snow
		24 0800PST						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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OREGON, Northwest

A second major snow storm in 3 days spread major accumulations of snow to the Cascades, mountains of eastern Oregon and the high plateau of central and southeast Oregon. In the Cascades 25 inches fell at Crater Lake, 24 inches at Lake of the Woods, 18 inches at Diamond Lake, 12 inches at Mt. Hood Meadows and Bennett Pass, 11 inches at Timberline and 10 inches at Government Camp. In the high plateau area 21 to 25 inches fell at Chiloquin, 10 inches at Klamath Falls, Adel and LaPine, 8 inches at Lakeview, 6 inches at Jordan Valley and 4 inches at Juantura. In the mountains of eastern Oregon 12 inches fell at Tollgate, 8 inches at Tipton and 6 inches at Austin.

ORZ006-011-013

Northern Cascades - Northeast Mountain Areas - Southern Cascades And Siskiyou Mountains

	24	1600PST			0	0			Heavy Snow
	25	0800PST							

Heavy snow continued in the mountains of Oregon. In the Cascades 14 inches of snow fell at Willamette Pass, 12 inches at Santiam Pass and 10 inches at Diamond Lake. In the eastern Oregon mountains, 12 inches fell at Spout Springs, with 6 inches at Tollgate and Meacham.

ORZ011

Northeast Mountain Areas

	25	1600PST			0	0			Heavy Snow
	26	0800PST							

Heavy snow continued over the mountains of eastern Oregon. 6 inches fell at Ladd Canyon, Canyon Mountain, Seneca and Long Creek.

ORZ003

Southern Oregon Coast

	26	1300PST			0	0			High Wind (G51)
	27	0000PST							

A Pacific storm brings strong winds to the southern Oregon coast. Gold Beach gusts to 59 mph.

ORZ006-008>013

Northern Cascades - North Central - South Central - Columbia Basin Plateau - Northeast Mountain Areas - Southeast - Southern Cascades And Siskiyou Mountains

	27	0000PST 1800PST			0	0			Heavy Snow
--	----	--------------------	--	--	---	---	--	--	-------------------

This same storm system dumped heavy snow over most of the rest of Oregon. In the Cascades 14 inches fell at Crater Lake with 10 inches at Santiam Pass and Green Springs. Across central Oregon, 9 inches fell at Chiloquin, 8 inches at LaPine, 7 inches at Chemult, 6 inches at Bend, Sisters, Maupin, Gilchrist. In southeast Oregon 6 inches fell at Burns. In the Columbia Basin 8 inches fell at Milton-Freewater, 7 inches near Pendleton, 6 inches at Helix, Hepner and Boardman, and 4 inches at Irrigon. In the mountains 8 inches fell at Tollgate with 6 inches at Tipton.

ORZ004-007

Willamette Valley - Columbia Gorge

	27	0300PST 1600PST			0	0			Heavy Snow
--	----	--------------------	--	--	---	---	--	--	-------------------

A low pressure system moved across southern Oregon. This storm track pulled cold low level air from the north over the Willamette Valley and Columbia Gorge. 7 inches of snow fell on Portland, 5 inches in Hillsboro and Gladstone, and 4 inches in Lake Oswego and Wilsonville.

ORZ006-011-013

Northern Cascades - Northeast Mountain Areas - Southern Cascades And Siskiyou Mountains

	28	0000PST			0	0			Heavy Snow
	29	0000PST							

Moisture continued to feed in from the Pacific and fell as heavy snow in the mountains of Oregon. In the Cascades 20 inches fell at Timberline and Government Camp, with 9 inches at Crater lake. In the northeast mountains 9 inches fell at Austin and Tipton with 6 inches at Flora.

ORZ011

Northeast Mountain Areas

	29	0600PST 1800PST			0	0			Heavy Snow
--	----	--------------------	--	--	---	---	--	--	-------------------

Snow continued to fall in the mountains of northeast Oregon. Additional Accumulations of 6 inches fell at Austin and Tipton.

ORZ007

Columbia Gorge

	29	1600PST 1800PST			0	0			Heavy Snow
--	----	--------------------	--	--	---	---	--	--	-------------------

Cold air remained trapped in the east end of the Columbia Gorge with more snow falling there. 6 inches fell at The Dalles, and 4 inches at Parkdale.

ORZ004-006

Willamette Valley - Northern Cascades

	31	0000PST 2359PST			0	0			Flood
--	----	--------------------	--	--	---	---	--	--	--------------

Heavy rainfall from a Pacific storm system caused 3 rivers in the Willamette Valley to overflow causing minor flooding of fields and a few roads.

OREGON, Southeast

NONE REPORTED.

OREGON, Southwest

NONE REPORTED.

PACIFIC

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
PAZ004>006-010>011-018>019-037-041>042-045>046-049>050-052>053	Warren - Mckean - Potter - Elk - Cameron - Northern Centre - Southern Centre - Tioga - Northern Lycoming - Sullivan - Southern Clinton - Southern Lycoming - Union - Snyder - Northumberland - Columbia	02 03	1200EST 1200EST			0	0		Heavy Snow
	Heavy snow fell across a large area of north central Pennsylvania generally north the the turnpike. A foot of new snow fell from Bradford and Kane East to Coudersport, with between 6 and 10 inches falling from State College to Williamsport.								
PAZ012-018>019-024>028-033>036-042-045>046-049>053-056>059-063>066	Northern Clinton - Northern Centre - Southern Centre - Cambria - Blair - Huntingdon - Mifflin - Juniata - Somerset - Bedford - Fulton - Franklin - Sullivan - Southern Clinton - Southern Lycoming - Union - Snyder - Montour - Northumberland - Columbia - Perry - Dauphin - Schuylkill - Lebanon - Cumberland - Adams - York - Lancaster	07 08	0800EST 0800EST			0	0		Blizzard
	On January 7th, more than 2 feet of snow fell across much of the lower Susquehanna Valley with 12 to 18 inches falling across the central mountains from Johnstown and State College east to Wilkes-Barre. Parts southern York County had in excess of 3 feet of new snow. The storm was appropriately termed the Blizzard of '96. Snow began falling during the morning of January 7th and continued into the early morning of the 8th. Transportation and commerce came to a halt as cities of south central Pennsylvania were buried under the heavy snow. New snow of 38 inches was reported in southern York County at Glenville. Two feet or more was reported near Harrisburg, Lancaster, Lebanon and York. The storm had a major impact on commerce across south central PA, and was to set the stage for the Great Flood on the 19th. Details of the economic impact are included with the summary of the flood.								
PAZ019-026>028-035>036-041>042-046-049>053-056>059-063>066	Southern Centre - Huntingdon - Mifflin - Juniata - Fulton - Franklin - Northern Lycoming - Sullivan - Southern Lycoming - Union - Snyder - Montour - Northumberland - Columbia - Perry - Dauphin - Schuylkill - Lebanon - Cumberland - Adams - York - Lancaster	12 13	1000EST 0100EST			0	0		Heavy Snow
	This second major snow storm of the new year for the Susquehanna Valley began less than 5 days after the blizzard of the 7th. Snow began falling across the lower Susquehanna Valley south of Harrisburg during the morning and spread north up the Susquehanna Valley during the afternoon. Nearly a foot of new snow fell in Harrisburg, and snow in excess of 1 1/2 feet fell across areas from Sunbury northward to Muncy and Laporte. Some areas reported snow falling at 2 to 3 inches an hour during the afternoon of the 12th.								
Bedford County Countywide		19	0630EST 1800EST			1	0		Flash Flood
	One flood related death occurred in Bedford County. A 62 year old died when her husband made two attempts to cross a flooded road. The truck was swept away and the woman was lost. The husband was rescued downstream. F62VE								
PAZ034	Bedford	19 20	0630EST 1200EST			0	0		Flood
Somerset County Countywide		19	0700EST 1800EST			0	0		Flash Flood
Warren County Countywide		19	0700EST 1800EST			0	0		Flash Flood
PAZ004-033	Warren - Somerset	19 20	0700EST 0800EST			0	0		Flood
Sullivan County Countywide		19	0730EST 1800EST			0	0		Flash Flood
PAZ042	Sullivan	19 20	0730EST 0300EST			0	0		Flood
Blair County Countywide		19	0800EST 1800EST			1	0		Flash Flood
	Two people died in Blair County. One was a drowning directly related to the flooding, and the second a heart attack. A 17 year male was walking home from a store near Geeseytown when he was trapped by rising water on the Frankstown branch of the Juniata River. Rescue attempts by jet ski and helicopter failed when the youth was unable to hold onto a rope in the ice cold water. The second death occurred when water surrounded a residence and a 68 year old woman died of a heart attack. M17OU								
Cambria County Countywide		19	0800EST 1800EST			0	0		Flash Flood
Centre County Countywide		19	0800EST 1800EST			0	0		Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
Clearfield County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Elk County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Fulton County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Huntingdon County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Mckean County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Potter County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Snyder County Countywide	19	0800EST 1800EST			1	0			Flash Flood
			One death occurred in Snyder County. A 75 year old man refused to abandon his home during evacuation of people near Selinsgrove. He later attempted to leave by auto and was swept away. M75VE						
Tioga County Countywide	19	0800EST 1800EST			0	0			Flash Flood
Union County Countywide	19	0800EST 1800EST			0	0			Flash Flood
PAZ005>006-010-017>019-024>026-035-037-049>050			Mckean - Potter - Elk - Clearfield - Northern Centre - Southern Centre - Cambria - Blair - Huntingdon - Fulton - Tioga - Union - Snyder						
	19 22	0800EST 0900EST			0	0			Flood
Adams County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Cameron County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Clinton County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Columbia County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Cumberland County Countywide	19	0900EST 1800EST			1	0			Flash Flood
			One flood related death occurred in Cumberland County. A 32 year old male drove around a barricade near Middlesex. He abandoned his car in the water and was on foot when he fell through ice on the north side of a flooded roadway around 330 am in the morning of January 21st, nearly two days after the onset of the rapid flooding. M32VE						
Franklin County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Juniata County Countywide	19	0900EST 1800EST			4	0			Flash Flood
			Four deaths occurred in Juniata County as a direct result of the flooding on the evening of Friday the 19th. Two females and two males in three separate cars were unable to cross Tuscarora Creek between Academia and Pleasant View due to a flooded bridge. They attempted to cross the stream on foot and were swept away. F34VE, F35VE, M38VE, M8VE						
Lycoming County Countywide	19	0900EST 1800EST			6	0			Flash Flood
			Six people died in Lycoming County along Lycoming Creek on Friday the 19th. A husband and wife age 77 and 75 were swept away when they tried to drive away from their home in rural Trout Run early in the afternoon. A 68 year old man was last seen in the late morning before he tried to drive away from his hunting cabin at March Hill near Bodines. A 54 year old man attempted to climb to the roof of his trailer and a 38 year old woman fell from the roof of her mobile home in Cogan Station. A 59 year old woman slipped off the roof of her truck that stalled in the water on Lycoming Creek Road in Williamsport. M77VE, F75VE, M68VE, F38MH, M54MH, F59VE						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
Mifflin County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Perry County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Montour County Countywide	19	0900EST 1800EST			0	0			Flash Flood
Northumberland County Countywide	19	0900EST 1800EST			0	0			Flash Flood
PAZ011>012-027>028- 036-041-045>046- 051>052-056-063>064	Cameron - Northern Clinton - Mifflin - Juniata - Franklin - Northern Lycoming - Southern Clinton - Southern Lycoming - Montour - Northumberland - Perry - Cumberland - Adams								
	19 22	0900EST 0800EST			0	0			Flood
Franklin County Fayetteville	19	0940EST 0945EST			0	0	500K		Thunderstorm Wind
Strong winds damaged several homes and destroyed one in Fayetteville. Eleven other homes in Southampton Township were damaged. High winds ahead of and along a strong cold front were also responsible for much of the rapid melt of the deep snow cover that combined with heavy rains to cause extensive flooding in Franklin County and across the state.									
Dauphin County Countywide	19	1000EST 1800EST			0	0			Flash Flood
Lancaster County Countywide	19	1000EST 1800EST			0	0			Flash Flood
Lebanon County Countywide	19	1000EST 1800EST			0	0			Flash Flood
Schuylkill County Countywide	19	1000EST 1800EST			0	0			Flash Flood
York County Countywide	19	1000EST 1800EST			0	0			Flash Flood
Nearly all of Pennsylvania experienced a flood of unusual magnitude beginning in the early morning of Friday January 19, 1996 with rapid flooding of headwater basins of western PA and ending as major flooding along the rivers of the state on the 20th through the 21st. Two major snowstorms set the stage for the great flood. The snow storm of January 7-8 had been termed the Blizzard of '96 and was followed by a second major storm on January 12-13. Overnight on the 18th and through the morning of the 19th, heavy rain fell atop snow that had been ripened exceptionally rapidly by high winds and warm temperatures. In many areas flooding was as bad as flooding from Hurricane Eloise of 1975, and in a few spots even worse than record floods of Agnes in 1972.									
In the hardest hit areas of central Pennsylvania, 14 deaths were directly attributed to the flooding. Estimates of damages from the combined flood and the prior weeks blizzard (that set the stage for the flood) totaled \$700 million for the state. An estimated \$760 million was also lost to commerce over the two weeks. PENNDOT further estimated damage to roads and bridges of \$500 million. Flood damage figures included damage to more than 51,000 homes (7,731 with major damage or destroyed), 1,900 business, 1,426 roads and 78 parks. More than 200,000 people were evacuated at some time during the event.									
On of the hardest hit areas was along Lycoming Creek north of Williamsport in Lycoming County where 6 deaths were confirmed. Stream levels in Lycoming County exceeded record levels set during Agnes. In Elk county flood levels on the Clarion River also exceeded levels from Agnes.									
Many locations had in excess of 2 inches of rain, with the hardest hit receiving 3 inches in less than 12 hours. Snowpack held water equivalents of 2 to 4 inches across much of the region from the severe January snowstorms, and much of the water was released during the period of heavy rain. Even major rivers and streams reacted quite rapidly, and ice jams caused significant problems in many areas.									
Many of the deaths were in stranded automobiles that people drove into flooded areas. A combination of strong winds, temperatures that fell into the teens and ice cold waters meant there was little time to rescue people caught in the flood.									
PAZ058>059-065>066	Schuylkill - Lebanon - York - Lancaster								
	19 23	1000EST 0400EST			0	0			Flood
Schuylkill County Ringtown	24	1100EST 1300EST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

PENNSYLVANIA, Central

Heavy rains spread east across southern Pennsylvania causing minor problems across the southern tier counties. In Schuylkill County rains in excess of 1 1/2 inches caused flooding of basements in Ringtown.

Cambria County

Johnstown

27	0930EST 0931EST				0	0	0.10K		Thunderstorm Wind
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Mckean County

Bradford Airport to Mt Jewett

27	0933EST 0940EST				0	0			Thunderstorm Wind
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High winds struck county wide taking down trees and powerlines around Bradford, Mt. Jewett and along route 219.

Elk County

Highland Corners

27	1008EST 1009EST				0	0			Thunderstorm Wind
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High winds struck across the area taking down trees in Elk and Cambria Counties.

PENNSYLVANIA, East

PAZ054>055-062

Carbon - Monroe - Northampton

02 03	0700EST 1000EST				0	0			Winter Storm
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A low pressure system developed over the Gulf Coast States on the 2nd and moved through New Jersey on the 3rd. The storm produced heavy snow over parts of the Lehigh Valley and most of the Poconos throughout most of the day on the 2nd. Its close proximity to the rest of Southeast Pennsylvania changed the snow to rain.

Snowfall accumulations averaged around 6 inches in Northampton County and 6 to 8 inches in the Poconos. Lighter accumulations (2 to 4 inches) occurred throughout the rest of the Lehigh and Schuylkill Valleys and the far northwestern Philadelphia Suburbs.

Since this storm coincided with the first work day of the new year, many accidents occurred. In Northampton County alone there were four accidents with injuries. There were no reported deaths.

PAZ054>055-060>062- 067>071

Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

07 08	0200EST 1600EST				7	0	19.0M		Blizzard
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The Blizzard of '96, the second coined "STORM OF THE CENTURY" of this decade brought record breaking snow to most of Southeast Pennsylvania and paralyzed the region for several days, caused most municipalities to exceed their annual snow budgets during this one storm, caused several building collapses and caused directly or indirectly 42 deaths and countless injuries. Six persons died of hypothermia, 4 in Philadelphia, 1 in Delaware County and 1 in Lehigh County. Some were homeless persons, but one woman in Allentown accidentally locked herself out of her home. Twenty-nine persons suffered heart attacks and died while shoveling snow, using snowblowers or trying to walk in the deep snow. A Delaware County man died of carbon monoxide poisoning after his vehicle's tail pipe was not cleared of snow. Two persons in Philadelphia also died of carbon monoxide poisoning within their home. A snow-blocked fire hydrant contributed to the death of one person in a Bucks County fire. A Montgomery County man crashed and died in Upper Dublin Township on Pennsylvania State Route 309 when his vehicle struck an overpass. Another Montgomery County man died while he was riding on an inner tube and slid underneath a parked vehicle. The weight of the snow caused the collapse of a greenhouse in Exeter Township and killed one man.

The number of deaths and injuries was reduced by the storm starting before dawn on Sunday with blizzard conditions in full force by the early afternoon. The storm formed in the Gulf of Mexico on the morning of the 6th, moved south of Alabama the evening of the 6th, reached Savannah Georgia the morning of the 7th, Cape Hatteras the evening of the 7th, moved just to the west of the Delaware Bay Buoy the morning of the 8th before reaching the Southern New England Coastal Waters the evening of the 8th. This was a classic a storm track for heavy snow. Precipitation was all snow in Pennsylvania. Snow began falling during the predawn hours on the 7th and became heavy at times during the morning. Blizzard conditions developed during the afternoon and evening as strong northeast winds developed around the intensifying low. There was a lull in the precipitation after midnight on the 8th, before some wraparound snow returned during the daylight hours.

This was a very difficult snow to measure due to the strong winds and powdery nature of the snow. All-time single storm records were set at both the Lehigh Valley International Airport (25.6 inches) and Philadelphia International Airport (30.7 inches). It should be noted the 30.7 inches represents a SNOWFALL ESTIMATE. Due to the considerable blowing and drifting of the snow, the observers at the airport were forced to use a water equivalent/snowfall estimate table. The actual ACCUMULATION was probably less. Snowfall accumulations averaged 20 to 22 inches in Monroe and Carbon Counties, around 2 feet in Lehigh and Northampton Counties, 24 to 33 inches in Berks County, 20 to 26 inches in Chester and Delaware Counties, 20 to 30 inches in Montgomery and Bucks Counties and 27 inches in Philadelphia. Other individual accumulations included 33 inches in Ontelaunee Township (Berks), 30 inches in Reading (Berks) and Palm and Souderton (Montgomery), 28 inches in Perkasio (Bucks), 27 inches in Philadelphia (Franklin Institute) and 26 inches in Glenmoore (Chester).

A state of emergency was declared on Sunday the 7th and wasn't lifted until 6 a.m. on Tuesday the 9th. The National Guard assisted the state with snow removals and rescues. Four wheel drive vehicles were used to transport emergency personnel and

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

PENNSYLVANIA, East

patients. Humvees were used to clear the larger drifts that reached as high as 15 feet in Chester County. There was no postal deliveries on the 8th. Some schools were closed the whole week. All major airports were closed. Philadelphia International had one runway open as of 6 pm on the 8th. The Reading Regional Airport was reopened on Tuesday the 9th. The snow was so deep on Philadelphia's side streets that plows were unable to go down them. This problem also affected firefighters. The blocked side streets helped contribute to a fire which cost two Philadelphia families their home. Homeless shelters in Philadelphia set a new record.

The unprecedented snow also caused numerous building collapses throughout the area, especially in Berks County. Some of the worse ones included the Atlas Roofing Company in Richland Township (Bucks County), the East Penn Manufacturing Company near Lyons (Berks County) and the Penn Crest Gardens Apartments in South Whitehall Township (Lehigh County). Thirty-five residents were evacuated from one building after the roof buckled.

F84OU, M53VE, F60OU, F64OU, M59OU, M50OU, M62OU

PAZ054>055-060>062-067>069 **Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks**

12	0600EST 2100EST	1	2	Heavy Snow
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For the second time within a week heavy snow moved into Southeast Pennsylvania. Fortunately accumulations were lighter than with the preceding blizzard. The storm moved from the Lower Tennessee Valley on the evening of the 11th to eastern North Carolina the morning of the 12th and passed just to the east of New Jersey during the late afternoon of the 12th into Southern New England on the 13th. Snow fell for about a twelve hour period during the day.

Accumulations were seven to ten inches in Monroe and Carbon Counties, four to six inches across the rest of Southeast Pennsylvania except in Delaware and Philadelphia Counties where a quicker change to rain held accumulations to three inches or less. Reading's seasonal accumulation of 70 inches already broke its all-time snow record set just two years ago. Representative accumulations included 10 inches in Jim Thorpe, 8 inches in Long Valley, 6 inches in Allentown, Downingtown, Doylestown, Pottstown and Telford and 3 inches in Manayunk.

The storm caused the hypothermic death of a 90-year-old woman found in the parking lot of the Normandy Farm Estates parking lot in Whitpain Township. Other storm related deaths included two Montgomery County men and two Northampton County persons suffering heart attacks after shoveling snow and a 35 year-old man who skidded into oncoming traffic in Berks County. The eastbound lanes of Interstate 78 were closed for three and a half hours around Allentown. Firefighters in Philadelphia were hampered by snow covered side streets. A fire claimed the lives of two persons.

The storm lengthened the commute around Philadelphia exponentially as 14 major traffic jams were reported. But, the biggest problem came literally from the accumulative effects of two significant snows as building and roof collapses occurred throughout Eastern Pennsylvania. In Wyomissing (Berks County), a woman was hospitalized after snow falling from her roof buried her alive. In Chester County alone there were 18 reported building and/or roof collapses. In Quakertown (Bucks County), another woman was injured as the weight of the snow collapsed four successive porch roofs on Juniper Street. In Whitehall Township (Lehigh County), 60 hockey players were trapped as the roof of the Lehigh Valley Ice Arena collapsed. Two women narrowly escaped injury when the top floor of a vacant Allentown office building collapsed. Other significant collapses (including damage estimates) included the Panther Valley High School Roof (\$ 30K) in Carbon County, The Summer Pavilion (\$ 10K) in Reading, the Clover Farms Muhlenberg Warehouse (\$ 200K) in Berks County, the Serve Pro Coperation Roof (\$150K) in Coopersburg (Lehigh County), the roof of "The Atrium" (\$300K) in Quakertown and the roof of the Rhineland Inn Restaurant (\$70K) in Marlborough Township in Montgomery Township. One person was injured trying to clear the snow from his roof in Chester County.

F90OU

PAZ054>055-060 **Carbon - Monroe - Berks**

19	0200EST 0700EST	0	0	High Wind
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Strong southerly winds preceding a cold front produced wind damage across the Poconos and Berks County during the early morning hours on the 19th. In Jim Thorpe, 13 tenants needed shelter after the wind blew off a piece of their apartment building's roof. In Monroe County downed trees caused power outages for 2,750 customers. In Berks County 2,000 homes lost power; 1,300 within East Reading as large tree limbs took down power lines.

PAZ061>062-067>071 **Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia**

19	0700EST 1500EST	0	0	High Wind (G58)
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Strong south winds preceding and west winds accompanying a cold front caused wind damage throughout Southeast Pennsylvania. Numerous trees and power lines were knocked down. Philadelphia Electric Company (PECO) reported 87,000 customers lost power during the daytime hours, 17,500 within Montgomery County. Power was restored to two-thirds of the customers by 6 p.m.. In Bucks County, the wind peeled the roof from a mobile home. In the Lehigh Valley, about 1,250 homes lost power. Highest reported winds included 58 mph at Philadelphia International Airport, 61 mph at the Lehigh Valley International Airport, 62 mph in Souderton and 67 mph within Philadelphia.

**Berks County
Countywide**

19	1100EST 1900EST	0	0	Flash Flood
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**Carbon County
Countywide**

19	1100EST 1900EST	0	0	Flash Flood
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Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, East									
Monroe County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Lehigh County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Northampton County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Chester County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Montgomery County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Bucks County Countywide	19	1100EST 1900EST			0	0			Flash Flood
Delaware County Countywide	19	1200EST 1900EST			0	0			Flash Flood
Philadelphia County Countywide	19	1200EST 1900EST			0	0			Flash Flood
PAZ054>055-060>062- 067>071	19 21	1900EST 1100EST			3	3	42.3M		Flood

The combination of snowmelt from the previous week's two storms, unseasonably warm temperatures and an additional one to two inches of rain caused the flash flooding of almost every small stream and significant roadway flooding the afternoon and early evening hours on the 19th. Major flooding of the larger streams and rivers in Pennsylvania continued through the 21st. The flooding caused three deaths, all in Montgomery County, three injuries and about \$50 million dollars in property damage. All of Pennsylvania was declared a disaster area and extra public assistance was given to Northampton, Bucks and Monroe Counties, the hardest hit counties in the Southern Poconos and Southeast Pennsylvania. In many places the Delaware River crested at its highest stage since 1955. Numerous vehicle rescues occurred. The following paragraphs will contain a county by county summary of damages along with specific stage information.

In Carbon County, 17 of 23 townships reported flood damage. In all 365 homes suffered major flood damage and 1,185 suffered minor flood damage. In addition 6 apartment buildings, 13 businesses, 34 roads, 51 sewer lines, 13 electrical systems and 3 parks were damaged by the flooding. Palmerton and Parryville were the hardest hit townships. In Parryville, a mile long culvert was washed out. In Palmerton the flooding along the Aquashicola Creek on the 19th forced the evacuation of about 100 persons along a four block stretch of Delaware Avenue and a two block stretch of Lehigh Avenue. Residents returned to find their basements full of mud. The Lehigh River in Lehighton crested at 12.16 feet at 1 a.m. on the 20th. Flood stage is 10 feet.

In Monroe County, damage was estimated at \$25 million dollars. The county was hit by flooding along the Delaware River in addition to the small stream flooding elsewhere. Three homes were completely destroyed, 134 suffered heavy damage and 1,426 suffered light damage. Six businesses also incurred heavy damage. On the 19th thirty major roadways were closed and two bridges were overrun by water. In Stroudsburg 45 persons were evacuated from the Glenbrook Apartments and 8 people were rescued from the flood waters in Barrett Township. Smithfield Township reported 15 homes suffered flood damage on the 19th. In Mount Pocono, a quarter-mile long road washout occurred. Flooding along the Delaware River caused considerable damage on the 20th in Shawnee and Price's Landing. The 90 year-old Shawnee Inn and Country Club suffered extensive damage. Three hundred Shawnee residents were evacuated. The Delaware Water Gap National Recreation Area suffered \$2 million dollars in damage. The Lehigh River at Stoddardsville crested at 9.64 feet at 930 p.m. on the 19th. Flood stage is 7 feet. The Tobyhanna Creek in Blakeslee crested at 11.67 feet at 1030 p.m. on the 19th. The Delaware River crested at 25.7 feet at 1 a.m. on the 20th. Flood stage is 21 feet.

Berks County escaped with the least amount of damage and the lowest number of water rescues in the area. Ten people were evacuated along the Schuylkill River in Muhlenberg Township. Several homes were damaged. On the 19th a Sinking Spring man died after falling from a roof he was trying to clear of snow. The Schuylkill River in Berne crested at 14.32 feet at 1030 p.m. on the 19th. Flood stage is 12 feet. The river crested at 15.85 feet in Reading at 6 a.m. on the 20th. Flood stage is 13 feet.

In Lehigh County, the heavy rain caused a 75 by 6 foot snow slide in South Whiteland Township which damaged two homes and caused one injury (severed fingers). Adams Island in Allentown was evacuated due to Lehigh River flooding. Pennsylvania State Route 309 was closed in Orefield due to flooding along the Jordan River. The river crested at 9.13 feet in Allentown at 230 a.m. on the 20th. Flood stage is 7 feet. In Allentown firefighters responded to 123 calls of flooded basements, the most in twenty-two years. The Lehigh River at Walnutport crested at 12.3 feet at 9 p.m. on the 19th. Flood stage is 8 feet. In Bethlehem, the river crested at 16.9 feet at 130 a.m. on the 20th. Flood stage is 16 feet.

Northampton County endured the combination of both small stream and significant large river flooding. Long lengths of

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

PENNSYLVANIA, East

Pennsylvania State Route 611 were closed due to flooding, river debris and suffered road erosion. Most of the significant flood damage occurred along the Lehigh and Delaware Rivers. In Upper Mount Bethel Township, twelve homes were damaged and hundreds were evacuated. Portland within the township was hard hit as all small streams and the Delaware River flooded the town. Roads were filled with silt, mud and river debris. Two houses were damaged by ice chunks. In Forks Township, 50 homes were damaged and about 50 persons were evacuated. In Easton, flooding was severe near the confluence of the Delaware and Lehigh Rivers. Evacuations were ordered for homes near both rivers. All downtown streets and parks were flooded especially along Larry Holmes Drive. About 50 homes (20 seriously) and three businesses were flooded. The city garage was damaged. A half submerged man was rescued from the Lehigh River Saturday evening the 20th. A state of emergency had to be declared to remove gawkers. In West Easton, two homes suffered flood damage and about 20 persons were evacuated. In Williams Township, 13 homes suffered flood damage. The Lehigh River at Walnutport crested at 12.3 feet at 9 p.m. on the 19th. Flood stage is 8 feet. In Bethlehem, the river crested at 16.9 feet at 130 a.m. on the 20th. Flood stage is 16 feet. The Lehigh River at Walnutport crested at 12.3 feet at 9 p.m. on the 19th. Flood stage is 8 feet. In Bethlehem, the river crested at 16.9 feet at 130 am on the 20th. Flood stage is 16 feet. The Delaware River at Belvidere Bridge crested at 22.94 feet at 1 pm on the 20th. Flood stage is 20 feet. The river crested at 30.65 feet at Phillipsburg at 4 p.m. on the 20th. Flood stage is 22 feet. For most places the crest along the Delaware was the highest since 1955.

In Chester County, 109 persons in an Avondale apartment were evacuated as the White Clay Creek flooded. Rescues were made from about a dozen homes and trailers along River Band road in west Chester. Seven major roads were closed due to flooding, including the intersection of the two busiest roads in the county, U.S. Route 30 and Pennsylvania State Route 100. Flooding along the Brandywine Creek caused severe damage (\$125,000) in the Brandywine Picnic Park in Birmingham. In all, 324 homes, 52 apartments, 21 businesses, 170 roads and 17 municipal parks were damaged. Five bridges suffered structural damage. The hardest hit communities were Avondale, Coatesville, Downingtown and Lenape. The Schuylkill River at Pottstown crested at 14.91 feet at 1 p.m. on the 20th. Flood stage is 13 feet. The West Branch of the Brandywine Creek in Modena crested at 9.7 feet at 8 p.m. on the 19th. Flood stage is 9 feet. The East Branch of the Brandywine Creek at Downingtown crested at 12.59 feet at 7 p.m. on the 19th. Flood stage is 7 feet. The Brandywine Creek at Chadds Ford crested at 14.21 feet at 1 a.m. on the 20th. Flood stage is 9 feet.

In Delaware County, the Chester Creek in Chester flooded parklands and a bridge. Severe urban flooding caused many water rescues starting at 130 p.m. on the 19th. The Brandywine Creek at Chadds Ford crested at 14.21 feet at 1 a.m. on the 20th. Flood stage is 9 feet. The Chester Creek in Chester crested at 11.20 feet at 5 p.m. on the 19th. Flood stage is 8 feet.

In Philadelphia, flooding along the Schuylkill River caused the worst damage, especially in Manayunk. Main Street in Manayunk was under two to three feet of water with up to 5 feet of water in basements. Kelly, West River and Lincoln Drives were all closed due to river flooding. A mudslide compounded the problems along Kelly Drive. The Schuylkill River in Philadelphia crested at 13.36 feet at Midnight on the 20th/21st. Flood stage is 11 feet. This was estimated as a once in 50 year flood for the river within the city.

All three of the flooding caused deaths occurred within Montgomery County. About 830 p.m. on the 19th a 47-year-old male drove into the flooded Perkiomen Creek at the intersection of Arcola and Level Roads in Lower Frederick Township. He climbed out of the car through the passenger side, but was unable to make it to shore. His body was found on the afternoon of the 20th near a sewage treatment plant. About 1030 p.m. on the 19th, a 41-year-old male moved a blockade and tried to cross a flooded bridge over the Perkiomen Creek between Upper and Lower Providence Townships. His vehicle was swept away. His body was found 1,500 feet downstream the next morning. On the 20th, a 25 year-old man apparently jumped into the Manatawny Creek in Pottstown and drowned. He allegedly had just robbed a convenience store and was trying to run away from the police. There were numerous other rescues within the county including a stranded school bus in Lower Moreland Township and two teenagers rescued from the flooded Macoby and Unami Creeks on the afternoon of the 19th. Ninety persons were evacuated from the Bridgeport Towers along the Schuylkill River in Norristown. Twenty persons were evacuated in Collegeville near the Perkiomen Creek. Within the county 280 homes suffered damage, 50 with major damage. In addition, 85 businesses were flooded and three mobile homes were destroyed. Flooding ripped front porches from homes in Upper Providence Township and a Lower Providence Township home had ten feet of water in it. The hardest hit communities were Bridgeport, Collegeville, Lower Providence, Norristown, Upper Providence and Whitmarsh. The Schuylkill River at Pottstown crested at 14.91 feet at 1 p.m. on the 20th. Flood stage is 13 feet. It crested at 19 feet in Norristown. The Perkiomen Creek in Graterford crested at 16.26 feet at 9 p.m. on the 19th. Flood stage is 11 feet.

Bucks County, like Northampton County suffered from the combination of both small stream and large river flooding with townships along the Delaware River taking the brunt. About 5,000 persons (1,500 in Yardley) from nine communities were evacuated, mainly along the Delaware River from Riegelsville to Yardley on the 20th. A state of emergency was declared at 3 p.m. on the 20th. Seven bridges between Bucks County and New Jersey were closed. River Road, Pennsylvania State Route 32, was clogged with up to four feet of ice chunks and debris (including floating propane tanks) almost along its entire county length. Pennsylvania State Route 611 was also closed in the northern part of the county. A mile-long stretch of ice closed the road near Riegelsville. Homes near the Paunnaccusing Creek were evacuated also as flooding along the Delaware River backed up the creek. One hundred homes in Quakertown were also flooded. Flooding damaged three ball fields in Sellersville. Ice jams along the Neshaminy Creek caused flooding in Croydon and Fergusonville. Yardley, Bridgeton and Tincum Townships were the hardest hit communities along the Delaware on the 20th. About 65 people were rescued after refusing to evacuate or ignoring barricades. Two were treated for hypothermia. In Yardley, 230 homes suffered flood damage, 79 had major damage and 36 businesses also had flood damage. In New Hope, power was cut off for 28 hours because of the flooding. This village is a very popular tourist attraction and many restaurants' food perished. Waterloo Street was hardest hit. In Tincum Township, many side

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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PENNSYLVANIA, East

roads were washed out. About 50 to 60 homes had damage exceeding \$1,000,000. About 450 homes throughout the county suffered flood damaged. The Neshaminy Creek in Langhorne crested at 14.98 feet at 1 a.m. on the 20th. Flood stage is 9 feet. Along the Delaware River at Riegelsville it crested at 28.72 feet at 615 pm on the 20th. Flood stage is 19 feet. At New Hope, the river crested at 15.34 feet at 11 p.m. on the 20th. Flood stage is 13 feet. At Trenton, the river crested at 22.19 feet at 130 a.m. on the 21st. Flood stage is 20 feet.

M41VE, M47VE, M25IW

Bucks County
2 NW Bristol

24 1730EST 0 0 Thunderstorm Wind

A severe thunderstorm damaged three homes and one business around "The Crossroads" development in Bensalem. The thunderstorm ripped the roof from a new addition, tore a porch from a house and embedded debris into the third. It also pulled the rubber membrane from the roof of a Drakes factory.

PAZ060>062-069-071

Berks - Lehigh - Northampton - Bucks - Philadelphia

27 0930EST 0 0 High Wind
1600EST

High winds preceding a cold front caused wind damage across the Lehigh Valley and parts of Southeast Pennsylvania. In Berks County about 4,500 homes lost power. A 4 by 15 foot company sign was blown over in West Reading. Downed trees forced the closure of Pennsylvania State route 10 in Cumra Township. In Lehigh County 4,000 Metropolitan Edison Company homes lost power mainly in the Slate Belt area. In Northampton County, wind gusts reached 60 mph in Williams Township. In Bucks County, tree limbs, trees and wires were reported down in the lower part of the county. A Ford Bronco was crushed by one falling tree. There also was some wind damage in the Quakertown area, especially from 6th to 11th Streets. Throughout the Philadelphia Electric Company (PECO) service area (including Bucks County) about 49,000 homes lost power. Wind gusts reached 60 mph in Northeast Philadelphia.

Monroe County
Countywide

27 1130EST 0 0 Flash Flood
28 0115EST

Rainfall of up two inches fell over saturated soil and caused flash flooding of smaller streams in Monroe County. Flooding from Marshall Creek caused flooding of houses in East Stroudsburg. No major damage or injuries were reported. Several residents of apartment buildings in the Stroudsburg area were evacuated. The Bush Kill creek at Shoemakers crested at 7.01 feet at 10 p.m. on the 27th. Flood stage is 6 feet. The Lehigh River at Stoddardsville crested at 7.24 feet at 8 p.m. on the 20th. Flood stage is 7 feet. The Tobyhanna Creek at Blakeslee crested at 10.94 near 1 a.m. on the 28th.

PAZ054-060>062-067>071

Carbon - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

27 1430EST 1 0 Flood
28 1500EST

Heavy rain (Storm totals of between one inch and one inch and a half) fell over saturated soil for the second weekend in a row and caused flooding of the larger streams and rivers across the Southern Poconos and Southeast Pennsylvania. Fortunately the flooding was not as severe as the previous week. But, a 72-year-old woman drowned on River Road in Upper Makefield Township (Bucks County) at 930 a.m. on the 28th. She apparently drove around three roadblocks and became stuck in the deep flood waters of the Delaware River. Her body was found near the Prickly Pear Restaurant.

Along the Lehigh River, precautionary evacuations occurred in Walnutport, Freemansburg and Easton and on Adams Island. The flood waters tore away a 35 to 45 foot chunk of the Lehigh Canal Towpath in Allentown. In Northampton County, the Bushkill Creek flooded parts of downtown Easton. Pennsylvania State Route 611 was closed along the Delaware River because of flooding. Flooding along the Delaware River also forced other road closures in Harmony Township. In Berks County, flooding along the Schuylkill River forced roadway closures in Tilden and Perry Townships. In Chester County, stream flooding caused many road closures including Pennsylvania State Route 100. In Montgomery County, two elderly Pottstown women were rescued from the flooded Industrial Highway. Other water rescues occurred, mainly from people trying to drive on barricaded roads. Two bridges were closed because of structural damage, the Mather Road Bridge over the Wissahickon Creek in Whippain Township and the Cedar Hill Road Bridge over Park Creek in Horsham Township. A park was badly damaged by flood waters in Pottstown. In Bucks County, Delaware River flooding forced the closure of River Road/Pennsylvania State Route 32 in Tinicum and Bridgeton Townships and Yardley. Several other road closures occurred in Yardley.

In Carbon County, the Lehigh River at Lehighon crested at 12.57 feet at 9 p.m. on the 27th. Flood stage is 10 feet. In Northampton and Lehigh Counties, the river crested at 11.52 feet in Walnutport (Flood stage is 8 feet.) at 730 p.m. on the 27th and just below the 16 foot flood stage in Bethlehem. The Monocacy Creek in Bethlehem crested at 6.7 feet. In Lehigh County, the Jordan Creek in Allentown crested at 8.6 feet at 130 a.m. on the 28th. Flood stage is 7 feet. Along the Delaware River, at Phillipsburg it crested at 22.38 feet at noon on the 28th. Flood stage is 22 feet. In Riegelsville, the river crested at 22.28 feet. Flood stage is 19 feet. Along the Schuylkill River, in Berne (Berks County) it crested at 13.91 feet at 930 p.m. on the 27th. Flood stage is 12 feet. It crested at 15.02 feet in Reading at 3 a.m. on the 28th. Flood stage is 13 feet. In Pottstown, it crested at 14.15 feet. Flood stage is also 13 feet. In Philadelphia, it crested at 11.76 feet. Flood stage is 11 feet. The East Branch of the Brandywine Creek at Downingtown crested at 9.05 feet at 6 p.m. on the 27th. Flood stage is 7 feet. Along the main stem of the Brandywine Creek in Chadds Ford, it crested at 9.79 feet at 1 a.m. on the 28th. Flood stage is 9 feet.

F72VE

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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PENNSYLVANIA, East

Bucks County Countywide

27	1700EST				0	0	Flash Flood
28	0100EST						

An additional one to one and a half inches of rain falling over saturated soil caused flooding of smaller streams and road closures in Bucks County. The Neshaminy Creek at Langhorne crested at 10.23 feet at 9 p.m. on the 27th. Flood stage is 9 feet. It was back within banks during the early morning on the 28th.

PENNSYLVANIA, Northeast

PAZ038>040-043>044-047>048 Bradford - Susquehanna - Wayne - Wyoming - Lackawanna - Luzerne - Pike

02	2100EST				0	0	21K	Heavy Snow
03	2000EST							

A major winter storm formed over the Gulf Coast and tracked up the Eastern Seaboard, bringing heavy snow to northeast Pennsylvania. Snowfall amounts of 8 to 12 inches were widely observed.

PAZ038>040-043>044-047>048 Bradford - Susquehanna - Wayne - Wyoming - Lackawanna - Luzerne - Pike

07	1000EST				0	0	140K	Heavy Snow
08	1400EST							

A winter storm brought heavy snow to northeast Pennsylvania as it moved up the East Coast. Snowfall amounts of 6 to 12 inches were common in Bradford County, but further to the east, amounts of one to two feet were observed. As much as 27 inches of snow fell in Pike County. The 21 inches of snow which fell at the Wilkes-Barre Scranton Airport in Avoca broke the previous record for greatest 24-hour snowfall. That record was 20.5 inches set on November 24-25, 1971.

PAZ038>040-043>044-047>048 Bradford - Susquehanna - Wayne - Wyoming - Lackawanna - Luzerne - Pike

12	1000EST				0	0	32K	Heavy Snow
13	0200EST							

A winter storm formed off the coast of North Carolina and moved northward along the Eastern Seaboard. The storm brought a general 8 to 12 inch snow accumulation to northeast Pennsylvania. However, a nearly stationary band of heavy snow dumped as much as three feet of snow in the Northern Tier. In Susquehanna County, Oakland reported 36 inches, Hickory Grove 34 inches, and Montrose 25 inches. In Bradford County, 20 inches of snow fell in Tuscarora.

Bradford County Countywide

19	0530EST				0	0	21.1M	Flash Flood
20	0700EST							

The most disastrous flood event in more than twenty years struck northeast Pennsylvania from the early morning of the 19th to the evening of the 21st. Significant widespread flooding of streams, rivers, homes and businesses, streets and highways, woodlands, and farmland occurred as a result of rapid snowmelt and nearly simultaneous storm runoff. Every county in northeast Pennsylvania experienced road closures due to washouts, mudslides, and failed, damaged, or weakened bridges. Evacuation of one hundred thousand to one hundred and ten thousand people was ordered at 11 PM on January 19th in Luzerne County (including much of Wilkes-Barre). The Susquehanna River at Wilkes-Barre was forecast to crest at 35 to 36 feet, just below the top of the 37 foot levee. Surrounding areas of the Wyoming Valley, unprotected by the levees, were inundated by runoff, the Lackawanna River, and the Susquehanna River when it crested at 34.42 feet at Wilkes-Barre, well above the 22 foot flood stage. The American Red Cross reported that at the height of the evacuation, only five thousand people were housed in the mass care centers, even though the evacuated areas were like ghosttowns. Nearly every county declared a county-wide State of Emergency with remaining counties having locally declared States of Emergency on January 19th. Most States of Emergency were lifted by late on January 20th. Small-scale evacuations of homes and/or businesses were experienced by many counties within the region.

A strong low pressure system tracked northward across the Great Lakes on the morning of the 19th, bringing mild air into the region on strong southerly winds gusting to 45 MPH. The strong winds played a significant role in eroding the snowpack - snow depths by sunrise on the 19th ranged from only a few inches to bare ground, down from depths of one to two and a half feet the day before! Water equivalents of the eroded snowpack ranged from two and a half to five inches.

During the early morning hours of the 19th, a line of heavy rain showers and embedded thunderstorms developed ahead of a strong cold front. Streams and creeks were approaching bankfull due to runoff from the snowmelt. Rainfall intensified over the region as the front slowed its eastward progress. Rainfall amounts ahead of the front were generally between one and a half and two and a half inches, with many locations receiving rainfall rates of one-half to one inch in an hour. Serious flooding of streams and creeks began across Bradford County during the early morning, and flooding commenced across the remainder of northeast Pennsylvania during the afternoon as the heavy rain moved east. The cold front moved across the region during the afternoon, causing temperatures to drop from the 50s into the 20s, and the rain to change to snow (with some areas receiving a period of sleet and/or freezing rain) in only one to two hours. The rapid drop in temperature that caused standing water to freeze rapidly, in concert with the one to two inches of snow that accumulated in most areas by evening, created very slippery conditions throughout northeast Pennsylvania.

Flash floods that began early on the 19th gave rise to main stem river flooding that persisted through the evening of the 21st. Near record river flooding occurred on January 19th and 20th over the upper Susquehanna River basin. At Meshoppen, in Wyoming County, the Susquehanna River crested at its second highest level of all time, at 36.34 feet, which was about seven feet lower than the all time crest of 43.51 feet recorded on June 23, 1972. The 34.42 foot crest at Wilkes-Barre was the third highest on record, well below the 40.91 foot crest recorded on June 24, 1972. On the Lackawanna River at Old Forge, in Lackawanna County, the crest of 15.57 feet on the 19th was the fourth highest on record, well below the highest crest of 20.05 feet recorded on August 19, 1955. Most forecast points had fallen below flood stage by the evening of January 21.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops

PENNSYLVANIA, Northeast

Susquehanna County Countywide	19 20	0830EST 0800EST			0	0	9.9M	Flash Flood
Wayne County Countywide	19 20	0830EST 0800EST			0	0	17.9M	Flash Flood
Lackawanna County Countywide	19 29	0900EST 0800EST			0	0	19.5M	Flash Flood
Luzerne County Countywide	19 20	0900EST 0800EST			0	0	21.3M	Flash Flood
Pike County Countywide	19 20	0900EST 0800EST			0	0	23M	Flash Flood
Wyoming County Countywide	19 20	0900EST 0800EST			0	0	20.1M	Flash Flood
PAZ038>040-043>044-047	Bradford - Susquehanna - Wayne - Wyoming - Lackawanna - Luzerne							
	19 21	1130EST 2300EST			0	0		Flood
PAZ038-047	Bradford - Luzerne							
	27	0700EST 1500EST			0	0	16K	High Wind

A spring-like storm system moved toward the Great Lakes, bringing mild air and strong winds to parts of northeast Pennsylvania. There were several reports of downed trees and wires in Bradford and Luzerne counties. Winds gusted to 63 MPH at the Wilkes-Barre Scranton Airport in Avoca around 7 AM.

PENNSYLVANIA, Northwest

PAZ001>003	Northern Erie - Southern Erie - Crawford							
	02 03	1100EST 1400EST			1	0	210K	Heavy Snow
	Snow fell, with the heaviest snow occurring overnight and the morning of the 3rd. Accumulations averaged as little as 4 to 6 inches along the Lake Erie shore to 14 inches inland. Northeast winds of 20 mph with gusts to 30 mph produced significant blowing and drifting snow and localized blizzard conditions and drifts up to 6 feet. Roof collapses began as the snow piled up and continued for days after the storm. A barn collapse in western Crawford County killed 9 dairy cows and injured a number of others. A 54 year old Cambridge Springs man (Crawford County) was killed after a large chunk of ice fell from a roof and hit him in the head. It took two men to lift the ice chunk off the body. M54OU							
PAZ002>003	Southern Erie - Crawford							
	09 10	0900EST 0900EST			0	0	8K	Heavy Snow
	Snow and lake effect snow squalls accumulated an average of 6 to 8 inches with a maximum of 10 inches reported at Edinboro (Erie County).							
PAZ001>003	Northern Erie - Southern Erie - Crawford							
	18	1820EST 2300EST			0	0	11K	High Wind (G52)
	High winds ahead of and following a cold front gusted to 60 and 70 mph and downed and number of trees, limbs, and powerlines. In Erie County, route 98 was closed for a time from downed trees.							
Crawford County Meadville	18 19	2320EST 0300EST			0	0		Flash Flood
Erie County Union City	18 19	2340EST 0300EST			0	0		Flash Flood
	Rains combined with warm temperatures and extensive snowmelt produced flooding of low lying areas, small streams, poor drainage areas, and basements all across northwest Pennsylvania. Ice jams contributed to some of the flooding on larger streams. Some roads were reported closed in Union City, Girard, and Albion (Erie County). Street and basement flooding was reported in Meadville (Crawford) and other locations.							
PAZ001>003	Northern Erie - Southern Erie - Crawford							
	27	0800EST 2000EST			0	0	6K	High Wind (G50)
	West to southwest winds gusted to 60 mph after the passage of a cold front and downed large limbs, trees, and power lines in a number of locations.							

PENNSYLVANIA, West

PAZ007>009-013-015>016-023	Mercer - Venango - Forest - Lawrence - Clarion - Jefferson - Indiana							
	02 03	1000EST 2000EST			0	0		Heavy Snow

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
PENNSYLVANIA, West									
			A major winter storm came through the Upper Ohio Valley. It dumped heavy snow across northern parts of western Pennsylvania and a wintry mix to the south. The following storm totals were reported...Lawrence County 6 inches...Jefferson County 5-6 inches...Indiana County (northern part) 6 inches...Clarion County 5-8 inches...Forest County 6-8 inches...Venango County 8-13 inches...and Mercer County 8-13 inches.						
PAZ014-020>022-030			Butler - Beaver - Allegheny - Armstrong - Westmoreland						
		02	1000EST		0	0			Ice Storm
		03	1500EST						
			A major winter storm moved through the Upper Ohio Valley. The storm produced a heavy accumulation of ice throughout a large part of southwestern Pennsylvania. Around one inch of freezing rain and sleet accumulated across Beaver and Allegheny Counties. One-quarter to one-half of an inch of ice was deposited in Butler, Armstrong, and in the ridges of Westmoreland County.						
PAZ007-009-013>016-020>023-029>032			Mercer - Forest - Lawrence - Butler - Clarion - Jefferson - Beaver - Allegheny - Armstrong - Indiana - Washington - Westmoreland - Greene - Fayette						
		06	1600EST		0	0			Heavy Snow
		08	1200EST						
			A major winter storm moved from eastern Tennessee to the mid-Atlantic coast and dumped very heavy snow across western Pennsylvania. On the 7th, a daily record snowfall was recorded at the Pittsburgh International Airport, when 9.2 inches fell. The previous record was 8.0 inches in 1951. Some snowfall reports for counties in western Pennsylvania: Fayette 17 inches, Westmoreland 14-18 inches, Greene 12-18 inches, Indiana 10-14 inches, Washington 9-12 inches, Jefferson 8-16 inches, Forest 8-10 inches, Butler 9 inches, Armstrong, Lawrence, and Beaver 8 inches, Clarion and Mercer 6 inches. There were several deaths attributed to cardiac arrest while people were shovelling snow. Three people died in Westmoreland County, one death each was reported in Allegheny, Indiana, Fayette and Washington Counties.						
Venango County									
Oil City		18	1830EST		0	0			Flash Flood
			2359EST						
			Ice jams along Oil Creek between at Oil City and north of Rouseville caused extensive low-land flooding. Route 8 was closed due to flooding. The jam at Oil City at the mouth of Oil Creek extended up to one mile upstream at the height of the jam. The subsequent release of the water behind the jam contributed to further major flooding along the Allegheny River.						
			Widespread flooding of small streams and creeks continued into the early morning hours of the 20th before the water receded. Most of the damage was related to ice jam flooding. A beer distributor had a hole ripped into a building a beer kegs spilled into the river. Over 40 homes had their basements flooded. A bridge was also damaged due to the ice.						
PAZ030-032			Westmoreland - Fayette						
		18	2000EST		0	0	15K		High Wind (G55)
			2315EST						
			Strong, gusty winds caused some damage across the Laurel Highlands.						
			High winds knocked down several large limbs across Westmoreland County. Wind speed were measured up to 63 miles an hour. A roof was blown off a garage in New Stanton and power lines were also downed.						
			In Fayette County trees were downed in Uniontown and Everson. Siding was also blown off a house in Everson. Trees and power lines were downed in Connellsville.						
Lawrence County									
5 S Bessemer		18	2230EST		0	0			Flash Flood
		19	0300EST						
			An ice jam on Sugar Creek caused flood waters to rise to 2 feet deep on Petersburg Road near the intersection of Moravia Road.						
Venango County									
Oil City		19	0000EST		0	0			Flash Flood
			1959EST						
			Flooding between Oil City and Rouseville continued. Other small streams and creeks went out of their banks across the county.						
Lawrence County									
New Castle		19	0520EST		0	0	30K		Flash Flood
			1959EST						
			Several roads were closed across the county as numerous small streams flooded. Some basement flooding was also reported, however property damage was minimal. Some people had to be carried through water to safety.						
Allegheny County									
Pittsburgh		19	0600EST		0	0			Flash Flood
			1500EST						
			Several small streams and some roads were flooded across the county. Flood related damages were confined in the vicinity of the Allegheny, Monongahela, Ohio, and Youghiogheny Rivers, where major river flooding occurred.						
Beaver County									
Beaver Falls		19	0600EST		0	0			Flash Flood
			1959EST						
			Numerous small streams and several roads were flooded across the county. Extensive damage occurred due to major river flooding along the Ohio River and at the mouth of the Beaver River.						
Fayette County									
Connellsville		19	0600EST		0	0			Flash Flood
			1959EST						
			Numerous small streams and roads were flooded across the county. Extensive damage was confined near the Youghiogheny and the Monongahela Rivers, where major flooding occurred.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, West									
Greene County Waynesburg	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams and roads were flooded across the county.									
Washington County Washington	19	0600EST 1400EST			0	0	10K		Flash Flood
Numerous small streams and some roads were flooded across the county. Some basements were flooded near Catfish Creek.									
Westmoreland County Ligonier	19	0600EST 1959EST			0	0	500K		Flash Flood
Flash flooding caused extensive damage in Ligonier where the Loyalhanna and Mills Creeks converge. Several basements were also flooded across the county. Numerous other creeks went out of their banks and flooded roads.									
Forest County Tionesta	19	0600EST 1959EST			0	0	20K		Flash Flood
Numerous small streams and creeks went out of their banks across the county. A few basements and a few summer cottages were flooded. One road was washed out.									
Mercer County Mercer	19	0600EST 1500EST			0	0	5K		Flash Flood
Several small streams were flooded across the county. The flooding had only minor economic impact. One person was evacuated and a couple of basements were flooded.									
Armstrong County Kittanning	19	0600EST 1959EST			0	0	50K		Flash Flood
Numerous small streams and tributaries of the Allegheny River flooded. Some roads were also flooded and damaged and basement flooding occurred.									
Butler County Harmony	19	0600EST 1959EST			0	0	1.3M		Flash Flood
Extensive damage occurred along the Connoquenessing Creek in Jackson Township in and around Harmony and Zelienople. Over 130 homes sustained damage. Several small streams went out of their banks throughout the rest of the county, however, there was little other damage.									
Clarion County Clarion	19	0600EST 1959EST			0	0			Flash Flood
Numerous small streams and some roads were flooded across the county.									
Jefferson County Brookville	19	0600EST 1959EST			0	0	100K		Flash Flood
Extensive flooding, damage and evacuations occurred at Reynoldsville and Brookville along Sandy Lick Creek. Flooding due to ice jams also occurred on the Clarion River.									
Indiana County Homer City	19	0600EST 1959EST			0	0	2M		Flash Flood
Major damage occurred along Crook Creek and Two Lick Creek in Homer City, Clymer, and Creekside. Approximately 300 homes sustained substantial basement flooding. Ten homes had water into the first floor. A few businesses were damaged. Roads, bridges, and a water treatment plant were also damaged.									
PAZ021-030-032	Allegheny - Westmoreland - Fayette								
	19	0800EST			0	0			Flood
	20	1300EST							
The Youghiogheny River, a tributary of the Monongahela River, was a major contributor in this major flood event. Although the Youghiogheny Reservoir provided some control on the Youghiogheny, the uncontrolled Casselman River which flows into the Youghiogheny immediately downstream of the reservoir, carried runoff from heavy rain and snowmelt from the northern Maryland mountains. This rapid runoff resulted in near record flooding along the Youghiogheny River. Peak streamflow at the mouth of the Youghiogheny, at McKeesport, reached nearly 100,000 cubic feet per second. Damage amounts for the counties affected are found in the flood description of the Monongahela River.									
The Youghiogheny River crested at 18.6 feet, 6.6 feet above flood stage at Connellsville and at 28.0 feet, 8 feet above flood stage at Sutersville.									
PAZ021-029>032	Allegheny - Washington - Westmoreland - Greene - Fayette								
	19	1000EST			0	0	12.7M		Flood
	21	0300EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

PENNSYLVANIA, West

On the Monongahela River near record flooding occurred at all Pennsylvania forecast points, except where record flooding occurred at Lock 2 Braddock. The crest at Lock 2 actually exceeded the crest during the flood of November 1985 by almost a foot. This was due to the tremendous contribution made by the Youghioghny River during this particular flood. The crest at Braddock was 29.1 feet, 7.1 feet above its 22 foot flood stage, at 9 am on the 20th. Damage was extensive along the river.

In Greene County, 9 homes, 3 businesses, and 3 trailer courts were affected.

In Fayette County, 499 residences, 55 businesses, 4 churches, 1 fire department, 30 roads, 5 bridges, and 4 sewage plants suffered at least some flood damages. This includes damage along the Youghioghny River.

Major property losses were reported in Westmoreland County along the Monongahela, Conemaugh, and Youghioghny Rivers.

In Washington County, over 600 houses and businesses were affected by flooding.

Devastating damage occurred in Allegheny County. Damage occurred along the Allegheny, Ohio, Youghioghny, and Monongahela Rivers.

Twenty-two autos were submerged in icy waters on the Allegheny River in Pittsburgh. Many pleasure boats and barges broke their moorings and drifted downriver and some fell over Lock and Dams or broke up on bridges. Area bridges and marinas sustained damage. Approximately 650 buildings were damaged. Many downtown Pittsburgh buildings sustained extensive basement flooding. The Point State Park Museum was flooded with 4 and one-half feet of water. The fountain at the park was also damaged. The Allegheny County Sanitary Authority had to shut down its sewage treatment plant that serves 113 communities. Several hundreds of people had to be evacuated along the rivers. Flood waters entered the Three Rivers Stadium's parking lots and lower levels. Encroaching flood waters forced the Pittsburgh Steeler's to hurriedly pack up uniforms and equipment.

PAZ030

Westmoreland

19	1100EST	0	0						
20	0500EST								Flood

The Conemaugh River, a tributary to the Allegheny River, flows into the Conemaugh Reservoir. Outflow from the reservoir is known as the Kiskiminetas River, which empties into the Allegheny River downstream of Lock 5. Near record flooding occurred on the Conemaugh River at Seward, Pennsylvania. Flooding did not occur on the Kiskiminetas River because of the control provided by the Conemaugh Dam. All river flood damage amounts for Westmoreland County are summarized in the description of the river flooding for the Monongahela River.

The Conemaugh River at Seward crested at 20.7 feet, 8.7 feet above its 12 foot flood stage, at 4 pm on the 19th.

PAZ015>016

Clarion - Jefferson

19	1300EST	0	0	100K					
20	1000EST								Flood

The Clarion River flows into the Allegheny River at Parker, Pennsylvania. Ice jams contributed to what was near record flooding for the Clarion River at Cooksburg, Pennsylvania. The Clarion River at Cooksburg crested at 16.4 feet, 3.4 feet above flood stage on the 19th at 11 pm. River flood damages are listed for all of Clarion County under the description of the Allegheny River flood.

PAZ020>021

Beaver - Allegheny

19	1600EST	0	0	9.6M					
21	1300EST								Flood

The Allegheny and Monongahela Rivers meet at the Point in Pittsburgh to form the Ohio River. A tremendous amount of runoff and snowmelt, combined with the fact that the Monongahela and the Allegheny Rivers crested in phase, resulted in the maximum possible crest possible at the start of the Ohio River at Pittsburgh. The Monongahela River usually crests 4 to 8 hours earlier than the Allegheny River.

The Ohio River at Pittsburgh crested at 34.6 feet, 9.6 feet above its 25 foot flood stage at 10 am on the 20th.

In Beaver County, 257 homes were affected, 14 with major damage and 15 destroyed. At least 42 businesses were affected, 2 of which were destroyed. Commercial and industrial damages to real estate, equipment and supplies alone totaled over \$4 Million. Bridges were also damaged by floating debris in the river. About 400 people throughout the county had to be evacuated.

Total damages for River flooding for Allegheny County are found in the description of the river flooding along the Monongahela River.

Beaver County

Beaver Falls

19	2000EST	0	0						
20	0930EST								Flash Flood

Runoff from widespread rains between one and two inches over saturated soils continued to flood small streams and roads across the county before the water receded on the morning of the 20th.

Armstrong County

Kittanning

19	2000EST	0	0						
20	0930EST								Flash Flood

Flooding of roads and streams continued.

Butler County

Harmony

19	2000EST	0	0						
20	0930EST								Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, West									
Extensive flooding continued along the Connoquenessing Creek until receding on the morning of the 20th.									
Clarion County									
Clarion	19	2000EST			0	0			Flash Flood
	20	0930EST							
Flooding continued across the county.									
Fayette County									
Connellsville	19	2000EST			0	0			Flash Flood
	20	0930EST							
Widespread small streams and road flooding continued until flood waters receded on the morning of the 20th.									
Forest County									
Tionesta	19	2000EST			0	0			Flash Flood
	20	0930EST							
Flooding continued across the county.									
Indiana County									
Homer City	19	2000EST			0	0			Flash Flood
	20	0930EST							
Extensive flooding continued throughout the county.									
Jefferson County									
Brookville	19	2000EST			0	0			Flash Flood
	20	0930EST							
Flooding continued across the county.									
Lawrence County									
New Castle	19	2000EST			0	0			Flash Flood
	20	0930EST							
Flooding continued in the county.									
Venango County									
Oil City	19	2000EST			0	0	120K		Flash Flood
	20	0930EST							
Widespread flooding of small streams and creeks continued into the early morning hours of the 20th before the water receded. Most of the damage was related to ice jam flooding. A beer distributor had a hole ripped into a building and beer kegs spilled into the Oil Creek, a tributary of the Allegheny River. Over 40 homes had their basements flooded. A bridge was also damaged due to the ice.									
Westmoreland County									
Ligonier	19	2000EST			0	0			Flash Flood
	20	0930EST							
Small streams and roads continued to flood across the county.									
PAZ015-021>022	Clarion - Allegheny - Armstrong								
	19	2300EST			0	0	4.4M		Flood
	21	0600EST							
The first of what eventually became numerous large ice jams were reported by ice observers on the Allegheny River and its tributaries by December 26th. This abnormally early ice development continued to build as frigid temperatures persisted. Early on the morning of the 19th, the river level at Lock 9, Rimer, Pennsylvania, quickly rose 9 feet. The water was from an upstream ice jam that had broken. Ice and flood waters from its tributaries continued and led to moderate to major flooding along the Allegheny River to Pittsburgh.									
Property damages for Clarion County include flooding on the Clarion River. Damages for Allegheny are totaled under the flood description for the Monongahela River.									
Greene County									
5 SW Waynesburg	24	0730EST			0	0			Flash Flood
		0900EST							
Stewart Run in Waynesburg went out of its banks.									
PUERTO RICO									
St Croix	10	1507AST			0	0			Waterspout
		1515AST							
A WATERSPOUT WAS OBSERVED BY A PILOT 5 TO 7 MILES NORTHWEST OF ST CROIX IN THE U.S. VIRGIN ISLANDS.									
Carolina									
San Juan	10	1700AST			0	0			Flash Flood
		2359AST							
NUMEROUS SHOWERS AND THUNDERSTORMS AFFECTED THE NORTH SECTION OF PUERTO RICO. THE HEAVY RAINFALL CAUSED PROBLEMS ALONG THE NORTH COAST OF PUERTO RICO FROM CAROLINA TO THE WEST									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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PUERTO RICO

TO ARECIBO. HOWEVER, THE MOST AFFECTED AREA WAS THE METROPOLITAN AREA OF SAN JUAN. AMONG THE SECTORS AFFECTED BY FLASH FLOOD IN SAN JUAN WERE: CAIMITO, CUPEY, PUERTO NUEVO, RIO PIEDRAS, TRUJILLO ALTO, OCEAN PARK AND VILLA PALMERAS.

St Thomas	11	1400AST 1700AST			0	0			Heavy Rain
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HEAVY RAINS AFFECTED ST THOMAS IN THE U.S. VIRGIN ISLANDS. THE RAIN AFFECTED THE FOLLOWING LOCATIONS: VITRACO PARK, PUEBLO AT LONG BAY, FIRST AVENUE, FORT MYLNER, ESTATE NADIES AND ADDILITA CONCRYN JUNIOR HIGH SCHOOL.

Caguas Las Piedras Caguas, Cayey, Cidra	14	1645AST 2359AST			0	0			Heavy Rain
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A STATIONARY COLD FRONT ALONG THE NORTH COAST OF PUERTO RICO AND THE U.S. VIRGIN ISLANDS SERVED AS A MECHANISM FOR THE DEVELOPMENT OF NUMEROUS SHOWERS AND THUNDERSTORMS. HEAVY RAIN AFFECTED MAINLY THE EASTERN-INTERIOR AND NORTHEAST SECTIONS OF PUERTO RICO. THERE WERE FLOODED ROADS AND STREETS IN THE FOLLOWING MUNICIPALITIES: CAGUAS, CAYEY, CIDRA, NAGUABO, FAJARDO AND CEIBA.

Fajardo Rio Grande Fajardo To San Juan	29	1200AST 1400AST			0	0			Waterspout
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AN OUTBREAK OF WATERSPOUTS, A TOTAL OF 12 TO 15, WAS OBSERVED BY THE U.S. COAST GUARD OFFICIALS ALONG THE NORTH COAST OF PUERTO RICO.

RHODE ISLAND

RIZ001>004	Northwest Providence - Southeast Providence - Western Kent - Eastern Kent				02	2100EST	0	0	Heavy Snow
					03	0900EST			

A strong low pressure system moved from Tennessee to the Virginia coast and then northeast off the New Jersey coast, passing southeast of Cape Cod. This system produced heavy snow across the central and northern part of the state. Some snowfall totals, which included light snow which fell into the early morning hours on the 4th included: Woonsocket, 12.0 inches; Johnston, 11.0 inches; Coventry, 9.5 inches; Warwick, 7.3 inches; Middletown, 3.0 inches; and Block Island, 2.0 inches. Most schools and some businesses were closed on the 3rd. The morning commute on the 3rd was a difficult one when snow fell at the rate of 0.5 to 2.0 inches per hour.

RIZ001>007	Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport				07	1700EST	0	0	Heavy Snow
					08	1700EST			

An intense east coast low pressure system moved northeast from eastern Georgia, passing along the coast of the Carolinas and then close to 40 degrees North and 70 degrees West. This storm was one of the most significant winter storms to hit southern New England in the past 20 years and was named the "Blizzard of '96" from the Middle Atlantic states into New England, although no true blizzard conditions occurred (by National Weather Service definition) anywhere in the state. Very heavy snowfall of one to two feet fell across the entire state with the lesser amounts over Newport County in the south, while the National Weather Service at T.F. Green Airport in Warwick measured 24 inches. Just two days later, after some additional light snow, a new all-time snowfall record for Providence was set, not only for the month of January, but for any month, with a total of 33.2 inches. As of January 10th, this exceeded the previous record of 31.9 inches set in January, 1948. In Kent County, Coventry recorded 27 inches of snow, which appeared to be the maximum amount in the state. The heavy snowfall disrupted transportation systems, closed schools, stores, and businesses. Also, the heavy snow accumulation resulted in several roof collapses which damaged homes and businesses during the week following the storm.

RIZ001>005	Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol				12	1700EST 2300EST	0	0	Urban Flood
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Snow quickly changed to heavy rain and resulted in massive highway flooding. Giant puddles flowed across expressways and urban streets. Rainfall, thawing temperatures, and snow melt clogged catch basins. In Scituate, officials closed Route 116 when 4 feet of water filled the road. In Providence, cars stalled out in several streets filled with 2 to 3 feet of water.

RIZ001>007	Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport				19	1400EST 1830EST	0	0	High Wind (G63)
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Strong to gale force south winds with gusts to 40 to 60 mph and isolated gusts to hurricane force preceded a sharp cold front extending from a low pressure system moving east across the northern Great Lakes region. Some peak wind gusts included: Tiverton, 73 mph; Little Compton, 61 mph; North Kingstown, Quonset Airport, 61 mph; and Woonsocket, 61 mph. There were scattered reports of property damage as well as scattered power outages from falling trees and tree limbs. The high winds also brought a strong January thaw with temperatures rising into the 50s. The combination of rain and snow melt produced some areas of street flooding.

RIZ001>007	Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport				27	1300EST 2000EST	0	0	High Wind (G55)
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RIZ001	Northwest Providence				28	1200EST 2300EST	0	0	Flood
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Ahead of an approaching sharp cold front, south winds gusting to 50 to 60 mph, heavy rainfall of 1 to 2 inches, and very mild temperatures rising into the 50s occurred. A peak wind gust to 63 mph was reported at Tiverton. Two large trees and two power

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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RHODE ISLAND

poles were reported blown down in Foster. Scattered power outages were reported throughout the state as some trees and tree limbs were blown down by the high winds. Minor river flooding occurred within about 24 hours of the storm. The Blackstone River in Woonsocket reached a crest of 9.5 feet at 4 PM on the 28th; flood stage is 9.0 feet.

SOUTH CAROLINA, Central

Aiken County Jackson	02	1830EST			0	0			Hail (0.75)
Aiken County 8 WNW Aiken	02	1835EST			0	0			Thunderstorm Wind (G50)
A severe thunderstorm knocked down trees at I-20 and highway 144.									
Aiken County 3 N Aiken	02	1840EST			0	0			Thunderstorm Wind (G50)
A severe thunderstorm knocked down trees at I-20 and highway 19.									
Orangeburg County Orangeburg	02	1910EST 1912EST	0.5	50	0	0	29K	0	Tornado (F0)
Orangeburg County 1 E Orangeburg	02	1920EST 1922EST	0.3	50	0	0			Tornado (F0)
A severe thunderstorm spawned a strong F0 tornado that touched down twice in Orangeburg. The first touchdown caused damage to a middle school (\$8K), and to several homes (\$21K). The second touchdown caused damage to a church (\$2K).									
SCZ015>016-020>022	Lancaster - Chesterfield - Newberry - Fairfield - Kershaw								
	06	1200EST			0	0			Ice Storm
	07	1600EST							
A major winter storm produced 1 to 3 inches of snow in the eastern Piedmont and northern Midlands of South Carolina. One quarter to one half inch of freezing rain also occurred along with one inch of sleet. Around 7000 people were without power for two days and schools and many businesses were closed.									
SCZ015>016	Lancaster - Chesterfield								
	11	2200EST			0	0			Ice Storm
	12	0800EST							
A minor winter storm produced up to 2 inches of sleet, freezing rain, and/or snow in the northern Piedmont counties. There were spotty power outages and highways were extremely hazardous from the sleet and freezing rain.									
Mccormick County Mc Cormick	27	0242EST			0	0			Thunderstorm Wind (G50)
Electric company reports a severe thunderstorm broke off large tree limbs and knocked down powerlines.									
Edgefield County Edgefield	27	0324EST			0	0			Thunderstorm Wind (G50)
Electric company reports a severe thunderstorm broke off large tree limbs and knocked down powerlines.									
Saluda County Saluda	27	0330EST			0	0			Thunderstorm Wind (G50)
Sheriff department reports a severe thunderstorm brook off large tree limbs and knocked down powerlines.									
Newberry County Little Mountain	27	0341EST			0	0			Thunderstorm Wind (G50)
Sheriff department reports a severe thunderstorm broke off large tree limbs and knocked down powerlines.									
Aiken County Countywide	27	0349EST			0	0			Thunderstorm Wind (G50)
Utility company reports a severe thunderstorm broke off large tree limbs and knocked down powerlines.									
Fairfield County Ridgeway	27	0355EST			0	0			Thunderstorm Wind (G50)
Electric company reports a severe thunderstorm broke off large tree limbs and knocked down powerlines.									
Richland County Eastover	27	0401EST			0	0			Thunderstorm Wind (G50)
Downburst took down a couple of trees and severely damaged a barn.									
<u>SOUTH CAROLINA, North Coastal</u>									
Williamsburg County .5 W Cades to Cades	27	0635EST			0	0	0.30K		Thunderstorm Wind
Tractor shed roof blown off and 75 yards away									
Horry County Galivants Ferry	27	0720EST			0	0	0.50K		Thunderstorm Wind
Shingles blown off roof, small tree uprooted, and wooden fence torn apart.									
<u>SOUTH CAROLINA, Northwest</u>									
Laurens County Laurens	02	1745EST			0	0			Lightning
Lightning struck a store and caused a minor fire.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm
					Killed	Injured			
SOUTH CAROLINA, Northwest									
SCZ001>009	Northern Oconee - Northern Pickens - Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg - Cherokee - York								
	06	0800EST 1400EST			0	0			Winter Storm
	Light snow fell during the morning. Accumulations ranged from 1 to 3 inches. Warm road surfaces prevented significant accumulations on roads except in and near the mountains. A little sleet and snow persisted into the early afternoon in the piedmont.								
SCZ001>010	Northern Oconee - Northern Pickens - Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg - Cherokee - York - Anderson								
	06	1800EST 2359EST			0	0	50K		Winter Storm
	Mixed rain, freezing rain and sleet caused a gradual buildup of ice. Snow began to fall again near the North Carolina border. Some power outages developed by late evening especially east and north of Spartanburg. Numerous traffic accidents were reported with a number of injuries and at least one fatality. the precipitation gradually changed over to mostly snow by morning.								
SCZ001>010	Northern Oconee - Northern Pickens - Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg - Cherokee - York - Anderson								
	07	0000EST 1600EST			0	0	50K		Winter Storm
	Snowfall reached accumulations of 4 to 8 inches along and north of I-85 with as much as 10 inches in the mountains of Oconee county. The snow persisted into the afternoon. Gusting winds as the snow ended contributed to some power outages in and near the mountains. Cold weather following did not permit significant melting for several days. Frozen rain under the snow caused extremely dangerous travel conditions with numerous accidents reported.								
SCZ011>014-019	Abbeville - Laurens - Union - Chester - Greenwood								
	07	0300EST 1600EST			0	0			Winter Storm
	Rain and freezing rain changed over to snow during the early morning hours with accumulations generally 1 to 3 inches. The snow persisted well into the afternoon. Roads were very hazardous with numerous accidents reported.								
SCZ009-014	York - Chester								
	07	0600EST 1300EST			0	0			Ice Storm
	The buildup of ice continued long enough to cause widespread power outages in the eastern piedmont. The freezing rain changed over to a mixture of sleet and snow before ending.								
SCZ001-003>010-012	Northern Oconee - Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg - Cherokee - York - Anderson - Laurens								
	11	2000EST 2359EST			0	0			Winter Storm
	Snow began to fall in the early evening and spread quickly across the mountains and foothills. Accumulations to 4 inches were reported in Oconee, Greenville and Spartanburg counties with lesser amounts from Anderson to Rock Hill. Some freezing rain mixed in, Especially around Laurens. Roads were icy and some traffic accidents resulted. There was at least one traffic fatality in the southern part of Greenville county and another in southern Spartanburg county.								
SCZ006	Southern Greenville								
	12	1200EST			2	0			Extreme Cold
	Two young boys fell through the ice which developed on a pond following the persistent cold weather. Both died of hypothermia after they were rescued. M8IW, M11IW								
SCZ001>008-010	Northern Oconee - Northern Pickens - Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg - Cherokee - Anderson								
	18	2000EST 2020EST			0	0	10K		High Wind (G50)
Oconee County Walhalla	18	2030EST 2050EST			0	0	5K		Thunderstorm Wind (G50)
Pickens County Pickens	18	2115EST 2130EST			0	0	30K		Thunderstorm Wind (G50)
Greenville County 3 W Greenville to Greenville	19	0130EST 0150EST			0	0	15K		Thunderstorm Wind (G50)
Anderson County Williamston	19	0130EST 0150EST			0	0			Thunderstorm Wind (G50)
Spartanburg County Spartanburg	19	0230EST 0250EST			0	0	35K		Thunderstorm Wind (G50)
Cherokee County Grassy Pond to Saratt	19	0250EST 0310EST			0	0	5K		Thunderstorm Wind (G50)

Generally high winds caused some downed trees and power lines over much of the Upstate. Although gusts did not frequently reach ordinary damaging levels, the wet ground caused more trees to fall than normal.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops

SOUTH CAROLINA, Northwest

SCZ003>007	Northern Greenville - Southern Oconee - Southern Pickens - Southern Greenville - Spartanburg						
	27	0000EST 2359EST			0	0	Flood
	Persistant rain through the day and night resulted in gradual rises on area streams. Thunderstorms with heavier rain moved through during the night pushing some streams above bankful. Most problems occurred around Greenville where eastside streams and Berea area streams flooded. A few rescues from stranded cars were required and a few homes flooded in Berea.						
Greenwood County Greenwood	27	0245EST			0	0	5K Lightning
	Lightning caused at least one house fire and blew transformers in the area. the house partly burned in Greenwood.						
Abbeville County Abbeville	27	0245EST			0	0	Lightning
	Lightning blew transformers in the area.						

SOUTH CAROLINA, South Coastal

NONE REPORTED.

SOUTH DAKOTA, Central and North

SDZ005>008-010>011-017>018-021	Mcpheerson - Brown - Marshall - Roberts - Edmunds - Day - Faulk - Spink - Grant						
	10	0600CST 1300CST			0	0	Ice Storm
	Widespread freezing rain moved across northeast South Dakota from the early morning into the early afternoon, laying down a thin layer of ice. Travel was significantly slowed with a few vehicle accidents along with some vehicles ditched.						
SDZ003>005-009>010-015>017-033>037-045-048-051	Corson - Campbell - Mcpheerson - Walworth - Edmunds - Dewey - Potter - Faulk - Stanley - Sully - Hughes - Hyde - Hand - Jones - Lyman - Buffalo						
	17 18	1000CST 0400CST			0	0	Blizzard
	Two to ten inches of snow, high winds from 40 to 60 mph, and cold arctic air resulted in blizzard conditions and extreme wind chills from 40 below to 70 below for central and northcentral South Dakota from the middle morning of the 17th to the early morning of the 18th. Most schools, federal, state, and county offices were closed. Also, various activities were canceled. Travel was extremely difficult due to the near zero visibility with some vehicles stranded. Some pheasants and wildlife were lost due to the snow packed so hard they could not dig out. Some snowfall amounts included, 2 inches at Highmore, 3 inches at Pierre and 9NE Reliance, 5 inches at Mobridge, Presho, Roscoe, 10SE Stephan, and Ree Heights, 7 inches 12W Tulare and 5E 3S Faulkton, 8 inches 11E 2S Hosmer, and 10 inches at Eureka. The extreme wind chills along with some blowing snow continued across central and northcentral South Dakota into the early evening of the 18th.						
SDZ006>008-011-018-021	Brown - Marshall - Roberts - Day - Spink - Grant						
	17 18	1300CST 1600CST			0	0	Blizzard
	Six to twelve inches of snow, high winds from 40 to 60 mph, and cold arctic air resulted in blizzard conditions and extreme wind chills from 40 below to 70 below from the early afternoon of the 17th to the late afternoon of the 18th. Most schools, colleges, county and federal offices, and many buisnesses were closed. Also various activities were canceled. Flights out of Aberdeen during the evening of the 17th through the early morning of the 18th were canceled. Postal delivery was delayed across much of northeast South Dakota. Travel was extremely difficult. Highway 12 from Webster to the Minnesota border and Interstate-29 through Roberts and Grant counties to the North Dakota border were closed the 18th. Hundreds of people were stranded at truck stops with some people stranded in their vehicles. There were a few vehicle accidents and a few reports of windows blown out from the high winds with a sign also blown out in Groton. Some pheasants and wildlife were lost from the snow packed so hard that the animals could not dig out. Some snowfall amounts included, 6 inches 2S 3W Elm Lake and Tulare, 7 inches 9N 9W Britton, 8 inches at Doland, 9 inches at Mellette, Aberdeen and Redfield, 10 inches at Britton, and 12 inches 4N 2E Victor, Wilmot, and Rosholt. The extreme wind chills with some blowing snow continued throughout the early morning hours of the 19th.						
SDZ033-035-045-048-051	Stanley - Hughes - Jones - Lyman - Buffalo						
	24 25	2100CST 0900CST			0	0	Heavy Snow
	Heavy snow of six to eight inches fell across part of central South Dakota from the late evening of the 24th to the middle morning of the 25th. Snowfall amounts included, 6 inches at Pierre, 8 inches 10 SE Stephan and 9NE Reliance.						
SDZ003>005-009>010-015>017-033>037-045-048-051	Corson - Campbell - Mcpheerson - Walworth - Edmunds - Dewey - Potter - Faulk - Stanley - Sully - Hughes - Hyde - Hand - Jones - Lyman - Buffalo						
	28 29	1600CST 1600CST			0	0	Extreme Windchill
	Extreme wind chills developed across central and northcentral South Dakota as cold arctic air moved in behind an area of low pressure. With temperatures falling well below zero and northwest winds increasing to 15 to 30 mph, wind chills were lowered to 40 to 70 below throughout the night of the 28th and into the late afternoon of the 29th. Two to five inches of snow had fallen across central and northcentral South Dakota on the 28th. The strong northwest winds caused areas of blowing snow significantly reducing visibilities.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

SOUTH DAKOTA, Central and North

SDZ006>008-011-018-021 Brown - Marshall - Roberts - Day - Spink - Grant

28	1800CST	0	0						Extreme Windchill
29	2100CST								

Extreme wind chills of 40 below to 70 below developed across northeast South Dakota behind an area of low pressure as northwest winds increased to 20 to 35 mph and cold arctic air moved in. Two to five inches of snow had fallen on the 28th into the early morning of the 29th. The strong northwest winds caused areas of blowing snow resulting in near blizzard conditions in open areas.

SOUTH DAKOTA, Southeast

SDZ019>020-022>023-039>040-055>056-062-067-071 Clark - Codington - Hamlin - Deuel - Kingsbury - Brookings - Lake - Moody - Minnehaha - Lincoln - Union

10	0645CST 0900CST	3	16	400K					Ice Storm
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A narrow band of freezing rain caused major disruption to traffic just after the beginning of rush hour, especially in the cities of Sioux Falls and Watertown. Over one hundred accidents occurred, including a collision near Watertown which caused 3 fatalities. The ice accumulation was not enough to cause significant damage to trees or power lines. M36VE, M11VE, M8VE

SDZ019>020-022>023-038>040-046>047-049>050-052>071 Clark - Codington - Hamlin - Deuel - Beadle - Kingsbury - Brookings - Mellette - Todd - Tripp - Gregory - Jerauld - Sanborn - Miner - Lake - Moody - Brule - Aurora - Davison - Hanson - Mccook - Minnehaha - Charles Mix - Douglas - Hutchinson - Turner - Lincoln - Bon Homme - Yankton - Clay - Union

17	1000CST 1800CST	1	1	490K					Blizzard
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A blizzard spread across the area from the west. Snow accumulating 3 to 12 inches was accompanied by 50 to 60 mph winds and very cold temperatures. The blizzard was accompanied by wind chill readings around 70 below zero. Roads and many businesses, schools, and other activities were shut down. The total destruction of at least 3 homes by fire was due in part to the inability of firefighters to travel across the blocked roads. Several accidents occurred and other vehicles slid into ditches or became stranded. One man died of exposure near Bridgewater after his vehicle was stranded. Power outages occurred, one due to a transformer exploding in Gregory County. Some pipes froze and broke where power outages occurred. The strong winds blew the roofs off from two structures. M44VE

SDZ038>040-052>062-067 Beadle - Kingsbury - Brookings - Jerauld - Sanborn - Miner - Lake - Moody - Brule - Aurora - Davison - Hanson - Mccook - Minnehaha - Lincoln

24	2200CST 0900CST	0	0						Heavy Snow
25									

A band of snow producing accumulations of 4 to 12 inches moved along and north of Interstate Highway 90 in Eastern South Dakota from the Missouri River to the eastern border. The snowfall cancelled some schools for a day but strong winds did not occur and no significant damage was reported.

SDZ019>020-022>023-038>040-046>047-049>050-052>071 Clark - Codington - Hamlin - Deuel - Beadle - Kingsbury - Brookings - Mellette - Todd - Tripp - Gregory - Jerauld - Sanborn - Miner - Lake - Moody - Brule - Aurora - Davison - Hanson - Mccook - Minnehaha - Charles Mix - Douglas - Hutchinson - Turner - Lincoln - Bon Homme - Yankton - Clay - Union

29	0600CST 2359CST	0	0						Extreme Windchill
31									

Wind chill readings as cold as 80 below zero occurred as winds over 30 mph combined with actual temperatures of 10 below to 30 below zero. Many vehicles left outside failed to start; otherwise the main impact was financial with greatly increased heating energy use, and purchase of supplies and services to insure furnace operation and prevent carbon monoxide problems. Drifting snow occurred with the wind but had a relatively minor impact.

SOUTH DAKOTA, West

SDZ001-012-024>025 Harding - Butte - Northern Black Hills - Northern Foot Hills

01	0001MST	0	0						Heavy Snow
04	2300MST								

Ten to 12 inches fell over Northwest South Dakota and 10 to 20 inches over the Black Hills.

SDZ001>002-012>014-024>032-041>044-046>047-049 Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Black Hills - Northern Foot Hills - Central Foot Hills - Southern Foot Hills - Central Black Hills - Southern Black Hills - Custer Plains - Pennington Plains - Haakon - Fall River Co. - Shannon - Jackson - Bennett - Mellette - Todd - Tripp

17	0100MST 1800MST	0	0						Blizzard
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Winds of 35 to 45 Mph combined with 3 to 6 inches of snow produced blizzard conditions over Western South Dakota. Up to 12 inches of snow and 3 to 6 foot drifts were reported in the Faith and Martin areas.

TENNESSEE, Central

TNZ005>008-022>028-055>060-062 Stewart - Montgomery - Robertson - Sumner - Benton - Houston - Humphreys - Dickson - Cheatham - Davidson - Wilson - Decatur - Perry - Hickman - Lewis - Williamson - Maury - Rutherford

06	0550CST 1700CST	0	0						Winter Storm
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Freezing rain started across middle Tennessee during the early morning hours. The freezing rain caused slippery roadways Saturday morning, especially on bridges and overpasses. The freezing rain changed to sleet in the afternoon and then to all snow around evening.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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TENNESSEE, Central

TNZ005>011-022>031-033-055>065-075>082-093>098 **Stewart - Montgomery - Robertson - Sumner - Macon - Clay - Pickett - Benton - Houston - Humphreys - Dickson - Cheatham - Davidson - Wilson - Trousdale - Smith - Jackson - Overton - Decatur - Perry - Hickman - Lewis - Williamson - Maury - Marshall - Rutherford - Cannon - Dekalb - White - Bedford - Moore - Coffee - Warren - Grundy - Van Buren - Sequatchie - Bledsoe - Wayne - Lawrence - Giles - Lincoln - Franklin - Marion**

06	1700CST	0	0	10K	Winter Storm
08	0600CST				

The snow started Saturday evening and did not let up until Monday morning. As a result, church services were cancelled Sunday, schools were closed for several days across middle Tennessee. There were several fender benders as a result of the snow storm across middle Tennessee. Snow totals for this storm were 4 to 5 inches across Davidson county, 1-3 inches for the southern part of middle Tennessee, and as much as 8 inches for Gainsboro in Jackson county and 6-8 inches for Clay county. Jackson and Clay counties are located in the Cumberland Plateau.

**Stewart County
Dover**

18	1045CST 1050CST	0	0	0.10K	Thunderstorm Wind
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Several trees blown down. Report by local law enforcement.

**Benton County
Camden**

18	1100CST 1115CST	0	0	0.10K	Thunderstorm Wind
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Local electric company reported power lines down.

**Lawrence County
Ethridge**

18	1305CST 1320CST	0	0	10K	Thunderstorm Wind
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Several trees blown down, power poles and power lines down, roofs damaged. Report was by local law enforcement.

**Giles County
Countywide**

18	1315CST	0	0		Thunderstorm Wind (G50)
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Emergency management officials reported 3 trees down around the county.

**Davidson County
Nashville**

18	1335CST 1350CST	0	0	0.50K	Thunderstorm Wind
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Four trees blown down near intersection of Old Hickory Blvd. and Clarksville Highway. Report was by Davidson county emergency management agency.

**Wilson County
Mt Juliet**

18	1400CST 1420CST	0	0	0.10K	Thunderstorm Wind
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Weather service employee reported pine tree down.

**Rutherford County
Murfreesboro**

18	1405CST 1425CST	0	0	0.10K	Thunderstorm Wind
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Highway department reported a tree down.

**Sumner County
Gallatin**

18	1430CST 1445CST	0	0	0.10K	Thunderstorm Wind
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Local highway department reported a tree down.

TENNESSEE, East

TNZ012>018-034>047-066>074-083>087-099>102 **Scott - Campbell - Claiborne - Hancock - Hawkins - Sullivan - Johnson - Fentress - Morgan - Anderson - Union - Grainger - Hamblen - Northwest Coker - Coker/Smoky Mountains - Northwest Greene - Southeast Greene - Washington - Unicoi - Northwest Carter - Southeast Carter - Cumberland - Roane - Loudon - Knox - Jefferson - Northwest Blount - Blount/Smoky Mountains - North Sevier - Sevier/Smoky Mountains - Rhea - Meigs - McMinn - Northwest Monroe - Southeast Monroe - Hamilton - Bradley - West Polk - East Polk**

06	2100EST	0	0		Winter Storm
07	0900EST				

A strong low pressure system from the Gulf Coast region brought up to one foot of snow to parts of East Tennessee and between one to three feet of snow to southwest Virginia. Numerous trees and power lines fell. Many roads became impassable shutting down schools and businesses across the area. Numerous auto accidents occurred with three deaths reported from an accident near maynardville. There were also isolated incidents of collapsed roofs.

TNZ012>018-034>047-066>074-083>087-099>102 **Scott - Campbell - Claiborne - Hancock - Hawkins - Sullivan - Johnson - Fentress - Morgan - Anderson - Union - Grainger - Hamblen - Northwest Coker - Coker/Smoky Mountains - Northwest Greene - Southeast Greene - Washington - Unicoi - Northwest Carter - Southeast Carter - Cumberland - Roane - Loudon - Knox - Jefferson - Northwest Blount - Blount/Smoky Mountains - North Sevier - Sevier/Smoky Mountains - Rhea - Meigs - McMinn - Northwest Monroe - Southeast Monroe - Hamilton - Bradley - West Polk - East Polk**

11	1900EST	0	0		Winter Storm
12	1300EST				

Heavy snow accumulations of 4 to 8 inches caused numerous power outages and car accidents. Numerous trees fell as well.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Character of Storm
					Killed	Injured	Property Crops	
TENNESSEE, East								
			Schools and businesses were closed.					
TNZ013	Campbell	18 1500EST			0	0	2K	High Wind
		1900EST						
	A strong cold front caused gradient winds that brought trees down across several power lines in LaFollette							
Cocke County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands. A Chattanooga man died crossing a footbridge over Toms Creek in Cocke County Friday night.							
Hawkins County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands.							
Sullivan County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands.							
Greene County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands. In The Roan Mountain area some residents were evacuated from their homes.							
Washington County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands. In the Roan Mountain area some residents were evacuated from their homes.							
Unicoi County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands. In Earnestville and the Roan Mountain area some residents were evacuated from their homes.							
Carter County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands. In the Roan Mountain area some residents were evacuated from their homes.							
Blount County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands.							
Sevier County	Countywide	19 2000EST			0	0		Flash Flood
		20 0900EST						
	Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands.							
TNZ013-072-087	Campbell - Blount/Smoky Mountains - Southeast Monroe	23 1700EST			0	0	30K	High Wind
		24 0500EST						
	A strong cold front caused gradient winds in excess of 40 mph. Numerous trees and power lines were reported down. A roof was blown off a business in Sweetwater. A tree fell on a family's trailer in Walland							
TENNESSEE, West								
TNZ001>004-019>021	Lake - Obion - Weakley - Henry - Dyer - Gibson - Carroll	05 1500CST			0	0	0.50K	Heavy Snow
		07 1500CST						
	Heavy snow fell across parts of northwest Tennessee. Over five inches fell over portions of Henry County. Three inches of snow fell in Dyer County.							
Shelby County	Memphis	18 0810CST			0	0	5K	Thunderstorm Wind
		0815CST						
	Several trees were blown down.							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, West									
Shelby County Memphis	18	0820CST 0825CST			0	0	5K		Thunderstorm Wind
									A few trees were blown down.
Shelby County Memphis	18	0830CST 0835CST			0	0	5K		Thunderstorm Wind
									Several power lines were blown down.
Tipton County 3 S Brighton	18	0840CST 0845CST			0	0	80K		Thunderstorm Wind
									Four homes were heavily damaged and several other homes sustained minor damage. A few cars and outbuildings were also damaged. Numerous trees and power lines were downed.
Lake County Ridgely	18	0845CST 0850CST			0	0	2K		Thunderstorm Wind
									Two utility poles were blown over.
Lauderdale County Henning	18	0845CST 0850CST			0	0	2K		Thunderstorm Wind
									A few trees and large tree limbs were knocked down.
Gibson County Georgetown	18	0845CST 0850CST			0	0	20K		Thunderstorm Wind (G50)
									Two homes were damaged and 18 golf cart houses lost their roofs.
Shelby County Collierville	18	0853CST 0855CST			0	0	1K		Hail (1.00)
Dyer County Miston	18	0855CST 0900CST	0.3	25	0	0	10K		Tornado (F0)
									A door and part of the roof of a large outbuilding was blown out. Half the tin roof to a shed was blown off. A cotton trailer was moved 300 feet. Numerous trees, limbs and power lines were knocked down as well.
Fayette County 3 S Oakland	18	0905CST 0910CST			0	0	0.05K		Hail (0.75)
Dyer County Miston	18	0915CST 0920CST			0	0	5K		Thunderstorm Wind
									Roofs were blown off some farm buildings.
Haywood County Brownsville	18	0920CST 0925CST			0	0	20K		Thunderstorm Wind
									A shop was heavily damaged. A roof was blown off a barn. Several other buildings were damaged. Numerous trees and power lines were knocked down.
Obion County 2 W Union City to Union City	18	0920CST 0925CST			0	0	10K		Thunderstorm Wind
									Numerous trees and power lines were blown down.
Fayette County 2 S Dancyville	18	0930CST 0935CST			0	0	5K		Thunderstorm Wind
									Several power lines and trees were blown down.
Gibson County 3 S Trenton	18	0930CST			0	0	5K		Thunderstorm Wind
									Several trucks had their camper tops blown off.
Weakley County Martin	18	0940CST 0945CST			0	0	5K		Thunderstorm Wind
									A roof was blown off a metal building.
Gibson County Humboldt	18	0940CST 0945CST			0	0	5K		Thunderstorm Wind
									A portion of the roof from the gymnasium at the Humboldt Junior High School was destroyed.
Henderson County Crucifer	18	0950CST 0955CST			0	0	5K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TENNESSEE, West</u>									
An old gin building lost part of its roof.									
Weakley County Dresden	18	1005CST 1010CST			0	0	20K		Thunderstorm Wind
One trailer was destroyed and another trailer was blown over. One barn was destroyed and another barn lost its roof. Trees and power lines were also blown down.									
<u>TEXAS, Central</u>									
NONE REPORTED.									
<u>TEXAS, Central Southeast</u>									
TXZ210	Colorado								
	18	1700CST 2200CST			0	0	10K		High Wind (G50)
Strong winds induced by gradient blew road signs down along I-10 near Weimar									
TXZ210	Colorado								
	18	1700CST 2200CST			0	0	50K		High Wind (G55)
Strong gradient winds peeled roof off a mobile home, blew windows out of businesses in the Eagle Lake area.									
Houston County Wesley Chappel	23	1622CST			0	0	5K		Hail (0.75)
Galveston County Nrn County	26	1200CST 1500CST			0	0	30K		Flash Flood
Rodeo and Timber Dr. have water up to houses.									
<u>TEXAS, Extreme West</u>									
TXZ055	El Paso								
	17	0900MST 2030MST			3	0	10M		High Wind (G75)
High winds did widespread but mostly minor damage across west Texas and Southern New Mexico. The most serious incident was a roof partially ripped off a supermarket in Anthony, TX killing three people. On Fort Bliss, at least 6.9 million dollars of damage was done, 80% as a result of damaged roofs. High winds also ripped much of the roof from the Camlu retirement village in Central El Paso. M33BU, M21BU, F57BU									
TXZ056	Far West Plateau								
	17	0900MST 2000MST			0	0			High Wind (G75)
High winds caused widespread minor damage including one roof partially ripped off and one power pole snapped.									
<u>TEXAS, Mid - South</u>									
NONE REPORTED.									
<u>TEXAS, North</u>									
TXZ091	Montague								
	01	1800CST 2300CST			0	0			Heavy Snow
An upper level disturbance moved across northern Texas resulting in widespread precipitation. As an arctic high pressure system spread into the region from the north, the precipitation changed to snow. One to three inches of snow occurred north of a Coleman to Ennis to Mount Pleasant to Clarksville line. Numerous accidents resulted in a few indirect injuries.									
TXZ103	Denton								
	06	0900CST 1500CST			0	0			Heavy Snow
An upper level disturbance moved across the area during the morning and afternoon and with cold air already in place, snow fell across much of the region. North of a Graham to Fort Worth to Carthage line, one to three inches occurred. Numerous accidents resulted from slippery roadways in Denton, Gainesville, Decatur, Alvord and a few in the Dallas/Fort Worth area.									
TXZ118	Tarrant								
	08	0900CST			1	0			Extreme Cold
An elderly woman froze to death in her home. There were evidently no utilities on in the home and the temperature fell to 20 degrees inside. Overnight temperatures fell into the mid teens across the area for two consecutive nights. F75PH									
TXZ118	Tarrant								
	17	1700CST 2300CST			0	0			High Wind
During the early evening hours, a strong arctic cold front moved into northern Texas. An intense pressure gradient behind the front resulted in widespread winds of 25 to 35 mph with gusts as high as 50 mph reported. Some minor damage resulted across much of North Texas from these winds.									
Mills County Goldthwaite	17	2100CST			0	0			Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, North									
Several trees were blown down onto Highway 218 west of town.									
Mills County Priddy	17	2105CST			0	0			Hail (0.75)
Erath County 2 W Stephenville	17	2115CST			0	0			Thunderstorm Wind (G52)
Hamilton County 10 S Hamilton	17	2131CST			0	0			Hail (1.00)
Hood County Cresson	17	2145CST			0	0	5K		Thunderstorm Wind
Tin was blown off the roof of a barn by high winds.									
Parker County Aledo	17	2150CST			0	0			Hail (0.75)
Tarrant County Ft Worth	17	2150CST			0	0			Hail (0.88)
Tarrant County Crowley	17	2153CST			0	0	5K		Thunderstorm Wind
The roof of a barn was blown off by high winds.									
Johnson County Burleson	17	2155CST			0	0	75K		Thunderstorm Wind
Some apartments at the Thomas Apartment complex were unroofed and some mobile homes were damaged.									
Fannin County Ivanhoe	17	2155CST 2200CST	2.5	150	0	5	150K		Tornado (F2)
A short lived but strong tornadic circulation developed on the left side of a bow echo type thunderstorm north of Bonham. The tornado destroyed 3 mobile homes and resulted in 5 injuries to the occupants. Minor damage to homes and another mobile home also occurred.									
Tarrant County Dalworthington	17	2210CST			0	0			Hail (1.50)
Tarrant County Mansfield	17	2210CST			0	0			Thunderstorm Wind
A tree was blown down onto a road by high winds.									
Hill County Lake Whitney	17	2213CST			0	0	25K		Thunderstorm Wind
High winds damaged a couple homes; one had its roof partially removed. A tree fell onto another one.									
Dallas County Lancaster	17	2214CST			0	0	2K		Thunderstorm Wind
Downburst winds damaged trees and power lines just north of tornado track number two.									
Tarrant County Arlington	17	2220CST			0	0	15K		Thunderstorm Wind (G61)
A tree was blown onto a house by high winds.									
McLennan County Waco	17	2224CST			0	0			Thunderstorm Wind (G61)
Winds gusts to 70 mph were reported at the McLennan County Airport.									
Tarrant County Grand Prairie	17	2225CST			0	0	20K		Thunderstorm Wind
The roof of a business was blown off by high winds at Highway 360 and Avenue K.									
McLennan County Waco	17	2225CST			0	0	2K		Thunderstorm Wind
Power lines were blown down by high winds.									
Dallas County De Soto	17	2233CST 2240CST	3	50	0	1	750K		Tornado (F1)
A supercell thunderstorm embedded within a squall line that moved through Dallas County produced 7 short track tornadoes and a downburst in the southern portion of the county. Substantial damage occurred in the Desoto and Lancaster areas with an estimated \$1.5 million in damage to businesses, homes and public buildings. An in-depth damage survey revealed 7 individual tracks in Dallas County and one more in Kaufman County.									
Tornado number 1 developed near Westmoreland Road/Woodland Hill and lifted at the intersection of Belt Line Road and I-35 where an 18 wheeler was blown over.									
Dallas County Lancaster	17	2240CST 2242CST	0.5	50	0	0	750K		Tornado (F2)
Tornado number two developed near I-35/Idlewild Ct. and lifted near Marsalis/Pleasant Run Rd.									
Dallas County Lancaster	17	2241CST			0	0	2K		Thunderstorm Wind
Downburst winds damaged trees and power lines just north of tornado track number two.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TEXAS, North									
Dallas County Lancaster	17	2242CST 2245CST	1.5	50	0	0			Tornado (F1)
									Tornado number three touched down near Springmont/Pleasant Run Rd. and lifted near Alicia/Prescott.
Dallas County Lancaster	17	2243CST 2247CST	1.2	50	0	0			Tornado (F1)
									Tornado number four touched down near Donlee/Sunny Meadow and lifted near Dallas Ave./Stanford.
Dallas County Lancaster	17	2247CST	0.1	10	0	0			Tornado (F0)
									Tornado number five briefly touched down near Wintergreen/Talco.
Dallas County Lancaster	17	2247CST 2250CST	2	50	0	0			Tornado (F0)
									Tornado number six touched down just south of tornado number five and produced minor damage along a two mile long path.
McLennan County Waco	17	2250CST			0	0	25K		Thunderstorm Wind
									The "Best for Less" hotel office roof was blown off by high winds.
Dallas County Seagoville	17	2250CST 2300CST	5	50	0	0			Tornado (F1)
									Tornado number seven touched down near LBJ/175 and moved into Kaufman County.
Hill County Hubbard	17	2255CST			0	0	2K		Thunderstorm Wind
									Power lines were blown down by high winds.
Hill County Hillsboro	17	2300CST			0	0	15K		Thunderstorm Wind
									High winds severely damaged a mobile home and blew a tractor trailer over on I-35.
Kaufman County Talty	17	2300CST 2310CST	4	50	0	0			Tornado (F1)
									Tornado number seven moved into Kaufman County just east of Seagoville then moved east-northeast to between Talty and Terrell where the path ended. Considerable rural damage was reported in Kaufman County from this storm.
Kaufman County Crandall	17	2300CST			0	0	2K		Thunderstorm Wind
									Power lines were blown down by high winds.
Kaufman County Terrell	17	2314CST			0	0	2K		Thunderstorm Wind
									A power pole was blown down by high winds.
Navarro County Corsicana	17	2320CST			0	0	10K		Thunderstorm Wind
									High winds damaged a mobile home, an outbuilding, and moved a horse trailer 20 feet. Five trucks were blown over on I-45.
Hopkins County Cumby	18	0009CST			0	0	2K		Thunderstorm Wind
									Trees and power lines were blown down by high winds.
TXZ119	Dallas	22	0900CST		4	0			Extreme Cold
									Overnight temperatures fell into the mid to upper teens two consecutive nights and several homeless people were found frozen to death around the city. M70OU, ??OU, ??OU, M44OU
TEXAS, North Panhandle									
TXZ001>010-012-017	Dallam - Sherman - Hansford - Ochiltree - Lipscomb - Hartley - Moore - Hutchinson - Roberts - Hemphill - Potter - Randall	17	1100CST		0	0	500K		High Wind (G60)
		18	0000CST						High winds generated by a strong pressure gradient severely damaged an apartment complex in Amarillo, TX. Sustained winds of 40 to 50 mph with gusts from 50 to 70 mph were reported across the northern Texas panhandle.
TXZ001>014-016>018	Dallam - Sherman - Hansford - Ochiltree - Lipscomb - Hartley - Moore - Hutchinson - Roberts - Hemphill - Oldham - Potter - Carson - Gray - Deaf Smith - Randall - Armstrong	17	1900CST		0	0			Winter Storm
		18	0800CST						Near blizzard conditions closed down most of the north and central Texas panhandle. Interstate 40 was closed from Amarillo to the New Mexico state line.
TEXAS, Northeast									
Wood County Alba		18	0015CST 0125CST		0	0			Thunderstorm Wind (G60)
									Several trees blown down on FM 1700.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, Northeast									
Camp County Pittsburg	18	0035CST 0040CST			0	0			Thunderstorm Wind (G65)
			Several large trees blown down.						
Titus County Mt Pleasant	18	0040CST 0050CST			0	0	15K	0	Thunderstorm Wind (G70)
			Winds damaged a convenience store, ripped awnings off several buildings and caused a roof to collapse on an apartment complex trapping people inside. They were removed safely with no injuries.						
Gregg County Gladewater	18	0102CST 0110CST			0	0			Thunderstorm Wind (G60)
			Trees were blown across power lines knocking out power.						
Rusk County 1 S Price to Price	18	0105CST 0110CST			0	0			Thunderstorm Wind (G62)
			Trees were blown down across Hwy 42 one mile south of Price.						
Morris County Naples	18	0110CST 0115CST			0	0			Thunderstorm Wind (G60)
			Large trees blown over.						
Gregg County Liberty City	18	0112CST 0120CST			0	0	1K	0	Thunderstorm Wind (G65)
			Several trees were reported blown down along with gas pumps from a local gas station.						
Marion County 10 SW Jefferson to Jefferson	18	0115CST 0125CST			0	0			Thunderstorm Wind (G60)
			Several trees were blown down.						
Bowie County 4 W New Boston to New Boston	18	0120CST 0130CST			0	0			Thunderstorm Wind (G60)
			House shingles were ripped off a roof and a tin shed's roof was damaged.						
Gregg County Longview	18	0120CST 0135CST			0	0	10K	0	Thunderstorm Wind (G65)
			Several trees were uprooted including one tree which fell across a house. No injuries were reported.						
Morris County Dangerfield	18	0125CST 0130CST			0	0			Thunderstorm Wind (G60)
			Trees were blown over.						
Harrison County 5 N Hallsville to Hallsville	18	0130CST 0145CST			0	0			Thunderstorm Wind (G70)
			Numerous trees were blown down across FM 450.						
Cass County 8 NW Atlanta to Atlanta	18	0135CST 0145CST			0	0			Thunderstorm Wind (G60)
			Several trees were blown down blocking Hwy 77.						
Harrison County 1 W Marshall to Marshall	18	0140CST 0155CST			0	0			Thunderstorm Wind (G60)
			Several trees blown down blocking Hwy 449.						
Harrison County Hallsville	18	0200CST 0210CST			0	0	5K	0	Thunderstorm Wind (G70)
			A 15x30 foot shed was completely blown away and several roofs were blown off buildings.						
Marion County Jefferson	18	0200CST 0210CST			0	0			Thunderstorm Wind (G65)
			Numerous trees were blown down. Some blocking roadways for up to eight hours.						
Harrison County Waskom	23	1612CST 1615CST			0	0			Hail (0.75)
TEXAS, South									
TXZ252>255			Starr - Hidalgo - Willacy - Cameron						
	07	2200CST			0	0	0		Extreme Cold
	08	1000CST							
			Temperatures in the 20s were the coldest in six years. Tropical ornamental plants and some commercial leafy vegetables were damaged.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
TEXAS, South								
TXZ255	Cameron	17	1100CST		0	2		High Wind
			1700CST					
	Winds blew out windows of nine story building in Harlingen. Amphitheater and three service station canopies collapsed in Brownsville.							
TEXAS, South Central								
Llano County								
Llano	17	2140CST			0	0		Thunderstorm Wind (G60)
		2150CST						
TEXAS, South Panhandle								
TXZ033>036-039>042	Cochran - Hockley - Lubbock - Crosby - Yoakum - Terry - Lynn - Garza	17	1300CST		0	0		High Wind (G51)
			1800CST					
	High winds occurred across part of the South Plains on the afternoon of the 17th. Corresponding blowing dust occasionally limited visibilities to less than 1/2 mile.							
TEXAS, Southeast								
Jefferson County								
Beaumont	26	1000CST			0	0		Urban/Sml Stream Fld
		1500CST						
	Several streets and underpasses were impassable due to high water.							
TEXAS, West								
TXZ057	Van Horn And Salt Flat Basin	02	0500CST		0	0		Heavy Snow
			1200CST					
	Three to six inches of snow fell in and around the city of Van Horn and five inches fell at Guadalupe Pass from an upper level storm system that moved southeastward through southwestern New Mexico and Far West Texas.							
TXZ074	Davis Mountains	02	0530CST		0	0		Heavy Snow
			1300CST					
	Up to 6 inches of snow fell at some of the ranches in the Davis Mountains with 2-3 inches being reported in the city of Fort Davis.							
TXZ057	Van Horn And Salt Flat Basin	17	0930MST		0	0	250K	High Wind (G111)
			2300MST					
	A wind event for the history books occurred with a peak wind gust of 128 mph at Guadalupe Pass. The sustained wind was hurricane force from about 1000 am until about 300 pm with a maximum sustained wind of 105 mph. Although the Pass is famous for wind events elderly ranchers in the area said they had never seen the wind blow so hard. The highest winds and most damage occurred in the mountainous zones, however strong to damaging winds occurred over most of the warning area.							
	During the late morning much of the damage occurred in the mountainous areas, with the most substantial damage near Guadalupe Pass. A list of the more significant reports follows.							
	At Guadalupe Mountains National Park about 20 vehicles sustained damage such as broken windows and paint being chipped off by blowing rocks. One stationary step van was overturned in a parking lot. The wind also ripped out over 100 feet of chainlink fence and threw picnic tables across campgrounds.							
	On U.S. Highway 62/180 a double trailer truck was overturned at 1334 MST. Across the highway at a Department of Transportation facility a roof was blown off one building. During the event a coordination call to the site found an obviously shaken gentleman in fear that the roof of his building might give way to the wind at any moment. A series of power generating wind turbines located in a north-south line south of the pass sustained damage as well.							
	Farther south, in southwestern Culberson County, a fatal vehicle accident occurred in the eastbound lane of I-10, 14 miles east of Van Horn at 1550 CST. the mishap was partially blamed on the low visibilities in the area. A 56 year old South Carolina man was killed when he drove his car into a parked trailer truck which had just been involved in an accident. The Department of Public Safety report stated that visibilities were ranging between 20 feet and 1/4 mile with a visibility of 50 feet being common during the clean up of the accident.							
TXZ074	Davis Mountains	17	1100CST		0	0	47K	High Wind (G66)
			1600CST					
	Wind gust recorded at McDonald Observatory. Damage in the area included two roofs being blown off near Alpine and part of a roof being blown off a house 10 miles southwest of Fort Davis. In Fort Davis fences were blown down and storage buildings blown over.							
TXZ058	Reeves County And Upper Trans Pecos	17	1149CST		0	0	5K	High Wind
	A travel trailer was blown over by strong cross winds on U.S. Highway 285 5 miles northwest of Orla.							
TXZ062	Midland	17	1200CST		0	0		High Wind (G52)
			1900CST					

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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TEXAS, West

The lowest visibility of 3/4 mile was at 1620-1630 CST. The peak wind of 60 mph occurred at 1236 pm CST.

Across much of the region brief light rain showers were occurring. Combined with the blowing dust, the rain became mud showers. It rained only enough to allow dirt to adhere to vehicles. For weeks muddy cars could be seen driving around the region due to excessively long lines at commercial car washes. A manager at a Midland car wash said that the first week after the mud storm was his busiest on record, more than tripling his usual business. He said that business would have been even better, except that people decided not to wait in the long lines. This same scenario was played out across much of the Permian Basin.

TXZ050	Andrews	17 1220CST			0	0			High Wind (G79)
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Recorded at the Andrews County Airport.

TXZ045	Gaines	17 1300CST			0	0			High Wind (G59)
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Recorded at the Gaines County Airport.

TXZ080	Marfa Plateau	17 1430CST			0	0			High Wind (G64)
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Recorded at the Aerostat site...19 miles west of Marfa.

TXZ080	Marfa Plateau	17 1450CST			0	0			High Wind (G55)
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Recorded at the Marfa Airport.

TXZ060	Winkler	17 1500CST			0	0	35K		High Wind (G61)
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A 300-foot tall light stanchion crashed to the ground at the Wink Football Stadium. At 1727 CST the peak wind gust of 70 mph occurred at the Winkler County Airport and the visibility was reduced to 3/4 mile from 1509-1640 CST. In Kermit poles were blown down around town.

TXZ058	Reeves County And Upper Trans Pecos	17 1630CST			0	0	35K		High Wind
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An 80-foot pole holding an Exxon sign at the associated service station in Pecos broke at a joint during high winds and leaned precariously, but did not fall. Also during the height of the winds, travel trailers were blown over, shingles were taken off roofs, power poles were broken, etc. Four car mishaps were blamed partly on the low visibilities during the high winds. At Balmorhea, a carport collapsed on a car.

TXZ067	Ward	17 1700CST			0	0	10K		High Wind (G70)
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A bank sign was damaged and numerous poles were downed in Monahans.

TXZ052	Howard	17 1900CST			0	0	10K		High Wind
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Windows were blown out of some homes and a carport was blown out into the street in Big Spring.

TEXAS, Western North

TXZ087>090	Knox - Baylor - Archer - Clay	01 0200CST			0	0			Heavy Snow
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A strong cold front moved into North Texas during the very early morning hours of New Year's Day. Rainfall behind the front turned to snow within a few hours of frontal passage, and lasted until very late evening.

One area of heavier snow fell from Knox City to Henrietta. During the more than 18 hours of snowfall, snow accumulations reached 4 inches in Knox City in Knox County and in Archer City in Archer County.

TXZ083>090	Hardeman - Foard - Wilbarger - Wichita - Knox - Baylor - Archer - Clay	17 2200CST			0	0	5K		High Wind (G41)
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A strong cold front moved into North Texas the evening of January 17th, accompanied by sustained winds up to 37 mph with gusts as high as 41 mph in Wichita Falls. These strong gradient winds blew a tree onto a truck in Wichita Falls in Wichita County.

Wichita County	Wichita Falls	17 2300CST			0	0			Thunderstorm Wind (G58)
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Severe thunderstorm winds up to 67 mph were measured at a television station in Wichita Falls in Wichita County.

UTAH, North, Central and South

NONE REPORTED.

UTAH, Northeast

NONE REPORTED.

VERMONT, North and Central

VTZ001>012	Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor	03 0000EST			0	0	95K		Winter Storm
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Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VERMONT, North and Central

A storm system along the Mid Atlantic coast Tuesday night (1/2/96) intensified and moved northeast and passed south of Cape Cod Wednesday afternoon (1/3/96). Snow became steady across Vermont around 3 AM Wednesday morning and ended late Wednesday night.

Snow accumulations ranged from 2 to 5 inches in Grand Isle Franklin, Orleans, Essex and Caledonia counties. In Chittenden and Lamoille counties 6 to 10 inches fell while a foot or more accumulated in Rutland, Orange, Addison, Washington and Windsor counties.

A few of the greater snow amounts were: 14 inches in Montpelier (Washington County), 13.3 inches in South Lincoln (Addison County), 13 inches in Union Village (Orange County) and Rochester (Windsor County), 12 inches in Danby 4 Corners (Rutland County).

Numerous minor automobile accidents were reported across the state with widespread power outages in Central and Southern Vermont.

VTZ008	Washington								
	05	0000EST			0	0			Record Temperature
		2359EST							

Record low temperature of minus 17 set at Montpelier on January 5, 1996.

VTZ005	Chittenden								
	06	0000EST			0	0			Record Temperature
		2359EST							

Record low temperature of minus 23 set at Burlington on January 6, 1996.

VTZ007	Caledonia								
	06	0000EST			0	0			Record Temperature
		2359EST							

Record low temperature of minus 25 set at St Johnsbury on January 6, 1996.

VTZ001>012	Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor								
	12	1300EST			0	0	80K		Winter Storm
	13	0800EST							

A storm system over eastern Kentucky early Friday morning (1/12/96) reformed along the North Carolina coast during Friday morning and moved to the New Jersey coast Friday evening before continuing northeast to the Maine coast Saturday morning (1/13/96).

Steady snow began across the state during the mid and late afternoon of Friday, with the heaviest snow falling between 9 PM Friday and 3 AM Saturday (1/13/96). Across Northern Vermont, the snow ended around 5 AM Saturday morning (1/13/96) while ending around 8 AM Saturday in Southern Vermont.

In general, 3 to 6 inches fell in the Vermont counties of Chittenden, Franklin, Grand Isle, Orleans, Essex, Caledonia and Lamoille. Across the remainder of Vermont, generally 6 to 12 inches fell. A few of the heavier amounts were: 11 inches in Montpelier (Washington County) and Ludlow (Windsor County), with 9 inches in Chelsea (Orange County) and 7 inches in both South Lincoln (Addison County) and Wallingford (Rutland County). Numerous minor automobile accidents were reported statewide.

VTZ005	Chittenden								
	18	0000EST			0	0			Record Temperature
		2359EST							

Record high temperature of 53 set on January 18, 1996.

VTZ007	Caledonia								
	18	0000EST			0	0			Record Temperature
		2359EST							

Record high temperature of 55 set at St Johnsbury on January 18, 1996.

VTZ005	Chittenden								
	19	0000EST			0	0			Record Temperature
		2359EST							

Record high temperature set at Burlington of 65 on January 19, 1996.

VTZ007	Caledonia								
	19	0000EST			0	0			Record Temperature
		2359EST							

Record high temperature of 59 set at St Johnsbury on January 19, 1996.

VTZ001>012	Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor								
	19	0900EST			2	0	2.8M		Flood
	20	1200EST							

A strong storm system moved into the Great Lakes on Thursday (1/18/96) and then moved into Canada thereafter on Friday (1/19/96) and Saturday (1/20/96). The circulation associated with this storm resulted in above normal temperatures, strong winds and flooding due to snow melt and rainfall.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Property	Crops	Character of Storm
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VERMONT, North and Central

Two deaths were attributed to the flooding. A young girl drowned (1/19/96) trying to rescue her father when car was swept by water.

The father died 2 days later (1/21/96) from injuries and hypothermia suffered from the accident on 1/19/96.

Numerous roads were washed out due to the flooding statewide. Water was reported up to the level of car doors in Berlin (Washington County).

Strong winds buffeted the state during Friday and Friday evening (1/19/96). A few of the higher gusts were: 79 mph at Pleasant Valley, 70 mph at Underhill and 63 mph at Jericho all located in Chittenden County. Numerous power outages across the state were reported. F14VE, M50VE

VTZ012

Windsor

	20	1700EST			0	0	5K		Flood
	21	1700EST							

An ice jam formed on the Connecticut River with water backing up the tributary rivers in Vermont. Route 5 in the Springfield area was closed due to high water.

VTZ005

Chittenden

	27	0000EST 2359EST			0	0			Record Temperature
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Record high temperature of 53 set at Burlington on January 27, 1996.

VTZ002>003-005>007-009-011

Franklin - Orleans - Chittenden - Lamoille - Caledonia - Addison - Rutland

	27	0900EST 1600EST			0	1	220K		High Wind (G83)
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A storm system developed in the lower Mississippi Valley on Friday (1/26/96) and moved to the central Great Lakes region Saturday morning (1/27/96) and then into Canada. Snow spread into Vermont around 3 AM 1/27/96...but changed to rain around dawn most areas...except not until noon in Orleans, Caledonia and Essex counties where 1 to 3 inches of snow accumulated.

Winds became strong and gusty (30-50 mph with higher gusts) across the state between 5 AM and 5 PM 1/27/96. A few of the more significant reports of wind damage on 1/27/96 included: One injury in Franklin County when a portion of a building was blown over onto a person resulting in leg injuries, School roof damage in Cambridge (Lamoille County) with estimated winds of 83 knots, Newport (Orleans County) reported numerous trees blown down and objects blown about, roof damage in Jericho (Chittenden County).

Across the entire state there were numerous reports of many large trees blown down...extensive power outages...and minor field flooding along rivers.

VERMONT, South

VTZ013>014

Bennington - Windham

	02	2000EST			0	0			Heavy Snow
	03	2000EST							

A major winter storm developed over the Gulf coast states on January 2nd and tracked northeast along the eastern seaboard during January 3rd. Heavy snow fell across southern Vermont with the average snowfall ranging from 10 to 12 inches.

VTZ013>014

Bennington - Windham

	12	1200EST			0	0			Heavy Snow
	13	0300EST							

A winter storm formed off the coast of North Carolina on January 12th and moved northeast along the coast through January 13th. Heavy snow fell across southern Vermont with snowfall totals ranging from 6 to 10 inches with a few locations reporting up to one foot. Some specific snowfall totals included 7 inches in Pownal in Bennington County and 12 inches in West Wardsboro in Windham County.

VTZ013>014

Bennington - Windham

	19	0800EST 1900EST			0	0	20K		High Wind
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An intense area of low pressure located over the Mid-Atlantic Region on Friday morning January 19th produced damaging winds across southern Vermont. This storm was associated with a strong southerly flow which resulted in scattered reports of downed trees, limbs and power lines.

VTZ013

Bennington

	19	1200EST			0	0	300K		Flood
	20	0200EST							

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. This resulted in numerous road washouts and the flooding of several homes across the county.

VTZ014

Windham

	19	1800EST			0	0	200K		Flood
	20	0200EST							

An intense area of low pressure which was located over the Mid-Atlantic region on Friday morning January 19th produced

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
VERMONT, South									
									unseasonably warm temperatures, high dewpoints and strong winds. This resulted in rapid melting of one to three feet of snow. In addition to the rapid snowmelt one to three inches of rain fell as the system moved northeast along the coast. Many small streams across the county flooded, including Whetstone Brook, resulting in several road washouts.
VTZ013>014			Bennington - Windham						
	27	0700EST 2100EST			0	0	40K		High Wind
									A strong low pressure system developed over the Great Plains on Friday January 26th and tracked northeast to the upper Great Lakes by the 27th. This system produced damaging southerly winds across southern Vermont from Saturday morning through the evening hours. The winds downed many trees, limbs and power lines across Bennington and Windham Counties.
VTZ014			Windham						
	27	1745EST 2300EST			0	0	100K		Flood
									A low pressure system over the upper Great Lakes produced a general rainfall of one to two inches across southern Vermont. This amount of rainfall on already saturated soil brought many small streams out of their banks across Windham county. A few road washouts occurred in the county.
VIRGIN ISLANDS									
									NONE REPORTED.
VIRGINIA, East									
Williamsburg (C)									
Williamsburg	02	2305EST			0	0	20K		Lightning
									Lightning ignited a transformer which set an adjacent house ablaze. Fire burned the roof and portions of the attic.
VAZ048>049-061>062-068>069			Fluvanna - Louisa - Cumberland - Goochland - Amelia - Powhatan						
	06 08	1200EST 1100EST			0	0	100K	15K	Winter Storm
VAZ060-063-066>067-070>071-079>083-087>090-092			Prince Edward - Hanover - Lunenburg - Nottoway - Chesterfield - Henrico - Brunswick - Dinwiddie - Prince George - Charles City - New Kent - Greensville - Sussex - Surry - James City - Southampton						
	06 08	1200EST 1200EST			0	0	115K		Winter Storm
VAZ077>078-084>086-091-093>094-096			Northumberland - Lancaster - Gloucester - Middlesex - Mathews - York - Isle Of Wight - Newport News - Suffolk						
	06 08	1500EST 1200EST			0	0	50K		Winter Storm
VAZ095-097>098-100			Norfolk - Chesapeake - Virginia Beach - Northampton						
	06 08	1800EST 1200EST			0	0			Winter Storm
VAZ099			Accomack						
	06 08	2100EST 1200EST			0	0			Winter Storm
									A major winter storm (popularly known as the "Blizzard of '96) affected much of the mid-Atlantic region during the weekend of January 6-8, 1996. The storm dumped up to 2 feet of snow on portions of interior central Virginia and parts of th
VAZ048>049-060>064-067>068-070>076			Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Hanover - Caroline - Nottoway - Amelia - Chesterfield - Henrico - King William - King And Queen - Essex - Westmoreland - Richmond						
	11 12	2300EST 1200EST			0	0			Heavy Snow
									The second storm in less than a week dumped locally heavy snow again on portions of central and east central Virginia. Further south and southeast, the precipitation was somewhat lighter, and more in the form of sleet and freezing rain. T
Mecklenburg County									
Clarksville	19	0815EST			0	0			Thunderstorm Wind
									Tree downed by thunderstorm winds.
Prince Edward County									
Farmville	19	0825EST			0	0			Thunderstorm Wind (G48)
Cumberland County									
Countywide	19	0830EST			0	0			Thunderstorm Wind
									Trees and power lines down
Prince Edward County									
Farmville	19	0843EST			0	0			Thunderstorm Wind
									Trees and power lines down.
Fluvanna County									
Countywide	19	0845EST			0	0			Thunderstorm Wind
									Numerous trees and power lines down...some blocking roads.
Nottoway County									
Countywide	19	0850EST			0	0			Thunderstorm Wind
									Several trees down.
Louisa County									
Countywide	19	0900EST			0	0			Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm	
					Killed	Injured	Property	Crops		
VIRGINIA, East										
			Numerous trees and power lines down.							
Lunenburg County Victoria	19	0900EST			0	0	10K		Thunderstorm Wind	
			Radio tower built to withstand 75 mph winds blown down. Trees down in scattered areas of Lunenburg county.							
Mecklenburg County Countywide	19	0900EST 1400EST			0	0			Urban/Sml Stream Fld	
			Low lying portions of several secondary roads temporarily closed by flooding, as well as some city streets.							
Amelia County Amelia	19	0910EST			0	0			Thunderstorm Wind	
			Trees and power lines down at Amelia Courthouse.							
Powhatan County Powhatan	19	0915EST			0	0			Thunderstorm Wind	
			Trees and power lines down.							
Goochland County Countywide	19	0915EST			0	0			Thunderstorm Wind	
			Numerous trees and power lines down...most in eastern part of county.							
Chesterfield County Western Portion	19	0930EST			0	0			Thunderstorm Wind	
			Trees down near Powhatan/Chesterfield county line.							
Hanover County Beaver Dam	19	0950EST			0	0			Thunderstorm Wind	
			Large tree down near Beaver Dam.							
Chesterfield County Midlothian	19	0955EST 1100EST			0	0			Urban/Sml Stream Fld	
			Street flooding in Richmond/portions of Chesterfield county. Few roads closed temporarily.							
Powhatan County Countywide	19	1000EST			0	0			Thunderstorm Wind	
			Numerous trees down across county.							
Henrico County Countywide	19	1000EST			0	0			Thunderstorm Wind	
			Many trees down...some across roads.							
Hanover County Countywide	19	1000EST			0	0			Thunderstorm Wind	
			Numerous trees and power lines down.							
Caroline County Countywide	19	1000EST 1400EST			0	0			Urban/Sml Stream Fld	
			Low lying portions of several county roads temporarily flooded by heavy rain and snow melt. Clogged storm drains helped contribute to the problem.							
Dinwiddie County Mc Kenney	19	1001EST			0	0			Thunderstorm Wind	
			Several trees and power lines down.							
Prince George County Countywide	19	1015EST			0	0			Thunderstorm Wind	
			Trees down on several county roads.							
Petersburg (C) Petersburg	19	1015EST			0	0			Thunderstorm Wind	
			Couple trees down. Top of large cedar tree blown out.							
New Kent County Countywide	19	1020EST			0	0			Thunderstorm Wind	
			Trees and power lines down.							
King William County Manquin	19	1025EST			0	0			Thunderstorm Wind	
			Trees down across road.							
King William County Central Portion	19	1030EST			0	0			Thunderstorm Wind	
			House roof damaged.							
Essex County Millers Tavern	19	1050EST			0	0			Thunderstorm Wind	
			Trees down on Rte. 360. Trees down along Rtes. 627 and 628 in vicinity of Beasley and Rexburg.							
Southampton County 3 NW Franklin	19	1051EST 1110EST			0	0			Thunderstorm Wind	
			Trees down from Franklin to Sedley. Trees also down near Berlin. Also, numerous power lines down in Sedley, as well as a couple of trees down on homes.							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VIRGINIA, East									
Surry County Central Portion	19	1055EST			0	0			Thunderstorm Wind
			Numerous trees down along Rtes. 10 and 31.						
Sussex County Waverly	19	1100EST			0	0			Thunderstorm Wind
			Large shed picked and blown 100 feet. Large tree down across bridge.						
Lancaster County Kilmarnock	19	1100EST 1145EST			0	0			Urban/Sml Stream Fld
			Street flooding in Kilmarnock.						
Richmond County 2 NW Warsaw	19	1105EST			0	0			Thunderstorm Wind
			Tree down across Rte. 690.						
Lancaster County Lancaster	19	1105EST			0	0			Thunderstorm Wind
			Trees down on Rte. 3.						
Surry County Surry	19	1110EST 1120EST			0	0			Urban/Sml Stream Fld
			1 to 2 feet of water on Rte. 10 between Surry and Bacon Castle Rd.						
Westmoreland County Montross	19	1122EST			0	0			Thunderstorm Wind
			Trees and power lines down.						
Middlesex County Eastern Part	19	1130EST 1205EST			0	0			Urban/Sml Stream Fld
			Minor Flooding on Rte. 33.						
Isle Of Wight County Isle Of Wight Ch to Smithfield	19	1130EST			0	0			Thunderstorm Wind
			Trees down on Rte. 10. Trees down on power lines on Rte. 258.						
Richmond County Newland	19	1130EST 1135EST	0.3	50	0	0	15K		Tornado (F0)
			Small tornado downed several trees...destroyed at storage shed... overturned a tractor and semi-trailer...and severely damaged a brick wall. Path was only about 1/4 mile long and about 50 yards wide.						
Northumberland County Lottsburg	19	1130EST			0	0	15K		Thunderstorm Wind
			Downburst winds downed several trees/power lines...partially tore the roof off a building and damaged a porch.						
Williamsburg (C) Williamsburg	19	1140EST			0	0			Thunderstorm Wind
			Tree limbs/power lines down.						
King And Queen County Eastern Portion	19	1145EST			0	0			Thunderstorm Wind
			Power lines down.						
Chesapeake (C) City Wide	19	1155EST 1215EST			0	0			Thunderstorm Wind (G49)
			Several trees and large limbs down by high winds in scattered locations throughout the city.						
Hampton (C) Hampton	19	1205EST 1210EST			0	0			Thunderstorm Wind (G62)
			Large tree limbs/some trees down. 57 mph gust in Hampton. 71 mph gust at Langley AFB.						
Portsmouth (C) Portsmouth	19	1205EST			0	0			Thunderstorm Wind (G56)
Middlesex County Countywide	19	1205EST			0	0			Thunderstorm Wind
			Trees down on several roads.						
Norfolk (C) (Orf) Norfolk Arpt.	19	1208EST			0	0			Thunderstorm Wind (G54)
			62 mph wind gust.						
Gloucester County Countywide	19	1210EST			0	0			Thunderstorm Wind
			Large tree limbs/power lines down.						
York County Countywide	19	1230EST			0	0			Thunderstorm Wind
			Several trees down across county.						

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, East

Northampton County

Cape Charles to Eastville

19 1245EST
1255EST

0 0

Thunderstorm Wind

Several power lines down between Cape Charles and Eastville.

VAZ048-061>062-069>071

Fluvanna - Cumberland - Goochland - Powhatan - Chesterfield - Henrico

19 1800EST
23 1200EST

0 0

Flood

An unusually fast warm up, combined with heavy rain caused rapid snow melt and some river flooding across portions of central Virginia from Friday January 19th to Tuesday January 23rd.

The James River crested as much as 13 feet above flood

VIRGINIA, Extreme Southwest

VAZ001>002-005>006-008

Lee - Wise - Scott - Russell - Washington

06 2100EST
07 0900EST

0 0

Winter Storm

A strong low pressure system from the Gulf Coast region brought between one and three feet of snow to southwest Virginia. Numerous trees and powerlines fell. Many roads became impassable shutting down schools and businesses across the area. Numerous auto accidents occurred. there were also isolated incidents of collapsed rooves.

VAZ001>002-005>006-008

Lee - Wise - Scott - Russell - Washington

11 1900EST
12 1300EST

0 0

Winter Storm

Heavy snow accumulations of 4 to 8 inches caused numerous power outages and car accidents. Numerous trees fell as well. Schools and businesses were closed.

Wise County
Countywide

19 2000EST
20 0900EST

0 0

Flash Flood

Two to over three inches of rain Friday night into Saturday morning combined with melting snow resulted in flooded roads, homes and farmlands.

VIRGINIA, North

VAZ021-025>031-036>042-050>057

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

06 2300EST
08 1100EST

1 1 350K

Blizzard

An historic winter storm, known as the "Blizzard of '96", crippled all of northern Virginia during the first full weekend of January. In general, snow totals ranged from 20 inches on the coastal plain (VAZ052>53; 055>057) to over 3 feet at the higher elevations of the central and northern Shenandoah Valley. To complicate matters, winds gusting in excess of 35 mph produced drifts of 4 to 7 feet, except over 10 feet in the mountains. The storm produced the largest statewide storm totals since the "Megalopolitan Storm" of February 11th, 1983. Numerous 24-hour accumulation records were shattered at airports from southwest Virginia through New England; Washington/Dulles airport (IAD; VAZ042) accumulated 24.6 inches., 19.8 of which fell on the 8th. The 19.8 inches broke the all-time 24-hour accumulation record by 4.4 inches.

The storm was induced by a digging upper level trough over the eastern Great Plains. At the surface, an inverted trough extended from the Gulf of Mexico through the Deep South. Surface pressures began falling as the upper trough approached on the afternoon of the 7th. Meanwhile, confluent flow, behind an upper-level arctic vortex over the Canadian Maritimes, maintained strong (1034 mb) surface high pressure over northern New York state. As the upper-level trough approached the southeast U.S. on the 8th, a new surface low developed along the Georgia coast. The low deepened explosively while the arctic high remained in place. Copious Gulf of Mexico and Atlantic moisture was entrained into the system, producing heavy snow; the increasing gradient between the intensifying low and the arctic high caused winds to strengthen to 25 mph with gusts to 35 mph.

The system moved slowly from South Carolina to the mouth of the Chesapeake Bay overnight on the 7th. The slow movement prolonged near-blizzard conditions into the 8th. The storm finally moved towards New England later on the 8th, ending the snow but maintaining gusty north winds (and substantial blowing and drifting snow) until evening.

The storm effectively closed all major highways on the 7th, as snow removal equipment fought a losing battle with the considerable blowing and drifting snow. By the 8th, major interstate highways were open statewide; however, 75-100% of state and local highways remained impassible. Highway clean-up and repair costs were remarkable across northern Virginia. An estimated \$50 million was spent on snow removal alone. Repairs to pavement, guardrails, and side banks were estimated between \$5 and \$7 million.

Prior to the onset of precipitation, the governor declared a state of emergency for the entire Commonwealth. This allowed for quick deployment of Virginia National Guardsmen, primarily from the Piedmont through the western highlands. HMMWV's (Humvees) were dispatched to the region, and proved very effective in moving the medically impaired to area hospitals. Despite the Guard's help, important services were significantly reduced; food, fuel, and medical supplies began to dry up. All federal, state, and local governments, as well as all area school districts, were closed Monday (the 8th) and Tuesday (the 9th); most school districts remained closed for the entire week.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, North

One person perished from exposure (VAZ053) the day after the storm ended (January 9th); ten others perished as a result of heart failure while shoveling snow. Dozens of hikers and outdoorsmen were stranded in the Shenandoah Valley during the height of the blizzard. Virtually all made it to prefabricated shelters in the park, where food and blankets were airlifted for several days until nearby roads could be cleared. Statewide, 800 persons required shelter during the storm, the majority of whom were stranded travelers.

The combination of powdery snow and moderate winds did not allow significant accumulations on trees or power lines; thus outages were minimal. The only substantial damage was noted near Stanardsville (VAZ038), where 51 power poles were damaged or destroyed during the storm.

The weight of the snow on roofs, especially where drifts formed, caused scattered collapses across the area. Many of the reported collapses were to structures unable to support the snow pack. Such structures included greenhouses, poultry houses, porches and awnings, and a few mobile homes. A man was injured when a greenhouse collapsed on him in Stephens City (VAZ031). Most of the damage was reported in the Shenandoah Valley. Noteworthy damage was reported to a church gymnasium in West Springfield, causing thousands of dollars in damage. In Dale City (VAZ052), the Potomac Mills shopping mall remained closed for several days after the blizzard due to a large area of sagging roof which required extensive repair. In Clarke Co (VAZ031), one barn collapsed. In Burke (VAZ053), a fire began in a high school theater when a roof collapsed onto a natural gas line. The blaze caused \$8000 in damage.

M67OU

VAZ052-057

Prince William - King George

09	1500EST 1700EST	0	0						Heavy Snow
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Low and mid-level lift ahead of an "Alberta Clipper" added insult to injury only a day after the "Blizzard of '96", dumping 4 inches of snow in a 5 hour period near the tidal Potomac River. The additional snow slowed removal efforts in the wake of the previous storm, but was otherwise only a nuisance.

VAZ021-025>031-036>042-050>057

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

12	0700EST 1100EST	0	1	350K					Heavy Snow
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Less than one week after the crippling "Blizzard of '96", a new winter storm dumped substantial snow across northern and western Virginia. The snow changed to freezing rain and sleet along the tidal Potomac River shortly before tapering off. The changeover suppressed accumulations to 4 or 5 inches in this region. In other portions of northern Virginia, snowfall totals were as follows: In the Shenandoah Valley, 4 to 6 inches; in the piedmont, 5 to 7 inches; at higher elevations, 6 to 10 inches.

The storm developed as an area of low pressure in the midwest, which became an elongated trough extending from the Tennessee Valley through southeastern North Carolina. As the upper-level trough approached, the North Carolina low became dominant, intensifying slowly as it moved through the mouth of the Chesapeake Bay, then off the Delaware coast by late afternoon. Unlike the "Blizzard of '96", a lack of cold air behind the surface low, combined with the fact that the upper-level trough was significantly weaker and more progressive, kept the surface low from rapidly intensifying. Nonetheless, the northern Virginia region received some of the highest snow totals in the East.

Travel was hampered yet again, but by evening most main arteries were cleared. A DC-9 slid off the runway at IAD at 0915EST, causing inconvenience to the 30 passengers on board but no damage. Most local, state, and federal offices closed. Nearly all school districts in northern Virginia remained closed for a fifth day, providing school children an extra week of winter vacation. However, the week of storms and clean-up also wiped out their allotment of snow days.

The weight of the snow from all three events during the week of January 7th through 13th caused several related problems. The worst damage was reported in Montpelier (VAZ050) between the 13th and 14th, when a large horse stable sustained substantial roof damage. Damage was estimated at \$250,000. Damage was also reported at a Winchester (VAZ028) strip mall, where a sagging roof forced the evacuation of over a dozen children from a day care center on the 13th. In Sterling, a shopping center lost a 10x12 section of walkway covering.

In southern Stafford Co (VAZ055), a woman was injured when a carport collapsed. Luckily, she was protected from serious injury by the automobile, which had its windows shattered. Portions of the roof at Potomac Mills Mall in Woodbridge (VAZ052) continued on the verge of collapse, forcing the mall's closure on the 13th. A nearby grocery store was evacuated for similar reasons. Lastly, numerous homes had their gutters ripped off by "ice dams", which also caused interior leaks during the week following the event.

Rockingham County

All

19	0130EST 1200EST	0	0	7M					Flash Flood
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An unprecedented combination, in recent history, of unseasonably warm, humid air overriding a dense snowpack estimated between 6 and 15 inches (but up to 2 feet or more at higher elevations) caused nearly all of the pack to vanish in a 12-hour period. The unseasonably warm air was drawn northward around the circulation of a deepening storm west of the Appalachians late on the

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, North

18th and early on the 19th. The melting snow and additional rainfall produced widespread flooding and flash flooding on the 19th.

Strong low-level southeast flow developed by late afternoon on the 18th, and pockets of light to moderate rain occurred along the foothills. Initial flash flooding, in the form of creeks and streams out of their banks and low-lying areas covered in standing water, began around 0000EST on the 19th. More widespread flooding ensued between 0100 and 0200EST.

A pre-frontal line of heavy showers and embedded thunderstorms moved into the region shortly after dawn on the 19th, causing widespread acute flooding and flash flooding which lasted until around noon. The line of heavy precipitation moved slowly through the area between 0600 and 0900EST, prolonging the flooding. Some of the higher totals reported by automated rain gages (which contained some melted snow) were in excess of 5 inches. Montebello (Nelson Co) received 5.22 inches, Big Meadows (Page Co) had 5.12 inches, Long Run (Rockingham Co) reported 4.47 inches, and Sherando (Augusta Co) had 4.16 inches.

One death was reported by Albemarle Co authorities, as a motorist lost control of his vehicle in high water and struck a tree just south of Charlottesville. High water closed numerous local roads, and several major arteries as well, including federal highway 33 near Harrisonburg (Rockingham Co). Also in Rockingham Co, authorities evacuated the main street in Broadway when a 20 ton fuel oil tank and two 1000-lb propane tanks broke loose from their moorings and began floating down the street. In Page Co, 200 residents below the Skyline Lakes Dam were evacuated as the dam threatened to break. Hundreds of roads were closed statewide due to flooding; the Virginia Department of Transportation reported 23 primaries and 250 secondaries blocked off.

States of Emergency were either declared or extended for 12 counties and 2 independent cities.

Augusta County All	19	0130EST 1200EST			0	0	900K		Flash Flood
Nelson County All	19	0130EST 1200EST			0	0			Flash Flood
Albemarle County All	19	0130EST 1200EST			1	0			Flash Flood
Greene County All	19	0130EST 1200EST			0	0	1K		Flash Flood
Madison County All	19	0130EST 1200EST			0	0			Flash Flood
Page County All	19	0130EST 1200EST			0	0	700K		Flash Flood
Rappahannock County All	19	0130EST 1200EST			0	0			Flash Flood
VAZ025>027-029>031-038>042-050>051-053>056	19 22	0130EST 1630EST	Augusta - Rockingham - Shenandoah - Page - Warren - Clarke - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Fairfax - Arlington - Stafford - Spotsylvania		4	0	15M	81K	Flood
River Flooding									

High dewpoint temperatures melted most of the snow on the ground within 12 hours. The snow pack had a liquid equivalent between 2 to 3 inches. Snowmelt, combined with 1 to 3 inches of rain (some locations received nearly 5 inches), caused the worst regional flooding in over 10 years. River flooding began during the flood/flash flood event along the headwaters of all basins and continued downstream through the 22nd. Crests ranged from 3 to 21 feet above flood stage.

High water caused millions of dollars in damage, closed roads, destroyed homes and businesses, and forced the evacuation of several towns. Four people were rescued by the National Park Service and Fairfax County Fire Department at Great Falls (VAZ053) when they wandered onto the rocks to view the raging Potomac and became stranded. Several kayakers were also rescued while trying the sail the rough waters. Although low-water bridges remained closed, a vehicle carrying three teenagers and one adult dared the high waters of the Hazel River (VAZ051) -- and lost. All four perished as the automobile was swept downstream.

Flood waters covered Union Street and the lower part of King Street along the river in Old Town Alexandria (VAZ053), and affected Washington National Airport, but not the runways. The city of Waynesboro (VAZ025) estimated \$3 million in damage (\$1 million to residential areas; \$2 million to businesses). In Rockingham Co (VAZ025), \$2.2 million in damage was attributed to the loss of inventory at Hartz Corporation, an apparel manufacturer. High water also caused \$70 thousand in damage to Opequon Water Reclamation Facility in Frederick Co (VAZ028).

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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VIRGINIA, North

Refer to Flood/Flash Flood events in this report for a more detailed breakdown of damage estimates. M20VE, M16VE, F15VE, F14VE

Highland County All	19	0400EST 1200EST			0 0		Flash Flood
Shenandoah County All	19	0500EST 1300EST			0 0	27M	Flash Flood
Frederick County All	19	0500EST 1300EST			0 0	2M	Flash Flood
Warren County All	19	0600EST 1300EST			0 0	2M	Flash Flood
Clarke County All	19	0600EST 1300EST			0 0	600K	Flash Flood
Loudoun County All	19	0700EST 1300EST			0 0	1M	Flash Flood

An unprecedented combination, in recent history, of unseasonably warm, humid air overriding a dense snowpack estimated between 12 and 18 inches (but up to 2 feet or more at higher elevations) caused nearly the entire pack to vanish in a 12-hour period. The unseasonably warm air was drawn northward around the circulation of a deepening storm west of the Appalachians late on the 18th and early on the 19th. The melting snow and additional rainfall produced widespread flooding and flash flooding on the 19th.

Strong low-level southeast flow developed by late afternoon on the 18th. Initially, colder temperatures in sheltered valleys slowed the rate of snow melt while the warm moist air mass attacked the snow pack at higher elevations. By mid-evening, however, even the lower elevations were warming rapidly. Flash flooding began at around the same time as the onset of heavy pre-frontal rains. Heavier showers fell over the same areas between 0400 and 0800EST, causing acute and widespread flooding and flash flooding. Some areas received between 2 and 4 inches of rain during this period. Thunderstorms developed as the line moved into eastern Loudoun Co between 0900 and 0930EST. Some of the higher totals reported by automated rain gages (including some snow melt) were nearly 5 inches. Monterey (Highland Co) received 4.71 inches, Front Royal (Frederick Co) had 4.32 inches, Hogback Mountain (Warren Co) reported 3.76 inches, and Woodstock (Shenandoah Co) had 2.43 inches.

Some of the most pronounced damage occurred in Shenandoah Co near the town of Woodstock. One hundred acres of farmland were inundated, a reported 799 homes sustained damage from flood waters, as did a restaurant in Edinburg. There were numerous water rescues, but no fatalities were reported. Numerous local roads were closed, as were several state and federal highways, due to high standing water or creeks raging out of their banks.

Fauquier County All	19	0700EST 1300EST			0 0	200K	Flash Flood
Culpeper County All	19	0800EST 1300EST			0 0		Flash Flood
Orange County All	19	0800EST 1300EST			0 0		Flash Flood
Fairfax County All	19	0900EST 1300EST			0 0		Flash Flood
Prince William County All	19	0900EST 1300EST			0 0	10K	Flash Flood
Stafford County All	19	1000EST 1400EST			0 0	5K	Flash Flood
Spotsylvania County All	19	1000EST 1400EST			0 0	3K	Flash Flood
Arlington County All	19	1100EST 1400EST			0 0	3K	Flash Flood

An unusually intense squall line, feeding on an unseasonably warm moist tropical air mass, dumped an estimated 1.5 to 2.5 inches of rain in a two-hour period during the mid and late morning of the 19th, causing widespread flash flooding. The rain fell on oversaturated soil, a result of the previous night's rapid snow melt. During the overnight hours, the remaining water-logged snow pack of 3 to 8 inches was eaten away by strong southeasterly winds which carried low 60s temperatures and near 100 percent relative humidity into the region.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, North

Prior to the onset of heavy rain, numerous creeks and streams were near bank full due to the rapid snow melt. Minor flash flooding began at most locations in the piedmont prior to the squall line; the more serious flooding was associated with the line's passage from west to east, between 0900 and 1130EST.

In Orange Co, as in many other counties, schools were closed early due to the continued flood threat. One school reported damage from a leaking roof. In Stafford Co, four roads were closed early due to high water. In Fairfax Co, several automobiles were swept off area roadways inundated by raging creeks and streams. One of the more prone locations was along state route 7 near the Difficult Run (just south of Great Falls). Three persons were rescued from stranded vehicles between 1000 and 1200EST. Two others escaped. No injuries were reported, but all 5 persons were treated at the scene for hypothermia. The combination of flooding rains, gusty winds, and lightning knocked out power to around 8000 Virginia Power customers in the Washington, DC suburbs.

After the storm and associated cold front passed, gusty northwest winds 35 to 40 mph blew down a few trees rendered unstable by waterlogged soil. A 100-foot tree fell in Culpeper Co, near the Rappahannock Co line. Numerous creeks and streams remained out of their banks well into the evening, even as temperatures plummeted into the upper teens.

Augusta County Southern	27	0430EST 0630EST			0	0	10K		Flash Flood
Rappahannock County Western	27	0800EST 0900EST			0	0	2K		Flash Flood

Isolated flash flooding was reported in western Virginia early on the 27th. The most serious flooding occurred in southern Augusta Co, where high water was reported in low-lying areas, and 15 secondary roads were closed. In Rappahannock Co, the Thornton River was out of its banks and covered a low-water bridge, forcing one road closure.

VIRGINIA, Northwest

VAZ003>004	Dickenson - Buchanan								
	06	0400EST			0	0	100K		Heavy Snow
	08	0300EST							

The prolonged storm, initially dropped wet snow on the 6th, causing widespread power outages. At one point, around 10,000 customers were without electricity in the 2 counties. Roads became impassible from both fallen trees and the deep snow. At dawn on the 8th, snow depths of 14 to 18 inches were common in the valleys. For example, Hurley had 15 inches on the ground at storm's end. Clintwood snow depth was 16 inches and the Breaks Interstate Park had 27 inches. Total storm snowfall was 23 inches at Clintwood and 32 inches at Breaks Interstate Park.

VAZ003>004	Dickenson - Buchanan								
	11	2200EST			0	0			Heavy Snow
	12	0700EST							

Four to 5 inches of new snow fell, maintaining the snow depths at around a foot in the valleys.

VIRGINIA, Southwest

VAZ007-009-015	Tazewell - Smyth - Grayson								
	05	2300EST			0	0			Winter Storm
	06	1100EST							
VAZ010-012-016	Bland - Wythe - Carroll								
	05	2330EST			0	0			Winter Storm
	06	1130EST							
VAZ011-013>014-017	Giles - Pulaski - Montgomery - Floyd								
	06	0000EST 1230EST			0	0			Winter Storm
VAZ018-022	Craig - Roanoke								
	06	0030EST 1300EST			0	0			Winter Storm
VAZ019-023	Alleghany - Botetourt								
	06	0100EST 1330EST			0	0			Winter Storm
VAZ020-024	Bath - Rockbridge								
	06	0130EST 1400EST			0	0			Winter Storm
VAZ007-009-015	Tazewell - Smyth - Grayson								
	06	1100EST			0	0			Heavy Snow
	07	1300EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VIRGINIA, Southwest									
VAZ010-012-016	Bland - Wythe - Carroll								
	06	1130EST			1	0			Heavy Snow
	07	1330EST							
	M800U								
VAZ011-013>014-017	Giles - Pulaski - Montgomery - Floyd								
	06	1230EST			0	0	600K		Heavy Snow
	07	1430EST							
VAZ018-022	Craig - Roanoke								
	06	1300EST			0	0			Heavy Snow
	07	1500EST							
VAZ019-023	Alleghany - Botetourt								
	06	1330EST			0	0	2K		Heavy Snow
	07	1530EST							
VAZ020-024	Bath - Rockbridge								
	06	1400EST			0	0			Heavy Snow
	07	1600EST							
VAZ032>033	Patrick - Franklin (C)								
	06	1500EST			0	0			Heavy Snow
	07	1430EST							
VAZ034>035	Bedford - Amherst								
	06	1530EST			0	0	20K		Heavy Snow
	07	1630EST							
VAZ043>044	Henry - Pittsylvania								
	06	1700EST			0	0	2K		Heavy Snow
	07	1530EST							
VAZ045>047	Campbell - Appomattox - Buckingham								
	06	1730EST			0	0			Heavy Snow
	07	1700EST							
VAZ058>059	Halifax - Charlotte								
	06	1830EST			0	0	5K		Heavy Snow
	07	1530EST							

Record breaking snow across portions of southwest, west-central, and south-central Virginia on the 6th and 7th closed schools, businesses and many secondary roads for days, collapsed roofs, stranded motorists, halted mail deliveries, trash pickup, and church services, closed airports, resulted in one fatality, and indirectly resulted in two other fatalities.

Light snow develop across the mountains during the late evening hours on the 5th and early morning hours on the 6th. By the late morning hours, snowfall amounts generally ranged from 1 to 3 inches. The snow became heavy across southwest Virginia during the late morning hours on the 6th and spread north and east across the remainder of southwest, west-central and south-central Virginia. Sleet mixed with the snow at times across Charlotte, Halifax, and southern Pittsylvania Counties. Significant accumulations of snow continued in many areas until the afternoon hours on the 7th. Snowfall rates of 1 to 2 inches per hour were common, mainly along and west of the Blue Ridge. Snow depths by the evening hours on the 7th ranged from near 12 inches in Danville and South Boston in south-central Virginia and in Richlands in southwest Virginia to around 30 inches in northern portions of Rockbridge County. Average snow depths greater than 24 inches were recorded in Bath, Rockbridge, Alleghany, Botetourt, Amherst, Craig, Montgomery, and Giles Counties. A record 24 hour snowfall amount of 22.2 inches was established at the Roanoke Regional Airport. A record 24 hour snowfall amount of 20.0 inches was established at the Lynchburg Regional Airport. Total snowfall amounts included 36.5 inches in Burkes Garden, 35 inches at Homestead Resort in Hot Springs, and 34 inches in Blacksburg. The snow combined with winds of 15 to 30 mph with higher gusts on the 7th and 8th resulted in snow drifts up to 10 feet high. A state of emergency was declared for all of southwest, west-central and south-central Virginia.

In Carroll County, an 80 year old man from Woodlawn died from hypothermia after he fell into a snow drift. A traffic accident cost the life of a Rockbridge County man. Another accident in Montgomery County resulted in the death of a truck driver.

The weight of the snow collapsed the roof of a large building in Christiansburg and a green house in Amherst. Damage to the greenhouse and the plants inside was estimated at \$20,000. Damage to the building in Christiansburg was \$600,000. The weight of the snow collapsed a carport on top of a Corvette in Charlotte County. In addition, awnings collapsed in Henry and Alleghany Counties.

Many areas hired contract personnel to aid in plowing roads. In the mountains, many secondary county roads remained unplowed for several days. During and shortly after the storm, some snow plows assisted emergency vehicles in reaching their destinations. The National Guard used several humvees and a few armored personnel carriers to transport medical and emergency personnel to work or to those in need. The mail was not delivered for several days in many areas. Stranded motorists filled up many motels along interstates. In the mountains on the 7th, travel in anything other than a 4-wheel drive vehicle was nearly impossible. The snow was so deep in this area than even some 4-wheel drive vehicles got stuck. As a result of hazardous conditions from the late morning hours on the 6th to the late afternoon hours on the 11th, there were numerous traffic accidents and several injuries. Several snow plows slid off of roads and overturned. The cost of snow removal, including overtime, salt, sand, equipment repairs, and contract personnel generally ranged from \$100,000 to \$400,000 per county.

Numerous storm shelters were established across the area. Prior to the storm and after the storm, many grocery stores sold out of

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VIRGINIA, Southwest									
			perishable items like break, milk, and eggs. There were several heroic life saving efforts to get medical attention, medicine or food to those stranded. There were only a few minor power outages reported.						
VAZ007-009-012-015			Tazewell - Smyth - Wythe - Grayson						
		11 2230EST			0	0			Heavy Snow
		12 0500EST							
VAZ011-013>014-016>018-022			Giles - Pulaski - Montgomery - Carroll - Floyd - Craig - Roanoke						
		11 2330EST			0	0			Heavy Snow
		12 0600EST							
VAZ032>033-043			Patrick - Franklin (C) - Henry						
		12 0000EST			0	0			Heavy Snow
		12 0630EST							
VAZ044-058			Pittsylvania - Halifax						
		12 0010EST			0	0			Winter Storm
		12 0700EST							
VAZ019>020-023>024			Alleghany - Bath - Botetourt - Rockbridge						
		12 0030EST			0	0			Heavy Snow
		12 0700EST							
VAZ034>035			Bedford - Amherst						
		12 0100EST			0	0			Heavy Snow
		12 0730EST							
VAZ045>047-059			Campbell - Appomattox - Buckingham - Charlotte						
		12 0130EST			0	0			Winter Storm
		12 0800EST							
			Heavy snow developed in southwest Virginia before midnight on the 11th and spread northeast. Sleet and freezing rain mixed with the snow in Pittsylvania, Campbell, Appomattox, Buckingham, Halifax and Charlotte Counties. Snow fall amounts were mainly from 4 to 6 inches along and west of the Blue Ridge, around 4 inches in Patrick, Franklin, Henry, Bedford, and Amherst Counties, and from 2 to 4 inches in Pittsylvania, Campbell, Appomattox, Buckingham, Halifax, and Charlotte Counties. Hazardous road conditions resulted in numerous traffic accidents.						
Bath County									
Countywide		18 2325EST			0	0	6.5M		Flash Flood
		19 0930EST							
Rockbridge County									
Countywide		18 2355EST			0	0	1.6M		Flash Flood
		19 0950EST							
Alleghany County									
Countywide		19 0030EST			0	0	3.5M		Flash Flood
		19 0830EST							
VAZ016			Carroll						
		19 0040EST			0	0			High Wind
		19 0330EST							
VAZ017			Floyd						
		19 0100EST			0	0	10K		High Wind
		19 0340EST							
Botetourt County									
Countywide		19 0115EST			0	0	1.6M		Flash Flood
		19 0730EST							
Grayson County									
Countywide		19 0215EST			0	0	250K		Flash Flood
		19 0600EST							
Carroll County									
Galax		19 0245EST			0	0	10K		Flash Flood
		19 0530EST							
Craig County									
Countywide		19 0300EST			0	0	150K		Flash Flood
		19 0915EST							
Pulaski County									
Countywide		19 0315EST			0	0	50K		Flash Flood
		19 0600EST							
Roanoke County									
Countywide		19 0330EST			0	0	30K		Flash Flood
		19 0730EST							
Montgomery County									
Countywide		19 0330EST			0	0	30K		Flash Flood
		19 0800EST							
VAZ019			Alleghany						
		19 0340EST			0	0			High Wind
		19 0500EST							

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VIRGINIA, Southwest									
VAZ023	Botetourt								
	19	0345EST 0515EST			0	0			High Wind
Tazewell County Countywide	19	0350EST 0500EST			0	0	40K		Flash Flood
VAZ035	Amherst								
	19	0400EST 0520EST			0	0	100K		High Wind
Smyth County Countywide	19	0400EST 0800EST			0	0	250K		Flash Flood
VAZ024	Rockbridge								
	19	0400EST 0515EST			0	0	50K		High Wind
Giles County Countywide	19	0400EST 0530EST			0	0	350K		Flash Flood
VAZ043	Henry								
	19	0400EST 0540EST			0	0			High Wind
VAZ023>024-033>035- 045>047	Botetourt - Rockbridge - Franklin (C) - Bedford - Amherst - Campbell - Appomattox - Buckingham								
	19 21	0415EST 1600EST			0	0	800K		Flood
Wythe County Countywide	19	0430EST 0600EST			0	0	60K		Flash Flood
Franklin County Countywide	19	0445EST 0800EST			0	0			Urban/Sml Stream Fld
Amherst County Amherst	19	0540EST 0700EST			0	0	10K		Urban/Sml Stream Fld
Pittsylvania County Countywide	19	0545EST 0800EST			0	0	50K		Flash Flood
Henry County Collinsville	19	0600EST			0	0	10K		Thunderstorm Wind
VAZ022-033>034- 044>045-058>059	Roanoke - Franklin (C) - Bedford - Pittsylvania - Campbell - Halifax - Charlotte								
	19 23	0600EST 0700EST			0	0			Flood
Henry County Axton	19	0615EST			0	0			Thunderstorm Wind
Campbell County Lynchburg	19	0615EST 0830EST			0	0	10K		Flash Flood
Campbell County Altavista	19	0615EST 0830EST			0	0	60K		Flash Flood
Franklin County South Portion	19	0630EST			0	0			Thunderstorm Wind
Bedford County 8 NW Bedford	19	0635EST			0	0			Thunderstorm Wind
Bedford County Montvale	19	0640EST			0	0			Urban/Sml Stream Fld
Pittsylvania County Danville	19	0700EST			0	0	200K		Thunderstorm Wind
VAZ024	Rockbridge								
	19 20	0700EST 0100EST			0	0	100K		Flood
Halifax County South Portion	19	0720EST			0	0			Thunderstorm Wind
Appomattox County Countywide	19	0800EST 0830EST			0	0			Thunderstorm Wind
Charlotte County Keysville	19	0817EST			0	0			Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, Southwest

VAZ011>016

Giles - Wythe - Pulaski - Montgomery - Grayson - Carroll

19 1130EST
20 1000EST

0 0

Flood

VAZ044-058

Pittsylvania - Halifax

19 1400EST
22 1100EST

0 0

Flood

A strong storm system brought high winds, damaging thunderstorm winds, and heavy rainfall into southwest, west-central, and south-central Virginia from the late evening hours on the 18th to the morning hours on the 19th. Snow melt in combination with the heavy rain resulted in flash flooding, urban/small stream flooding, and river flooding on most rivers.

In Bath County, heavy rain and snow melt sent Cowpasture River and several creeks out of their banks which damaged or washed out numerous roads, resulted in evacuations, and damaged businesses. Water was 6 feet deep on main street in Hot Springs with vehicles completely submerged. Damage to the Homestead Resort was estimated at 2.5 million dollars. Total damage in Bath County was estimated at 6.5 million dollars.

Heavy rain and snow melt in Alleghany County flooded numerous creeks, resulted in a mud slid near Covington on route 220, washed out a portion of route 220 north of Covington, flooded several roads, resulted in the evacuation of 30 families in Covington, and severely damaged 12 homes. Damage was estimated around 3.5 million dollars in Alleghany County.

In Rockbridge County, heavy rainfall and snow melt sent many creeks out of their banks which flooded and damaged some roads, two bridge, mobile homes, and some businesses, and resulted in the evacuation of nearly 100 people in Goshen and Glasgow. Damage was estimated at 1.6 million dollars in Rockbridge County.

Flood waters in Botetourt County damaged some roads and flooded many others. Damage from flash flooding and river flooding in Botetourt County was estimated at 1.6 million dollars.

In Giles County, Little Stoney Creek flooded several homes with up to 4 feet of water and Wolf Creek flooded 5 trailers. A mud/rock slide disrupted traffic on route 460 between Narrows and Rich Creek. Flash flooding severely damaged the Cascade Falls Recreation Area near Pembroke.

In Pulaski County, heavy rain and snow melt flooded several creeks and resulted in evacuations.

Numerous flooded creeks damaged roads and some homes in Craig County. There were several evacuations in New Castle.

Heavy rainfall and snow melt flooded several roads, submerged three cars and damaged a few businesses in Altavista, flooded roads and some apartments in Lynchburg, flooded and damaged roads in Roanoke, Montgomery, and Smyth Counties, flooded 16 roads, washed out a road, and stranded a vehicle in Pittsylvania County, resulted in a mud slide that closed a road and flooded roads and a few homes in Wythe County, and flooded many roads, washed away some roads, and damaged a school in Grayson County. In Smyth County, flood waters damaged or destroyed several roads and bridges. Heavy rain and snow melt flooded roads and damaged the County Courthouse in Tazewell County, and flooded roads and resulted in a few mud slides in Galax.

Heavy rain and snow melt resulted in urban/small stream flooding on route 460 near Montvale in Bedford County, washed out a small wooden bridge and flooded a road in Amherst, and flooded roads and stranded motorists in Franklin County.

High winds not associated with a thunderstorm downed trees and power lines in portions of Alleghany County, downed trees and nine power poles in portions of Carroll County, downed trees, tore the roof off a home, and tore a section of a roof off another home in Floyd County, ripped a section of a roof off a business in Buena Vista, tore the roof off a business in Amherst, and downed trees in Henry and Botetourt Counties. A truck crashed into the downed power poles in Carroll County around 0300 EST. Wind speeds were estimated as high as 90 mph near Fancy Gap in Carroll County.

Thunderstorm winds downed trees and power lines in Axton, downed trees and knocked out power in portions of Appomattox County, downed trees in Danville, Keysville, 8 miles northwest of Bedford, and in southern portions of Franklin and Halifax Counties. Thunderstorm winds downed a gymnasium wall under construction in Danville and knocked a large tree on top of a mobile home in Collinsville.

Runoff from heavy rain and snow melt resulted in moderate to major flooding on the James River from Lick Run to 3 miles east-southeast of Bremono Bluff. The James River crested around 9 feet above flood stage at Lick Run at 1500 EST on the 19th, around 12 feet above flood stage at Buchanan at 0300 EST on the 20th, 9 feet above flood stage at Holcombs Rock at 0200 EST on the 20th, 6 feet above flood stage at Lynchburg at 0300 EST on the 20th, 6 feet above flood stage at Bent Creek at 1100 EST on the 20th, 6 feet above flood stage at Scottsville at 1930 EST on the 20th, and 14.5 feet above flood stage at Bremono Bluff at 2300 EST on the 20th. Flood waters severely damaged a car wash complex, damaged a Stop-In Food Store, several other business, and several homes, and trapped vehicles on flooded roads in Buchanan. Water was six feet deep in a sewing factory in Buchanan.

Runoff from heavy rain and snow melt resulted in moderate flooding on the Maury River from Goshen to 1 mile southeast of Glasgow. The Maury River crested 1 foot above flood stage at Goshen at 1630 EST on the 19th, just above 2.5 feet above flood stage at Rockbridge Baths at 1600 EST on the 19th, 1 foot above flood stage at Buena Vista at 1400 EST on the 19th, and 9 feet above flood stage at Glasgow at 1800 EST on the 19th.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

VIRGINIA, Southwest

Runoff from heavy rain and snow melt resulted in minor flooding on the Roanoke River from Roanoke to 10 miles east-southeast of Roanoke and moderate to major flooding from 6 miles west-southwest of Altavista to 6 miles south-southwest of Red Oak. The Roanoke River crested about 2 feet above flood stage at Roanoke at 1100 EST on the 19th, almost 2.5 feet above flood stage at Altavists at 1700 EST on the 19th, almost 5.5 feet above flood stage at Brookneal at 0100 EST on the 20th and about 7.5 feet above flood stage at Randolph at 2000 EST on the 20th.

Runoff from heavy rain and snow melt resulted in minor flooding on the Dan River. The Dan River crested over 2.5 feet above flood stage at Danville at 2100 EST on the 19th, over 2.5 feet above flood stage at Paces at 0200 EST on the 21st, and almost 6 feet above flood stage at South Boston at 1530 EST on the 21st.

Runoff from heavy rain and snow melt resulted in minor to moderate flooding on the New River from 7 miles southwest of Galax to 3 miles northwest of Rich Creek. The New River crested just above flood stage at Galax at 1430 EST on the 19th, nearly 6 feet above flood stage at Radford at 1900 EST on the 19th, and nearly 3 feet above flood stage at Glen Lynn at 0100 EST on the 20th.

Tazewell County Countywide	27	0115EST 0500EST			0	0	200K		Flash Flood
Bland County Countywide	27	0300EST 0600EST			0	0			Flash Flood
Pulaski County Countywide	27	0400EST 0540EST			0	0			Flash Flood
Rockbridge County Glasgow	27	0405EST 0600EST			0	0			Flash Flood
Giles County Maybrook	27	0500EST 0630EST			0	0			Flash Flood
Giles County 2 N Narrows	27	0500EST 0630EST			0	0			Flash Flood
VAZ058>059			Halifax - Charlotte						
	27	2000EST			0	0			Flood
	29	0500EST							
VAZ047			Buckingham						
	28	0900EST 2000EST			0	0			Flood
VAZ058			Halifax						
	28	1600EST			0	0			Flood
	29	2300EST							

Heavy rainfall during the morning hours on the 28th resulted in flash flooding and then flooding on some rivers.

Several small creeks and streams overflowed their banks in Bluefield and in most of Bland and Pulaski Counties which closed a few roads and flooded many others. Flood waters damaged the Town Hall and several businesses in Bluefield, resulted in the evacuations of several people in Tazewell County, flooded route 501 in Glasgow, closed route 608 over Sinking Creek near Maybrook in Giles County, and resulted in a mud/rock slide 2 miles north of Narrows in Giles County.

Runoff from heavy rain resulted in minor flooding on the lower end of the Roanoke River from late on the 27th to the early morning hours on the 29th. The Roanoke River crested almost 2 feet above flood stage at Randolph at 1200 EST on the 28th.

Runoff from heavy rain resulted in minor flooding on the lower end of the James River on the 28th. The James River crested almost 1.5 feet above flood stage at Brems Bluff at 1400 EST on the 28th.

Runoff from heavy rain resulted in minor flooding on the lower end of the Dan River on the 28th and 29th. The Dan River crested just over flood stage at Paces at 1030 EST on the 28th and almost 3 feet over flood stage at South Boston at 0700 EST on the 29th.

WASHINGTON, Northeast

NONE REPORTED.

WASHINGTON, Northwest

WAZ012			Cascade Mountains						
	06	1200PST 1700PST			0	0	16K		Ice Storm
									Freezing rain was blamed for 42 accidents during the day. No injuries were reported. It also prevented Snoqualmie Pass ski area from opening that day.
WAZ013			South Central Washington						
	18	1700PST 2100PST			0	0			Heavy Snow

Up to 3 inches of snow fell around the Tri Cities. There were dozens of accidents and I-82 was closed for 3 hours around 8 pm.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WASHINGTON, Northwest

WAZ001	Seattle-Tacoma And Vicinity				1	4			Heavy Snow
	18	2100PST							
	19	0100PST							
	Heavy snow fell in most of Puget Sound. Snowfall varied from 4 inches in Seattle to 9 in Port Orchard. There were several accidents, with two involving injuries or fatalities. About 20,000 people lost power. F49VE								
WAZ006	Northeast				0	1			Heavy Snow
	20	0800PST							
		1600PST							
	Heavy snow fell in northeast Washington. 3 to 5 inches fell around the Spokane area bringing the total on the ground to 6 to 11 inches. Over 100 accidents and 1000 power outages were reported.								
WAZ002	Northwest Interior				0	0			Heavy Snow
	23	2200PST							
	24	0500PST							
	At Birch Bay, in Whatcom County, local heavy snow fell. They recieved 14 inches overnight and had gotten 10 inches the day before.								
WAZ010	Southeast Washington				0	0			Blowing Snow
	24	1100PST							
		1700PST							
	At least 40 people were stranded on Highway 195. That highway, along with 3 others, were closed because of snowdrifts up to 5 feet deep. There were 133 snow related accidents. Sustained winds of 29 mph were reported in Pullman.								
WAZ001	Seattle-Tacoma And Vicinity				0	0			Heavy Snow
	28	0000PST							
		2300PST							
	On the 28th up to 3.5 inches of snow fell around Puget Sound. Temperatures were below normal with icy roads lasting for 2 or 3 days. Around Lummi island, sustained winds of 40 mph with gusts to 60 mph altered ferry routes and kept the wind chills below zero. High temperatures did not get above freezing and wind chills approached 30 degrees below zero for the two day period. A propane truck overturned on I-5 closing south bound lanes for several hours. Many side streets stayed treacherous for days, prompting schools and businesses to close.								
WAZ013	South Central Washington				1	0			Extreme Cold
	28	0800PST							
	In Pasco, a woman froze to death after her pickup truck ran off the road and down a ravine. F37OU								
WAZ006	Northeast				1	0			Extreme Cold
	30	0800PST							
	A spotter reported a temperature of 27 degrees below zero in the Okanogan. In northeast Washington 2 men died of hypothermia when their car ran off the road. The coldest February temperature ever was recorded in Spokane that morning with -24. Wine-grape growers feared damage due to the cold. M39OU								

WASHINGTON, Southeast

NONE REPORTED.

WASHINGTON, Southwest

WAZ023	West Columbia River Gorge				0	0			Ice Storm
	16	1200PST							
	17	1800PST							
	Freezing rain caused significant accumulations of ice in the Columbia Gorge. Scattered power outages and numerous minor traffic accidents were reported.								
WAZ039	Vancouver Area				0	0			Ice Storm
	27	1200PST							
		1500PST							

WEST VIRGINIA, East

WVZ048>055	Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy				0	0			Blizzard
	07	0100EST							
	08	1100EST							
	An historic winter storm, known as the "Blizzard of '96", crippled all of eastern West Virginia during the first full weekend of January. In general, snow totals ranged from 28 to 36 inches at most locations in the Potomac Highlands and the eastern Panhandle. Gusty winds produced drifts between 6 and 10 feet. The storm produced the largest storm totals since the "Superstorm of March 12-14, 1993", which dumped similar amounts of snow across the region.								

The storm was induced by a digging upper level trough over the eastern Great Plains. At the surface, an inverted trough extended from the Gulf of Mexico through the Deep South. Surface pressures began falling as the upper trough approached on the afternoon of the 7th. Meanwhile, confluent flow, behind an upper-level arctic vortex over the Canadian Maritimes, maintained strong (1034 mb) surface high pressure over northern New York state. As the upper-level trough approached the southeast U.S. on the 8th, a new surface low developed along the Georgia coast. The low deepened explosively while the arctic high remained in place. Copious Gulf of Mexico and Atlantic moisture was entrained into the system, producing heavy snow; the increasing gradient between the intensifying low and the arctic high caused winds to strengthen to 25 mph with gusts to 35 mph.

The system moved slowly from South Carolina to the mouth of the Chesapeake Bay overnight on the 7th. The slow movement prolonged near-blizzard conditions into the 8th. The storm finally moved towards New England later on the 8th, ending the snow but maintaining gusty north winds (and substantial blowing and drifting snow) until evening.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WEST VIRGINIA, East

All major highways were effectively closed through the 7th, as snow removal equipment fought a losing battle with the considerable blowing and drifting snow. All state and local governments, as well as all area school districts, were closed Monday (the 8th) and Tuesday (the 9th).

WVZ048>055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy

12	0700EST 1200EST	0	0		Heavy Snow
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Less than one week after the crippling "Blizzard of '96", a new winter storm dumped substantial snow across eastern West Virginia. Total snowfall ranged from 5 to 8 inches, with some spots in the eastern Panhandle reporting up to 10 inches. The storm replenished snow depths, which had compacted during the week, back up to 30 to 36 inches.

The storm developed as an area of low pressure in the midwest, which became an elongated trough extending from the Tennessee Valley through southeastern North Carolina. As the upper-level trough approached, the North Carolina low became dominant, intensifying slowly as it moved through the mouth of the Chesapeake Bay, then to off the Delaware coast by late afternoon. Unlike the "Blizzard of '96", a lack of cold air behind the surface low, combined with a significantly weaker and more progressive upper-level trough, kept the surface low from intensifying rapidly. Nonetheless, eastern West Virginia received some of the highest snow totals in the East.

Travel was slowed early in the day, but by evening main arteries were clear.

Mineral County

All	19	0300EST 1200EST		0	0	Flash Flood
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Grant County

All	19	0300EST 1200EST		0	0	Flash Flood
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Pendleton County

All	19	0400EST 1200EST		0	0	10M Flash Flood
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Hardy County

All	19	0400EST 1200EST		0	0	9.5M Flash Flood
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Hampshire County

All	19	0400EST 1200EST		0	0	Flash Flood
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Morgan County

All	19	0500EST 1200EST		1	0	500K Flash Flood
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F51VE

Berkeley County

All	19	0600EST 1200EST		0	0	Flash Flood
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Jefferson County

All	19	0600EST 1200EST		0	0	Flash Flood
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An unprecedented combination, in recent history, of unseasonably warm, humid air overriding a dense snow pack estimated between 12 and 18 inches (but up to 2 feet of more at higher elevations) caused nearly all of the pack to vanish in a 12-hour period. The unseasonably warm air was drawn northward around the circulation of a deepening storm west of the Appalachians late on the 18th and early on the 19th. The melting snow, combined with downpours, produced catastrophic flooding over portions of the Potomac Highlands on the 19th.

Strong low-level southeast flow developed by late afternoon on the 18th. Initially, colder temperatures in sheltered valleys slowed the rate of snow melt while the warm moist air mass attacked the snow pack at higher elevations. By mid-evening, however, even lower elevations were warming rapidly. Flash flooding began at around the same time as the onset of heavy pre-frontal rains. Heavier showers fell over the same areas between 0400 and 0800EST, causing acute and widespread flooding and flash flooding to occur. Some areas received between 3 and 5 inches of rain during this period.

The most serious flooding was reported in the Potomac Highlands, with Pendleton and Grant Cos receiving the worst of it. The towns of Franklin and Circleville (Pendleton Co), and Petersburg (Grant Co) were evacuated at around 0800EST. Damage was estimated to be around \$10 million in Pendleton Co alone. High water from an overflowing creek knocked homes off their foundations in Mathias (Hardy Co); major flooding was reported countywide, where the highest storm total rainfall was noted (5 inches). Flooding was also acute in Morgan Co, where Berkeley Springs was inundated by rising waters.

Across the entire region, numerous creeks and streams were out of their banks well into Friday morning, closing roads, damaging homes and businesses, and causing mud and debris slides. One death was reported by Morgan Co officials. A 51 year old woman drove through high water signs and her vehicle stalled. She inexplicably left her vehicle and tried to seek safety, but was swept to her death in the current.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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WEST VIRGINIA, East

WVZ048>055	Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy						
	19	0600EST			0	0	20M 150K Flood
	21	0600EST					
			*** River Flooding ***				

High dew point temperatures melted most of the snow on the ground within 12 hours early on the 19th. The pack had a liquid equivalent of 2 to 3 inches. The snow melt, combined with 1 to 3 inches of rainfall (some locations received 5 inches), produced the worst regional flooding since 1985. River flooding began during the flood/flash flood event along the headwaters of the basin and continued downstream through the 21st. Crests ranged from 3 to 21 feet above flood stage. A flood of record was noted on Opequon Creek near Martinsburg (WVZ052).

High water caused millions of dollars in damage, closed roads, destroyed homes and businesses, and caused several towns to be evacuated. The National Park Service at historic Harpers Ferry (WVZ053) estimated damage to the park (and new construction within) at \$3 million, comparable to the 1985 damage figures. There was peripheral damage to other park property and cultural resources in Lower Town and along both the Shenandoah and Potomac rivers - from the Guard Locks on the Potomac Canal, to the rivers' confluence point. Additional damage was noted at the remaining bridge piers; on Virginius Island and its ruins; along and in other canals; and into Shenandoah Street/Lower Town sections.

Refer to Flood/Flash Flood section of this report for a more detailed breakdown of damage estimates.

Pendleton County Sugar Grove	27	0700EST 0900EST			0	0	Flash Flood
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Isolated flash flooding was reported in the Potomac Highlands early on the 27th. In Pendleton Co, creeks flooded several low-water bridges near the town of Sugar Grove.

WEST VIRGINIA, North

WVZ001>004-012-021>023-041	Hancock - Brooke - Ohio - Marshall - Wetzel - Marion - Monongalia - Preston - Tucker						
	06	1600EST			0	0	Heavy Snow
	08	1200EST					

A major winter storm moved from eastern Tennessee to the mid-Atlantic coast. The storm dumped very heavy amounts of snow across northern West Virginia, bringing travel to a standstill. Some storm totals from counties affected include: Tucker and Preston 24-30 inches, Monongalia and Marion 16-24 inches, Marshal 12-18 inches, Wetzel and Ohio 12-16 inches, and Brooke and Hancock 10-14 inches.

WVZ023-041	Preston - Tucker						
	12	0100EST 1700EST			0	0	Heavy Snow

Heavy snow fell across the mountains of northern West Virginia. Five to six inches fell in Tucker County and 6 to 8 inches fell in Preston County. The higher amounts were confined to the higher elevations.

Preston County Rowlesburg	19	0500EST 1900EST			0	0	Flash Flood
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Moderate rains and a melting snow cover (15-25 inches in the mountains of West Virginia) on saturated soils, released an estimated amount of 3.50 to 4.50 inches of runoff between the afternoon of the 18th and the afternoon of the 19th into area streams. Numerous streams went out of their banks and roads were flooded, some homes and basements were also flooded. The flood waters entered the Cheat River, producing near-record flooding there. Nine residences sustained major damage, 24 minor damage and 90 minimally affected in Preston County (note: damages from small stream flooding and flooding along the Cheat River were not differentiated. Damages totaled \$0.71 Million for Preston County and \$1.7 Million for Tucker County).

Tucker County Parsons	19	0500EST 1900EST			0	0	Flash Flood
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Moderate rains and a melting snow cover released an estimated amount of runoff of 3.50 to 4.50 inches between the afternoon of the 18th and the afternoon of the 19th. This runoff pushed small streams across the county out of their banks and flooded many roads. The water then entered the Cheat River, where near record flooding occurred. In Tucker County, 8 residences were destroyed, 76 had major damage, 103 minor damage, and 51 were minimally affected. (Note: damages were not differentiated between small stream flooding and River flooding from the Cheat River) Damages totaled \$0.71 Million for Preston County and \$1.7 Million for Tucker County.

Monongalia County Morgantown	19	0600EST 1400EST			0	0	40K Flash Flood
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Numerous small streams went out of their banks and flooded nearby roads and homes throughout the counties.

Monongalia County Morgantown	19	0600EST 1400EST			0	0	Flash Flood
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Numerous streams went out of their banks and flooded nearby roads and homes throughout the county.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, North									
Hancock County									
Weirton	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams went out of their banks across the county. The majority of flood-related damages was confined along the Ohio River, where major flooding occurred.									
Marion County									
Fairmont	19	0600EST 1400EST			0	0	40K		Flash Flood
Numerous small streams went out of their banks and flooded nearby roads and homes throughout the county.									
Brooke County									
Weirton	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams went out of their banks and flooded roads. The majority of flood-related damages, though, were confined near the Ohio River, where major flooding occurred.									
Hancock County									
Weirton	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams went out of their banks across the county. The majority of flood-related damages was confined along the Ohio River, where major flooding occurred.									
Marshall County									
Fairview	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams went out of their banks and flooded several roads. The majority of flood-related damages was confined near the Ohio River, where major flooding occurred.									
Ohio County									
Wheeling	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams went out of their banks and flooded roads. The majority of flood-related damages was confined near the Ohio River, where major flooding occurred.									
Wetzel County									
New Martinsville	19	0600EST 1400EST			0	0			Flash Flood
Numerous small streams overflowed their banks and flooded several roads across the county. The majority of flood-related damages was confined near the Ohio River, where major flooding occurred.									
WVZ023-041	Preston - Tucker								
	19	0700EST			0	0	2.4M		Flood
	20	0500EST							
The Cheat River, in the northern mountains of West Virginia and one of the flashiest rivers in the country, was the first river to reach flood stage in this widespread flood event. The Cheat River began a rapid rise on the night of the 18th due to snow melt. Up to 25 inches of snow was in place before warm air moved in and melted the icy snowpack. Rain then fueled the rise, culminating in a river crest for Parsons, West Virginia of 19.8 feet at 1 pm on the 19th, 6.8 feet above flood stage. This was just four feet below the flood of record of 23.8 feet (November 1985). Near record flooding also occurred downstream at Rowlesburg. The river crested at 24.2 feet, 8.2 feet above its 16 foot flood stage, at 4 pm on the 19th. Many residences sustained damage to the house and contents.									
Other small streams and creeks in the counties flooded. All tolled, in Preston and Tucker Counties, 85 homes had major damage, 127 homes minor damage, and 141 homes minimally affected. Damage was also sustained to bridges and roads.									
An estimated 3.5 to 4.0 inches of runoff was released during the event.									
WVZ001>004-012	Hancock - Brooke - Ohio - Marshall - Wetzel								
	19	2300EST			0	0	7.5M		Flood
	22	1000EST							
Flooding from the Allegheny and Monongahela Rivers met nearly simultaneously at the Point in Pittsburgh. The flood waters then flowed down the Ohio River. Widespread one to two inch rains, plus runoff from snowmelt in the West Virginia and Maryland mountains, combined to create major flooding along the Ohio River.									
The Ohio River went above flood stage at East Liverpool, Ohio around 10 pm EST on the 19th. The river crested 10.8 feet above the 14 foot flood stage at East Liverpool. Subsequent rises downstream on the Ohio River were not as pronounced, (5.4 feet above flood stage at Hannibal, Ohio). Nonetheless, damages due to flooding to cities, industry, bridges, and communities, along the Ohio River, were enormous.									
In Brooke County, 1 home was destroyed, 35 major damage, 214 minor damage. In Hancock County, 54 homes were destroyed, 6 major damage. In Ohio County, 26 homes were destroyed, 1573 minor damage, 100 minimally affected. In Marshall County 116 homes major damage, 234 minor damage. In Wetzel County, 275 minor damage.									
In addition, hundreds of businesses, numerous schools, and a few businesses and water treatment plants were also damaged in the West Virginia Panhandle.									

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WEST VIRGINIA, North

In Ohio County, over \$100,000 in damages were sustained to a greyhound track and to recently renovated facilities on Wheeling Island. Nine-hundred greyhounds were evacuated from their kennels. Parts of the business were under 7 and one-half feet of water.

In Brooke County, the entire downtown business district in Wellsburg was flooded.

Monongalia County									
Morgantown	24	0830EST 0930EST			0	0			Flash Flood

Some small streams and roads were flooded across the county.

WEST VIRGINIA, Southeast

WVZ042	Mercer								
	05	2330EST			0	0			Winter Storm
	06	1200EST							
WVZ043>044	Summers - Monroe								
	06	0000EST 1300EST			0	0			Winter Storm
WVZ045	Greenbrier								
	06	0030EST 1330EST			0	0			Winter Storm
WVZ042	Mercer								
	06	1200EST			0	0			Heavy Snow
	07	1400EST							
WVZ043>044	Summers - Monroe								
	06	1300EST			0	0			Heavy Snow
	07	1430EST							
WVZ045	Greenbrier								
	06	1330EST			0	0			Heavy Snow
	07	1500EST							

Up to 30 inches of snow on the 6th and 7th in southeast West Virginia closed schools, businesses, airports, many secondary roads and some primary roads, collapsed roofs, stranded motorists, halted mail deliveries, trash pickup, and church services, and indirectly resulted in two fatalities.

Light snow developed across southeast West Virginia during the late evening hours on the 5th and continued until around 12 noon on the 6th. Snowfall amounts through 12 noon on the 6th were generally from 2 to 4 inches. The snow became heavy across the area around 12 noon on the 6th and continued into the afternoon hours on the 7th. Snow fell at the rate of 1 to 2 inches per hour in many areas during the storm. Snow depths by the evening hours on the 7th ranged from around 20 inches in southwestern Mercer County to over 30 inches in northern Greenbrier County. Average snow depths of greater than 24 inches were recorded in Monroe and Greenbrier Counties. On the 7th and the 8th, strong winds of 15 to 30 mph with higher gusts in the higher elevations resulted in snow drifts up to 10 feet high. A state of emergency was declared for southeast West Virginia.

There were several heroic life saving efforts to get medical attention, medicine, or food to those stranded at home. The National Guard used humvees and other special equipment to provide emergency medical assistance to those stranded. Private contractors were hired by state, county, and local road departments to help plow the roads. As a result of hazardous road conditions from the late morning hours on the 6th to the late afternoon hours on the 11th, there were numerous traffic accidents. On the 10th, separate accidents on ice covered roads indirectly resulted in the death of two woman and the injury of another woman and her two children. During the storm, the West Virginia Turnpike was closed for a time for all vehicles except those with chains or snow tires and interstate 64 in Greenbrier and Summers Counties was closed for a time for all traffic except for those with 4-wheel drive vehicles.

WVZ042>045	Mercer - Summers - Monroe - Greenbrier								
	11	2300EST			0	0	100K		Heavy Snow
	12	0630EST							

Heavy snow developed across southeast West Virginia during the evening hours on the 11th. Snowfall amounts were generally from 7 to 9 inches. The weight of the snow from this storm in combination with the weight of the snow from the previous storm collapsed the roof of a seven car garage in Hinton. Hazardous road conditions resulted in numerous traffic accidents.

WVZ044	Monroe								
	19	0005EST 0120EST			0	0			High Wind
WVZ042	Mercer								
	19	0100EST 0230EST			0	0	30K		High Wind
Greenbrier County	Countywide								
	19	0245EST 0700EST			0	0	400K		Flash Flood
Greenbrier County	Renick								
	19	0245EST			0	0	0		Thunderstorm Wind
Monroe County	Countywide								
	19	0300EST 0500EST			0	0	280K		Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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WEST VIRGINIA, Southeast

Greenbrier County									
Alderson	19	0300EST			0	0			Thunderstorm Wind
Monroe County									
Union	19	0310EST			0	0			Thunderstorm Wind
Mercer County									
Countywide	19	0430EST 0700EST			0	0	400K		Flash Flood
WVZ043>045 Summers - Monroe - Greenbrier									
	19	0900EST			0	0	4.1M		Flood
	20	1800EST							

A strong storm system on the 19th produced high winds, damaging thunderstorm winds and heavy rainfall. Snow melt in combination with the heavy rain resulted in flash flooding and then river flooding on most rivers. Record flooding occurred on portions of the Greenbrier River.

Heavy rainfall and significant snow melt resulted in flash flooding which heavily damaged the public facilities at the Blue Bend Recreation Area near White Sulphur Springs, damaged several mobile homes near Rupert, washed out route 92 in three locations in Greenbrier County and flooded and damaged roads and a few bridges in Mercer County. Damage was estimated at \$280,000 in Monroe County and \$400,000 in Mercer County.

Thunderstorm winds downed several trees in Renick, Alderson, and Union.

High winds not associated with a thunderstorm downed trees which knocked out the power in Ballard. High winds ripped the roof off a motel in Princeton damaging a nearby house and truck.

Heavy rain and snow melt resulted in major to record flooding on portions of the Greenbrier River. The Greenbrier River crested 6.5 feet above flood stage at Renick at 1800 EST on the 19th. The Greenbrier River at Alderson crested at a record 24.53 feet at 0500 EST on the 20th. This crest was 10.53 feet above flood stage and .58 feet above the previous record flood of 11/05/85. The City Hall at Ronceverte was flooded by nearly 7 feet of water from the Greenbrier River. The building sustained substantial damage. A temporary City Hall was established in the old junior high gymnasium building. Flash flooding and flooding damaged 40 businesses and 152 houses in Ronceverte, 30 businesses and 250 houses in Alderson, and 4 businesses, 65 houses and a church in Caldwell. Around 150 people were evacuated and sought shelter in Greenbrier County. In Greenbrier County, 832 structures, 1 school and 4 churches were damaged or destroyed in the flash flooding and flooding.

Mercer County									
Countywide	27	0045EST 0300EST			0	0	150K		Flash Flood
Monroe County									
4 W Greenville	27	0300EST 0430EST			0	0			Flash Flood

Heavy rainfall resulted in the flooding of several small streams across Mercer County. Flood waters closed several roads and damaged a school and several other buildings in Mercer County. The National Guard assisted in evacuating of people in Bluewell, Montcalm, Green Valley and Oakvale. Heavy rain resulted in the flooding of Indian Creek approximately 4 miles west of Greenville.

WEST VIRGINIA, West

WVZ015>016-024>028-033>040-046>047	Kanawha - Roane - Mingo - Logan - Boone - Clay - Braxton - Mcdowell - Wyoming - Raleigh - Fayette - Nicholas - Webster - Upshur - Barbour - Pocahontas - Randolph								
	01	0000EST			0	0			Monthly Snowfall
	31	2359EST							
<p>The month was the snowiest January on record at Beckley. At Charleston, the month was the second snowiest for any month on record. At Elkins, it was the third snowiest of any month. Total snowfall was 44.6 inches at Elkins, 37.3 inches at Beckley, and 35.1 inches at Charleston. The high elevations of Randolph, Webster, Nicholas, and Pocahontas Counties had over 55 inches of snow during the month.</p>									
WVZ005>011-013>020-024>040-046>047	Wayne - Cabell - Mason - Jackson - Wood - Pleasants - Tyler - Lincoln - Putnam - Kanawha - Roane - Wirt - Calhoun - Ritchie - Doddridge - Mingo - Logan - Boone - Clay - Braxton - Gilmer - Lewis - Harrison - Taylor - Mcdowell - Wyoming - Raleigh - Fayette - Nicholas - Webster - Upshur - Barbour - Pocahontas - Randolph								
	06	0400EST			0	0			Heavy Snow
	08	0700EST							

A prolong storm dumped from 1 foot of snow along the Ohio River counties to 3 feet of snow across the high mountains. The snow depths at Snowshoe of Pocahontas County went from 8 inches prior to the storm to 46 inches by dawn on the 8th. On Point Mountain near Waneta, the snow depth went from 3 inches to 46 inches. There was no snow on the ground prior to the storm across the lower terrain. Some representative snow depths at dawn on Monday the 8th, include 11 inches at Parkersburg, 13 inches at Huntington, 15 inches at Glenville, 16 inches at Clarksburg,

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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WEST VIRGINIA, West

17 inches at Weston, 19 inches at Elkins and Charleston, 20 inches at Beckley, 21 inches at Spencer, and 22 inches at Madison. The 2 day total snowfall of 23.3 inches at Charleston was the second greatest storm total snowfall this century for that city.

Since the snow fell on a weekend and hourly rates were not excessive, travel problems were minimized. However, by Monday the 8th, the 2 day total snow depth had stopped most vehicular travel. Many schools remained closed the entire week. On the 7th, the Amtrak Cardinal train with around 100 passengers enroute from Chicago to Washington stopped, not at a rail station, but behind a South Charleston motel. Passengers and crew stayed 2 days because of snow clogged and frozen track switches. Many towns used end loaders and dump trucks to haul snow piles from city streets and sidewalks. On the 7th, the governor declared a state of emergency, allowing National Guard troops to help remove snow and to assist snowbound residents. After the storm, President Clinton's disaster declaration, included West Virginia. Federal money was available to help reimburse state and local governments for emergency snow removal. The snow was dry, so unlike January 1994, very few power outages occurred.

The storm indirectly killed 4 men in Charleston. They died from heart attacks, that were brought on by shoveling.

The majority of the state press called the storm a blizzard due to the magnitude of snow. However, the storm was not a blizzard due to the light winds. Residents will long remember the Great Snowstorm of January, 1996. It was the fourth large snowstorm in less than 3 years to hit the Mountain State.

WVZ005>007-013>015-024>027-033>038-046>047 **Wayne - Cabell - Mason - Lincoln - Putnam - Kanawha - Mingo - Logan - Boone - Clay - Mcdowell - Wyoming - Raleigh - Fayette - Nicholas - Webster - Pocahontas - Randolph**

11	2200EST	0	0	Heavy Snow
12	1000EST			

Four to 8 inches of new snow fell, except 8 to 12 inches across Pocahontas County. Total snow depths reached over 2 feet in the central mountains. The snow depth reached 4 feet around Kumbrabow State Forest, Cheat Bridge, and Snowshoe.

Braxton County Countywide	19	0400EST 0900EST	0	0	Flash Flood
Kanawha County Countywide	19	0400EST 0900EST	0	0	20K Flash Flood
Lincoln County Countywide	19	0400EST 0900EST	0	0	5K Flash Flood
Harrison County Countywide	19	0400EST 0900EST	0	0	5K Flash Flood
Pocahontas County Countywide	19	0430EST 1300EST	0	0	250K Flash Flood
Webster County Countywide	19	0430EST 1300EST	0	0	200K Flash Flood
Randolph County Countywide	19	0430EST 1300EST	0	0	150K Flash Flood
Nicholas County Countywide	19	0430EST 1300EST	0	0	150K Flash Flood
Barbour County Countywide	19	0500EST 1100EST	0	0	5K Flash Flood

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, West									
Taylor County Countywide	19	0500EST 1100EST			0	0	5K		Flash Flood
Upshur County Countywide	19	0500EST 1100EST			0	0	10K		Flash Flood
Lewis County Countywide	19	0500EST 1100EST			0	0	5K		Flash Flood
Doddridge County Countywide	19	0500EST 1100EST			0	0	5K		Flash Flood
Tyler County Countywide	19	0500EST 1100EST			0	0	5K		Flash Flood
WVZ028>032-037>039- 046>047	Braxton - Gilmer - Lewis - Harrison - Taylor - Nicholas - Webster - Upshur - Pocahontas - Randolph								
	19	0530EST			0	0	4.5M		Flood
	20	0100EST							
Fayette County Countywide	19	0700EST 1200EST			0	0	5K		Flash Flood
Raleigh County Countywide	19	0700EST 1200EST			0	0	5K		Flash Flood
WVZ005>011	Wayne - Cabell - Mason - Jackson - Wood - Pleasants - Tyler								
	20	1200EST			0	0	1M		Flood
	22	0700EST							

Prior to a rain, the extensive snow cover in the western lowlands had melted during the prior 5 days. Only patches of snow remained in the wooded areas. Yet, 10 to 20 inches of snow remained over the mountainous counties. The water content of that remaining snow was 2 to 3 inches. On Thursday the 18th, temperatures ahead of a cold front rose into the 50s and 60s. Dew points climbed into the 50s. Meanwhile, the winds increased. Thus, the remaining mountain snow was melting rapidly as rain approached. Six hour rainfall of 1.25 to 1.75 inches was common late Thursday night, the 18th, into the predawn hours of Friday, the 19th. Heavier rain fell in northern Pocahontas County and the highlands of Randolph County. Rain amounts of 2 to 2.8 inches were measured around Snowshoe, Glady, Seneca State Forest, and Bartow. A spotter at Minnehaha Springs measured 2.8 inches of rain. Maximum estimated runoff of 4 to 6 inches occurred over the upper reaches of the Greenbrier River and the headwaters of the Shavers Fork.

Minor small stream flooding was common across Lincoln, Kanawha, Harrison, Lewis, Doddridge, Taylor, Braxton, Fayette, Raleigh, and Tyler Counties. Moderate to major small stream flooding occurred across Pocahontas, Randolph, Webster, Nicholas, Barbour, and Upshur counties. Leatherbark Creek and its small feeder runs did extensive erosion damage to the track bed of the Cass Railroad. Damage along Knapps Creek in eastern Marlinton was more severe than during the flood of November, 1985.

Headwater rivers rose quickly. The worst damage was along the Greenbrier River. The forecast point at Buckeye crested at 21 feet around 1400 EST on the 19th. This was around 2 feet lower than during the November 1985 flood. Many elderly people were trapped on their second floor in Marlinton. Water was 4 to 7 feet deep in the downtown business area of Marlinton. The local grocery store had \$60,000 of inventory destroyed. East Cass had 2 to 3 feet of water, damaging 15 homes. Over 300 individuals applied for federal assistance in Pocahontas County alone.

Other headwater rivers to reach flood stage include the Tygart Valley at both Belington and Philippi, the Little Kanawha at Glenville, the Gauley at Camden, and the Elk at Queens Shoals. Yet, damage was less severe.

On the headwaters of the Elk River, small communities such as Bergoo, Curtin, and Cherry Falls were flooded, along with the town of Webster Springs. In the Richwood vicinity of

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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WEST VIRGINIA, West

Nicholas County, the Cherry River flooded homes in the Johnstown and Riverside Addition. A 69 year old Richwood man, with previous heart problems, died while working on a sump dump. Along the Shavers Fork of the Cheat River, flood water damaged mobile homes and campers, especially at Bowden of Randolph County.

Later, the Ohio River crested above flood stage at most points between Willow Island and Huntington. The crest was 4 to 5 feet above flood stage around Parkersburg, but dampened to 1 or 2 feet above flood stage near Huntington. The smaller towns such as Friendly, Sistersville, and St Marys sustained more flooding compared to down river at Huntington. The Corps of Engineers flood control projects held water back from the mainstem Ohio River, causing this reduction down river. The crest at Parkersburg was 40.7 feet, at Point Pleasant 47.6 feet, and 51.9 feet at Huntington. All three cities installed some of their flood gates along the floodwall. The last time the Ohio River was higher along the Point Pleasant to Huntington reach was in February, 1979 when the crest was 1 to 2 higher. In Parkersburg, the 1979 flood was of about the same magnitude as the current crest.

The counties of Mason, Nicholas, Pleasants, Pocahontas, Randolph, Tyler, Webster, and Wood were declared disaster areas by President Clinton. Around 300 homes had major damage, the most being in Pocahontas County.

Harrison County Countywide

	24	0530EST 0830EST			0 0	5K	Flash Flood
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Wirt County Countywide

	24	0530EST 0830EST			0 0	5K	Flash Flood
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Wood County Countywide

	24	0530EST 0830EST			0 0	5K	Flash Flood
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Rains of 0.75 to 1.25 inches in 6 hours caused small streams to flood secondary roads. Some of the flooded streams included Simpson Creek in Harrison County, plus Tygart Creek and Pond Creek in Wood County. No evacuations were reported. Damage was to roads and culverts.

Ritchie County Countywide

	24	0530EST 0830EST			0 0		Flash Flood
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Pocahontas County Countywide

	27	0230EST 0530EST			0 0	5K	Flash Flood
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The Slaty Fork, Big Spring Fork, and Old Field Creek around the community of Slatyfork flooded, closing Route 219. Knapps Creek also overflowed, but did not damage any homes.

WISCONSIN, Extreme Southwest

NONE REPORTED.

WISCONSIN, Northeast

WIZ022-040

Door - Kewaunee

	03 04	1800CST 0400CST			0 0		Heavy Snow
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Heavy lake-effect snow, enhanced by a small scale circulation over central Lake Michigan, fell across parts of Door and Kewaunee counties. Snowfall amounts included 6 inches along the eastern edge of Door county, 9 inches in the city of Kewaunee and 11 inches in Algoma (Kewaunee county).

WIZ005

Vilas

	08 09	1000CST 1000CST			0 0		Heavy Snow
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An Alberta Clipper brought heavy snow to Vilas county. Six inch amounts fell across the west and north parts of the county.

WIZ005-010>013- 018>022-030>031- 035>040-045-048>050

Vilas - Oneida - Forest - Florence - Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc

	16	0900CST 2200CST			0 0		Freezing Drizzle
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Freezing drizzle fell across most of central and northeast Wisconsin, resulting in ice-covered roads. Numerous accidents were

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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WISCONSIN, Northeast

reported, including one with a fatality on State Highway 96 in Outagamie county. The slick roads also led to early school closings and event cancellations.

WIZ045-048>050

Waushara - Winnebago - Calumet - Manitowoc

17	0600CST	0	0	Fog
	1000CST			

Dense fog developed across parts of central and east central Wisconsin. Visibilities were reduced to near zero in the Oshkosh (Winnebago county) area for a brief period.

WIZ005-010

Vilas - Oneida

18	0700CST	0	0	Winter Storm
19	0100CST			

An intense low pressure system brought a heavy mixture of precipitation to north central Wisconsin. One to two inches of sleet fell during the early stages of the storm, followed by around six inches of snow. Total accumulations of around 8 inches were reported at Lac du Flambeau (Vilas county) and Midget Lake (Oneida county). Winds gusting to 30 to 40 mph produced blizzard conditions, with visibilities reduced to around 100 feet at times.

WIZ011>013-018>019-030-035>036

Forest - Florence - Marinette - Lincoln - Langlade - Marathon - Wood - Portage

18	0800CST	0	0	Freezing Rain
19	0200CST			

A mixture of freezing rain, sleet and snow fell across parts of central and northeast Wisconsin, with total accumulations of 2 to 4 inches reported. Ice-covered roads and winds gusting to 30 to 40 mph made travel hazardous.

WIZ040-048>050

Kewaunee - Winnebago - Calumet - Manitowoc

23	1300CST	0	0	Heavy Snow
24	0100CST			

Low pressure tracking across southern Lake Michigan brought heavy snow to east central Wisconsin. Manitowoc (Manitowoc county) reported 8 inches of snow, while around 6 inches fell in Winnebago, Calumet and Kewaunee counties.

WIZ038-040-045-048>050

Outagamie - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc

25	1100CST	0	0	Heavy Snow
	2300CST			

An upper level disturbance brought another round of heavy snow to parts of central and east central Wisconsin. Six inch accumulations were reported at Hortonville (Outagamie county), Kewaunee (Kewaunee county), Menasha (Winnebago county), New Holstein (Calumet county) and Manitowoc (Manitowoc county). Wautoma (Waushara county) reported 7 inches and Oshkosh (Winnebago county) measured 8 inches.

WIZ005-010>013-018>022-030>031-035>040-045-048>050

Vilas - Oneida - Forest - Florence - Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc

26	1000CST	0	0	Winter Storm
27	0600CST			

A tremendous winter storm brought heavy snow to most of central and northeast Wisconsin. Accumulations of a foot or more fell in a 100 mile wide swath centered along a line from Wautoma to Marinette, with 6 to 12 inch amounts reported in north central Wisconsin and along the Lake Michigan shoreline. The heaviest amounts fell in parts of central Wisconsin and the Fox Valley, with 14 inches measured at Oshkosh (Winnebago county), 15 inches at Wisconsin Rapids (Wood county) and Wautoma (Waushara county), 15.4 inches in Green Bay (Brown county) and 16 inches at Menasha (Winnebago county). The 15.4 inch amount in Green Bay was the second highest 24-hour snowfall total for the city. The snow became convective in nature at times, with thunder reported at Pelican Lake (Oneida county) and Denmark (Brown county). Strong north to northeast winds gusting to 30 to 40 mph blew the snow around, resulting in whiteout conditions and drifts as high as 4 to 8 feet. Hundreds of vehicles were stalled or stranded, schools and businesses closed and numerous public events cancelled.

WIZ005-010>011-013-030-036

Vilas - Oneida - Forest - Marinette - Marathon - Portage

28	2100CST	0	0	Heavy Snow
29	1100CST			

An arctic cold front brought scattered areas of heavy snow to parts of north central, northeast and central Wisconsin. Amounts included 6 inches at Rhinelander (Oneida county) and Presque Isle (Vilas county), 6.4 inches at Wausau (Marathon county), 7.5 inches in Stevens Point (Portage county) and Amberg (Marinette county), and 8 inches at Argonne (Forest county).

WIZ005-010>013-018>022-030>031-035>040-045-048>050

Vilas - Oneida - Forest - Florence - Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc

29	0400CST	0	0	Blizzard
	2000CST			

A powerful arctic cold front roared across central and northeast Wisconsin, creating ground blizzard conditions. Strong west winds gusting as high as 35 to 45 mph whipped a fresh, powdery snowfall into a fury, resulting in zero visibilities and icy roads. The blizzard conditions developed across the Fox Valley during the morning rush hour, leading to numerous accidents. In Winnebago county alone, 80 accidents were reported, including 2 separate pileups involving 20 or more vehicles. Conditions were so severe in Winnebago county that the emergency broadcast system was activated. Interstate Highway 43 from the northern Brown county line to the southern Sheboygan county line was closed between 11 am and 4 pm. Highway 42 in Kewaunee county was also closed

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Property	Crops	Character of Storm
					Killed	Injured			
WISCONSIN, Northeast									
			due to severe drifting and poor visibility. School was cancelled or let out early in many districts, but not all of the students were able to make the trek back home. A group of 150 Kewaunee High School students were stranded at their school overnight when local road crews were unable to keep the roads from drifting shut. The combination of cold temperatures and wind created wind chill readings in the 30 below to 50 below zero range.						
WIZ005-010>013-018>022-030>031-035>040-045-048>050		30 31	0000CST 2359CST		0	0			Extreme Cold
			Vilas - Oneida - Forest - Florence - Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc						
			Bitter cold arctic air settled in across central and northeast Wisconsin as January came to a close. Record low temperatures were set in a few locations. On January 30th, Marshfield (Wood county) reported a record low of 30 below. On the last day of the month, Wisconsin Rapids (Wood county) set a new record low with a temperature of 25 below. The coldest readings occurred in north central Wisconsin on the 31st, with readings of 39 below at Arbor Vitae (Vilas county), 40 below at Harrison (Lincoln county) and 41 below zero at Lake Thompson (Oneida county).						
WISCONSIN, Northwest									
WIZ001	Douglas	04	0715CST 1545CST		0	0	0	0	Heavy Snow
			A very localized line of lake effect snow dumped up to 13 inches on northeast Douglas County. The main area affected was north of U.S. Highway 2 between Amnicon Falls State Park and Maple.						
WIZ001>004-006>008	Douglas - Bayfield - Ashland - Iron - Burnett - Washburn - Sawyer	17 19	1800CST 0500CST		0	0			Heavy Snow
			An intense winter storm moved across the central plains, toward the Great Lakes, producing a variety of severe winter weather over Northwest Wisconsin. Warm air moved into the region ahead of the storm, causing precipitation initially in the form of freezing rain. Ice accumulations of 4 to 5 inches were reported in Burnett, Washburn, and Ashland Counties. The freezing rain then changed over to snow, eventually producing from 5 to 18 inches, with the heavier amounts close to Lake Superior. The weight of the ice and snow caused trees, power lines, and roofs to collapse. As the storm moved away from the region, northwest winds increased, gusting to over 40 mph, causing near blizzard conditions, and wind chills as low as 70 below zero.						
WIZ002>004-008>009	Bayfield - Ashland - Iron - Sawyer - Price	26 27	0430CST 1345CST		0	0			Heavy Snow
			As a major winter storm moved through the Midwest, much of northwest Wisconsin received 6 to 9 inches of snow. The exception was northern Iron County where northerly winds produced an enhanced lake effect snowfall of 15.5 inches.						
WIZ001>004-006>009	Douglas - Bayfield - Ashland - Iron - Burnett - Washburn - Sawyer - Price	28 30	0415CST 0430CST		0	0			Heavy Snow
			A strong winter storm moving through the upper Midwest dropped 4-8 inches of snow on parts of northwest Wisconsin. The heavier amounts fell near Lake Superior where Cornucopia received 8 inches. Six inches was reported at both Bayfield and Brule. After the storm passed to the east, strong northwest winds produced near blizzard conditions and wind chills down to 70 below zero.						
WISCONSIN, Southeast									
WIZ060-066-071	Ozaukee - Milwaukee - Racine	05 06	1100CST 1900CST		0	0	0		Heavy Snow
			Fluffy lake-effect snow accumulated up to 7.5 inches over Southeast Wisconsin. The Milwaukee Airport picked up 7.5 inches followed by 6.3 in the city of Racine and 6.0 at Cedar Grove (Ozaukee county). The snow shower intensity forced a temporary closure of one main runway at Milwaukee. About 100 vehicle accidents were reported due to slippery roads.						
WIZ070	Walworth	09	0500CST 0900CST		1	0	0	0	Cold Temperature
			Cold temperatures around the freezing mark resulted in a hypothermia death of an elderly man in Elkhorn. He apparently fell out of his wheelchair and could not get back into it. M89OU						
WIZ059>060-064>066-069>072	Washington - Ozaukee - Jefferson - Waukesha - Milwaukee - Rock - Walworth - Racine - Kenosha	16	0800CST 1130CST		0	0	0		Freezing Rain
			Freezing rain quickly coated roads, bridges, overpasses, and sidewalks over parts of Southeast and Southcentral Wisconsin. Ice accumulations were about 1/8 inch, however, the glazing resulted in about 300 vehicle accidents. Area hospitals were deluged with indirectly related vehicle or personal injuries. Some ambulance services briefly ran out of ambulances. At least 242 people were hospitalized (indirectly related to glazing).						
Waukesha County Merton		17	0440CST		0	0	15K		Lightning
			Lightning struck a home, starting a roof fire. Curtains in the home caught on fire, and several electrical outlets were blown out of the walls.						
WIZ070	Walworth	18	0500CST 0900CST		1	0	0	0	Cold Temperature

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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WISCONSIN, Southeast

Cold temperatures in the single digits resulted in a hypothermia death of an elderly Elkhorn man. M88OU

WIZ071

Racine

18 1230CST
19 0400CST

0 0

Flood

A rapid warm-up along with light to moderate rain brought some rapid rises and minor low-land flooding to Southeast Wisconsin. Temperatures in the 50s melted almost all of the existing snowcover. The Root River at Raymond (Racine county) crested at 8.42 feet at 1805CST on the 18th, or .42 feet above flood stage.

WIZ072

Kenosha

19 1445CST
2345CST

0 0

Flood

A rapid warm-up along with light to moderate rain brought some rapid rises and minor low-land flooding to some rivers in Southeast Wisconsin. Temperatures jumped into the 50s, resulting in rapid melting of almost all of the existing snowcover. At New Munster on the Fox River in Kenosha county, there was a crest of 10.07 feet at 1900CST on the 19th, or .07 feet over flood stage.

WIZ056>058-063>066-069>072

Sauk - Columbia - Dodge - Dane - Jefferson - Waukesha - Milwaukee - Rock - Walworth - Racine - Kenosha

23 0400CST
1300CST

0 0

0

Freezing Rain

Over Southcentral and Southeast Wisconsin a mixture of freezing rain and a snow accumulation of 1 to 4 inches made road surfaces extremely slippery. At least 100 vehicle accidents were reported. In Kenosha county 12 people were briefly hospitalized (indirectly related glazing). Many schools delayed the start classes by a couple hours.

WIZ051>052-059>060

Fond Du Lac - Sheboygan - Washington - Ozaukee

23 0900CST
1500CST

0 0

0

Heavy Snow

A convective-like heavy snow affected a small part of Eastcentral Wisconsin and left accumulations of 6 inches or more. Sheboygan and Random Lake, both in Sheboygan county, gathered 6.5 inches. Six inches fell at Dundee (Fond du Lac county), in West Bend (Washington county), and over the far northwest corner of Ozaukee county. About 50 vehicle accidents were reported. Two people in Fond du Lac county were briefly hospitalized (indirectly related to heavy snow) due to a vehicle accident.

WIZ046>047-051>052

Marquette - Green Lake - Fond Du Lac - Sheboygan

25 1200CST
2000CST

0 0

Heavy Snow

A fast-moving low pressure system dumped heavy snow in a swath across Central and Eastcentral Wisconsin. Eight inches of snow accumulated at Fond du Lac (Fond du Lac county), and near Greenbush (Sheboygan county). Further west, up to 6 to 7 inches were reported at Berlin (Green Lake county) and Neshkoro (Marquette county). At least 80 vehicle accidents resulted from the slippery roads and 6 people were briefly hospitalized due to associated injuries (indirectly related to glazing event).

WIZ046>047-051>052-056>060-062>065-067>069

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Lafayette - Green - Rock

26 0000CST
27 0400CST

0 0

0

Heavy Snow

A major winter storm deposited heavy snow over Southcentral and parts of Southeast Wisconsin. For some counties it was the worst storm in many years. Snowfalls reported include 15 inches at Berlin and Markesan (Green Lake county); 14 inches at Marshall (Dane county); 13.4 inches in Madison (Dane county); 12 inches in Dodgeville (Iowa county), Wisconsin Dells (Columbia county), Montello (Marquette county), and Plymouth (Sheboygan county); 10 inches at Baraboo (Sauk county), Belmont (Lafayette county), and Fond du Lac (Fond du Lac county); 8.1 inches in Sullivan (Jefferson county) and Sheboygan (Sheboygan county); and 6 inches in Oconomowoc (Waukesha county) and Janesville (Rock county).

The snow became convective as lightning and thunder put on a show in the afternoon hours. Snowfall rates peaked at 3 to 4 inches per hour, with Madison gathering 8 inches in only 2 hours! Coupled with northeast to northwest winds gusting to 40 mph this snowfall rate lowered visibilities to near zero at times. Snowplow crews were pulled off the roads in many areas by 1900CST. There were at least 800 vehicle accidents (indirectly related to the storm), and 6 people were briefly hospitalized. Airplane flights were delayed several hours. Interstate 90/94 was closed in stretches around Madison. Scattered power outages resulted in about 500 customers losing electricity in the Sheboygan to Milwaukee area. Many schools canceled classes, or dismissed students early; and many evening high school basketball games were canceled.

WIZ046>047-051>052-056>060-062>072

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha

29 0500CST
1600CST

0 0

0

Blizzard

A rare, widespread ground blizzard tormented Southcentral and Southeast Wisconsin with the worst whiteout conditions ever experienced by some residents and travelers. Some drivers described it as "driving into a ball of cotton." The whiteout conditions occurred primarily in open, exposed areas. A fresh snowcover of 1 to 3 inches on top of an older cover of 6 to 20 inches was easily blown around by winds frequently gusting over 35 mph. Otherwise, bright sunshine was the rule in villages and urban areas where visibilities never went below 1.5 miles. The peak wind gusts was 54 mph in Waukesha (Waukesha county), while everyone else had gusts into the 40 to 49 mph range. There was an unofficial gust to 60 mph (52 knots) on an exposed ridge near Pewaukee (Waukesha county).

Several hundred vehicle accidents resulted, with the worst one being two 14-vehicle accidents along the same stretch of I-94 in Racine county. At least 33 people were briefly hospitalized because of the accidents (indirectly related to ground blizzard).

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Property	Crops	Character of Storm
					Killed	Injured				

WISCONSIN, Southeast

Portions of the Interstates and other highways were closed from time to time. Many schools delayed their opening times or canceled classes. Service stations and police/sheriff dispatchers were overwhelmed.

WIZ046>047-051>052-056>060-062>072	Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha	30	0200CST		2	0				Extreme Windchill
		31	2359CST							

After the previous day's ground blizzard, very cold arctic air poured into Southern Wisconsin on northwest winds of 10 to 25 mph. Wind chills dropped to 35 to 45 below zero. Maximum temperatures only made it to 3 above zero in Milwaukee (Milwaukee county) after overnight lows across Southern Wisconsin of 5 below to 15 below. There was one directly-related hypothermia death in both Kenosha and Lafayette counties. There was an indirectly-related death in Sheboygan county. M85OU, M31OU

WIZ046>047-051>052-056>060-062>072	Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha	31	0000CST		0	10				Extreme Cold
		31	2359CST							

Arctic air continued to pour into Southern Wisconsin on northwest winds of 10 to 20 mph. Morning lows dipped to 29 below zero in Monroe (Green county), 23 below in Plymouth (Sheboygan county), 21 below in Madison (Dane county), and 20 below zero (a new daily record) in Waukesha (Waukesha county). Wind chills dropped into the 40 below to 60 below range as daytime temperatures never recovered to zero. Ten people were treated in hospitals for frostbite injuries: one in Sheboygan county, 7 in Milwaukee county, and 2 in Racine county. Service stations were overwhelmed with calls for assistance, and hardware stores reported a booming business due to the demand for space heaters, snow blowers, and other cold-weather gear.

WISCONSIN, Southwest

WIZ017-029-032>034-041>042-053>054	Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Monroe - Vernon - Crawford	18	0700CST		0	0				Heavy Snow
		19	0000CST							

Heavy snow fell over parts of central and western Wisconsin with amounts ranging from 5 to 10 inches. Montana and Mondovi had 11 and 10 inches respectively, with 6 inches in the La Crosse area. Blowing and drifting left drifts of 2 to 4 feet.

WIZ017-029-032>034-041>042-053>054	Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Monroe - Vernon - Crawford	26	0700CST		0	0				Blizzard
		27	0200CST							

A strong winter storm moved up from Iowa and blanketed much of the region with 10 to 18 inches of snow. The heaviest snow occurred along an axis from La Crosse northeast toward Fort McCoy and into northeast Wisconsin. An isolated report of 18 inches was received 6 miles east of La Crosse while most areas average 10 to 13 inches. Blizzard conditions existed during the height of the storm during the afternoon and evening leaving drifts of 4 to 8 feet. Travel was nearly impossible.

WIZ017-029-032>034-041>042-053>054	Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Monroe - Vernon - Crawford	29	1600CST		0	0				Extreme Cold
		31	2359CST							

A bitter cold arctic high pressure area covered most of the region during the last few days of the month and into early February. Temperatures were kept well below zero throughout this period. Minimum temperatures of -20 to -35 were common, with extremes of -39 at Fountain City, -46 at Cataract, -42 at Gays Mills, and -40 at Lynxville on the 31st.

WISCONSIN, West

WIZ014>016-023>028	Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire	17	2100CST		0	0				Ice Storm
		18	0500CST							

Freezing rain resulted in ice accumulations ranging from one quarter inch in Eau Claire to 3 inches in the Ladysmith and Rice Lake areas. Scattered power outages resulted.

WIZ014>016-023>028	Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire	18	0500CST		0	0				Heavy Snow
		19	0300CST							

Heavy snowfall in combination with near blizzard conditions across the area. Strong winds continued to severely reduce the visibility through much of the 19th due to blowing snow. Some of the heavier snow amounts included 12 inches at Ladysmith, 11 inches at Eau Claire and 10 inches at Plum City and Durand.

WIZ015>016-024>028	Barron - Rusk - Pierce - Dunn - Pepin - Chippewa - Eau Claire	26	1400CST		1	0				Blizzard
		27	0300CST							

Strong winds and heavy snow reduced the visibility to less than one quarter mile at times. Many roads reported impassable in Eau Claire and Dunn counties. Eau Claire received 9 inches of snow, Menomonie 8 inches and Barron 6 inches. An Elk Mound woman died of exposure about 50 yards from her home after her car became stranded in the blizzard conditions. F44OU

WIZ024>028	Pierce - Dunn - Pepin - Chippewa - Eau Claire	29	0500CST		0	0				Blizzard
			1200CST							

Strong northwest winds combined with 2 to 6 inch snowfall in producing blizzard conditions through the morning. School was canceled or closed early in numerous communities. Eau Claire received 4.5 inches of snow setting a new January record for snowfall.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, West

WIZ014>016-023>028	Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire								
	31	0500CST			0	0			Extreme Cold
		2300CST							

Extremely cold air settled over the area on January 31st, and remained entrenched through February 4th. The cold peaked the morning of February 2nd when a new record low temperature of 35 below was set in Eau Claire. Some area schools called off class due to the extreme cold on the 2nd. A power outage affected the entire town of Clifton on the 2nd. A woman accidentally locked in garage died from exposure to the cold.

WYOMING, Central and West

NONE REPORTED.

WYOMING, Extreme Southwest

NONE REPORTED.

WYOMING, North Central

NONE REPORTED.

WYOMING, Northeast

WYZ054>058	Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston								
	16	2000MST			0	0			Blizzard
	18	1100MST							

Winds to 55 Mph and snow created blizzard conditions over Northeast Wyoming. Temperatures fell to 20 to 30 below zero which dropped wind chill temperatures to 70 below zero.

WYZ054>058	Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston								
	29	0000MST			0	0			Extreme Cold
	31	2300MST							

Low temperatures plunged to 30 below zero with daytime temperatures remaining below zero.

WYOMING, Southeast

WYZ001>004-011>012-050>053	Yellowstone National Park Mt Id - North Absarokas - South Abasarokas - Cody Foothills - Wind River Mtns East - Lander Foothills - Northern Big Horn Mountains - Sheridan Foothills - Southern Big Horn Mountains - Buffalo Foothills								
	01	0000MST			0	0			Heavy Snow
		2300MST							

Up to eleven inches of snow fell in the northern mountains and the adjacent foothills. The largest amount of eleven inches fell in Lander. Interstate 90, north of Buffalo was closed until 600 AM, temporarily stranding a number of travelers.

WYZ061>062	Southwest Carbon - North Carbon								
	02	1400MST			0	0			High Wind (G48)
		1800MST							

Winds were sustained between 40 and 45 MPH at Arlington. The highest wind gust recorded was 54 MPH at 430 PM at Arlington.

WYZ061>067-069	Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Cheyenne Foothills								
	03	0030MST			0	0			High Wind (G60)
		1000MST							

Winds were sustained between 40 and 50 MPH from Jeffrey City and Casper to just east of the Laramie Range. Gusts were generally between 55 and 65 MPH. The highest gust was 69 MPH in downtown Casper at 710 AM. The strong winds produced ground blizzard conditions in the Laramie Range, between Cheyenne and Laramie. A tractor-trailer was overturned on the south side of Casper around 700 AM and a truck was blown over on Interstate 25 at mile marker 72 due to the strong winds.

WYZ021-063>070	Uinta - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Goshen - Cheyenne Foothills - Pine Bluffs								
	03	1600MST			0	0			Heavy Snow
	04	1600MST							

Heavy snow fell over parts of southern Wyoming. Six to ten inches of snow was reported from eastern Laramie County and Platte County to the Snowy Range and in some areas of the southwest corner. The greatest snowfall in the lower elevations was eight to ten inches at Horse Creek (Laramie County). Snowfall was even heavier in the Snowy Range, where the Snowy Range Ski Area received twenty inches of new snow.

WYZ062>064-066>067	North Carbon - Snowy Range - North Laramie Range - Laramie Range - Platte								
	07	0800MST			0	0			High Wind (G45)
		1300MST							

Winds were sustained at 40 to 45 MPH over parts of the south central and southeast.

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WYOMING, Southeast									
WYZ014>015-061>067-069	Green Mountains - Natrona - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Cheyenne Foothills								
	08	0100MST 0900MST			0	0			High Wind (G55)
	Sustained winds of 40 to 50 MPH were common from Jeffrey City and Casper southeast to just east of the Laramie Range. Wind gusts were between 55 and 63 MPH, with the strongest gust being 63 MPH at Buford (Albany County) at 600 AM.								
WYZ064-066>067-069	North Laramie Range - Laramie Range - Platte - Cheyenne Foothills								
	10	0400MST 1000MST			0	0			High Wind (G55)
	Winds were sustained between 40 and 50 MPH over and just east of the Laramie Range. Wind gusts in that area were between 55 and 63 MPH, with the strongest gust being 63 MPH, ten miles south of Wheatland (Platte County) at 709 AM.								
WYZ062-064-066>067	North Carbon - North Laramie Range - Laramie Range - Platte								
	11	0600MST 1100MST			0	0			High Wind (G55)
	Over parts of south central and southeast Wyoming, winds were sustained between 40 and 45 MPH. Some wind gusts were between 55 and 65 MPH, with the highest gust being 63 MPH, ten miles south of Wheatland at 809 AM.								
WYZ067	Platte								
	12	0500MST 0800MST			0	0			High Wind (G45)
	Winds were sustained between 40 and 50 MPH, ten miles south of Wheatland.								
WYZ014-061>062-064-066	Green Mountains - Southwest Carbon - North Carbon - North Laramie Range - Laramie Range								
	15	0130MST 0630MST			0	0			High Wind (G45)
	Winds were sustained between 40 and 50 MPH from Beaver Rim and Jeffrey City in Fremont County, southeast to just east of the Laramie Range.								
WYZ002	North Absarokas								
	15	0130MST 0630MST			0	0			High Wind (G52)
	Winds were sustained between 40 and 50 MPH. The strongest gust was 60 MPH, sixteen miles southwest of Cody at 620 AM.								
WYZ067-069	Platte - Cheyenne Foothills								
	15 16	2300MST 0800MST			0	0			High Wind (G63)
	Winds were sustained between 40 and 50 MPH with most gusts between 55 and 65 MPH. The strongest gust was 72 MPH, ten miles south of Wheatland at 1108 PM on the 15th.								
WYZ001-006>007-016>019-021	Yellowstone National Park Mt Id - Teton/Moutains - Jackson Valley - Star Valley - Salt River Range - Kemmerer - Wind River Mountains West - Uinta								
	16 17	1500MST 0630MST			0	0			Heavy Snow
	Six to fourteen inches of snow fell over much of far west Wyoming. The greatest amount was fourteen inches at the top of Jackson Hole Ski Area.								
WYZ002-004>005-009-015-050>053-055-059>070	North Absarokas - Cody Foothills - North Big Horn Basin - South Big Horn Basin - Natrona - Northern Big Horn Mountains - Sheridan Foothills - Southern Big Horn Mountains - Buffalo Foothills - South Campbell - Converse - Niobrara - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Goshen - Cheyenne Foothills - Pine Bluffs								
	16 18	2000MST 1100MST			0	0			Blizzard
	Strong winds, snow and cold temperatures combined to create blizzard conditions over east and north Wyoming. During that time, winds gusted to as high as 55 MPH creating wind chill temperatures as low as 70 degrees below zero. Two to six inches of snow fell through late afternoon on the 17th. This wind and snow produced very low visibilities in blowing snow. Some roads were closed in northeast Wyoming on the 17th and schools were cancelled in some areas on the 18th.								
WYZ022>025	Rock Springs/Green River - Red Desert - Flaming Gorge - Southeast Sweetwater								
	17	1000MST 1800MST			0	0	4K		Heavy Snow
	Six to twelve inches of snow fell in parts of southwest Wyoming. The greatest amount was eleven inches at the Rock Springs								

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WYOMING, Southeast

airport. Many accidents were reported and power was out for a time in the Rock Springs area.

WYZ001-006-016>019-021 **Yellowstone National Park Mt Id - Teton/Moutains - Star Valley - Salt River Range - Kemmerer - Wind River Mountains West - Uinta**

18	2000MST	0	0						Winter Storm
19	1000MST								

Six to ten inches of snow fell over far west Wyoming. The greatest amount was ten inches at Bondurant. In addition, strong winds produced considerable blowing and drifting snow.

WYZ014>015-022>025-061>067 **Green Mountains - Natrona - Rock Springs/Green River - Red Desert - Flaming Gorge - Southeast Sweetwater - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte**

20	0800MST	0	0						High Wind (G62)
21	0600MST								

Winds were sustained between 40 and 50 MPH from Jeffrey City and Casper, southeast to just east of the Laramie Range. Wind gusts were between 55 and 65 MPH, with the strongest gust being 71 MPH, 10 miles south of Wheatland between 553 PM and 709 PM. Highway 191, south of Rock Springs was closed due to blowing snow from 1100 PM to 600 AM.

WYZ001-006 **Yellowstone National Park Mt Id - Teton/Moutains**

20	2000MST	0	0						Heavy Snow
21	0600MST								

Twelve inches of snow fell at the middle and top parts of the Jackson Hole Ski Area.

WYZ061>066 **Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range**

23	1900MST	0	0						Blizzard
24	0500MST								

Widespread blowing snow created near zero visibilities over the south central part of the state. Interstate 80 was closed during that time from Walcott Junction to Laramie.

WYZ018-021>025-061>062 **Kemmerer - Uinta - Rock Springs/Green River - Red Desert - Flaming Gorge - Southeast Sweetwater - Southwest Carbon - North Carbon**

24	0800MST	0	0						Blizzard
	2300MST								

Strong winds and heavy snowfall created blizzard conditions in southwest and south central Wyoming. Winds gusted to around 50 MPH over the area. Snowfall was from 12 to 18 inches in Evanston, with 3 to 6 inches over the rest of the area. Many roads, including Interstate 80 in the southwest corner, were closed due to the snow and blowing and drifting snow. A number of travelers were stranded in the southwest corner. Some snowplows in the area even became stuck and stranded due to the poor conditions.

WYZ014>015-061>067 **Green Mountains - Natrona - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte**

27	0530MST	0	0	5K					High Wind (G65)
28	1400MST								

Winds were sustained between 40 and 50 MPH in the area with frequent gusts between 60 and 70 MPH. The strongest gust was 75 MPH on the south side of Casper at 633 PM. At 1145 AM, a tractor-trailer was blown over on the south side of Casper.

WYZ001>003-006>007-011-016>017-019-063 **Yellowstone National Park Mt Id - North Absarokas - South Abasarokas - Teton/Moutains - Jackson Valley - Wind River Mtns East - Star Valley - Salt River Range - Wind River Mountains West - Snowy Range**

27	1600MST	0	0						Winter Storm
28	1600MST								

Heavy snow and strong winds were over the western mountains and the Snowy Range. Fifteen to forty inches of snow fell, with the greatest amount being forty inches in some of the west facing mountains. Twenty four inches of snow fell in Jackson in 24 hours which was the largest 24 hour snowfall ever recorded for that city. Some roads in the area were closed on the 28th. In addition, winds were from 55 to 70 MPH with gusts over 100 MPH over the open, higher areas. The strong winds caused considerable blowing and drifting snow.

WYZ004>005-009-050>053-055 **Cody Foothills - North Big Horn Basin - South Big Horn Basin - Northern Big Horn Mountains - Sheridan Foothills - Southern Big Horn Mountains - Buffalo Foothills - South Campbell**

28	0700MST	0	0						Extreme Cold
	1400MST								

Cold temperatures and strong winds combined to produce wind chill temperatures of 40 to 60 degrees below zero.

WYZ014-018-021>025-061>062 **Green Mountains - Kemmerer - Uinta - Rock Springs/Green River - Red Desert - Flaming Gorge - Southeast Sweetwater - Southwest Carbon - North Carbon**

28	1000MST	0	0						Blizzard
	1700MST								

Strong winds produced widespread blowing and drifting snow. Some roads in the area were closed due to the poor conditions. Some damage occurred in Rawlins due to 70 MPH gusts. Some highway signs in the south central along with highway fencing in

Storm Data and Unusual Weather Phenomena

January 1996

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WYOMING, Southeast

the area were blown down. The winds caused power outages in Rawlins and Sinclair.

WYZ063>064-066	Snowy Range - North Laramie Range - Laramie Range				0	0			Heavy Snow
	28	2100MST							
	29	0800MST							

Six to ten inches of snow fell in the southeast mountains. The largest amount was ten inches in the central Laramie Range.

WYZ005-009	North Big Horn Basin - South Big Horn Basin				0	0	4K		Flood
	29	1100MST							
		1900MST							

Warmer temperatures caused minor ice jam flooding on the Big Horn River from Worland to Manderson.

WYZ063	Snowy Range				0	0			Heavy Snow
	30	0500MST							
		1730MST							

Up to a foot of snow fell in the Snowy Range. The largest amount was a foot, 22 miles southeast of Saratoga.

WYZ067>070	Platte - Goshen - Cheyenne Foothills - Pine Bluffs				0	0	15K		Blizzard
	30	0500MST							
		2000MST							

Light snow and strong winds produced poor travel conditions and numerous accidents.

WYZ001>025-050>053-055-059>070	Yellowstone National Park Mt Id - North Absarokas - South Absarokas - Cody Foothills - North Big Horn Basin - Teton/Mountains - Jackson Valley - Owl Creek Mountains - South Big Horn Basin - Dubois - Wind River Mtns East - Lander Foothills - Wind River Basin - Green Mountains - Natrona - Star Valley - Salt River Range - Kemmerer - Wind River Mountains West - Upper Green River Basin - Uinta - Rock Springs/Green River - Red Desert - Flaming Gorge - Southeast Sweetwater - Northern Big Horn Mountains - Sheridan Foothills - Southern Big Horn Mountains - Buffalo Foothills - South Campbell - Converse - Niobrara - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Goshen - Cheyenne Foothills - Pine Bluffs				0	0			Extreme Cold
	30	1700MST							
	31	2300MST							

Record low temperatures were observed in many areas, with 38 below zero in Worland on the morning of the 31st.