

**FEBRUARY 2004
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NUMBER 2**

STORM DATA



**AND UNUSUAL WEATHER PHENOMENA
WITH LATE REPORTS AND CORRECTIONS**



noaa

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER, ASHEVILLE, NC

Cover: A heavy rain event on February 5, 2004 led to flooding in Jackson, MS after 6 - 7 inches of rain fell in a six hour period. Lieutenant Tim Dukes of the Jackson (Hinds County, MS) Fire Department searches for possible trapped motorists inside a vehicle that was washed 200 feet down Town Creek in Jackson, Mississippi. Luckily, the vehicle was empty. *(Photo courtesy: Chris Todd, The Clarion Ledger, Jackson, MS)*

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STORM DATA

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National Climatic Data Center

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STORM DATA contains all confirmed information on storms available to our staff at the time of publication. Late reports and corrections will be printed in each edition.

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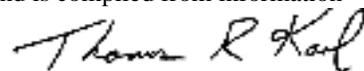
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The editor of STORM DATA solicit your help in acquiring photographs (prints or slides; black and white, or color), maps, clippings, etc. of significant or severe weather events (past or present) for use in the "Outstanding Storms of the Month" section of STORM DATA. We request our subscribers or other interested persons to mail such items to:

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Thomas R. Karl
Director,
National Climatic Data Center

February 2004 Confirmed Tornadoes



F Scale

- ⊕ F0
- ◇ F1
- F2
- F3
- △ F4
- ⊠ F5

F Scale	F0	F1	F2	F3	F4	F5	Total
Number	6	2	1	0	0	0	9
Two F0 tornadoes in Hawaii							

OUTSTANDING STORMS OF THE MONTH

Heavy Rains Produce Flash Floods in Mississippi

A strong storm system moved across the lower Mississippi Valley region on February 5, 2004. Low pressure developed over southwest Louisiana and intensified as it moved across portions of central Mississippi. Ahead of this low, unseasonable warm and moist air moved north into southern Mississippi, setting the stage for severe thunderstorms and heavy rains. As the storms became more organized, they moved rapidly to the northeast at nearly 50 mph. However, the eastward movement of the entire storm system was very slow, at nearly five mph. This slow eastward movement allowed for numerous thunderstorms to move over the same locations, depositing 4 to 7 inches of rain in nearly a 6 hour period from south-central Mississippi to east-central Mississippi.

The very heavy rains caused extensive flooding across a large portion of south, central and eastern Mississippi. Hundreds of roads were washed out along with a few dozen bridges. A few hundred homes and businesses had minor to major flooding and dozens of automobiles also sustained flood damage. Additionally, severe storms downed numerous trees and power lines across the area. These storms also spawned four tornadoes, of which three rated at F1 (73-112 mph wind speed) and one rated at F2 (113-157 mph) on the Fujita Tornado Scale. Nearly \$15 million dollars of damage was caused by this storm system in parts of southern and central Mississippi. No fatalities or injuries were reported.



Left: On the morning of Feb 5th, 2004 the owner of this mobile home woke up and found himself surrounded by several feet of water. This location, near D'Lo Mississippi, received 6 to 7 inches of rain in less than 6 hours. (Photograph courtesy: Forrest Hailey, the Magee Courier, Magee, MS)

(Additional thanks to Chad Entremont and the staff at the National Weather Service Office in Jackson, MS for their contributions to this story)

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ALABAMA, Central</u>									
Marion County Countywide	05	1500CST 1700CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of Marion County. Water covered roadways and several were reported impassable. Doppler radar estimated 3-4 inches of rainfall.
Lamar County Countywide	05	1500CST 1700CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were covered with water and impassable. Doppler radar estimated 3-4 inches of rainfall.
Pickens County 2 NE Cochrane to 5 NE Gordo	05	1719CST 1802CST			0	0	20K		Thunderstorm Wind (G60)
									A few trees were blown down from near Cochrane, to just south of Aliceville, through Gordo, and to the county line just northeast of Gordo. A large tractor trailer truck was blown off the road near the intersection of SR 159 and US 82.
Sumter County Emelle to Gainesville	05	1734CST 1747CST			0	0	3K		Thunderstorm Wind (G60)
									A few trees were blown down between Emelle and Gainesville.
Tuscaloosa County 15 NW Northport	05	1802CST 1820CST			0	0	2K		Thunderstorm Wind (G60)
									Several trees were blown down near Morris Bridge in extreme northwest Tuscaloosa County.
Greene County Clinton	05	1808CST 1812CST			0	0			Hail (0.75)
									Penny size hail fell near Clinton.
Marion County Countywide	05	1830CST 2000CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were covered with water and impassable.
Lamar County Countywide	05	1830CST 2000CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Tuscaloosa County 2 SW Samantha to 15 N Kellerman	05	1855CST 1915CST			0	0	5K		Thunderstorm Wind (G60)
									Several trees were blown down around Samantha. One fell on a mobile home causing considerable damage. A few trees were blown down along the path across rural northeastern Tuscaloosa County. Dime size hail also accompanied these severe thunderstorms.
Sumter County 5 N Gainesville	05	1855CST			0	0			Hail (0.75)
									Penny size hail fell along the Tombigbee River near Warsaw.
Greene County 20 W Clinton to 8 NE Mantua	05	1900CST 1925CST			0	0			Hail (1.00)
									Penny to quarter size hail fell across northern Greene County as a line of severe thunderstorms moved across the entire county. The hail fell along the Tombigbee River, west of West Greene, to near Clinton, to near Mantua.
Pickens County Countywide	05 06	1905CST 0200CST			0	0	10K		Flash Flood
									Doppler radar estimated 4 to 8 inches of rainfall across Pickens County in a short period of time. Several roads were temporarily impassable. Numerous creeks and streams quickly rose out of their banks and caused flooding. One railroad tressel was flooded. One highway bridge was completely washed away.
Tuscaloosa County 4 NW Fosters to 4 NE Kellerman	05	1940CST 2026CST			0	0	50K		Thunderstorm Wind (G60)
									Several trees were blown down along the path of this storm. Some of the trees blocked roadways, some landed on homes, one fell on an apartment building. In addition, this storm produced penny to quarter size hail from near Fosters, through Tuscaloosa, all the way to the Jefferson County line.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ALABAMA, Central</u>									
Tuscaloosa County									
Tuscaloosa	05	1958CST			0	0	6K		Thunderstorm Wind (G60)
Thunderstorm winds blew a city police car off the road and into a ditch. The officer was uninjured.									
Walker County									
Countywide	05	2015CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Walker County									
5 S Gorgas to 5 SW Dora	05	2020CST 2041CST			0	0			Hail (0.75)
Penny size hail was reported from near Gorgas to near Dora. The hail fell close to the Black Warrior River in extreme southeast Walker County.									
Jefferson County									
North Johns to Gardendale	05	2023CST 2110CST			0	0	6K		Hail (1.75)
A line of severe thunderstorms raced across northern Jefferson County. These storms were the same storms that produced the extensive wind damage in Adamsville through Brookside. These storms produced large hail all the way across the county. The hail ranged from dime to golf ball sized. Some cities that reported the large hail included Rock Creek, Hueytown, Gardendale, Adamsville, Mt. Olive, and Morris.									
Jefferson County									
1 N Short Creek	05	2025CST			0	0	8K		Thunderstorm Wind (G60)
Several trees and power lines were knocked down in and near the community of Birminghamport.									
Marion County									
Countywide	05	2030CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Winston County									
Countywide	05	2030CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Lamar County									
Countywide	05	2030CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Pickens County									
Countywide	05	2030CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Tuscaloosa County									
Countywide	05	2030CST 2230CST			0	0	5K		Flash Flood
Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.									
Sumter County									
Countywide	05 06	2045CST 0200CST			0	0	60K		Flash Flood
Water was standing in yards and fields in and around Geiger. Several creeks and streams quickly rose out of their banks causing flooding countywide. Several roads were temporarily impassable. A bridge along SR 17 near the Pickens County line was washed out and several other small bridges were washed out.									
Tuscaloosa County									
Tuscaloosa	05	2045CST			0	0	2K		Thunderstorm Wind (G60)
Trees were knocked down on 21st Avenue in Tuscaloosa.									
Jefferson County									
Adamsville to Brookside	05	2050CST 2057CST			0	0	160K		Thunderstorm Wind (G65)
Numerous trees and power lines were blown down from near Shady Grove through Adamsville to near Brookside. Up to 50 homes suffered mainly minor damage, most of which occurred due to falling trees. Three to four homes sustained major damage.									
Fayette County									
Countywide	05	2100CST 2300CST			0	0	5K		Flash Flood
Several inches of rain occurred across Fayette County in a short period of time. Many roadways were temporarily impassable.									

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ALABAMA, Central</u>									
Blount County									
5 SW Locust Fork	05	2115CST 2122CST			0	0	3K		Thunderstorm Wind (G60)
									Trees were blown down near US 79 and the Jefferson County line. A few other trees were blown down in extreme southwest Blount County.
Greene County									
Countywide	05	2130CST 2355CST			0	0			Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Sumter County									
Countywide	05	2130CST 2350CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Jefferson County									
4 SW North Johns	05	2145CST			0	0			Hail (1.00)
									Quarter size hail was reported in extreme western Jefferson County near the North Johns community.
Tuscaloosa County									
Vance	05	2228CST			0	0			Hail (0.75)
									Penny size hail was reported near Vance.
Jefferson County									
North Johns	05	2243CST			0	0			Hail (0.75)
									Penny size hail was reported near the Valley Creek Community in extreme southwest Jefferson County.
Jefferson County									
1 S Warrior	05	2320CST 2359CST			0	0	8K		Flash Flood
									US Highway 31 between Warrior and Kimberly...Bridge under water road closed. In addition...thunderstorms produced locally excessive rainfall county wide.
Jefferson County									
Graysville	05	2320CST 2359CST			0	0	8K		Flash Flood
									US Highway 78 was closed in Graysville due to water over the road.
Walker County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Marion County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Winston County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Fayette County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Lamar County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Pickens County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.
Tuscaloosa County									
Countywide	05 06	2330CST 0200CST			0	0	5K		Flash Flood
									Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Storm Data and Unusual Weather Phenomena

February 2004

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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ALABAMA, Central

Greene County

Countywide

06 0010CST
0300CST 0 0 5K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Sumter County

Countywide

06 0010CST
0300CST 0 0 5K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Blount County

Countywide

06 0050CST
0300CST 0 0 5K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Jefferson County

Birmingham

06 0130CST
0230CST 0 0 150K Flash Flood

Doppler radar estimated 3 to 7 inches of Rainfall across Jefferson County in a short period of time. Five Mile Creek rose out of it's bank and caused significant flash flooding in Brookside. Up to 30 homes were flooded. Flooding of roadways and creeks were also reported in Hueytown, Bessemer, Ensley, Birmingham, Tarrant, and Centerpoint.

St. Clair County

Countywide

06 0202CST
0400CST 0 0 5K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Shelby County

Columbiana

06 0300CST
0400CST 0 0 8K Flash Flood

Several inches of rainfall occurred in a short period of time across the entire county. Many area streams and creeks rose out of their banks. Several roadways were impassable.

Jefferson County

Countywide

06 0410CST
0600CST 0 0 10K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

Blount County

Countywide

06 0430CST
0630CST 0 0 8K Flash Flood

Excessive rainfall occurred across several sections of the county. Several roads were reported covered with water and impassable.

ALZ019

Calhoun

25 1830CST
26 0500CST 0 0 Winter Storm

A combination of snow and sleet occurred across Calhoun County. The snow and sleet measured one to three inches across the southern sections of the county. Numerous roads were ice covered.

ALZ027

Talladega

25 1830CST
26 0500CST 0 0 Winter Storm

A combination of snow and sleet occurred across Talladega County. The snow and sleet measured one to three inches across the northern mountains of the county. Numerous roads were ice covered.

ALZ028

Clay

25 1830CST
26 0500CST 0 0 Winter Storm

A combination of snow and sleet occurred across Clay County. The snow and sleet measured one to three inches across the northern mountains of the county. Numerous roads were ice covered.

ALZ020

Cherokee

25 1900CST
26 0500CST 0 0 Winter Storm

A combination of snow and sleet occurred across Cherokee County. The snow and sleet measured one to three inches across the western mountain sections. Numerous roads were ice covered.

ALZ021

Cleburne

25 1930CST
26 0500CST 0 0 Winter Storm

A combination of snow and sleet occurred across Cleburne County. The snow and sleet measured one to three inches across the northern and western mountains. Numerous roads were ice covered.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>ALABAMA, Central</u>									
ALZ018		Etowah							
	25	1930CST			0	0			Winter Storm
	26	0500CST							
	A combination of snow and sleet occurred across Etowah County. The snow and sleet measured one to three inches across the northeast sections. Numerous roads were ice covered.								
<u>ALABAMA, North</u>									
Franklin County									
Countywide	05	1345CST			0	0			Flash Flood
		1730CST							
	Widespread flash flooding occurred with water covering several roads across the county.								
Colbert County									
Countywide	05	1600CST			0	0			Flash Flood
		1930CST							
	Widespread flash flooding occurring with several roads with several inches of water over them across the county.								
Lauderdale County									
Countywide	05	1600CST			0	0			Flash Flood
		1930CST							
	Widespread flash flooding occurred with several roads with several inches of water covering them countywide.								
ALZ002		Colbert							
	05	1716CST			0	0			High Wind (G50)
		1730CST							
	Non-thunderstorm high winds blew over a 25 foot tree onto a motor home near Muscle Shoals.								
ALZ002-004>005-005>006-016		Colbert - Lawrence - Limestone - Madison - Cullman							
	05	1716CST			0	0			Flood
		2200CST							
	Flooding occurred in Obrians restaurant in Ford City.								
Cullman County									
Hanceville	05	1935CST			0	0			Thunderstorm Wind (G60)
		1940CST							
	Several trees and power lines were blown down due to thunderstorm winds.								
Dekalb County									
2 E Ft Payne	06	0120CST			0	0			Thunderstorm Wind (G60)
		0125CST							
	A few trees were blown down by thunderstorm winds.								
ALZ004-006-016		Lawrence - Madison - Cullman							
	05	2040CST			0	0			Flood
	06	0100CST							
	Flooding occurring county wide with water covering several roads at least a foot with several roads closed.								
ALZ001-004-008-010-010		Lauderdale - Lawrence - Marshall - Dekalb							
	06	0100CST			0	0			Flood
		1000CST							
	Shoals creek flooded the basements of several houses in the St. Florian area.								
ALZ008-010		Marshall - Dekalb							
	26	0205CST			0	0			Winter Storm
		0800CST							
	Two inches of snow occurred in the Boaz area of the county in the higher elevations.								
<u>ALABAMA, Southeast</u>									
Dale County									
Cairns Afb	06	1035EST			0	0			Thunderstorm Wind (G60)
	Reported by a duty base weather station observer.								
<u>ALABAMA, Southwest</u>									
Washington County									
Chatom	06	0545CST			0	0	50K		Lightning
	Lightning struck a manufactured home and started a fire. The home burned down before the fire could be put out. No one was injured.								

Storm Data and Unusual Weather Phenomena

February 2004

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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ALABAMA, Southwest

Choctaw County

West Portion	23	1045CST 1245CST			0	0			Flash Flood
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Heavy rains flooded several streets in the west part of the county. Rainfall totals of four to six inches were estimated. Several of the streets had to be closed for a couple of hours due to high water.

Mobile County

Semmes to Spring Hill	25	1910CST 1950CST			0	0			Flash Flood
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Heavy rain along with pea to small marble size hail caused several streets to flood between Semmes and Spring Hill. Radar estimated three to five inches of rain fell across the area. Several of the streets had to be closed for about an hour to allow the water to drain. The small hail accumulated three to four inches deep, with some drifts as high as eight to ten inches against buildings. The combined weight of the hail and rain caused a wall at a Burger King to collapse. No one was injured. Some of the hail was still on the ground along shaded areas of buildings the next day.

ALASKA, Northern

AKZ219

Upper Koyukuk Valley	02	0653AST 2053AST			0	0			Heavy Snow
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A low pressure center at low levels over western Alaska produced snow over the north central interior during the night of the 1st and through the day and evening of the 2nd. Storm Total at Bettles was 8.0 inches, with the snow beginning at 1153 pm on the 1st. The State of Alaska Department of Transportation and Public Facilities Maintenance Camp at Jim River received 7.0 inches from the event.

AKZ207-213>214

Chukchi Sea Coast - St Lawrence Is. Bering Strait - Yukon Delta	03	1155AST			0	0			Blizzard
	05	0453AST							

AKZ216

Lower Koyukuk Middle Ykn Vlys	03	1500AST			0	0			Heavy Snow
	04	1700AST							

AKZ207-213

Chukchi Sea Coast - St Lawrence Is. Bering Strait	04	1055AST			0	0			Extreme Cold/Wind Chill
	05	1353AST							

AKZ214

Yukon Delta	04	1655AST 1855AST			0	0			High Wind (G55)
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With the Arctic Front stretched northeast over the western interior of Alaska on the 3rd, it began to move slowly west into the 4th while weak low pressure centers at low levels above the surface moved north over western Alaska, and High pressure over Far East Russia moved slowly toward the Bering Sea. This combination produced heavy snow over a portion of the western interior, and local winds increased over the west coast along with Blizzard Conditions and Extreme Wind Chills eventually as cold air associated with the Russian high moved in over the west coast of Alaska.

Heavy Snow was reported at:

Zone 216 Galena Co-operative Observer: 9 inches. Snowfall began 8am on the 3rd.

Blizzard conditions were reported at:

Zone 213: Tin City during the afternoon of the 3rd.

Zone 207: Kivalina on the 4th through early morning of the 5th

Zone 214: Cape Romanzof on the evening of the 4th.

High winds were reported at:

Cape Romanzof AWOS peak gust to 55 knots (63 mph).

Extreme Wind Chills were reported at:

Zone 213: Tin City: -62

Zone 207: Kivalina: -60

AKZ218

S. Slopes Of Ern Brooks Range	05	2100AST			0	0			Blizzard
	06	1500AST							

AKZ218

S. Slopes Of Ern Brooks Range	05	2100AST			0	0			High Wind (G53)
	07	1000AST							

With a high pressure ridge over the inland North Slope of Alaska and weak low pressure over interior Alaska, a strong pressure gradient developed over Brooks Range passes on the night of the 6th and continued through the 7th. Wind gusts of 53 knots (61

Storm Data and Unusual Weather Phenomena

February 2004

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ALASKA, Northern

mph) were reported by the State of Alaska Department of Transportation and Public Facilities Camp at Chandalar near Atigun Pass. A portion of the Dalton Highway in and near Atigun Pass was completely closed due to high winds and drifting/blowing snow during the 6th; the highway was open to one lane by evening.

AKZ211-214-219			Srn Seward Peninsula Coast - Yukon Delta - Upper Koyukuk Valley						
	07	1055AST			0	0			Blizzard
	08	1855AST							
AKZ226			Ne. Slopes Of The Ern Ak Rng						
	08	0400AST			0	0			High Wind (G56)
		0615AST							
AKZ201-206			Western Arctic Coast - N. Brooks Rng E Of Colville R						
	08	0516AST			0	0			Extreme Cold/Wind Chill
	09	1053AST							

A low pressure center moved north over the western Alaska Peninsula and produced a strong pressure gradient over mainland Alaska, aided by strong high pressure over the Arctic Ocean. Colder air residing over the North Slope created extreme wind chill readings as winds increased through Brooks Range passes and in local areas.

Blizzard conditions were reported at:

Zone 211: Golovin

Zone 214: Cape Romanzof. Emmonak came close to blizzard conditions.

Zone 219: Indian Mountain

High winds were reported at:

Zone 226: Army Mesonet site named Texas Range: peak gusts to 56 knots (64 mph).

Extreme Wind Chills were reported at:

Zone 201: Point Lay : -75 F; Wainwright -66 F

Zone 206: Anaktuvuk Pass: -65 F

AKZ201>202-202>203-203-213			Western Arctic Coast - Northern Arctic Coast - Central Beaufort Sea Coast - St Lawrence Is. Bering Strait						
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	09	0727AST			0	0			Blizzard
	12	2328AST							

AKZ202>203			Northern Arctic Coast - Central Beaufort Sea Coast						
	09	0736AST			0	0			Extreme Cold/Wind Chill
		1321AST							

AKZ201-223-225>226			Western Arctic Coast - Deltana And Tanana - Denali - Ne. Slopes Of The Ern Ak Rng						
	10	0253AST			0	0			High Wind (G70)
	11	0325AST							

Strong high pressure over the Arctic Ocean moved east to northwest Canada while a low pressure center moved north over the eastern Bering Sea. The combination caused a strong pressure gradient over northern Alaska with locally strong easterly winds. Blizzard conditions in blowing snow developed over portions of the North Slope, along with extreme wind chills due to a persistent colder airmass over this region. Strong Chinook winds developed over the Alaska Range during this event.

Blizzard conditions were reported or likely occurred at:

Zone 201: Point Lay through the evening of the 11th, then at Wainwright on the day and evening of the 12th.

Zone 202: Barrow - first during the late evening of the 9th; then overnight on the 10th through noon on the 11th.

Zone 203: Nuiqsut; also at Deadhorse and Kuparuk. Occurred on the evening of the 9th and during the day on the 11th.

Zone 213: Savoonga

Extreme Wind Chills occurred at:

Zone 202: Barrow: -65 F

Zone 203: Deadhorse: -68 F; Nuiqsut: -67 F

High Winds occurred at:

Zone 201: Cape Lisburne AWOS peak gust 52 knots (60 mph).

Zone 223: along the southern boundary, west half, a person reported 50 trees downed along the "Rex Trail" which runs from Rex near the Clear Air Force Base to Gold King Airstrip. Winds measured at Gold King Airstrip (by over-the-counter instruments) were south 70 knots (80 mph). Delta Junction AWOS did not receive the Chinook winds, remaining east-southeast with gusts to 49 knots (56 mph).

Zone 225: Healy reported gusts to 60 knots (69 mph).

Zone 226: Gold King Airstrip: private citizen has over-the-counter wind instrument: 70 knots (80 mph); U.S. Army Mesonet Stations: Texas Condo: 54 knots (62 mph); Texas Range: 53 knots (61 mph).

Storm Data and Unusual Weather Phenomena

February 2004

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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ALASKA, Northern

AKZ207-211>212 Chukchi Sea Coast - Srn Seward Peninsula Coast - Ern Norton Sound Nulato Hills
 13 0716AST 0 0 High Wind (G62)
 14 1416AST

AKZ201 Western Arctic Coast
 13 1000AST 0 0 Blizzard
 2051AST

Strong high pressure over the Arctic Ocean and moderately strong low pressure center over the eastern Aleutians created a moderate to strong pressure gradient over Alaska. An occlusion aloft moved north over the west coast of Alaska on the 13th tightening the pressure gradient over western Alaska, causing winds to increase.

High winds were reported at:
 Zone 207: Point Hope AWOS: gusts to 59 kts (68 mph).
 Zone 211: Golovin AWOS: gusts to 62 knots (71 mph).
 Zone 212: Unalakleet AWOS: gusts to 62 knots (71 mph).

Blizzard conditions were likely at:
 Zone 201: Point Lay

AKZ225>226 Denali - Ne. Slopes Of The Ern Ak Rng
 14 2014AST 0 0 Heavy Snow
 2200AST

A low-level push of moist air over the Arctic Front which rested along the south slopes of the Alaska Range, produced heavy snowfall at locations on the north side of the Alaska Range, as reported at:
 Zone 225: Healy 7.0 inches, Kobe Hill cooperative observer 7.9 inches. Snow began 0949 AST on the 14th.
 Zone 226: State of Alaska Department of Transportation and Public Facilities Camp at Paxson reported 7.0 inches. Snow likely began around 1100 AST on the 14th.

AKZ216-222 Lower Koyukuk Middle Ykn Vlys - Middle Tanana Valley
 15 0855AST 0 0 Heavy Snow
 2255AST

Weak overrunning of a cold airmass lying across the central interior produced locally heavy snow amounts.
 Zone 222: Eielson received 7.5 inches; a North Pole cooperative observer reported 6.0 inches. Snow began around 1800 AST on the 14th. Other reports from the Fairbanks area were less than 4 inches generally.
 Zone 216: Galena cooperative weather observer reported 6.0 inches. Snow began around 1800 AST 14th.

AKZ201 Western Arctic Coast
 20 0253AST 0 0 Extreme Cold/Wind Chill
 1254AST

With cold air already in place over the North Slope resulting in temperatures in the minus 30s, east winds increased to 30 mph bringing chill factors to dangerous levels. Extreme Windchill was reported at: Point Lay: -76 F.

AKZ201 Western Arctic Coast
 22 0353AST 0 0 Extreme Cold/Wind Chill
 1152AST

AKZ201 Western Arctic Coast
 22 2253AST 0 0 Blizzard
 23 2251AST

East winds increased over the western Arctic Coast as a low pressure center moved up the west coast of Alaska and weakened while strong high pressure remained over the Arctic Ocean. First, a period of low wind chill occurred at Point Lay as Wind Chill temperatures dropped to -68 F, then winds increased a bit more to cause blizzard conditions late on the 22nd through the 23rd.

AKZ213 St Lawrence Is. Bering Strait
 26 0936AST 0 0 Blizzard
 1456AST

A weather front moved north over the central Bering Sea which increased winds over Saint Lawrence Island and produced blowing snow. Blizzard conditions were likely at Gambell during this time, as indicated by the AWOS.

AKZ201 Western Arctic Coast
 26 2103AST 0 0 Extreme Cold/Wind Chill
 28 0855AST

Moderate winds combined with a cold airmass produced extreme wind chills at Point Lay; -70 F was the lowest recorded.

ALASKA, Southeast

AKZ018>019 Taiya Inlet And Klondike Highway - Haines Borough And Lynn Canal
 05 0100AST 0 0 Heavy Snow
 1200AST

A 983 mb low tracking eastward across the northern Gulf of Alaska caused a moist southerly flow to develop over Southeast

Storm Data and Unusual Weather Phenomena

February 2004

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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ALASKA, Southeast

Alaska. Temperatures were cold enough over the extreme Northern Panhandle for heavy overrunning snowfall to occur. Storm snowfall totals included: 11 inches in Haines, 5 inches in Skagway, and 8 inches over stretches of the Klondike Highway.

AKZ017-022>023-027>028

Cape Fairweather To Cape Suckling Coastal Area - Salisbury Sound To Cape Fairweather Coastal Area - Cape Decision To Salisbury Sound Coastal Area - Dixon Entrance To Cape Decision Coastal Area - Southern Inner Channels

05	0200AST 2200AST				0	0	1K		High Wind (G61)
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A 980 mb low tracked northward along the outer coast of Southeast Alaska. High south-southeast winds impacted many communities. Peak wind gusts included: Downtown Yakutat 67 mph, Sitka airport 61 mph, Cape Decision 70 mph, and the Ketchikan airport 63 mph. All our buoys in our outside marine zones measured sustained Gales with Storm force wind gusts.

ALASKA, Southern

AKZ195

Pribilof Islands

03	0100AST				0	0			Blizzard
04	0500AST								

Gusty north wind coupled with snow and blowing snow resulted in blizzard conditions across the Pribilof Islands early Tuesday through Wednesday morning. Reports of significant snow drifts were received from the WSO in Saint Paul.

AKZ155

Kuskokwim Delta

07	1300AST				0	0			Blizzard
08	1300AST								

AKZ101-161-181

Anchorage Muni To Bird Creek - Bristol Bay - Alaska Peninsula

08	0800AST				0	0			High Wind (G73)
09	0630AST								

A strong storm moved from south of the Alaska Peninsula into Bristol bay Saturday afternoon through Sunday morning. This produced northeast wind and snow over the Kuskokwim Delta resulting in Blizzard conditions Saturday afternoon through Sunday afternoon. The worst conditions remained isolated to the coastal regions, especially on the ocean capes. This same storm also resulted in a very strong pressure gradient over south central Alaska. Typically strong wind developed across the Chugach mountains and down Turnagain Arm. The peak gust was measured at Mchugh Creek RWIS at 75 mph. The second punch to this storm impacted the Alaska Peninsula and Bristol Bay late Sunday night into Monday morning producing wind that peaked near 85 mph at Cold bay and to 79 mph at Cape Newenham.

AKZ141

Copper River Basin

10	0900AST 1600AST				0	0			Ice Storm
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AKZ101-125

Anchorage Muni To Bird Creek - Wrn P.W. Snd & Kenai Mtns

10	1230AST 2000AST				0	0			High Wind (G106)
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An intense low moved north along the Bering Sea coast Monday night through Tuesday night. The resultant extreme pressure gradient across south central Alaska coupled with rapidly rising pressure along the North Gulf Coast produced the extremely high wind across the coastal mountains. The strong southerly flow pushed ample moisture across the Chugach Mountains into the Copper River Basin over the entrenched arctic air. This resulted in areas of heavy freezing rain from Thompson Pass to the Glennallen area Wednesday morning until the early afternoon.

AKZ125

Wrn P.W. Snd & Kenai Mtns

28	1800AST				1	0			Avalanche
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Two hiking companions were hiking up in the area of Byron Glacier, in Portage Valley. They began hiking Saturday morning, February 28th, and were up on top of the ridge above Byron Glacier by the late afternoon. The snow cornice they were traversing gave way with one of the hikers on it at about 6 p.m. The hiker plunged nearly 4000 feet vertically and died. Alaska Mountain Rescue and the Alaska State Troopers recovered the body Sunday afternoon, February 29th. M230U

AMERICAN SAMOA

NOT RECEIVED.

ARIZONA, Central and Northeast

AZZ004-008-015-017>018-037-037

Kaibab Plateau - Yavapai County Mountains - Western Mogollon Rim - White Mountains - Northern Gila County - Yavapai County Valleys And Basins

03	1000MST				0	0			Winter Storm
04	1300MST								

A strong winter storm moved across northern Arizona during the day on the 3rd into the morning of the 4th. The lower elevations received 2 to 4 inches of snow with as much as 20 inches of snow in the highest mountain locations. Some new snow totals were: Flagstaff received between 10 and 13 inches of new snow, Prescott 3.5 inches, Window Rock 6 inches, Sedona 2 inches, Munds Park 7 inches, Kykotsmovi 3 inches, Chinle 4 inches, Chino Valley 2 inches, Jacob Lake 7 inches, and Grand Canyon South Rim 7 inches.

Storm Data and Unusual Weather Phenomena

February 2004

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

ARIZONA, Northwest

NONE REPORTED.

ARIZONA, South

AZZ033

Tucson Metro/Marana/Green Valley

03	0100MST				0	0	0	0	Heavy Snow
	2100MST								

Mt Lemmon ski resort reported 16 to 20 inches of snow for the event. Other observations of 10 to 12 inches were reported by Mt Lemmon fire department and Palisades ranger station. Tucson International Airport recorded 0.13 inches of rainfall for the event.

AZZ034

Santa Cruz County

03	0100MST				0	0	0	0	Heavy Snow
	2100MST								

There were reports of 10 to 12 inches of snow in the Santa Rita Mountains.

AZZ019

Northern Greenlee

03	0400MST				0	0	0	0	Heavy Snow
	04	0345MST							

Hannagan meadow reported 24 inches of snow for the entire event. Also, there were widespread reports of an inch of snow near 4000 feet.

AZZ030

Upper Gila River Valley

03	0400MST				0	0	0	0	Heavy Snow
	04	0345MST							

Mt Graham recieved 12 inches of snow for the event.

A winter storm off the California coast dropped down across Arizona on the 3rd and 4th, producing heavy snow across Southeast Arizona. The total precipitation amounts were produced from two impulses rotating around the system, with the first impulse producing the bulk of the heavy snow over Eastern Pima, Greenlee, and Graham counties. Snow levels initially started out around 5000 to 6000 feet and then dropped down to 4000 feet by Wednesday morning. There were widespread reports of one snow in Greenlee and Graham counties. Also, in Cochise county, the Wilcox cooperative site reported one to two inches. This storm system did not receive the tropical moisture tap which left valley rainfall amounts only ranging from 0.10 to 0.50 inches.

AZZ030

Upper Gila River Valley

22	2300MST				0	0	0	0	Heavy Snow
	23	2300MST							

Mt. Graham reported 12 inches of snow with this event.

AZZ033

Tucson Metro/Marana/Green Valley

22	2300MST				0	0	0	0	Heavy Snow
	23	2100MST							

Mt. Lemmon ski resort reported 22 inches total snowfall for this event. The Tucson International Airport received 0.17 inches of rain. Rainfall throughout the valley varied from 0.10 to 0.50 inches.

AZZ035

Cochise County

22	2300MST				0	0	0	0	Heavy Snow
	23	2300MST							

The Huachuca and Chiricahua Mountain ranges both reported having 8 to 14 inches of snow from this event.

A winter storm system moved into from the southern California coast and into southern Arizona on the 22nd and 23rd of February. Snow levels dropped down as low as 5000 feet as the system moved across the area on the morning of the 23rd. Significant accumulation occurred above 6500 feet with three to four inches reported at locations lower than that. Southern Arizona was mostly impacted by this storm. The system went far enough south that it did not produce significant snow in the White Mountains. Hannagan Meadows Lodge only reported a storm total of 4 inches. Western Pima county got a decent amount of rain from this event, with a spotter reporting 1.35 inches at his house in Ajo.

ARIZONA, Southwest

NOT RECEIVED.

Storm Data and Unusual Weather Phenomena

February 2004

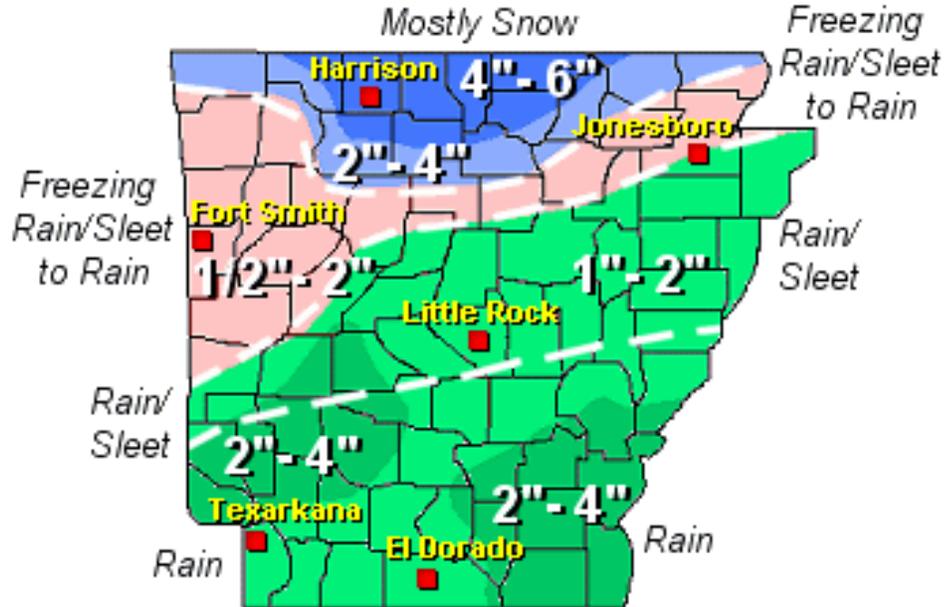
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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ARKANSAS, Central and North Central

**ARZ003>007-
012>015-040**

Boone - Marion - Baxter - Fulton - Sharp - Newton - Searcy - Stone - IZard - Polk

04	2100CST								Winter Storm
05	0100CST				0	0			



In the picture: Heavy snow fell across northern Arkansas on February 4-5, 2004...with heavy rain across central and southern sections of the state.

A winter storm produced a variety of winter weather across parts of western and northern Arkansas starting late in the afternoon of the 4th and continued into the early morning hours of the 5th. Snowfall totals across north Arkansas generally ranged from 4 to 6 inches. Numerous roads were snow covered and hazardous. Meanwhile, a combination of sleet and freezing rain affected parts of western Arkansas. Ice accumulations of 1 to 2 inches were reported over Polk County, with trees and power lines downed by the weight of the ice.

Storm Data and Unusual Weather Phenomena

February 2004

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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ARKANSAS, Central and North Central

ARZ040>044	Polk - Montgomery - Garland - Saline - Pulaski				0	0			Winter Storm
	14	2100CST							
	15	0000CST							



In the picture: Cars at a department store in Sherwood (Pulaski County) became snow covered during the evening of February 14, 2004.

A mixture of snow, sleet and rain began falling over portions of western Arkansas during the morning on the 14th. The precipitation gradually moved into central Arkansas during the afternoon hours. All of the precipitation eventually changed over to all snow by late afternoon and continued into the early morning hours of the 15th. A band of heavier snow, generally from 2 to as much as 6 inches, fell from Mena, across Hot Springs to Little Rock. A number of roads were snow covered and hazardous.

ARKANSAS, East

ARZ008>009-017>018	Randolph - Clay - Lawrence - Greene				0	0	4K		Heavy Snow
	04	2200CST							
	05	0200CST							

Heavy snow fell across the northeast corner of Arkansas. Most locations saw three to five inches of snow with few places receiving up to seven inches.

ARKANSAS, Northwest

ARZ002-011	Carroll - Madison				0	0			Ice Storm
	04	1900CST							
	05	0200CST							

Strong warm advection in advance of a power upper level system caused wintry precipitation to start to fall across northwest Arkansas during the afternoon of the 4th. The precipitation began as snow but changed over to a mixture of sleet, snow and freezing rain during the early evening hours. The precipitation changed to rain during the early morning hours of the 5th before ending. Although there was some snow, sleet and ice accumulation in Washington and Benton counties, the brunt of the wintry weather hit Madison and Carroll counties. As much as two inches of sleet and a quarter of an inch of ice accumulated. Much of the ice accumulated on trees and power lines, but some secondary roads became slick and hazardous.

ARKANSAS, Southeast

ARZ074	Ashley				0	0			Heavy Snow
	15	0245CST							
		0500CST							

Heavy snow fell across Ashley county early in the morning on February 15th. Two inches of snow accumulated on grass covered areas. Snow briefly accumulated on roadways during the heaviest snowfall rates, but quickly melted as the snow rate diminished.

ARKANSAS, Southwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

February 2004

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, Extreme Southeast

NOT RECEIVED.

CALIFORNIA, North Central

NONE REPORTED.

CALIFORNIA, Northeast

CAZ072

Greater Lake Tahoe Area

01	2200PST	0	0	Heavy Snow
03	0700PST			

Winter storm moved into the Sierra Nevada on the 1st. Ahead of the cold front, rain on the 1st changed to snow on the 2nd. Up to 2 feet of snow fell in the higher elevations of the Sierra.

Storm total snowfall reported:

Northstar at Tahoe Ski Resort (6900 ft.)	8 inches
(8300 ft.)	10 inches
Squaw Valley Ski Resort (6200 ft.)	8 inches
(8200 ft.)	12 inches
Sierra at Tahoe Ski Resort	13-19 inches
Boreal Ski Resort	18 inches
Alpine Meadows Ski Resort (6800 ft)	16 inches
(8600 ft.)	22 inches

CAZ073

Mono

01	2200PST	0	0	Heavy Snow
03	0700PST			

Winter storm moved into the Sierra Nevada on the 1st. Ahead of the cold front, rain on the 1st changed to snow on the 2nd. Up to 2 feet of snow fell in the higher elevations of the Sierra.

Storm total snowfall reports:

Crowley Lake (6800 ft.)	8 inches
Mammoth Lakes	14 inches
Mammoth Mountain Ski Resort	19 inches

CAZ072

Greater Lake Tahoe Area

06	1900PST	0	0	Heavy Snow
07	0700PST			

Fast-moving winter storm system brought snow to the Sierra Nevada. Up to a foot of snow fell in the higher elevations of the Sierra.

Storm total snowfall amounts:

3 N Truckee	3-5 inches
Squaw Valley Ski Resort	3-6 inches
Soda Springs	4-6 inches
Sierra at Tahoe Ski Resort	4-6 inches
Alpine Meadows Ski Resort	6-8 inches
Northstar at Tahoe Ski Resort	9-11 inches

CAZ071

Lassen/Eastern Plumas/Eastern Sierra

17	0530PST	0	0	High Wind (G67)
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67 knot (77 mph) wind gust reported at Surprise Portable RAWS sensor 15 miles south of Eagleville.

CAZ071

Lassen/Eastern Plumas/Eastern Sierra

17	1040PST	0	0	High Wind (G55)
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55 knot (63 mph) wind gust reported at Doyle.

CAZ072

Greater Lake Tahoe Area

17	1700PST	0	0	High Wind (G108)
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108 knot (124 mph) wind gust recorded 2 miles east of Squaw Valley at sensor on Sierra crest (elevation 8700 ft).

CAZ073

Mono

17	1745PST	0	0	High Wind (G50)
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50 knot (58 mph) wind gust at Walker RAWS sensor.

CAZ072

Greater Lake Tahoe Area

18	0200PST	0	0	Heavy Snow
19	0700PST			

A cold front moved through the Sierra Nevada on the 18th. The cold air behind the front brought heavy snow to the Sierra, and a

Storm Data and Unusual Weather Phenomena

February 2004

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

CALIFORNIA, Northeast

mixture of rain and snow to the valleys to the east. Higher elevations in the Sierra received over 2 feet of snow.

Storm total snowfall reports:

Meyers	5 inches
South Lake Tahoe	8 inches
Echo Summit	10 inches
Boreal Ski Resort	10-12 inches
Alpine Meadows Ski Resort (6800 ft.)	12 inches
(8600 ft.)	18 inches
Sierra at Tahoe Ski Resort	17-24 inches

CAZ073

Mono

18	0200PST	0	0	Heavy Snow
19	0700PST			

A cold front moved through the Sierra Nevada on the 18th. The cold air behind the front brought heavy snow to the Sierra, and a mixture of rain and snow to the valleys to the east. Higher elevations in the Sierra received over 2 feet of snow.

Storm total snowfall reported:

Mammoth Mountain Ski Resort	16-24 inches
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CAZ073

Mono

25	0300PST	0	0	Heavy Snow
26	2100PST			

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Portola reported 2.03 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Storm total snowfall reports:

Crowley Lake	12 inches
Lee Vining	14 inches
Mammoth Lakes	28 inches
Devil's Gate Summit	30 inches
June Lake	30 inches
Mammoth Mountain	50 inches

CAZ071

Lassen/Eastern Plumas/Eastern Sierra

25	0300PST	0	0	Heavy Snow
26	2100PST			

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Portola reported 2.03 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Storm total snowfall reports:

Janesville	5-6 inches
Loyalton	6-8 inches
Sloat	8 inches
Portola	6-12 inches
Eagle Lake	12 inches
Westwood	12-24 inches
Yuba Pass	60 inches
Fredonyer Pass	72 inches

CAZ072

Greater Lake Tahoe Area

25	0300PST	0	0	Heavy Snow
26	2100PST			

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Portola reported 2.03 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Storm total snowfall reports:

Storm Data and Unusual Weather Phenomena

February 2004

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, Northeast

Truckee (6300 ft.)	22 inches
South Lake Tahoe	29 inches
Tahoe City	36 inches
Squaw Valley Ski Resort (6200 ft.)	34 inches
(8200 ft.)	44 inches
Northstar at Tahoe Ski Resort (6900 ft.)	41 inches
(8300 ft.)	49 inches
Sierra at Tahoe Ski Resort	45-57 inches
Alpine Meadows Ski Resort (6800 ft.)	41 inches
(8600 ft.)	58 inches
Boreal Ski Resort	60 inches

Plumas County Portola

25	0500PST								
26	0700PST				0	0			Heavy Rain

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Sloat reported 2.30 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Some storm total rainfall reports:

Sloat	2.30 inches
Portola	2.03 inches
Susanville	1.75 inches
4 S Susanville	1.46 inches
Janesville	0.98 inches

Plumas County Sloat

25	0500PST								
26	0700PST				0	0			Heavy Rain

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Sloat reported 2.30 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

CALIFORNIA, Northwest

CAZ001

	Redwood Coast								
15	2300PST				0	0			High Wind (G53)
16	0900PST								

CAZ003

	North Coast Interior								
16	2300PST				0	0			High Wind (G78)
17	1400PST								

CAZ001

	Redwood Coast								
22	0900PST				1	0			Heavy Surf/High Surf

A woman was swept to sea at Pelican Beach, 3W Smith River, by large waves as she attempted to rescue her two dogs. F58OU

CAZ001>003

	Redwood Coast - Mendocino Coast - North Coast Interior								
24	2200PST				0	0			High Wind (G70)
25	2100PST								

CAZ004

	Upper Trinity River								
25	0600PST				0	0			Heavy Snow
26	1200PST								

SNOTEL reported snow accumulations of up to 28 inches above 4000 feet.

Humboldt County

15 S Orick

25	1328PST								
	1330PST				0	0			Thunderstorm Wind (G75)

Patrick's Point State Park

CALIFORNIA, South Central

CAZ095>097

	Kern Cty Mtns - S Sierra Mtns - Tulare Cty Mtns								
02	0900PST				0	0			Winter Storm
03	0400PST								

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
CALIFORNIA, South Central									
CAZ089-091			W Central S.J. Valley - Sw S.J. Valley						
	02	0909PST 1755PST			0	0	2K		Strong Wind
	A vigorous frontal system dropped significant snow in the mountain areas on the 2nd starting this wet month for Interior Central California. Snow amounts varied from 14 inches of new snow at Tehachapi Mountain Park in the Kern Mountains to 22" at Kaiser Point in the S.Sierra Nevada. The west side of the San Joaquin Valley had gusty pre-frontal southeast wind conditions with several reports of wind in the 30-55 MPH range and even an isolated gust to 70 MPH. On the Central and San Joaquin Valley Floor rain fell with the frontal passage on the afternoon of the 2nd such as the 0.60" of rain at Clovis, northeast of Fresno.								
CAZ090			E Central S.J. Valley						
	02	0909PST 1755PST			0	0	100K		Strong Wind
	About three dozen telephone poles were toppled by heavy wind 2.5 miles NNW of Easton south of Fresno. Additional power poles were toppled just east of Madera. Locally heavy rain with the mid-afternoon frontal passage also indirectly caused numerous vehicle accidents on flooding roads.								
CAZ095-098>099			Kern Cty Mtns - Indian Wells Vly - Se Kern Cty Desert						
	03	1400PST 2100PST			0	0	3K		Strong Wind
	Strong northwest wind followed early month frontal passages in the Kern County Mountains and Deserts. Additionally, up to 4 inches of new snow fell in the Kern County Mountains at the Tehachapi Pass level during the 4th for this extended winter weather event.								
CAZ089>092			W Central S.J. Valley - E Central S.J. Valley - Sw S.J. Valley - Se S.J. Valley						
	05	0202PST 1100PST			0	0			Dense Fog
	Widespread dense fog dropped driving visibilities to less than 200 feet in many areas of the Central and South San Joaquin Valley.								
CAZ089>092			W Central S.J. Valley - E Central S.J. Valley - Sw S.J. Valley - Se S.J. Valley						
	08	0501PST 0900PST			0	0			Frost/Freeze
	Minimum temperatures varied from 30 to 32F consistently around the Central and South San Joaquin Valley.								
CAZ089>092			W Central S.J. Valley - E Central S.J. Valley - Sw S.J. Valley - Se S.J. Valley						
	10	0600PST 11 0900PST			0	0			Frost/Freeze
	Overnight minimum temperatures dropped to 29 to 32F around the Central and South Valley on the mornings of the 10th and 11th.								
CAZ091>092			Sw S.J. Valley - Se S.J. Valley						
	12	0740PST 13 1200PST			0	0	2K		Strong Wind
	Sustained southeast wind at 31 MPH with gusts up to 63 MPH were observed in the Extreme South San Joaquin Valley during the 12th with gusty conditions continuing into the morning of the 13th. The gusty conditions reached as far north as Bakersfield which had gusts to 27 knots very early on the 13th.								
CAZ096>097			S Sierra Mtns - Tulare Cty Mtns						
	17	2300PST 18 1600PST			0	0			Winter Storm
CAZ093			S Sierra Foothills						
	18	0200PST 0600PST			0	0	20K		Strong Wind
	A winter storm brought 19-25 Inches of new snow to the Tulare County Mountains, and 14-27 inches to the Southern Sierra Nevada upper elevations on the 18th. Significant rain also fell on the adjacent San Joaquin Valley floor during the event in addition to the precipitation in the mountains of Interior Central California: Lemoore had 0.68", Arvin 0.59", Merced 0.59", 0.72" Merced, and 0.86" at Glennville. Strong wind associated with the frontal passage toppled a barn in the Coarsegold area of the S.Sierra Foothills.								
CAZ095-098>099			Kern Cty Mtns - Indian Wells Vly - Se Kern Cty Desert						
	18	1013PST 19 0400PST			0	0	3K		Strong Wind
	Post-frontal northwest wind affected the Kern County Mountains and Deserts beginning late on the 18th.								
CAZ099			Se Kern Cty Desert						
	22	0615PST 1800PST			0	0	5K		Flood
	California Highway Patrol reported flooding/debris on the Redrock-Randsburg Road in the Kern Desert.								
CAZ089>090-093			W Central S.J. Valley - E Central S.J. Valley - S Sierra Foothills						
	25	1004PST 1815PST			0	1	201K	50K	Strong Wind

Storm Data and Unusual Weather Phenomena

February 2004

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, South Central

During the late morning hours in a pre-frontal condition, southeast wind gusted up to 40 knots in the Central San Joaquin Valley. Numerous power lines were downed in Merced, Livingston, and Santa Nella. A downed power line also resulted in an electrocution injury in Santa Nella. In the adjacent foothill locations wind speeds gusted to 41 knots. Accompanying the wind on the San Joaquin Valley floor were rainfall accumulations of up to 1/2-inch on the 25th: Visalia and Bakersfield 0.50", Hanford 0.46", and 0.45" at Merced. Lingering precipitation totals on the 26th added another one to three tenths of rain on the Central and South San Joaquin Valley Floor. Some almond orchard damage resulted from high wind and heavy rain accumulations in the Merced County area.

CAZ091>092	Sw S.J. Valley - Se S.J. Valley								
	25	1200PST			0	0	2K		High Wind (G65)
		1600PST							

Southeast wind gusts to 75 MPH occurred in the Extreme Southern San Joaquin Valley on the 25th at the base of the Grapevine.

CAZ091>092-095	Sw S.J. Valley - Se S.J. Valley - Kern Cty Mtns								
	25	1204PST			0	0	17K		Strong Wind
		2108PST							

Pre-frontal wind from the SSE on the 25th caused damage to power transmission poles west of Bakersfield. Consistent wind gusts in excess of 30 MPH occurred through the South and Central San Joaquin Valley. In the nearby Tehachapi Mountains gusts to 45 MPH occurred from the NE.

CAZ096>097	S Sierra Mtns - Tulare Cty Mtns								
	25	1600PST			0	0			Winter Storm
	26	2200PST							

Major snow accumulations of up to 36" occurred with the primary storm system in the higher mountain elevations and lingering shower activity added up to 7 inches of additional snow on the 26th. An unofficial sustained wind of 86 MPH and gust of 146 MPH from the SSW occurred at the Mammoth Mountain Ski Area during the evening of the 25th. Significant additional precipitation totals on the 25th reported in the mountain areas included 4.10 inches at Shaver Lake, 2.41" at Yosemite Valley, 2.40" at Pascoes on the Kern River drainage, and 1.60" at Mariposa. Additional rain amounts on the 26th varied from 1 to 1.5". The 48-hour liquid precipitation total for the Kings River Basin (S.Sierra and Tulare County Mountains) was 4.80 inches.

Fresno County									
Sanger	26	1245PST			0	0			Funnel Cloud
		1251PST							

CALIFORNIA, Southeast

CAZ026	Owens Valley								
	25	1600PST			0	0			Heavy Snow
	26	0750PST							

The town of Aspendell, CA recorded 27 inches of snow in just over 12 hours.

CALIFORNIA, Southwest

NOT RECEIVED.

CALIFORNIA, Upper

CAZ081-081	Central Siskiyou County								
	16	0645PST			0	0			High Wind (G58)
		0845PST							

Sustained winds recorded at Weed. Maximum recorded sustained wind was 42 mph.

A High Wind Warning was issued for the Shasta Valley in California zone CAZ081 at 0715 PST on 02/16 and expired at 1535 PST on 02/16. The above observations verified the warning, which was upgraded from a Wind Advisory about 30 minutes after the first verifying report.

CAZ085	Modoc County								
	17	0300PST			0	0			High Wind (G60)
		0700PST							

Spotter also reported sustained winds 40-45 mph and that it was the strongest winds in six years. This all occurred between 0300-0700 PST.

A High Wind Warning was issued for California zones CAZ083/084/085 at 1535 PST on 02/16 and expanded to CAZ081 at 2100 PST on 02/16. All warnings were downgraded to Wind Advisories at 1155 PST on 02/17. The above report was the only verifying observation.

Siskiyou County									
Weed	17	1129PST			0	0			Flash Flood

A county official reported flooding on College Ave. in Weed at 0935 PST.

An Urban and Small Stream Flood Warning was issued for California zone CAZ080/081/082/083 at 1038 PST on 04/16 and expired at 0900 PST on 04/18. Heavy rains did occur, but the only verifying report was the one listed above.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops	Character of Storm
<u>CALIFORNIA, Upper</u>								
CAZ081		Central Siskiyou County						
	24	1100PST			0	0		High Wind (G40)
	25	1200PST						
	See below.							
	A High Wind Warning was issued for California zone CAZ081 effective at the above times, but no verifying observations were recorded. While it was windy in the area, the reported winds only met Wind Advisory criteria.							
CAZ082-082		South Central Siskiyou County						
	25	1000PST			0	0		Heavy Snow
		1542PST						
	A spotter 3 S Weed recorded 12 inches of snow overnight ending at 1000 PST on 02/25.							
	A Winter Storm Warning was issued for California zones CAZ080/082 above 3000 feet at 0449 PST on 02/24. The elevation of the warning was raised to 4000 feet in CAZ080 at 0515 PST on 02/25. All warnings expired at 1415 PST on 02/26. The above observations, both on the border of CAZ081/082, verified the warning.							
<u>CALIFORNIA, West South Central</u>								
San Luis Obispo County								
1 W Oceano	02	1500PST 1505PST	0.5	5	0	0		Tornado (F0)
	A waterspout, which developed offshore of Oceano Dunes, came onshore as a weak tornado. The weak tornado hit a park ranger in his truck. Fortunately, the park ranger was not injured and his truck sustained no reportable damage.							
CAZ053>054		Ventura County Mountains - Los Angeles County Mountains Excluding The Santa Monica Range						
	02	1530PST			0	0		Heavy Snow
	03	1530PST						
CAZ059		Antelope Valley						
	02	2100PST			0	0		Winter Weather/Mix
	03	0300PST						
	A cold Pacific storm brought snow to the mountains of Ventura and Los Angeles counties as well as the Antelope Valley. In the mountains, 8 to 14 inches of snowfall was reported with the highest amounts at resort levels. In the Antelope Valley, a spotter in the Llano area reported 1 to 3 inches of snowfall.							
Los Angeles County								
South Pasadena	20	1315PST			0	0		Lightning
	Lightning struck an 80 foot tree in the South Pasadena area. The tree exploded, sending debris into several homes. No injuries were reported.							
CAZ053>054		Ventura County Mountains - Los Angeles County Mountains Excluding The Santa Monica Range						
	21	1800PST			0	0		Heavy Snow
	23	0300PST						
Los Angeles County								
11 E Azusa	22	2140PST 2200PST			0	0		Flash Flood
	A cold Pacific storm brought snow and heavy rain to sections of Southern California. In the mountains of Ventura and Los Angeles counties, 8 to 16 inches of snowfall was reported. In the Padua Burn area, California Highway Patrol reported flash flooding and mudslides which closed Mount Baldy road.							
CAZ034-037		San Luis Obispo County Central Coast - San Luis Obispo County Interior Valleys						
	25	0900PST 1400PST			0	0		High Wind (G47)
CAZ053>054		Ventura County Mountains - Los Angeles County Mountains Excluding The Santa Monica Range						
	25	1100PST			0	0		Winter Storm
	26	1800PST						
Ventura County								
4 N Simi	25	1715PST 1800PST			0	0		Flash Flood
Ventura County								
4 N Simi	25	1820PST 1900PST			0	0		Flash Flood
Ventura County								
4 N Simi	25	2110PST 2200PST			0	0		Flash Flood
Ventura County								
4 N Simi	26	0110PST 0200PST			0	0		Flash Flood

Storm Data and Unusual Weather Phenomena

February 2004

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, West South Central

A very powerful Pacific storm brought heavy rain, snow and gusty winds to Central and Southern California. The storm dumped between 1.50 and 6 inches of rainfall across the area. This rainfall produced flash flooding in and around the burn areas of Ventura county while many areas reported nuisance street flooding. In the mountains of Ventura and Los Angeles counties, 10 to 18 inches of snowfall was reported. Along with the precipitation, gusty southeast to south winds buffeted the area. The strong and gusty winds combined with the snowfall in the mountains to produce dangerous winter storm conditions.

CALIFORNIA, Western

CAZ007			Alameda / Contra Costa Counties						
	17	1000PST 1005PST			0	0			High Wind (G74)
			Strong winter storm produced a 74 mph wind gust on Kroger Peak in the East Bay Hills.						
Marin County									
Kentfield	17	1430PST 1440PST			0	0			Thunderstorm Wind (G60)
			A squall line of thunderstorms produced a 60 mph wind gust at Kentfield in Marin County.						
CAZ006			San Francisco County						
	17	1500PST 1505PST			0	0			High Wind (G63)
			Gust to 60 mph was recorded at San Francisco International Airport during strong winter storm.						
CAZ009			Coastal Monterey County						
	25	0230PST 0235PST			0	0			High Wind (G65)
			Winter storm produced wind gust to 65 mph at Moss Landing on the Monterey county coast.						
CAZ006			San Francisco County						
	25	0700PST 0705PST			0	0			High Wind (G61)
			Strong winter storm produced a 61 mph wind gust at Ft. Funston in the city of San Francisco.						
CAZ075			San Mateo Co.						
	25	0758PST 0803PST			0	0			High Wind (G61)
			Winter storm produced a 61 mph wind gust at Half Moon Bay on the San Mateo coast.						
CAZ007			Alameda / Contra Costa Counties						
	25	0800PST 0805PST			0	0			High Wind (G63)
			Strong winter storm produced 63 mph wind gust in Sunol.						
CAZ005			Sonoma / Marin Counties						
	25	0829PST 0834PST			0	0			High Wind (G58)
			Strong winter storm produced wind gust to 58 mph at Barnaby Raws site in Marin County.						
CAZ006			San Francisco County						
	25	0830PST 1230PST			0	0	3M		Flood
			The southwestern part of the city of San Francisco was hit with torrential rain as a convective element passed over the area. Some locations in the city had water to 4 feet deep.						
CAZ075			San Mateo Co.						
	25	0830PST 1230PST			0	0	500K		Flood
			Large and powerful winter storm produced intense rain rates in Daly City, sending floodwaters up to 4 feet in some neighborhoods.						
CAZ009			Coastal Monterey County						
	25	1000PST 1600PST			0	0			Storm Surge
			Large storm produced coastal overwash and resulted in the parking lot of Carmel River Beach and adjacent areas being flooded.						
CAZ074			Santa Cruz Co.						
	25	1000PST 1800PST			0	0			Storm Surge
			Strong winter storm brought ocean water onto the Boardwalk in Capitola producing damage on the pier and adjacent restaurant.						
CAZ005			Sonoma / Marin Counties						
	25	1000PST 1600PST			0	0			Storm Surge
			Large storm produced coastal overwash and brought water over the roadway at Doran Beach.						

Storm Data and Unusual Weather Phenomena

February 2004

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, Western

Alameda County

Dublin	27	0715PST 1915PST			0	0			Hail (0.75)
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A thunderstorm produced at least 3/4 inch hail just east of Dublin.

CARIBBEAN SEA AND TROPICAL ATLANTIC

Deerfield Beach To Ocean Reef Fl

15 E Port Everglades	02	1055EST			0	0			Waterspout
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A pilot reported six waterspouts in the Atlantic.

Atl Nearshore Waters

Rio Guajataca Pr

Ewd Thru Usvi

Cabo San Juan	02	1144AST 1200AST			0	0			Waterspout
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Several waterspouts were reported by a pilot between Culebra and Fajardo moving west near 5 mph.

S Santee R Sc To Savannah Ga 20 To 40Nm

43 E Folly Beach	03	0150EST			0	0			Marine Tstm Wind
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S Santee R To Edisto Beach Sc Out 20Nm

Isle Of Palms	06	1945EST			0	0			Marine Tstm Wind
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Savannah Ga To Altamaha Sd Ga Out 20Nm

19 E Sapelo Island	06	2000EST			0	0			Marine Tstm Wind
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Savannah Ga To Altamaha Sd Ga 20 To 60Nm

35 E Sapelo Island	06	2015EST			0	0			Marine Tstm Wind
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S Santee R Sc To Savannah Ga 20 To 40Nm

43 E Folly Beach	06	2038EST			0	0			Marine Tstm Wind
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Deerfield Beach To Ocean Reef Fl

10 E Port Everglades	07	1311EST			0	0			Waterspout
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A pilot saw a waterspout in the Atlantic.

Atl Nearshore Waters

Rio Guajataca Pr

Ewd Thru Usvi

Cabo San Juan	12	1430AST 1445AST			0	0			Waterspout
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A person reported a waterspout just off the east coast of Fajardo in the vicinity of Palominos Island.

Jupiter Inlet To Deerfield Beach Fl 20 To 60Nm

4 E Port Of Palm Beac	13	1950EST			0	0			Waterspout
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A pilot saw a waterspout in the Atlantic.

Atl Nearshore Waters

Rio Guajataca Pr

Ewd Thru Usvi

Cruz Bay	20	1145AST 1200AST			0	0			Waterspout
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Two spotters reported several waterspouts southeast of St. John and between Virgin Gorda and Cooper Island.

Storm Data and Unusual Weather Phenomena

February 2004

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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CARIBBEAN SEA AND TROPICAL ATLANTIC

**Flagler Beach To
Cocoa Beach Fl Out
20Nm**

10 N Cape Canaveral	24	1310EST			0	0	0	0	Marine Tstm Wind
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A wind gust to 47 knots was measured at a NASA weather tower.

**Cocoa Beach To
Jupiter Inlet Fl Out
20Nm**

2 E Vero Beach	24	1640EST			0	0	0	0	Waterspout
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The public reported a waterspout just off the shore of Vero Beach.

**Deerfield Beach To
Ocean Reef Fl**

6 SE Government Cut	25	1500EST			0	0			Marine Tstm Wind
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A severe thunderstorm moved off the mainland and across Fowey Rocks Light.

COLORADO, Central and Northeast

**COZ037 C & Se Park County
01 0000MST
0900MST**

Bands of heavy snow formed across parts of Park County. Storm totals included: 15 inches, 12 miles southwest of Hartsel, 12.5 inches, 21 miles south of Fairplay, 11 inches, 2 miles northwest of Fairplay and 3 miles north of Alma and 8.5 inches at Antero Reservoir.

COZ030-032>034 Jackson County Below 9000 Feet - Grand & Summit Counties Below 9000 Feet - S & E Jackson / Larimer / N & Ne Grand / Nw Boulder Counties Above 9000 Feet - S & Se Grand / W Central & Sw Boulder / Gilpin / Clear Creek / Summit / N & W Park Counties Above 9000 Feet

28	1436MST			0	0			Winter Storm
29	2359MST							

Widespread heavy snow fell across parts of the North-Central Mountains as well as the high valleys of Jackson and Grand Counties. Snowfall totals included: 13.5 inches, 12 miles northwest of Grand Lake, 13 inches, 5 miles north-northwest of Rand, 11 inches at Never Summer, with 10 inches reported 19 miles north of Breckenridge, 32 miles north of Grand Lake and Williams Fork Dam.

COZ042-044>046-048>051 Ne Weld County - Morgan County - C & E Adams & Arapahoe Counties - N & Ne Elbert County Below 6000 Feet / N Lincoln County - Logan County - Washington County - Sedgwick County - Phillips County

29	1430MST			0	0	0		Blizzard
	2359MST							

Blizzard conditions developed across the northeast plains of Colorado as a low pressure system intensified over the Central Plains. The combination of strong winds and heavy snow forced the closure of 20 roads and highways across northeast Colorado including: Interstates 70 and 76 east of Denver, State Highway 71 from Limon to Nebraska, U.S. Highway 138, from Sterling to Nebraska, and U.S. Highway 36 from Last Chance to Nebraska. Hundreds of travelers sought shelter in hotels, truck stops, churches and schools. Some areas also lost power as a result of the strong winds and heavy snow.

Sustained winds ranging from 30 to 45 mph with gusts to near 60 mph, caused widespread blowing and drifting snow with depths ranging from 2 feet to 6 feet. Storm totals across the northeast plains of Colorado included: 10 inches, 6 miles east of Shamrock, 8 inches, 4 miles east of Haxtun, 7 inches, 1 mile southeast of Haxtun, 4 miles southeast of Holyoke, and 8 miles southeast of Matheson, 6 inches at Brush and Hereford, with 5 inches at Limon, 5 miles west-northwest of Lindon and 14 miles north-northwest of Otis.

COLORADO, East Central

**COZ090>092 Yuma County - Kit Carson County - Cheyenne County
29 1400MST
2359MST**

29	1400MST			0	0			Blizzard
	2359MST							

A winter storm produced 2-4 inches of snow across extreme northwest Kansas, southwest Nebraska and eastern Colorado during the afternoon and overnight hours of February 29th. The snow was accompanied by a prolonged period of 40 to 60 mph winds which brought whiteout conditions and road closures. Interstate 70 was closed for approximately 15 hours from Colby, Kansas to the Denver metro area. The highest wind gust with this storm was 66 mph reported at Flagler Colorado, with numerous wind reports of 45 to 55 mph elsewhere across eastern Colorado.

Storm Data and Unusual Weather Phenomena

February 2004

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

COZ001>014-017>023 **Lower Yampa River Basin - Central Yampa River Basin - Roan And Tavaputs Plateaus - Elkhead And Park Mountains - Upper Yampa River Basin - Grand Valley - Debeque To Silt Corridor - Central Colorado River Basin - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys - Central Gunnison And Uncompahgre River Basin - West Elk And Sawatch Mountains - Flattop Mountains - Upper Gunnison River Valley - Uncompahgre Plateau And Dallas Divide - Northwestern San Juan Mountains - Southwestern San Juan Mountains - Paradox Valley / Lower Dolores River Basin - Four Corners / Upper Dolores River Basin - Animas River Basin - San Juan River Basin**

01	0000MST				0	0			
29	2359MST								Drought

Substantial and beneficial precipitation fell across much of western Colorado during the month, with snowpack near normal across most of the area. However, several years of below normal precipitation resulted in only minimal impact on the drought in western Colorado, as moderate to extreme drought conditions remained at the end of the month. See the March 2004 Storm Data publication for a continuation on this drought situation.

COZ009>010-012>013-017>019 **Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys - West Elk And Sawatch Mountains - Flattop Mountains - Uncompahgre Plateau And Dallas Divide - Northwestern San Juan Mountains - Southwestern San Juan Mountains**

03	0000MST				0	0			
05	1500MST								Winter Storm

A powerful winter storm produced widespread snowfall amounts ranging from 7 inches to around 2 feet across the mountains of western Colorado. Local snowfall amounts near 3 feet were measured on the Grand Mesa.

COZ002-006-021>023 **Central Yampa River Basin - Grand Valley - Four Corners / Upper Dolores River Basin - Animas River Basin - San Juan River Basin**

03	0000MST				0	0			
05	0400MST								Winter Storm

A powerful winter storm produced snowfall amounts ranging from 5 to 12 inches across many of the valleys of western Colorado. The heaviest snowfall occurred across the higher elevations of the southwestern valleys from Pagosa Springs to Durango, with lesser amounts in the Cortez area. The Grand Valley and Central Yampa River Basin generally received 5 to 7 inches of snow.

COZ001-003-005-007>008-020 **Lower Yampa River Basin - Roan And Tavaputs Plateaus - Upper Yampa River Basin - Debeque To Silt Corridor - Central Colorado River Basin - Paradox Valley / Lower Dolores River Basin**

03	0000MST				0	0			
05	0400MST								Winter Weather/Mix

A low pressure system moved across western Colorado and produced significant snowfall across many of the valleys and the plateau areas. The Interstate 70 corridor from Edwards to De Beque, the Roan and Tavaputs Plateaus, and the Paradox Valley/Lower Delores River areas received widespread amounts of 3 to 6 inches with local amounts of 8 to 10 inches. Amounts around 10 inches were reported across the Upper Yampa River Basin.

COZ009 **Grand And Battlement Mesas**

04	1755MST				0	0	5K		
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An avalanche swept across Highway 65 at mile marker 36 on the Grand Mesa. One vehicle was buried and the road was closed in both directions until the next day.

COZ006 **Grand Valley**

05	0530MST				0	0			
	1130MST								Dense Fog

Moist and stable conditions resulted in widespread dense fog across the Grand Valley. Spotter reports and the ASOS at Walker Field Airport indicated visibilities below 1/4 mile. The lowest visibilities occurred along the Colorado River, as well as along Interstate 70 from 24 Road to Fruita.

COZ002-005-013 **Central Yampa River Basin - Upper Yampa River Basin - Flattop Mountains**

07	1200MST				0	0			
08	1700MST								Winter Weather/Mix

A low pressure system moved over northwest Colorado and produced significant snow accumulations across the high valleys and mountain areas. 3 to 4 inches of snow was reported in the Central Yampa River Basin, with local amounts up to 8 inches in the Hayden area. 5 to 9 inches were measured across the Upper Yampa River Basin and the Flat Tops Mountains.

COZ004 **Elkhead And Park Mountains**

07	1200MST				0	0			
08	1700MST								Winter Storm

A low pressure system moved across northwest Colorado and produced snowfall amounts ranging from 5 to 20 inches across the Elkhead and Park Mountains.

COZ018 **Northwestern San Juan Mountains**

11	1500MST				0	0			
12	0800MST								Winter Weather/Mix

An upper level trough brought 5 to 7 inches of new snow to the northwest San Juan Mountains.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>COLORADO, West</u>									
COZ023			San Juan River Basin						
		11 1500MST			0	0			Winter Weather/Mix
		12 0800MST							
		An upper level trough moved southeast over southwest Colorado and produced snow across the high valleys. Snowfall amounts were generally around 3 inches.							
COZ004-010-012			Elkhead And Park Mountains - Gore And Elk Mountains/Central Mountain Valleys - West Elk And Sawatch Mountains						
		18 0800MST			0	0			Winter Weather/Mix
		19 2300MST							
		An upper level low pressure system moved over western Colorado and produced 5 to 12 inches of snow across portions of the central and northern mountains.							
COZ019			Southwestern San Juan Mountains						
		21 0000MST			0	0			Winter Storm
		22 1600MST							
		A very moist and unsettled southerly flow resulted in heavy snowfall across the southwest San Juan Mountains. Snowfall amounts ranged from 1 to 2 feet.							
COZ009-012-017>018			Grand And Battlement Mesas - West Elk And Sawatch Mountains - Uncompahgre Plateau And Dallas Divide - Northwestern San Juan Mountains						
		21 0000MST			0	0			Winter Weather/Mix
		22 1600MST							
		A very moist and unsettled southerly flow produced widespread snowfall amounts of 5 to 10 inches across much of the southern and central mountains of western Colorado, with local amounts up to 18 inches.							
COZ018			Northwestern San Juan Mountains						
		21 1745MST			0	1			Avalanche
		1815MST							
		Four ice climbers were rappelling in a popular climbing area at about 10,200 feet elevation about 9 miles north of Silverton, Colorado. An avalanche swept one of the climbers about 200 feet down the incline before he came to rest in a gully. He suffered a fractured leg, but was able to hop on one leg out of the gully before 2 more avalanches occurred and buried his backpack in the gully.							
COZ018>019			Northwestern San Juan Mountains - Southwestern San Juan Mountains						
		22 0300MST			0	0			Avalanche
		An avalanche closed Highway 550 at Red Mountain Pass for several hours.							
COZ021			Four Corners / Upper Dolores River Basin						
		23 2200MST			0	0			Winter Storm
		24 1200MST							
		A moist and unstable southeast flow brought widespread snowfall amounts of 5 to 8 inches to the lower valleys of extreme southwest Colorado.							
COZ022>023			Animas River Basin - San Juan River Basin						
		23 2200MST			0	0			Winter Weather/Mix
		24 1200MST							
		A moist and unstable southeast flow brought widespread snowfall amounts of 4 to 6 inches to the high valleys of southwest Colorado.							
COZ003>004-009>010-012>013-017>019			Roan And Tavaputs Plateaus - Elkhead And Park Mountains - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys - West Elk And Sawatch Mountains - Flattop Mountains - Uncompahgre Plateau And Dallas Divide - Northwestern San Juan Mountains - Southwestern San Juan Mountains						
		27 0000MST			0	0			Winter Storm
		29 2359MST							
		Low pressure interacted with a moist and unstable airmass and deposited 1 to 3 feet of snow across the mountains of western Colorado. Locally higher amounts near 4 feet were measured across the central and southern mountains. A 40 year old man died in deep snow along Leroux Creek Road northwest of Hotchkiss in Delta County while walking to seek help after his vehicle became stranded. A woman remained in the vehicle and was later rescued unharmed.							
COZ022>023			Animas River Basin - San Juan River Basin						
		27 0000MST			0	0	20K		Winter Storm
		28 1100MST							
		Low pressure interacted with a moist and unstable airmass and deposited 7 to 13 inches of snow across the high valleys of southwest Colorado. The heavy wet snow downed trees, tree branches, and powerlines in the Durango area. Thousands of people were left without electricity for several hours.							

Storm Data and Unusual Weather Phenomena

February 2004

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

COZ001>002-005-008-021 **Lower Yampa River Basin - Central Yampa River Basin - Upper Yampa River Basin - Central Colorado River Basin - Four Corners / Upper Dolores River Basin**

27	0000MST				0	0			Winter Weather/Mix
29	2359MST								

Low pressure interacted with a moist and unstable airmass and produced significant snowfall across many of the valleys of western Colorado. 3 to 5 inches of new snow were common, except in the Upper Yampa River Basin where 10 inches was measured.

COZ018>019 **Northwestern San Juan Mountains - Southwestern San Juan Mountains**

29	1200MST				0	0			Avalanche
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Highway 550 was closed for an extended period of time due to natural avalanches from heavy snowfall. Portions of the highway were buried up to 10 feet deep in compacted snow.

COZ018 **Northwestern San Juan Mountains**

29	1930MST				0	0			Avalanche
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Heavy snow resulted in several avalanches in the Ophir and Telluride areas in the northwestern San Juan Mountains. An avalanche which occurred in the Spring Creek area over Ophir downed a 115 kilovolt power line which served as the main conduit of electricity to area towns. The main access road to the town of Ophir was impassable due to avalanche debris, penning residents in the town. Many homes and businesses were without power for an extended period of time. Electricity to Mountain Village and Telluride Ski Resort was disrupted, leaving ski lifts and gondolas inoperable for several hours. The town of Telluride was also without electricity for a period of time.

CONNECTICUT, Northeast

NONE REPORTED.

CONNECTICUT, Northwest

NONE REPORTED.

CONNECTICUT, Southern

NONE REPORTED.

DELAWARE

DEZ001 **New Castle**

03	1732EST				0	0			Flood
04	0245EST								

The combination of run-off from the earlier rain, the melting snow and ice jams in the streams caused some minor flooding along the White and Red Clay Creeks during the evening of the 3rd into the early morning of the 4th. The White Clay Creek near Newark in Delaware Park was above its 13 foot flood stage from 1245 a.m. through 245 a.m. EST on the 4th. It crested at 13.29 feet at 145 a.m. EST. The Red Clay Creek at Wooddale was above its 5.5 foot flood stage from 532 p.m. through 820 p.m. EST on the 3rd. It crested at 5.74 feet at 7 p.m. EST. Farther downstream, the Red Clay Creek at Stanton was above its 15 foot flood stage from 859 p.m. through 1054 p.m. EST on the 3rd. It crested at 15.2 feet at 10 p.m. EST. Storm totals included 0.61 inches in Wilmington, 0.60 inches in Newark and 0.56 inches at the New Castle County Airport

DEZ001>002 **New Castle - Kent**

05	2200EST				0	0			Winter Weather/Mix
06	0830EST								

A wintry mix of snow, sleet and freezing rain fell across northern sections of Delaware from the late evening on the 5th until around sunrise on the 6th. Precipitation began as snow on the 5th and changed quickly to sleet and freezing rain. Little, if any, snow accumulated. But, up to around one-tenth of an inch of ice accrued on exposed surfaces. Untreated roadways and walkways were very treacherous. A couple of serious accidents occurred before the change to rain in New Castle County. A 70-year-old man died in Newark after his pick-up truck struck several small trees, rolled onto its passenger side, spun and then righted itself. An 18-year-old woman was critically injured in Middletown when her Sports Utility Vehicle overturned after slipping on a patch of ice on U.S. Route 13. The vehicle was traveling southbound when it skidded into the median, then went airborne and rolled several times before landing on its roof in the northbound lanes. Precipitation changed to plain rain from south to north from around 5 a.m. EST in southern Kent County to around 830 a.m. EST in northern New Castle County.

The low pressure system responsible for the wintry weather developed in the western Gulf of Mexico on the 5th. It moved northeast reaching the Tennessee Valley on the evening of the 5th and into the Great Lakes on the morning of the 6th. Its associated warm front moved north from the Carolinas on the morning of the 6th into the lower Delmarva Peninsula during the afternoon of the 6th before stalling. The occluded front associated with the primary low pressure system (It went northeast from the Great Lakes through the Saint Lawrence River Valley.) moved through the region during the night of the 6th. The initial cold air near the surface was provided by a high pressure system from Eastern Canada. It moved offshore overnight on the 5th and during the day on the 6th as the southeast flow around it brought in warmer air from the Atlantic Ocean into the region.

Storm Data and Unusual Weather Phenomena

February 2004

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

DEZ002>004

Kent - Inland Sussex - Delaware Beaches

17	1500EST				0	0			Winter Weather/Mix
18	0300EST								

An offshore low pressure system's western edge of its precipitation shield passed over central and southern Delaware and dropped between 1 and 4 inches of snow on the region. Snow began falling during the second half of the afternoon. Temperatures remained above freezing through the evening commute and the snow did not start accumulating on roadways until after the commute was over. In Sussex County, temperatures did remain close to the freezing mark and this did limit the overall accumulations, especially on roadways. The snow ended during the early morning of the 18th. No major accidents were reported.

Specific accumulations included 3.5 inches in Lewes and Harbeson (Sussex County), 2.0 inches in Long Neck (Sussex County), 1.0 inch in Fenwick Island and Greenwood (Sussex County) and 0.8 inches in Dover (Kent County).

The low pressure system responsible for the snow developed along the coastal waters east of Georgia during the morning of the 17th. By the early evening of the 17th, a pair of low pressure systems were located east of Cape Hatteras, North Carolina and Charleston, South Carolina. These combined into one overnight and passed about 250 miles east of the Delmarva Peninsula on the morning of the 18th.

DISTRICT OF COLUMBIA

DCZ001

District Of Columbia

05	1700EST				0	0			Winter Weather/Mix
06	2000EST								

A low pressure system brought freezing rain and sleet to the Washington Metropolitan area. A light glaze formed on some surfaces. This led to school closures and a few automobile accidents.

On a separate note, temperatures warmed well above freezing on Saturday the 7th. This allowed the snow pack and ice that fell on the 5th and 6th to melt. This led to some minor flooding and late night travel problems when surfaces glazed over again once temperatures fell below freezing overnight.

FLORIDA, East Central

Brevard County

Titusville	24	1240EST			0	0	0	0	Thunderstorm Wind (G51)
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Titusville airport measured a wind gust to 59 mph.

FLORIDA, Extreme Southern

NONE REPORTED.

FLORIDA, Northeastern

NONE REPORTED.

FLORIDA, Northwest

Holmes County

6 NE Bonifay	06	1217EST			0	0	10K		Thunderstorm Wind (G50)
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A roof was ripped off a barn with several downed trees near the intersection of County Road 173 and Antique Road. Reported by the Holmes County Sheriff.

Wakulla County

Southwest Portion	24	0815EST 0830EST			0	0	100K		Thunderstorm Wind (G50)
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A roof was blown off a two-story house on Mashas Sands Road along Ocklockonee Bay. A half mile south of the house, a portion of an overhang to a gas station at the intersection of U.S. Highway 98 and the Ocklockonee Bay Bridge was torn off. Twenty homes were without electricity after pine and cedar trees fell onto power lines on Curtis Mill Road near Sopchoppy. A few large pine trees were uprooted in a yard on Highway 365 north of Sopchoppy. Debris littered much of U.S. Highway 98 from the Ocklockonee Bay Bridge to Panacea. Reported by the Wakulla County EMA.

FLORIDA, Southern

Broward County

Dania	01	0220EST 0700EST			0	0	30K		Flash Flood
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Broward County

Ft Lauderdale	01	0220EST 0700EST			0	0			Flash Flood
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Broward County

Hollywood	01	0220EST 0700EST			0	0			Flash Flood
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Storm Data and Unusual Weather Phenomena

February 2004

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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FLORIDA, Southern

Broward County

Pompano Beach	01	0220EST 0700EST			0	0	300K		Flash Flood
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Four to six inches of rain fell in a three-hour period causing extensive street flooding and some residential flooding. Hardest hit was a condominium complex in which the parking basement was flooded with eight feet of water, damaging numerous vehicles.

Miami - Dade County

Opa Locka	25	1336EST			0	0			Thunderstorm Wind (G53)
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A severe thunderstorm moved through northeast Miami-Dade County downing a few trees and power lines.

Miami - Dade County

Miami	25	1400EST			0	0	150K		Heavy Rain
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Heavy rain caused the collapse of an apartment complex roof damaging 29 units.

FLORIDA, West Central

FLZ050>051-055-060>062-065 **Pinellas - Hillsborough - Manatee - Sarasota - De Soto - Charlotte - Lee**

	02	0300EST 0900EST			0	0			Dense Fog
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Widespread fog reduced visibility to less than a quarter mile across parts of west central and southwest Florida. One indirect death was reported as a truck carrying 7,400 gallons of gasoline overturned on Interstate 75 near North Port in Sarasota County. The truck exploded into flames, killing the driver and destroying a southbound bridge of the Interstate.

Citrus County

7 N Crystal River to 9 NNE Crystal River	23	2345EST 2354EST			0	2	300K		Thunderstorm Wind (G61)
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A severe thunderstorm wind gust of 70 mph caused tree and home damage to a rectangular area 4.5 miles by 3 miles across in north central Citrus county. Citrus County Emergency Management conducted a survey and found the damage was caused by straight line winds. Seven mobile homes were destroyed, seven homes had major damage, and 33 homes had minor damage. Most of the minor damage included damage to pool cages, car ports, and skirting around mobile homes. Two injuries were reported on the 8500 block of West Moonhaze Court. One man suffered minor back injury as the wall of his mobile home fell on him as he slept. One woman suffered an eye injury from debris as her mobile home lost its roof. Numerous trees were downed or damaged along the path of the storm. Debris removal costs were \$36,000.

Citrus County

Chassahowitzka	24	1200EST			0	0			Heavy Rain
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Chassahowitzka recorded 4.33 inches of rain during the event.

Levy County

Inglis	24	1200EST			0	0			Heavy Rain
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Inglis recorded 4.50 inches of rain during the event.

Hernando County

Brksvil Hernndo Co F	25	0500EST 2300EST			0	0			Heavy Rain
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The airport recorded 6.76 inches of rain during the event.

Sumter County

Bushnell	25	0600EST 2300EST			0	0			Heavy Rain
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Bushnell recorded 6.51 inches of rain during the event.

Pasco County

2 NW Gowers Corner	25	0800EST			0	0			Heavy Rain
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Two miles northwest of Gowers Corner recorded 4.40 inches of rain during the event

Pinellas County

St Pete Clearwater I	25	0900EST			0	0			Heavy Rain
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The airport recorded 4.44 inches of rain during the event.

Hillsborough County

Thonotosassa	25	1000EST			0	0			Heavy Rain
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Thonotosassa recorded 4.02 inches of rain during the event.

Heavy rainfall occurred over a large portion of west central and southwest Florida. This was the first widespread heavy rain event since tropical storm Henri in early September of 2003. A strong upper level trough moved slowly across the southeastern United States and combined with a quasi-stationary front across the area to produce the heavy rain. The heaviest rains in excess of five

Storm Data and Unusual Weather Phenomena

February 2004

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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FLORIDA, West Central

inches occurred across Hernando and northern Pasco counties eastward into Sumter county. Elsewhere, widespread rain fall totals of two to four inches was recorded. No major flooding occurred during the event due to dry conditions during the preceding five months.

Hillsborough County
3.5 N (Tpa)Tampa Intl
2.2 NE (Tpa)Tampa
Intl Arprt

24	1300EST								
		0	0	40K					Thunderstorm Wind (G52)

A thunderstorm wind gust estimated at 60 mph created 2.5 miles of damage near the Tampa International Airport according to a survey completed by Hillsborough County Emergency Management. Tree damage brought down power lines near the 5800 block of Benjamin Road. The damage extended southeast to the intersection of North Clark and Idlewild. A portion of a tar roof on home on West Hanna Avenue blew off and allowed heavy rains to cause significant water damage inside the home.

Hillsborough County
5 W Brandon

24	1310EST								
		0	0	15K	5K				Thunderstorm Wind (G39)

A thunderstorm gust front damaged a plant nursery on 58th Street near Rose Lane. The flat topped roof of the nursery lost some tar paper and heavy rains caused significant water damage inside. No trees were downed but tarps acting as a green house were ripped and thrown about.

Polk County
2 WSW Auburndale

24	1345EST	0.3	30						
				0	0	10K			Tornado (F0)

Polk County Emergency Management completed a storm survey and found shingles stripped off a brick home and four mobile homes with minor damage, including damage to skirting, awnings, and attached shed. An eyewitness watch a thin tornado move through the area. The wind speed of the tornado was estimated at 70 mph.

Polk County
Ft Meade

24	1400EST								
		0	0	10K					Thunderstorm Wind (G40)

A line of thunderstorms moved through Fort Meade and caused damage to light structures. The overroof of a mobile home blew off (but the original roof remained damage free), awnings were blown down, and several homes with porch patios had damage to their roofs and screens.

FLORIDA, West Panhandle

Escambia County
Bellevue

06	0750CST								
	0752CST	0	0	30K					Thunderstorm Wind (G50)

A line of thunderstorms moved through Escambia county shortly after sunrise. Winds from one of the storms blew down several large limbs and a couple of trees near Bellevue. Power lines were also blown down and a couple of homes suffered minor roof damage from the high winds.

GEORGIA, East Central

NONE REPORTED.

GEORGIA, Lower

NONE REPORTED.

GEORGIA, North and Central

GAZ021

	Cherokee								
	05	1300EST		0	0	25K			Strong Wind
		1430EST							

The Cherokee county Emergency Manager reported that strong winds, associated with rain shower activity, blew a large tree down onto a home in Canton causing major damage to the structure.

Dade County
New England to
Trenton

06	0200EST								
	0530EST	0	0						Heavy Rain

The Dade county 911 center reported that heavy rain had caused some minor flooding on two roads, one between New England and Trenton and the other in the city of Trenton.

Chattooga County
Countywide

06	0500EST								
	0815EST	0	0						Flash Flood

The Chattooga county 911 center reported that heavy rainfall had resulted in flooding of several roads throughout the county, particularly between Chelsea and the Dade county line along Georgia Highway 337. Several roads in the Summerville area also had to be closed because of high flowing water. In some spots, up to one foot of water was flowing over the roads.

Storm Data and Unusual Weather Phenomena

February 2004

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

Catoosa County

Countywide	06	0515EST 0830EST			0	0			Heavy Rain
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The Catoosa county 911 center reported that six to seven roads around the county were closed because of minor flooding. Most of the problems were in the Ringgold area.

Whitfield County

Countywide	06	0520EST 0845EST			0	0			Heavy Rain
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The Whitfield county 911 center reported high water on several roads across the county. However, no road closures were reported.

Murray County

Countywide	06	0613EST 0930EST			0	0			Flash Flood
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The Murray county 911 center reported that several roads around the county were flooded and had to be closed. The worst flooding occurred on Georgia Highway 52 west of Chatsworth leading into Whitfield county, where water up to one foot deep was flowing over a bridge.

White County

Cleveland	06	0830EST 1000EST			0	0			Heavy Rain
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The public reported that locally heavy rain had contributed to localized flooding of roads and streets in the area.

Gordon County

Countywide	06	0842EST 1030EST			0	0			Flash Flood
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The Gordon county 911 center reported that several roads in the county were flooded and some had to be closed. Georgia Highway 53 in Calhoun was flooded and closed because of high water caused by a creek which had flowed out of its banks. The water was estimated to be approximately one foot deep flowing over the road. A number of the roads across the county had several inches of water standing or flowing over them from heavy rain during the early morning hours.

GAZ001>009-011>016-019>025-027-030>039-041>060-066>073-078-082-089>090

Dade - Walker - Catoosa - Whitfield - Murray - Fannin - Gilmer - Union - Towns - Chattooga - Gordon - Pickens - Dawson - Lumpkin - White - Floyd - Bartow - Cherokee - Forsyth - Hall - Banks - Jackson - Madison - Polk - Paulding - Cobb - North Fulton - Gwinnett - Barrow - Clarke - Oconee - Oglethorpe - Wilkes - Haralson - Carroll - Douglas - South Fulton - De Kalb - Rockdale - Walton - Newton - Morgan - Greene - Taliaferro - Heard - Coweta - Fayette - Clayton - Spalding - Henry - Butts - Jasper - Putnam - Troup - Meriwether - Pike - Upson - Lamar - Monroe - Jones - Baldwin - Harris - Bibb - Muscogee - Chattahoochee

25	2130EST			0	0	170K		Strong Wind
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An area of strong winds, with gusts estimated between 40 and 50 mph, accompanied the leading edge of an area of showers as they moved across north and a large portion of central Georgia during the late evening hours of the 25th and the early morning hours of the 26th, generally between 10 pm EST on the 25th and 2 am EST on the 26th. A number of trees and power lines were blown down across the region. In addition, a large pine tree was blown onto a home in Roswell in North Fulton county causing substantial damage to the roof and a small carport was blown over west of Gray in Jones county near the Bibb county line. An estimated 61,000 residents, mainly in north Georgia, lost power during the event. Much of the night was required to restore power to these homes, complicated considerably by the snow and sleet which was falling in the area at the time. Some residents across north Georgia did not have their power restored until the afternoon of the 26th. The precipitation with these showers fell mainly as snow north of Interstate 20, sleet to about 50 miles south of Interstate 20, and rain elsewhere.

GAZ001>009-011>016-019>025-027-030>039-041>060

Dade - Walker - Catoosa - Whitfield - Murray - Fannin - Gilmer - Union - Towns - Chattooga - Gordon - Pickens - Dawson - Lumpkin - White - Floyd - Bartow - Cherokee - Forsyth - Hall - Banks - Jackson - Madison - Polk - Paulding - Cobb - North Fulton - Gwinnett - Barrow - Clarke - Oconee - Oglethorpe - Wilkes - Haralson - Carroll - Douglas - South Fulton - De Kalb - Rockdale - Walton - Newton - Morgan - Greene - Taliaferro - Heard - Coweta - Fayette - Clayton - Spalding - Henry - Butts - Jasper - Putnam

26	0000EST 1200EST			0	0			Winter Storm
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Another winter wedge of cold air in place across north and central Georgia combined with a strong upper-level storm system moving across the Midsouth to bring a mixture of snow and sleet to much of north and the northern parts of central Georgia. The heaviest precipitation occurred as the leading edge of the precipitation area moved east into Georgia shortly after midnight on the 26th. This activity was accompanied by thunderstorms with snow, sleet, and wind gusts of 30 to 40 mph. Even some gusts to near 50 mph were reported. The convective nature of the activity led to significant variations in snow and sleet amounts across the state, with several counties in North Georgia reporting three inches or more of snow during the 6-hour period between approximately 3 am EST and 9 am EST. Most of the snow fell north of a line from Carrollton, to Atlanta, to Madison, to Washington, with a mixture of snow and sleet as far south as Franklin, Peachtree City, Griffin, Monticello, Eatonton, and Crawfordville. Sleet showers were reported as far south as Macon. Snowfall north of Interstate 20 averaged 1-2 inches, while the snow/sleet mixture south of

Storm Data and Unusual Weather Phenomena

February 2004

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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GEORGIA, North and Central

I-20 averaged less than 1 inch. Bartow county in northwest Georgia received the most with up to five inches of snow in some locations, with Towns and Barrow counties in northeast Georgia receiving the next most with four inches. Other counties receiving up to three inches of snow included Dade, Whitfield, Gilmer, White, Hall, Banks, and Carroll. Temperatures across north Georgia, north of Interstate 20, averaged around 32-33 degrees during the event. Thus, as with previous events this winter, accumulations of snow were mostly confined to grassy, elevated surfaces, and exposed objects. However, some accumulation of snow was reported on the roads in the higher elevations of north central and northeast Georgia. The winter storm forced the closure of approximately 446 schools and businesses.

Sumter County 7.5 S Americus

26	0145EST				0	0			Hail (0.75)
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The public reported penny-sized hail.

GEORGIA, Northeast

GAZ010-017

Rabun - Habersham

02	0500EST				0	0			Winter Weather/Mix
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Light freezing rain developed during the morning hours across the Georgia mountains, producing a thin layer of glaze that was responsible for several traffic accidents.

GAZ010-017>018-026-029

Rabun - Habersham - Stephens - Franklin - Elbert

26	0400EST				0	0			Winter Weather/Mix
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Light snow developed during the pre-dawn hours across extreme northeast Georgia. Up to 3 inches had accumulated by late morning.

GAZ029

Elbert

26	0600EST				0	0			Winter Storm
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Precipitation intensified and transitioned to a sleet/snow mixture during the late morning hours across portions of northeast Georgia. By noon, accumulations of 3 to 5 inches had occurred. Roads were slick and hazardous for a while, but most of the sleet and snow melted during the afternoon.

GAZ018

Stephens

26	1500EST				0	0			Heavy Snow
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Heavy snow redeveloped across portions of northeast Georgia during the late afternoon, producing total snowfall amounts of 3 to 5 inches before tapering off after midnight.

GEORGIA, Southeast

Jenkins County

Herndon to Birdsville

06	1600EST				0	0			Thunderstorm Wind (G50)
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Thunderstorm winds knocked down trees.

Tattnall County

Reidsville

06	1640EST	0.3	100		0	0	10K		Tornado (F0)
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A tornado destroyed a shed and damaged a hospital biohazard building, damaged the 911 facility, downed trees, and blew out windows.

Tattnall County

4 E Reidsville

06	1658EST				0	0			Thunderstorm Wind (G50)
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A barn and a camper were damaged.

Bulloch County

Denmark

26	0355EST				0	0			Thunderstorm Wind (G50)
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Thunderstorm winds knocked down trees and power lines and blew over a traffic light.

Bulloch County

Statesboro

26	0415EST				0	0			Thunderstorm Wind (G50)
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Trees and power lines were down.

Screven County

Newington

26	0445EST				0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

February 2004

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

GEORGIA, Southwest

Ben Hill County

1 E Fitzgerald to 4 NE Fitzgerald	06	1506EST 1512EST			0	0	50K	Thunderstorm Wind (G50)
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Several trees uprooted in a cemetery on Evergreen Road just east of Fitzgerald. Several sheds and trees were blown over with some houses damaged on Delta, Camp and Brooklyn roads northeast of Fitzgerald. Reported by the Fitzgerald Herald Leader.

GULF OF MEXICO

Atchafalaya R To Cameron La Out 20Nm

20 SSW Cypremort Poi	04	1750CST			0	0		Marine Tstm Wind
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Reported on offshore oil rig.

Atchafalaya R To Cameron La 20 To 60Nm

50 SSW Cypremort Poi	04	1910CST			0	0		Marine Tstm Wind
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Reported on offshore oil rig.

Atchafalaya R To Cameron La 20 To 60Nm

56 S Cypremort Point	04	2000CST			0	0		Marine Tstm Wind
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Reported on offshore oil rig.

Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm

20 S Venice	04	2058CST			0	0		Marine Tstm Wind
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Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm

20 S Venice	04	2121CST			0	0		Marine Tstm Wind
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Lake Ponchartrain And Lake Maurepas N Lake Pontchartrain

N Lake Pontchartrain	04	2232CST			0	0		Marine Tstm Wind
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Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm

20 S Venice	04	2239CST			0	0		Marine Tstm Wind
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Lake Ponchartrain And Lake Maurepas Lkfrnt Arpt New

Lkfrnt Arpt New	04	2259CST			0	0		Marine Tstm Wind
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Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm

45 E Venice	06	0751CST			0	0		Marine Tstm Wind
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Destin To Pensacola Fl Out 20Nm

Ft Walton Beach	06	0855CST 0857CST			0	0		Marine Tstm Wind
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Destin To Pensacola Fl Out 20Nm

10 S Ft Walton Beach	06	1005CST 1008CST			0	0		Marine Tstm Wind
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Lake Ponchartrain And Lake Maurepas Lkfrnt Arpt New

Lkfrnt Arpt New	23	0933CST			0	0		Marine Tstm Wind
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Lake Ponchartrain And Lake Maurepas Mid Lke Pontchartrain

Mid Lke Pontchartrain	23	0945CST			0	0		Marine Tstm Wind
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Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>GULF OF MEXICO</u>									
Lake Ponchartrain And Lake Maurepas Mid Lke Pontchartrain	23	1010CST			0	0			Marine Tstm Wind
Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm 20 S Venice	23	1046CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm 22 SSE Biloxi	23	1147CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm 22 SSE Biloxi	23	1222CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm 22 SSE Biloxi	23	1254CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm Dauphin Island	23	1310CST 1313CST			0	0			Marine Tstm Wind
Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm Grand Isle	23	1312CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm 45 E Venice	23	1404CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm 22 SSE Biloxi	23	1437CST			0	0			Marine Tstm Wind
Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm 20 S Venice	23	1459CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm 29 SE Venice	23	1512CST			0	0			Marine Tstm Wind
Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm 20 S Venice	23	1542CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm 45 E Venice	23	1548CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm 45 E Venice	23	1605CST			0	0			Marine Tstm Wind

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>GULF OF MEXICO</u>									
Lake Ponchartrain And Lake Maurepas									
Lkfrnt Arpt New	23	1621CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm									
45 E Venice	23	1651CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm									
45 E Venice	23	1848CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R 20 To 60Nm									
45 E Venice	23	1925CST			0	0			Marine Tstm Wind
Suwannee R To Apalachicola Fl Out 20Nm									
7 SW Panacea to 7 SE Panacea	24	0815EST 0825EST			0	0			Waterspout
Two waterspouts reported over the Ocklockonee Bay by the Franklin County EMA.									
Corpus Christi To Baffin Bay									
6 NNW Corpus Christi	24	1148CST			0	0			Marine Tstm Wind
Recorded by TCOON site at Whitepoint.									
Pt O'Connor To Aransas Pass									
Mesquite Bay	24	1230CST			0	0			Marine Tstm Wind
Recorded by Matagorda RAWS site.									
Matagorda Ship Chnl To Pt Aransas Out 20Nm									
5 SE Mesquite Bay	24	1235CST			0	0			Marine Tstm Wind
Estimated from Matagorda RAWS site.									
Pt Aransas To Baffin Bay Tx 20 To 60Nm									
50 SE Corpus Christi	24	1350CST			0	0			Marine Tstm Wind
Estimated from Bouy 42020.									
Tampa Bay									
Old Tampa Bay	24	1255EST			0	0			Waterspout
A waterspout was reported near the Howard Franklin Bridge on the Pinellas County side, which is about 2.5 miles north of the St Petersburg/Clearwater International Airport.									
Sw Pass Of The Ms R To Atchafalaya R La Out 20Nm									
Grand Isle	25	0057CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm									
22 SSE Biloxi	25	0310CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
15 S Dauphin Island	25	1045CST 1047CST			0	0			Marine Tstm Wind

Storm Data and Unusual Weather Phenomena

February 2004

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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GULF OF MEXICO

Pensacola Fl To Pascagoula Ms Out 20Nm

5 S Dauphin Island to 15 S Dauphin Island	25	1140CST 1150CST			0	0			Marine Tstm Wind
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Pensacola Fl To Pascagoula Ms 20 To 60Nm

40 S Dauphin Island to 50 S Dauphin Island	25	1140CST 1145CST			0	0			Marine Tstm Wind
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Key W To Dry Tortugas Waters

10 SW Key West	25	1924EST			0	0			Marine Tstm Wind
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Wind gust 34 knots (39 mph) measured at Sand Key C-MAN Station.

Craig Key To The W End Of The 7 Mile Bridge Out 20Nm

8 SW Marathon	25	2013EST			0	0			Marine Tstm Wind
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Wind gust 36 knots (41 mph) measured at Sombrero Key Light C-MAN Station.

HAWAII

HIZ001-004-008

Kauai - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau

01	0000HST				0	0			Heavy Surf/High Surf
02	1500HST								

A trade wind swell generated surf of 6 to 10 feet along the east-facing shores of Kauai and the Big Island of Hawaii. There were no reports of serious injuries or property damage.

HIZ001-004-008

Kauai - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau

06	0800HST				0	0			Heavy Surf/High Surf
07	1400HST								

A trade wind swell produced surf of 6 to 10 feet along the east-facing shores of Kauai and the Big Island of Hawaii. No serious property damage or injuries were reported.

Honolulu County

2 E Aiea	07	1640HST 1655HST	1	15	0	0			Tornado (F0)
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A small tornado was spotted in Halawa Heights on the island of Oahu. However, no serious injuries or property damage were reported.

HIZ001>003-005-007

Kauai - Oahu - Maui - Molokai - West Hawaii Including Leeward Kohala And Kona

11	0700HST				0	0			Heavy Surf/High Surf
14	1200HST								

A storm low far northwest of Hawaii caused surf of 10 to 15 feet along the north-facing shores, and 6 to 12 feet along the west-facing shores, of Kauai, Oahu, Maui, and Molokai. The same system generated surf of 6 to 12 feet along the west-facing shores of the Big Island of Hawaii. No serious property damage or injuries were reported.

HIZ001>003-005-007

Kauai - Oahu - Maui - Molokai - West Hawaii Including Leeward Kohala And Kona

19	1000HST				0	1			Heavy Surf/High Surf
23	1700HST								

A deep storm low off the east coast of Japan produced surf of 15 to 20 feet along the north-facing shores, and 10 to 15 feet along the west-facing shores, of Kauai, Oahu, Maui, and Molokai. The feature also caused surf of 10 to 15 feet along the west-facing shores of the Big Island of Hawaii. One surfer sustained severe head injuries near Mokuleia on the North Shore of Oahu on the morning of the 19th. The high surf also forced the closure of dozens of beaches on Kauai, Oahu, and the Big Island over the four-day event. Alii Drive near Kailua Kona on the Big Island was closed for a time, as well, as the higher surf kept inundating the roadway. However, there were no reports of serious property damage.

Honolulu County

Honolulu	26	1510HST 1845HST			0	0			Flash Flood
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Heavy showers and thunderstorms associated with a cold front caused flooding along the Manoa Stream in Honolulu, near Kahaloa Drive. There were no reports of serious injuries or property damage, however.

Storm Data and Unusual Weather Phenomena

February 2004

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, Southeast

IDZ021

following by the afternoon of the 18th: 44 inches at Lost Wood Divide, 24 inches at Galena, 25 inches at Dollarhide, 20 inches at Mill Creek, 22 inches at Swede Peak,

Lower Snake River Plain

19	0400MST 1000MST	0	0		Heavy Snow
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A phenomena known as the Snake River Plain Convergence Zone caused a period of heavy snow the morning of the 19th. Generally 5 to 7 inches of snow fell in the Pocatello area in a 6 hour period with 5.5 inches officially at the NWS office. The heavy wet snow caused the closing of all School District 25 schools in the city.

IDZ018>019-023-031>032

Sawtooth Mountains - Upper Snake Highlands - Caribou Highlands - Big And Little Wood River Region - Lost River / Pahsimeroi

25	2200MST	0	0		Heavy Snow
26	2200MST				

Heavy snow fell in the mountainous regions of southeast Idaho. Spotters reported 12 inches in Spencer, 12 inches in Ketchum, and 9 inches in Island Park. SNOTEL sites reported 12 inches at Bear Canyon, 9 inches at Stickney Mill, 12 inches at White Elephant, 10 inches at Sedgewick Peak, 13 inches at Dollarhide, 11 inches at Galena Summit, 11 inches at Vienna Mine, 15 inches at Hilts Creek

IDZ021>023

Lower Snake River Plain - South Central Highlands - Caribou Highlands

28	0500MST	0	0		Heavy Snow
29	0800MST				

The final snowstorm of a very snowy month affected the Pocatello area and surrounding mountains beginning on the 28th and continuing until the early morning of the 29th. The storm totaled 7.5 inches at the NWS office in Pocatello, 14 inches in American Falls, 10 inches in Malad, 6 inches in Henry, 7 inches in Elba, 6 inches in Albion, 9 inches at Sedgewick Peak, 12 inches at Wildhorse Divide, 12 inches at Howell Canyon, 12 inches at Woodruff, and 11 inches on the east benches of Pocatello. .

IDZ031

Big And Little Wood River Region

28	1645MST 1715MST	1	0		Avalanche
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Avalanche just north of Ketchum buried and killed a snowmobiler. Determined he died from force of avalanche and injuries suffered rather than asphyxiation. M29OU

IDAHO, Southwest

IDZ015>016

Southwest Highlands - Western Magic Valley

06	2300MST	0	0		Heavy Snow
07	1300MST				

Pacific storm system moving eastward across the region left behind up to ten inches of new snow in the Western Magic Valley and the Southwest Highlands of Idaho. Wide spread advisory level snow of two to five inches also fell over much of Eastern Oregon and Southern Idaho.

IDZ011-013-028

West Central Mountains - Boise Mountains - Camas Prairie

16	1800MST	0	0		Heavy Snow
17	1100MST				

Heavy snow fell in the colder areas of Baker County Oregon, Westcentral Mountains, Boise Mountains and the Camas Prairie of Idaho ahead of a Pacific warm front moving eastward across the region. Snow fall amounts of five to ten inches were common in these areas.

IDZ011-013

West Central Mountains - Boise Mountains

25	2300MST	0	0		Heavy Snow
26	0600MST				

A vigorous Pacific storm system that moved eastward into Idaho from Eastern Oregon during the late afternoon and across Southwestern Idaho during the night left behind heavy snow in the Westcentral and Boise Mountains of Idaho. Snow Fall amounts of five to 10 inches with up to a foot or more in the higher elevation were common across the area.

IDZ030

Southern Twin Falls County

26	1000MST 1300MST	0	0		Heavy Snow
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A band of cloudiness moving northward from Northern Nevada into Southern Idaho brought with it heavy snow to Southern Twin Falls County in Southcentral Idaho. Snow fall amounts up to seven inches occurred across the area.

ILLINOIS, Central

NONE REPORTED.

ILLINOIS, Northeast

ILZ014

Cook

02	0700CST	1	0		Extreme Cold/Wind Chill
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56 year old man found dead in home, due to hypothermia/cold exposure. Overnight low temperature was 23F. M56PH

Storm Data and Unusual Weather Phenomena

February 2004

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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ILLINOIS, Northeast

ILZ014		Cook							
		06	0700CST		1	0			Extreme Cold/Wind Chill
		Male, unknown age found dead outdoors, due to hypothermia/cold exposure. Overnight low temperature 26F. M?OU							

ILZ014		Cook							
		18	0700CST		1	0			Extreme Cold/Wind Chill
		84 year old woman found dead in home, due to hypothermia/cold exposure. Overnight low temperature 14F. F84PH							

ILLINOIS, Northwest

NONE REPORTED.

ILLINOIS, South

ILZ075>076-080>082-084-088>089 **Jefferson - Wayne - Perry - Franklin - Hamilton - Jackson - Union - Johnson**

		05	0400CST		0	0			Heavy Snow
			0700CST						

Three to five inches of snow fell across most of southern Illinois, except for the far southern and eastern counties bordering the Ohio and Wabash Rivers, where only 2 or 3 inches fell. An area of intense snowfall moved northeast from southeast Missouri around midnight. Snowfall rates of 1 to 2 inches per hour were reported in southwest Illinois during the pre-dawn hours on the 5th. Thundersnow was observed at many locations across southern Illinois, with visibility below one quarter mile. The early morning commute on Feb. 5 was very messy. Numerous traffic mishaps were reported, and most schools were closed for the day. Illinois State Police district headquarters at DuQuoin reported almost 20 vehicles went off the road on their section of Interstate 57, including at least two semis. There were also five multi-vehicle accidents in the DuQuoin state police district, but no serious injuries were reported. Temperatures during this snowfall event were right near the freezing mark. As a result, the accumulation was wet and heavy. The snow was caused by a slow-moving upper level low near the Colorado/Kansas border. A weak surface low pressure center developed over Arkansas, then moved northeast into northern Tennessee by the evening of Feb. 5.

ILZ087-090>094									
		Gallatin - Pope - Hardin - Alexander - Pulaski - Massac							
		08	1800CST		0	0			Flood
		18	2000CST						

The Ohio River rose above flood stage in southern Illinois for about a week and a half. The flooding was minor, with only bottomland and surrounding low-lying areas affected. This included some parks and recreational grounds near the river, as well as agricultural land that was dormant this time of year. At Shawneetown, where flood stage is 33 feet, the river crested at 39.6 feet on the 15th. At Golconda, where flood stage is 40 feet, the river crested at 40.4 feet on the 15th. The crests at Brookport and Grand Chain were 4 to 5 feet above flood stage on the 13th. The crest at Cairo was about a foot above flood stage on the 15th.

ILLINOIS, Southwest

NONE REPORTED.

INDIANA, Central

NONE REPORTED.

INDIANA, Northeast

NONE REPORTED.

INDIANA, Northwest

NONE REPORTED.

INDIANA, South Central

INZ089		Perry							
		10	0900EST		0	0			Flood
		13	1650EST						

The Ohio River at Tell City crested at 40.1 feet at 7 AM EST on February 12. Flood stage at Tell City is 38 feet. At this level, Indiana Highway 66 is closed two miles above Cannelton. The floodwall begins to close.

INDIANA, Southeast

NOT RECEIVED.

INDIANA, Southwest

INZ081>082-085>088									
		Gibson - Pike - Posey - Vanderburgh - Warrick - Spencer							
		05	0400CST		0	0			Winter Weather/Mix
			0900CST						

Storm Data and Unusual Weather Phenomena

February 2004

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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INDIANA, Southwest

One to two inches of snow fell across southwest Indiana. The highest amounts were in Gibson County, including the Princeton area. The snow was heavy and wet since temperatures were near freezing. The timing of the snow was just before the morning commute. This caused many schools to cancel classes. Indiana State Police responded to 12 slide-offs and minor crashes during the time of the morning commute. Temperatures rose above freezing during the mid-morning hours, causing the snow to melt quickly off most roads before noon.

INZ081>082-085>088	Gibson - Pike - Posey - Vanderburgh - Warrick - Spencer								
	06 2000CST				0	0			Winter Weather/Mix
	07 0700CST								

Light snow began during the evening hours, starting as a period of freezing drizzle. Police reported icy conditions. Bridges and overpasses were especially dangerous. Snow accumulations on top of the ice were around one half inch.

INZ085-087>088	Posey - Warrick - Spencer								
	09 1300CST				0	0			Flood
	17 1800CST								

The Ohio River rose above flood stage in southwest Indiana for about a week. The flooding was minor, with mainly bottomland and surrounding low-lying areas affected. This included some recreational land along the river, as well as a few side roads and agricultural land. The farmland was dormant during this time of year, so crop damage was nil. At Newburgh, where flood stage is 38 feet, the river crested at 43.3 feet on the 13th. At Mount Vernon, where flood stage is 35 feet, the river crested at 39.6 feet on the 14th.

IOWA, Central

IAZ005-007-016>017-023>026-033>037-044>047-057>058-070	Kossuth - Worth - Hancock - Cerro Gordo - Pocahontas - Humboldt - Wright - Franklin - Sac - Calhoun - Webster - Hamilton - Hardin - Crawford - Carroll - Greene - Boone - Audubon - Guthrie - Cass
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	02 0400CST								
	1700CST				0	0			Heavy Snow

A widespread snow event took place during the 1st and 2nd of February. An Arctic airmass was in place over Iowa during the last few days of January while low pressure formed over the southern Rockies. The surface low did not become very well organized until the late afternoon of the 2nd, however there was a pronounced upper level trough traversing the central U.S. A large area of isentropic lift produced a broad area of snow over the central U.S. The northward transport of warm air was very evident between 800 and 850 mb, where soundings indicated a layer of above freezing air already by the evening of the 1st. This event was a long and drawn out event with the first snow beginning before sunrise on the 1st. It snowed for 18 to 24 hours in most places before the snow reached warning criteria. The snow continued through much of the day on the 2nd, however accumulation rates were low. The evidence of the warm air was apparent during the evening of the 1st as sleet and some freezing drizzle was reported over about the southeast half of Iowa. There were even reports of thunder received from Marshall County. The sleet and freezing drizzle did not become a major problem, but did continue off and on for several hours from the mid afternoon through the evening of the 1st. Snow was falling quite heavily during the evening of the 1st until a strong dry punch moved over the state. This stopped the snow over the southeast half of the state and help to produce a narrow deformation band of snow running from near Omaha to near Mason City. Snow was persistent in this area with snowfall totals in the 8 to 11 inch range common. Some of the heavier totals included nearly 13 inches at Britt in Hancock County, and 11 inches in Fort Dodge in Webster County. There were several reports in the 9 to 10 inch range as well.

IAZ033-044>046-057>061-070>074-081>085-092>097	Sac - Crawford - Carroll - Greene - Audubon - Guthrie - Dallas - Polk - Jasper - Cass - Adair - Madison - Warren - Marion - Adams - Union - Clarke - Lucas - Monroe - Taylor - Ringgold - Decatur - Wayne - Appanoose - Davis
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	05 1400CST								
	2300CST				0	0			Heavy Snow

Heavy snow spread into Iowa as a sustained southerly flow of moist air took place over the central U.S. Low pressure formed over the southwest U.S. and tracked northeast across north Texas into northern Indiana. A closed upper level low pressure was associated with this storm and helped produce significant lift over the area. A broad band of snow developed during the early morning hours of the 5th, with snow spreading over much of the area by around sunrise. Southwest Iowa had already seen 1 to 3 inches by sunrise however. As the dry progressed, bands of heavy snow developed in the warm conveyor ahead of the upper low. Snowfall peaked during the mid to late afternoon hours with snowfall rates of 2 inches or more per hour reported at some locations. Visibility was reduced to under 100 meters in many areas for a one to two hour period due to heavy snow. The snow hit in Des Moines just before the rush hour. With a snowfall rate of 2 inches per hour for two hours, this caused significant travel problems. Elsewhere around the state, travel was hampered though it was not stopped. The Iowa DOT recommended no travel over about the southwest third of the state. Many activities were called off on the evening of the 5th, with numerous school closings or delays on the morning of the 6th. Fortunately, wind was not a major factor with this system. Wind speeds were in the 10 to 20 MPH range. This caused drifting of snow, but very little blowing snow. The heaviest snow amount received came from Osceola in Clarke County with 10.2 inches. Several areas reported 8 to 9 inches in a band extending from Guthrie Center, to the southwest part of the Des Moines Metropolitan area, south to Lamoni.

Storm Data and Unusual Weather Phenomena

February 2004

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, East Central and Southeast

**IAZ040>042-051>053- Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Johnson - Keokuk
064-076**

05	1200CST								
06	0400CST				0	0	40K		Heavy Snow

A winter storm moved across parts of Eastern and Northeast Iowa during the afternoon of 5 February 2004 and pre-dawn hours of 6 February 2004. General snowfall amounts of 4 to 6 inches were reported in about a 12 hour period with mesoscale banding producing areas of 6 to 8 inches. Locally higher amounts of 9 inches were reported across the northern parts of Delaware and Dubuque counties. During the evening of 5 February 2004, visibilities in rural areas were down to near zero due mainly to the large snowflakes and snowfall rates that were briefly 1 to 2 inches per hour. Several public works directors indicated that it was the heaviest snow that they had seen in the past 3 to 5 years.

IAZ063

Iowa

21	1233CST								
25	1455CST				0	0			Flood

Warming temperatures combined with recent rain caused an ice jam to form on the Iowa river downstream of the County Road V66 bridge north of Marengo, Iowa. The buildup of water behind the ice jam caused some minor flooding of agricultural land before it broke on the afternoon of 25 February 2004.

IOWA, Northeast

IAZ008>010-018>019 Mitchell - Howard - Winneshiek - Floyd - Chickasaw

01	0800CST								
02	2300CST				0	0			Winter Storm

A winter storm hit northeast Iowa producing snow accumulations of 6 to 9 inches. Specific snowfall reports included 8.9 inches at Osage (Mitchell County), 7.5 inches at Charles City (Floyd County) and 7 inches at Fort Atkinson (Winneshiek County).

IAZ011-019-029>030

Allamakee - Chickasaw - Fayette - Clayton

05	1500CST								
06	1000CST				0	0			Winter Storm

6 to 9 inches of snow fell over parts of northeast Iowa. Volunteer weather observers reported 9 inches and 7 inches respectively at Edgewood and Garnavillo (Clayton County). Other specific snowfall reports included 6.5 inches at New Hampton (Chickasaw County), 6.2 inches near Waterville (Allamakee County) and 6.0 inches at West Union (Fayette County).

IOWA, Northwest

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

01	1500CST								
02	1200CST				0	0			Winter Weather/Mix

Snowfall of 3 to 6 inches combined with previously existing snowpack and drifting snow to cause travel delays. The snow and drifting also cancelled or delayed classes and athletic events at some schools.

**IAZ014-021>022-
031>032**

Clay - Cherokee - Buena Vista - Woodbury - Ida

01	1800CST								
02	1100CST				0	0			Winter Storm

Snowfall of 5 to 8 inches was accompanied by drifting snow. Travel was slowed, and some schools cancelled or delayed classes. Several scholastic athletic events were also cancelled or postponed.

IAZ020-031

Plymouth - Woodbury

05	0800CST								
06	0400CST				0	0			Winter Storm

Snowfall of 5 to 7 inches was preceded by freezing rain, leaving an icy layer beneath the snow on roads and making travel extremely difficult. Several vehicles slid off roads and into ditches. Winds gusting up to 30 mph caused drifting snow which made travel difficult. Classes were cancelled or delayed at several schools.

**IAZ001>003-012>014- Lyon - Osceola - Dickinson - Sioux - O'Brien - Clay - Cherokee - Buena Vista - Ida
021>022-032**

05	0800CST								
06	0800CST				0	0			Winter Weather/Mix

Snowfall of 3 to 6 inches made travel very difficult. Several vehicles slid off roads and into ditches. Wind gusts up to 30 mph caused drifting snow, adding to the hazardous travel conditions. Classes at several schools were cancelled or delayed.

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

11	0600CST								
	1900CST				0	0			Winter Weather/Mix

Strong northwest winds, gusting as high as 40 mph, combined with heavy snow cover to cause widespread blowing and drifting snow. Visibilities were frequently below a half mile in open areas. The drifting and low visibilities made travel hazardous, and slippery roads caused by the drifting added to the hazard. Although the slippery areas were scattered, several vehicles slid off roads

Storm Data and Unusual Weather Phenomena

February 2004

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

and into ditches, notably in an area east of Sioux City in Woodbury County. Numerous schools either cancelled classes or released students early. Light snow accumulated to less than a half inch, but added to the visibility reduction at times.

IOWA, Southwest

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

01	0000CST								
02	1000CST			0	0				Winter Storm

The second winter storm in a week hit a large part of southeast and east central Nebraska and parts of southwest Iowa. Precipitation began over much the area late Saturday evening the 31st as Freezing drizzle. The freezing drizzle changed to snow by early Sunday February 1st and continued into Monday morning the 2nd. During a 2 to 3 hour period Sunday afternoon a heavy snow band set up from around Beatrice northeast through eastern Lincoln, into Omaha and then toward Harlan Iowa. The band was only 10 to 20 miles wide, but snowfall rates under the heaviest part of it were on the order of 2 inches or even more per hour. The band lifted slowly northeast across nearly the same area from around noon through 3pm before weakening and merging with the rest of the snow that was occurring across the region at that time. Thus, those locations under the band reported the greatest storm totals with this storm. The storm closed many schools for the second Monday in a row. Some schools remained closed yet on Tuesday, especially those located under the heavier band of snow.

Omaha Eppley picked up 11 inches of snow from this storm. When combined with the storm from the previous week, the snow depth reached 21 inches as of 900 am on 2/2/04. That set a record snow depth for the month of February. Most other locations throughout the Omaha area reported 8 to 10 inches of snowfall.

Additional higher amounts from the storm in eastern Nebraska included 10 inches at Gretna and Papillion, 9 inches at Tecumseh, and eastern Lincoln, and 7 to 8 inches at Elkhorn, the NWS in Valley, Beatrice, Hickman, Pawnee City, Springfield, Wilber, and Tobias.

Higher storm totals in western Iowa included 9 inches at Logan, 8 inches at Oakland and Harlan and 7 inches in Little Sioux, Glenwood, Pacific Junction, Castana, and Underwood.

IAZ043-055>056-069-079>080 Monona - Harrison - Shelby - Pottawattamie - Mills - Montgomery

05	0000CST								
	1800CST			0	0				Winter Storm

This was the third winter storm that hit most of eastern Nebraska and southwest Iowa in a week and a half period. Light to occasionally moderate snow began over parts of eastern Nebraska during the afternoon on Wednesday 2/4/04. The snow intensity and coverage then increased eastward into western Iowa between 3am and 6am Thursday 2/5/04. Although much of the snow decreased to flurries by evening on the 5th, light snow continued off and on into Friday morning. However, much of the accumulating snows had ended by around 6pm on the 5th.

Storm totals through early Thursday evening over much of west central Iowa were in the 5 to 8 inch range. Specific storm totals in western Iowa included...8 inches in Harlan, 7 inches at Little Sioux, Underwood and Oakland.

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

01	0001CST								
02	0800CST			2	1				Winter Storm

The winter storm that began late on January 31 continued into February 2. Freezing rain and sleet with up to one half inch of glazing south of Interstate 70 gradually changed to all snow everywhere by late in the evening of the 1st. By the morning of the 2nd when snow gradually ended total snow accumulations varied from an inch or less south of Interstate 35 up to 5 to 10 inches along Interstate 70 and around 10 to 14 inches near the Nebraska border. Some totals included 16 inches at Washington, 12 inches at Baileyville, 11 inches at Centralia and Manhattan, and 10 inches at Agenda and near Fostoria. Two fatalities occurred on Interstate 35 near Melvern in Osage county around 8pm of the 1st. The vehicle slid off Interstate 35 into a ditch and hit a bridge support pillar. The driver and occupant were both killed. Another vehicle accident seriously injured a 27 year old male. M52VE, F21VE

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

04	0400CST								
05	1600CST			0	0				Winter Storm

Another winter storm moved across the area and brought another round of snow. Amounts ranged from 3 to 8 inches with the

Storm Data and Unusual Weather Phenomena

February 2004

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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KANSAS, East

KSZ008>012-020>024-026-034>040-054>056-058>059

lighter amounts generally in east central Kansas. Some of the heavier amounts included 6 to 8 inches around Concordia and Hiawatha, 6 to 7 inches at Council Grove, and 6 inches at Lyndon, Oskaloosa Topeka, Washington and Westmoreland.

Republic - Washington - Marshall - Nemaha - Brown - Cloud - Clay - Riley - Pottawatomie - Jackson - Jefferson - Ottawa - Dickinson - Geary - Morris - Wabaunsee - Shawnee - Douglas - Lyon - Osage - Franklin - Coffey - Anderson

	17	0100CST 0915CST			0	0			Dense Fog
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Dense fog reduced visibilities to a few yards in many places before dissipating after sunrise.

**Geary County
3 SE Junction City**

	29	1530CST			0	0	5K		Thunderstorm Wind (G65)
--	----	---------	--	--	---	---	----	--	-------------------------

Strong winds destroyed 2 outbuildings.

**Ottawa County
1 NW Tescott**

	29	1752CST			0	0		Hail (0.75)
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**Ottawa County
Ada**

	29	1802CST			0	0		Hail (1.00)
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**Cloud County
5 SE Glasco**

	29	1825CST			0	0		Hail (0.88)
--	----	---------	--	--	---	---	--	-------------

**Ottawa County
Delphos**

	29	1830CST			0	0		Hail (1.00)
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**Ottawa County
5 NE Delphos**

	29	1832CST			0	0		Hail (1.00)
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**Nemaha County
St Benedict**

	29	1630CST			0	0	10K		Thunderstorm Wind (G55)
--	----	---------	--	--	---	---	-----	--	-------------------------

Strong winds damaged 3 homes and 2 outbuildings.

**Ottawa County
7 ENE Delphos**

	29	1842CST			0	0	20K		Thunderstorm Wind (G70)
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Strong winds damaged a farmstead and destroyed several outbuildings, a corral, and cattle feeder.

**Cloud County
10 ESE Glasco**

	29	1844CST			0	0	28K		Thunderstorm Wind (G70)
--	----	---------	--	--	---	---	-----	--	-------------------------

strong winds destroyed several outbuildings and a shed at a farmstead. A shed and pickup camper in it were also destroyed.

**Shawnee County
Rossville**

	29	1900CST			0	0		Thunderstorm Wind (G61)
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A large tree was uprooted.

**Lyon County
Reading**

	29	1905CST			0	0		Hail (1.00)
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**Osage County
4 N Osage City**

	29	1918CST			0	0		Hail (0.75)
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**Wabaunsee County
5 NE Eskridge**

	29	1938CST			0	0		Hail (0.75)
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**Brown County
1 N Robinson**

	29	2008CST			0	0		Hail (0.75)
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Thunderstorms developed over central Kansas the afternoon of the 29th and gradually spread east into northeast and east central Kansas in the early evening. Many became severe and produced numerous reports of large hail and damaging winds.

KANSAS, Extreme Southeast

KSZ073-097

Bourbon - Crawford

	05	2200CST			0	0		Winter Storm
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A strong winter storm system affected extreme southeast Kansas during the overnight hours of February 4th and into February 5th. A mixture of freezing rain, sleet, and snow fell over the region allowing storm totals of one to eight inches of accumulation over Cherokee, Crawford, and Bourbon Counties. Accumulations were greatest over Crawford and Bourbon Counties with storm total amounts of five to eight inches.

KANSAS, North Central

KSZ007-018>019

Jewell - Osborne - Mitchell

	01	0000CST 1600CST			0	0	0	0	Winter Storm
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A winter storm moving across the southern plains brought a glancing blow of snow and ice to north-central Kansas. The event began as a mixture of freezing drizzle and snow, before changing to all snow during the pre-dawn hours. The snow continued into mid-afternoon before tapering off. The heaviest snow of around 6 inches fell across a large part of Mitchell county, but also

Storm Data and Unusual Weather Phenomena

February 2004

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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KANSAS, North Central

southeast Jewell county and extreme southeast Osborne county.

KSZ005>007-018>019 Phillips - Smith - Jewell - Osborne - Mitchell

04	0300CST				0	0	0	0	Winter Storm
05	0600CST								

A major winter storm dumped heavy snow across most of north-central Kansas. The snow began early on the 4th and continued through about dawn on the 5th. Heavy snow fell in two separate bursts, with the second burst producing snowfall rates of 1 to 2 inches per hour. Total snowfall across north-central Kansas ranged from 6 inches at Ionia, to nearly 12 inches at Lebanon and almost 14 inches at Beloit. A large majority of schools were closed due to snow on the 4th and 5th. The snow also brought very beneficial moisture to areas of drought-stricken north-central Kansas.

KANSAS, Northeast

KSZ057-103>105 Miami - Leavenworth - Wyandotte - Johnson

05	1300CST				0	0			Winter Storm
	1800CST								

A winter storm on February 5th left a widespread area of 6 to 8 inches of snow.

Atchison County
3 E Arrington

29	2045CST				0	0			Hail (0.75)
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KANSAS, Northwest

KSZ001>004-015>016-029 Cheyenne - Rawlins - Decatur - Norton - Sheridan - Graham - Gove

04	0000MST				0	0			Winter Storm
05	0000MST								

A winter storm produced a band of 5-7 inches of snow across northwest Kansas and southwest Nebraska. The heavy snow resulted in school closures and numerous minor traffic accidents in the area.

KSZ001-013-027 Cheyenne - Sherman - Wallace

29	1700MST				0	0			Blizzard
	2359MST								

A winter storm produced 2-4 inches of snow across extreme northwest Kansas, southwest Nebraska and eastern Colorado during the afternoon and overnight hours of February 29th. The snow was accompanied by a prolonged period of 40 to 60 mph winds which brought whiteout conditions and road closures. Interstate 70 was closed for approximately 15 hours from Colby, Kansas to the Denver metro area. In Sherman county KS, all highways in the county were closed overnight. The highest wind gust with this storm was 66 mph reported at Flagler Colorado, with numerous reports of 45 to 55 mph winds elsewhere in northwest Kansas, southwest Nebraska and eastern Colorado.

KANSAS, Southeast

KSZ033-048>053-067>069-083 Lincoln - Ellsworth - Saline - Rice - Mcpherson - Marion - Chase - Reno - Harvey - Butler - Sedgwick

01	0400CST				0	0			Winter Storm
02	0900CST								

Widespread moderate to heavy snow covered Lincoln, Ellsworth, Rice, Saline, Marion, and Chase counties with 6-8 inch accumulations. The snow was preceded by periods of freezing rain that had begun Saturday night. Across the remaining counties, snow accumulations ranged from 2-5 inches. However, widespread freezing rain was the determinant in the Winter Storm Warning verification process, with ice accumulations reaching 1/4 inch prior to the onset of snow. Countless ice-related accidents resulted, both vehicle and fall related. From 11AM-8PM on Sunday, Feb. 1st, a Wichita 911 dispatch supervisor reported a staggering 960 calls had been received, an average of 107 calls per hour! Trained spotters and area newspapers contributed greatly to this narrative.

Barton - Ellsworth - Marion - Chase - Kingman - Sedgwick - Harper - Sumner

KSZ047>048-052>053-082>083-091>092

04	1300CST				0	0			Winter Storm
	2100CST								

Although following almost the same track as it's predecessor of February 1st & 2nd, this snow storm was more convective, as reports confirm. For example, accumulations across Sedgwick County ranged from 3 inches at Wichita's Mid-Continent Airport, to 6 inches in Clearwater, just 15 miles to the Southwest. The Winter Storm Warning verifying counties were also spread out, with no one particular region, be it Central, South-Central, or Southeast Kansas, being favored. The heavy snows occurring across parts of Kingman, Harper and Sumner counties resulted from pronounced convergence along a 925-MB front that gradually pivoted as the day progressed. With the northeast segment of the front lifting north, scattered convective snows were able to venture further north into parts of Central Kansas in the evening.

Lincoln County
7 SW Westfall

29	1735CST				0	0			Hail (0.75)
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Lincoln County
6 N Beverly

29	1758CST				0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

February 2004

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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KANSAS, Southeast

Lincoln County

6 NNE Beverly 29 1808CST 0 0 Hail (1.75)

Chase County

1 E Strong City 29 1809CST 0 0 Hail (0.75)

KANSAS, Southwest

KSZ030>031-

043>046-061>066-

074>081-087>090

Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Meade - Clark - Comanche - Barber

01 0000CST 0 0 Winter Weather/Mix
2000CST

Light snow began across the northwest part of Dodge City's CWA Saturday evening, January 31st, while freezing rain and freezing drizzle occurred in parts of south central Kansas. The precipitation had changed over to all snow by late Sunday morning, February 1st, and increased in intensity during the day. Many traffic accidents occurred overnight Saturday and into Sunday, Feb. 1st due to a coating of ice on the roadways, before the new snow fell. A family of five from Liberal were killed Saturday evening, January 31st around 6 PM CST, when their van hit a patch of ice 4 miles west of Pratt, and skidded head-on into eastbound tractor trailer. Also, many weekend events and church services had to be either canceled or postponed in Stafford, Pratt, Kiowa, and Edwards Counties, including both the boys and girls basketball tournaments in Stafford. Most of the snow ended or moved east out Dodge City's CWA by 7 PM CST Sunday. The highest snowfall report was 5 inches from the west side of Pratt in Pratt County. A 35-mile wide band with snowfall from 3.5 to 4 inches fell from northeast Kearny County into west central Scott County. Reports from 2.5 to 3 inches were received from just east of Pratt, southeast of Scott City in Scott County, west of Dighton in Lane County, east of Victoria in Ellis County, south of Collyer in Trego County, near Friend in Finney County and at Medicine Lodge in Barber County. Amounts of 2 inches or less were received from elsewhere around southwest and south central Kansas, except the far southwest corner of Kansas.

KSZ030>031-

043>046-061>066-

074>081-087>090

Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Meade - Clark - Comanche - Barber

01 0000CST 0 0 Winter Weather/Mix
2000CST

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KSZ030>031-

043>046-061>066-

074>081-087>090

Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Meade - Clark - Comanche - Barber

01 0000CST 0 0 Winter Weather/Mix
2000CST

Light snow began across the northwest part of Dodge City's CWA Saturday evening, January 31st, while freezing rain and freezing drizzle occurred in parts of south central Kansas. The precipitation had changed over to all snow by late Sunday morning, February 1st, and increased in intensity during the day. Many traffic accidents occurred overnight Saturday and into Sunday, Feb. 1st due to a coating of ice on the roadways, before the new snow fell. A family of five from Liberal were killed Saturday evening, January 31st around 6 PM CST, when their van hit a patch of ice 4 miles west of Pratt, and skidded head-on into eastbound tractor trailer. Also, many weekend events and church services had to be either canceled or postponed in Stafford, Pratt, Kiowa, and Edwards Counties, including both the boys and girls basketball tournaments in Stafford. Most of the snow ended or moved east out Dodge City's CWA by 7 PM CST Sunday. The highest snowfall report was 5 inches from the west side of Pratt in Pratt County. A 35-mile wide band with snowfall from 3.5 to 4 inches fell from northeast Kearny County into west central Scott County. Reports from 2.5 to 3 inches were received from just east of Pratt, southeast of Scott City in Scott County, west of Dighton in Lane County, east of Victoria in Ellis County, south of Collyer in Trego County, near Friend in Finney County and at Medicine Lodge in Barber County. Amounts of 2 inches or less were received from elsewhere around southwest and south central Kansas, except the far southwest corner of Kansas.

Storm Data and Unusual Weather Phenomena

February 2004

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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KANSAS, Southwest

KSZ030>031-043>046-062>066-075>081-085>090 **Trego - Ellis - Scott - Lane - Ness - Rush - Kearny - Finney - Hodgeman - Pawnee - Stafford - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Stevens - Seward - Meade - Clark - Comanche - Barber**

03	1800CST								
04	2100CST				0	0			Winter Storm

Light to moderate snow showers began falling across parts of central Kansas during the evening of Tuesday, February 3rd, and became more numerous and spread into much of southwest and the rest of south central Kansas during the morning of Wednesday, February 4th. Numerous schools closed, and remained closed through the weekend. Road crews were confronted with a layer of ice after snow was plowed. This ice and snow on roadways caused a number of accidents during the next two days, mainly in Ness, Ellis, Pawnee, Stafford, Pratt and Barber Counties. By the time the snow ended Wednesday evening, a 2 county-wide swath with 6 to 8 inch snow depths, fell from near Medicine Lodge in Barber County to St. John in Stafford County, to Hays in Ellis County, then back to the southwest to near Dighton in Lane County. An area of 4 to 5 inch snow amounts, 30 to 70 miles wide, fell to the west of the heavier amounts listed above, with the center line running from Ashland in Clark County to Jetmore in Hodgeman County, through northwestern Finney County to northwestern Lane County. Amounts from 1 to 3 inches fell from near Scott City to just east of Lakin in Kearney County to Liberal in Seward County, including the communities of Cimarron and Sublette. The snow tapered off or ended by 3 PM CST in the central part of DDC's CWA, and ended by 9 PM CST in the eastern CWA.

KENTUCKY, Central

Russell County

05	1530EST								
	2100EST				0	0			Flash Flood

2.5 NE Salem

Cumberland County Countywide

05	1600EST								
	2100EST				0	0	40K		Flash Flood

Clinton County Albany

05	1700EST								
	2100EST				0	0			Flash Flood

KYZ066>067-078-081>082 **Casey - Lincoln - Russell - Cumberland - Clinton**

05	1800EST								
06	0700EST				0	0	50K		Flood

Heavy rains of four inches or more fell over south central Kentucky, causing widespread flooding and some flash flooding. In Cumberland County, rainfall amounts were reported in the two to five inch range. Chism, Bombshell, Casey Fork, and Leatherwood Roads were impassable in spots due to high water. Several county roads were washed out. There was a foot of water in downtown Burkesville. Many Creeks in the county were out of their banks.

Four inches of rain fell in Liberty in Casey County. Around three feet of water covered some roads in the town. Sections of Highway 198 in Casey and Lincoln Counties were under water.

In Russell County, normally dry creek beds were overflowing their banks. Parts of Mount Eden Road were flooded.

A few roads in the city of Albany in Clinton County were under water.

KYZ061

Butler									
06	1300EST								
09	1040EST				0	0			Flood

The Green River at Woodbury crested at 36.5 feet at 7 AM EST on February 8. Flood stage at Woodbury is 33 feet. At this level, minor flooding occurs. Lowlands around the town begin flooding. Several county roads are covered with water when the river reaches 37 feet.

KYZ063

Hart									
06	2235EST								
07	1455EST				0	0			Flood

The Green River at Munfordville crested at 28.7 feet around 6 AM EST on February 7. Flood stage at Munfordville is 28 feet. Minor flooding occurs at this level. The city park under the US 31W bridge is flooded.

KYZ061

Butler									
07	0700EST								
10	1330EST				0	0			Flood

The Green River at Rochester crested at 18.5 feet at 7 AM EST on February 9. Flood stage at Rochester is 17 feet. Minor flooding occurs at this level.

KYZ062

Edmonson									
07	0915EST								
08	1640EST				0	0			Flood

The Green River at Brownsville crested at 19.2 feet at 2 AM EST on February 8. Flood stage at Brownsville is 18 feet. At this level, minor flooding occurs. The river begins to overflow the lock walls and some of the lower banks, creeks, sloughs, and some bottomland.

Storm Data and Unusual Weather Phenomena

February 2004

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, Eastern</u>									
KYZ079-110			Pulaski - Floyd						
	05	0720EST			0	0	0	0	Ice Storm
		1115EST							
			One quarter inch of ice was reported in Somerset.						
KYZ084			Mccreary						
	05	0808EST			0	0	0	0	Winter Storm
		1115EST							
			One half inch of freezing rain and sleet was reported in Stearns. A small area of sleet, freezing rain, and snow fell in pockets of southeastern Kentucky. All precipitation types changed to rain by late morning.						
Whitley County									
Countywide	05	1400EST			0	0	0	0	Flash Flood
	06	1900EST							
Pulaski County									
Countywide	05	1430EST			0	0	0	0	Flash Flood
		1900EST							
Wayne County									
Countywide	05	1530EST			0	0	0	0	Flash Flood
		1900EST							
Mccreary County									
Countywide	05	1709EST			0	0	0	0	Flash Flood
		1900EST							
KYZ058>059-068>069-079>080-083>087-106-109>111-114>118			Estill - Powell - Rockcastle - Jackson - Pulaski - Laurel - Wayne - Mccreary - Whitley - Knox - Bell - Morgan - Magoffin - Floyd - Lee - Owsley - Perry - Clay - Leslie - Letcher						
	05	1900EST			0	0	0	0	Flood
	09	1600EST							
Jackson County									
Countywide	06	0303EST			0	0	0	0	Flash Flood
		0700EST							
Estill County									
Countywide	06	0329EST			0	0	0	0	Flash Flood
		0930EST							
Lee County									
Countywide	06	0515EST			0	0	0	0	Flash Flood
		0930EST							
Owsley County									
Countywide	06	0530EST			0	0	0	0	Flash Flood
		0730EST							
Martin County									
Beauty	06	0900EST			0	0	0	0	Flash Flood
		1200EST							
			Route 40 was flooded near the community of Beauty. A rain event that lasted from February 5th through the 7th cause widespread flooding of area highways and secondary roads. The rain caused flash flooding for many areas at onset, and as the rain continued, the flooding became a widespread and long lived flooding event for several locations. Many businesses, schools, and churches closed because countless roads were completely submerged in water across the area. In some cases, as in Estill and Wayne Counties, the flooding lasted for days, well after the rain had ended.						
KYZ085>086-111>112-114			Whitley - Knox - Lee - Breathitt - Owsley						
	06	0454EST			0	0	0	0	Flood
	09	0349EST							
			A crest of 25.25 feet occurred at Williamsburg. Heavy rain produced flooding along the Kentucky River and Cumberland River.						
<u>KENTUCKY, Northeast</u>									
KYZ102>103-105			Carter - Boyd - Lawrence						
	05	2330EST			0	0			Flood
	06	0300EST							
			Rains of 1.5 to 2 inches fell in 12 to 18 hours, causing small streams to flood over roads. The water did not reach into dwellings. A						

Storm Data and Unusual Weather Phenomena

February 2004

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, Northeast

strong rise occurred on the Little Sandy River. The river crested later on the afternoon of the 6th, about a foot below flood stage at Grayson.

KENTUCKY, Northern

NOT RECEIVED.

KENTUCKY, Southwest

KYZ001>022

Fulton - Hickman - Carlisle - Ballard - Mcracken - Graves - Livingston - Marshall - Calloway - Crittenden - Lyon - Trigg - Caldwell - Union - Webster - Hopkins - Christian - Henderson - Daviess - Mclean - Muhlenberg - Todd

05	0030CST	0	0	Winter Weather/Mix
	0700CST			

One to three inches of snow fell across most of western Kentucky, except for places from Hopkinsville east and south, which received less than an inch. The highest amounts were around Paducah. The snow was heavy and wet since temperatures were near freezing. Most of the snow fell in about two hours, accompanied by thunder and lightning in many places. The timing of the heaviest snow was just before the morning commute. This caused most schools to cancel classes. Early morning flights from the Owensboro-Daviess County Regional Airport were cancelled. Temperatures rose above freezing during the mid-morning hours, causing the snow to melt quickly off most roads before noon.

KYZ021

Muhlenberg

06	0800CST	0	0	Flood
15	1900CST			

The Green River rose above flood stage at the Paradise plant near Central City. The flooding was minor, with a crest about 5 feet above flood stage on the 10th. Bottomland and surrounding low-lying areas were affected, including dormant farmland.

KYZ001>008-010>011-013>016-018>020

Fulton - Hickman - Carlisle - Ballard - Mcracken - Graves - Livingston - Marshall - Crittenden - Lyon - Caldwell - Union - Webster - Hopkins - Henderson - Daviess - Mclean

10	0200CST	0	0	Dense Fog
	0900CST			

Dense fog shrouded most of western Kentucky during the early and mid morning hours. A major accident occurred on U.S. Route 60 west of Paducah, near the McCracken/Ballard County line. One person was in critical condition and another was in serious condition due to the four-vehicle accident. Five other people received minor injuries. The accident occurred due to a motorist's inability to see a stop sign in the dense fog. Traffic on the two-lane section of Route 60 was blocked for more than three hours.

KYZ004>005-007-010-014-018>019

Ballard - Mcracken - Livingston - Crittenden - Union - Henderson - Daviess

10	0700CST	0	0	Flood
17	1900CST			

The Ohio River rose above flood stage in western Kentucky for about a week. The flooding was minor, with flood crests generally one to two feet above flood stage. At J.T. Meyers Lock and Dam near Uniontown, where flood stage is 37 feet, the river crested at 39.8 feet on the 14th. At Paducah, where flood stage is 39 feet, the river crested at 40.8 feet on the 13th. Mainly bottomland and surrounding low-lying areas were affected, including some parks and recreational land along the river.

KYZ001>022

Fulton - Hickman - Carlisle - Ballard - Mcracken - Graves - Livingston - Marshall - Calloway - Crittenden - Lyon - Trigg - Caldwell - Union - Webster - Hopkins - Christian - Henderson - Daviess - Mclean - Muhlenberg - Todd

19	1000CST	0	0	Wildfire
28	1900CST			

A dry weather pattern during the mid and latter part of the month set the stage for grass and brush fires. At Paducah, only .11 inch of rain fell from the 7th through the end of the month. The largest fire consumed about 500 acres of brush and grass near Central City in Muhlenberg County on the 25th. The fire occurred off of U.S. Highway 431 about a mile south of Central City. The fire came within 100 yards of a subdivision, but no houses were damaged. Firefighters from across the county battled the blaze for 8 hours. A grass and woods fire in Calloway County burned 20 acres on the 19th. The biggest outbreak of fires occurred on the 28th, when at least 20 fires were reported in far western Kentucky. The largest was a field fire in Marshall County that burned about 25 acres, and all 10 fire departments in the county were required to suppress it. A small barn and two sheds burned, but a row of houses and a shed containing antique cars were saved.

LOUISIANA, Northeast

Franklin Parish

Baskin

05	0200CST	0	0	5K	Flash Flood
	0400CST				

A portion of Ridge Road was flooded.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>LOUISIANA, Northeast</u>									
Madison Parish									
Tallulah	05	0200CST 0400CST			0	0	2K		Flash Flood
A few roads were flooded between Tallulah and Delhi.									
Concordia Parish									
Vidalia	05	0830CST 1030CST			0	0	2K		Flash Flood
Several streets were flooded in the city.									
<u>LOUISIANA, Northwest</u>									
Sabine Parish									
Pleasant Hill	23	1320CST			0	0			Hail (0.88)
De Soto Parish									
Grand Cane	23	1426CST			0	0			Hail (0.88)
Hail covered the ground.									
De Soto Parish									
Mansfield	23	1430CST			0	0			Hail (1.75)
De Soto Parish									
Carmel	23	1430CST			0	0			Hail (1.25)
Hail covered the ground.									
Red River Parish									
5 W Hall Summit	23	1450CST			0	0			Hail (0.75)
Natchitoches Parish									
Ashland	23	1515CST			0	0			Hail (0.88)
Bienville Parish									
Jamestown	23	1517CST			0	0			Hail (0.75)
Hail covered the ground.									
Lincoln Parish									
Simsboro	23	1600CST			0	0			Hail (0.75)
Union Parish									
1 E Downsville	23	1623CST			0	0			Hail (0.75)
<u>LOUISIANA, Southeast</u>									
East Baton Rouge Parish									
Baton Rouge	04	1815CST			0	0	1K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down power lines near downtown Baton Rouge.									
Jefferson Parish									
Terrytown	04	2215CST			0	0			Hail (1.00)
A trained spotter observed golfball size hail in Terrytown.									
Orleans Parish									
New Orleans	04	2230CST 2245CST			0	0			Hail (1.75)
Hail ranging in size from quarters to golfballs was observed at various locations around New Orleans.									
St. Tammany Parish									
Slidell	04	2335CST			0	0			Hail (1.75)
Golfball size hail fell on the west of side of Slidell on Airport Road.									
East Feliciana Parish									
8 SW Clinton	05	1020CST			0	0	1.5K		Thunderstorm Wind (G50)
Several trees were blown down.									
Iberville Parish									
Bayou Sorrel	05	1655CST			0	0	2K		Thunderstorm Wind (G50)
Thunderstorm winds ripped off the roof and blew the windows out of of a trailer.									
East Baton Rouge Parish									
Baton Rouge	05	2315CST			0	0	30K		Lightning
A lightning strike caused a fire that damaged a house.									
St. Charles Parish									
4 SE Des Allemands	25	0620CST			0	0			Hail (1.75)
Golfball size hail fell.									

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>LOUISIANA, Southeast</u>									
St. Charles Parish									
Des Allemands	25	0620CST			0	0			Hail (1.00)
									Quarter size hail was observed.
Jefferson Parish									
2 NW Kenner	25	0655CST			0	0			Hail (0.75)
									Hail the size of pennies fell.
St. Tammany Parish									
Sun to Bush	25	0700CST			0	0			Hail (1.75)
									Golfball size hail was observed.
Washington Parish									
6 S Bogalusa	25	0710CST			0	0			Hail (1.00)
									Quarter size hail was reported in the community of Rio.
<u>LOUISIANA, Southwest</u>									
Cameron Parish									
Cameron	04	1701CST			0	0			Hail (0.75)
Jefferson Davis Parish									
Hathaway	05	0740CST			0	0	20K		Thunderstorm Wind (G50)
									The roof of a mobile home was ripped off, a barn was damaged, and several trees were blown down.
Jefferson Davis Parish									
Hathaway	05	0800CST 1100CST			0	0	5K		Flash Flood
									After receiving 3 to 5 inches of rain, rural roads in the Hathaway area were closed due to high water.
Avoyelles Parish									
10 SE Marksville	05	0815CST			0	0			Hail (0.88)
Avoyelles Parish									
Mansura	05	0900CST 1100CST			0	0	5K		Flash Flood
									After receiving 3 to 5 inches of rain in less than 3 hours, streets flooded in Mansura.
St. Landry Parish									
Eunice	05	1010CST 1200CST			0	0	10K		Flash Flood
									After 3 to 5 inches of rain, numerous roads were closed due to flooding across western portions of St. Landry Parish.
Evangeline Parish									
Ville Platte	05	1010CST 1200CST			0	0	5K		Flash Flood
									After 3 to 5 inches of rain, several state highways were closed due to flooding.
LAZ030									
Beauregard	11	0800CST 2000CST			0	0	5K		Flood
									Due to heavy rains over the past two weeks, many roads in the Merryville, Longville, and Ragley areas were closed due to flooding.
<u>MAINE, North</u>									
MEZ001>006-010>011-031>032									
									Northwest Aroostook - Northeast Aroostook - Northern Somerset - Northern Piscataquis - Northern Penobscot - Southeast Aroostook - Central Piscataquis - Central Penobscot - Southern Piscataquis - Northern Washington
	14	2200EST			0	0			Extreme Cold/Wind Chill
	15	1200EST							Temperatures fell to sub-zero levels in the wake of an arctic cold front. The sub-zero temperatures combined with 10 to 20 mph winds to produce wind chill readings of 40 to 50 below zero at times.
MEZ003>004-010-015-029-031									Northern Somerset - Northern Piscataquis - Central Piscataquis - Southern Penobscot - Coastal Hancock - Southern Piscataquis
	22	0900EST 1600EST			0	0			Heavy Snow
									Low pressure tracked from the Great Lakes toward New England during the 21st while a secondary low developed and lifted northeast along the New England coast. Snow began across the region during the morning of the 21st. The snow increased in intensity during the afternoon then continued...heavy at times...into the morning of the 22nd. The low exited east of Nova Scotia

Storm Data and Unusual Weather Phenomena

February 2004

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, North

during the afternoon of the 22nd...bringing the snow to an end. Storm total snow accumulations ranged from 7 to 11 inches. Numerous accidents were attributed to snow covered and slippery roads.

MAINE, South

MEZ007>009-012>014-018>022

Northern Oxford - Northern Franklin - Central Somerset - Southern Oxford - Southern Franklin - Southern Somerset - Interior York - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo

03	2000EST				0	0			Winter Weather/Mix
04	0500EST								

Low pressure developing off the mid Atlantic coast during the early morning hours of Tuesday, February 3, moved northeast through the day, reaching the New England coastal waters Tuesday night. Snow moved into southern New England Tuesday evening and overspread New Hampshire and Western Maine overnight. Snow accumulated 1 to 3 inches across interior sections of Southern Maine and New Hampshire where precipitation mixed with sleet and freezing rain. Snow accumulated 3 to 6 inches in the mountains and foothills.

MEZ007>009-012>014-018>028

Northern Oxford - Northern Franklin - Central Somerset - Southern Oxford - Southern Franklin - Southern Somerset - Interior York - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Coastal York - Coastal Cumberland - Sagadahoc - Lincoln - Knox - Coastal Waldo

05	0900EST				0	0			Winter Weather/Mix
07	1300EST								

Low pressure over the Great Lakes redeveloped off the mid Atlantic coast Friday evening, February 5, and tracked northeast along a stationary front Friday night and into the Gulf of Maine by early Saturday morning February 6. Snow began spreading into Southern New Hampshire and Maine on Friday morning. Snow changed to sleet and freezing rain in coastal and southern interior section of Maine and New Hampshire where accumulations by Saturday morning measured 1 to 3 inches. Snowfall accumulations of 3 to 5 inches were recorded over the mountains and foothills.

MEZ007>009-012>014-020>022-025>028

Northern Oxford - Northern Franklin - Central Somerset - Southern Oxford - Southern Franklin - Southern Somerset - Androscoggin - Kennebec - Interior Waldo - Sagadahoc - Lincoln - Knox - Coastal Waldo

21	1800EST				0	0			Winter Storm
22	1200EST								

Low pressure intensified as it moved into the Gulf of Maine on the night of Saturday, February 21, spreading snow northward into Central and Northern Maine. Snow tapered to flurries on Sunday morning, February 22, as the storm moved into Eastern Canada. Snowfall amounts ranged from near nothing in southwestern coastal areas to 5 to 9 inches in the Western Maine mountains to 6 to 13 inches in Central and Mid Coast Maine.

MARYLAND, Central

MDZ002

Allegany

03	0300EST				0	0			Winter Storm
	1500EST								

Snow and freezing rain overspread the region during the predawn hours on the 3rd, and the precipitation continued through the afternoon. Snowfall amounts across Allegany County ranged from seven to nine inches. Due to hazardous travel conditions, some area schools opted to open late and others decided to close for the day. Dozens of accidents were reported to the State Police.

MDZ003>004

Washington - Frederick

03	0300EST				0	0			Winter Weather/Mix
	1500EST								

Snow and freezing rain overspread the region during the early morning hours of the 3rd, and the precipitation continued through the afternoon. Snowfall amounts averaged one to two inches, and ice accumulations measured one tenth to two tenths inch. Due to hazardous travel conditions, some area schools opened late while others closed for the day. Several minor accidents were reported.

MDZ002

Allegany

05	1700EST				0	0			Winter Storm
06	2000EST								

An area of low pressure brought freezing rain and sleet to Western Maryland. One half inch of ice accumulated in Allegany County. Ice glazed roads and power lines. This led to school closures, automobile accidents, and scattered power outages.

MDZ003>006-009>011-013>014

Washington - Frederick - Carroll - Northern Baltimore - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel

05	1700EST				0	0			Winter Weather/Mix
06	2000EST								

An area of low pressure moved through on the 5th and 6th and brought freezing rain and sleet to north central and northeast Maryland.

One to two tenths ice accumulated and formed a glaze on roadways and downed power lines. This led to school closures, some automobile accidents, and scattered power outages.

Storm Data and Unusual Weather Phenomena

February 2004

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

MDZ004>007-009>011 **Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore**

06	1400EST				0	0			Flood
07	2000EST								

Heavy rainfall and melting snow produced some flooding across North Central Maryland and the Baltimore Metropolitan area. Radar estimates and rain gauge data indicated that two to three inches of rain fell over the region. Some roads were blocked after small streams came out of their banks. The Monocacy River, at Frederick, rose to near 17 feet and crested late on the 7th. This caused back water flooding along Carroll Creek and inundated Gas House Pike. The Seneca Creek, at Dawsonville, crested at 8.1 ft on the morning of the 7th. Other significant rises were also noted on area rivers on the 7th and 8th.

MARYLAND, Northeast

MDZ008-012-015 **Cecil - Kent - Queen Annes**

05	2100EST				0	0			Winter Weather/Mix
06	0700EST								

A wintry mix of snow, sleet and freezing rain fell across northern sections of the Eastern Shore from the second half of the evening on the 5th until around sunrise on the 6th. Precipitation began as snow on the 5th and changed quickly to sleet and freezing rain. Little, if any, snow accumulated. But, around one-tenth of an inch of ice accrued on exposed surfaces. Untreated roadways and walkways were very treacherous. Precipitation changed to plain rain around daybreak on the 6th.

The low pressure system responsible for the wintry weather developed in the western Gulf of Mexico on the 5th. It moved northeast reaching the Tennessee Valley on the evening of the 5th and into the Great Lakes on the morning of the 6th. Its associated warm front moved north from the Carolinas on the morning of the 6th into the lower Delmarva Peninsula during the afternoon of the 6th before stalling. The occluded front associated with the primary low pressure system (It went northeast from the Great Lakes through the Saint Lawrence River Valley.) moved through the region during the night of the 6th. The initial cold air near the surface was provided by a high pressure system from Eastern Canada. It moved offshore overnight on the 5th and during the day on the 6th as the southeast flow around it brought in warmer air from the Atlantic Ocean into the region.

MARYLAND, South

MDZ021>025 **Dorchester - Wicomico - Somerset - Inland Worcester - Maryland Beaches**

17	1300EST				0	0			Winter Weather/Mix
18	0200EST								

One half inch to two inches of snow fell across portions of the Lower Maryland Eastern Shore. The snow produced slippery roadways, which resulted in a few accidents.

MARYLAND, West

MDZ001 **Garrett**

03	0700EST				0	0			Ice Storm
	1200EST								

An ice storm began after 9 PM on the 2nd, continued overnight. By 7 AM on the 3rd, most places had a glaze of ice one quarter inch thick.

MDZ001 **Garrett**

05	1900EST				0	0			Ice Storm
06	0900EST								

An ice storm began in the afternoon of the 5th. By 7 PM, the glaze of ice was one quarter inch thick. By 9 PM, half an inch thick, and by midnight 1.5 inches thick.

MDZ001 **Garrett**

06	0800EST				0	0			Flood
07	0800EST								

Ice jam break up and movement caused streams to go over their banks. Some roads were flooded.

MASSACHUSETTS, Central and East

MAZ002 **Western Franklin**

03	1700EST				0	0			Heavy Snow
	2300EST								

A fast moving coastal storm brought heavy snow to the higher elevations of western Franklin County, where around 6 inches of snow was reported by trained spotters in Ashfield and Shelburne. Snowfall totals of 2 to 4 inches were common elsewhere across interior sections of Massachusetts.

MAZ022>024 **Barnstable - Dukes - Nantucket**

18	0200EST				0	0			Winter Storm
	2300EST								

A coastal storm which passed well to the southeast of New England brought heavy snow and strong winds to Cape Cod, Martha's Vineyard, and Nantucket. Snowfall totals of 4 to 8 inches were widely observed. Several minor accidents were reported on Cape Cod during the height of the storm.

Storm Data and Unusual Weather Phenomena

February 2004

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

Some specific snowfall totals, as reported by trained spotters, included 8 inches on Nantucket and in Vineyard Haven; 7 inches in East Falmouth, Bourne, and Barnstable; and 6 inches in Chilmark, Sandwich, and Eastham.

MASSACHUSETTS, West

NONE REPORTED.

MICHIGAN, East

MIZ047>048

Midland - Bay

23	0300EST	0	0	Heavy Snow
	2300EST			

A storm system slowly dropping southeast from Minnesota into lower Michigan on the 23rd deposited significant snow over the northern Tri-Cities region. Snowfall accumulations across Bay and Midland counties ranged from 5 to 7 inches, with the highest amount reported in Hope (Midland county).

MICHIGAN, Extreme Southwest

NONE REPORTED.

MICHIGAN, North

MIZ016

Emmet

10	0930EST	0	0	Heavy Snow
	1030EST			

A pair of upper level disturbances enhanced lake effect snow from the late night hours of the 9th into the morning of the 10th. Snowfall amounts for most of Northern Michigan were less than six inches. Central and northern Emmet County was the exception, with six to seven inches of snow between 10 pm on the 9th and 10 am on the 10th.

MIZ008-015>018

Chippewa - Mackinac - Emmet - Cheboygan - Presque Isle

20	1300EST	0	0	Heavy Snow
21	0300EST			

MIZ019>024

Charlevoix - Leelanau - Antrim - Otsego - Montmorency - Alpena

21	0200EST	0	0	Winter Storm
	0300EST			

A strong low pressure system lifted northeast across Michigan on the 20th. Precipitation ahead of the system started out as snow, and stayed that way across Eastern Upper and far Northern Lower Michigan (north of a line from Petoskey to Rogers City). Six to twelve inches of snow fell here, with the highest amounts in western Mackinac County. To the south, the snow changed to rain on the 20th, keeping accumulations down. However, colder air flooded back into the region behind the storm that night. This switched the rain back to snow, and allowed some lake enhancement to occur. Another three to six inches of snow fell from Leland to Alpena and northward, accompanied by gusty winds and substantial blowing and drifting snow.

MIZ019-021>022-027>029-033>035-042

Charlevoix - Antrim - Otsego - Kalkaska - Crawford - Oscoda - Missaukee - Roscommon - Ogemaw - Arenac

23	1445EST	0	0	Heavy Snow
	2100EST			

A potent upper level disturbance dived southeast across Northern Michigan on the evening of the 20th. Snowfall rates were quite high as the snow became showery toward the tail end of the event. Six to eight inches of accumulation was widespread across the higher terrain of Northern Lower Michigan, with spotty heavy snow elsewhere (most notably Arenac County).

MICHIGAN, Upper

MIZ012

Menominee

06	0800EST	0	0	Heavy Snow
	1300EST			

Nine inches of snow fell in and around Menominee in a 12 hour period.

MICHIGAN, West

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

February 2004

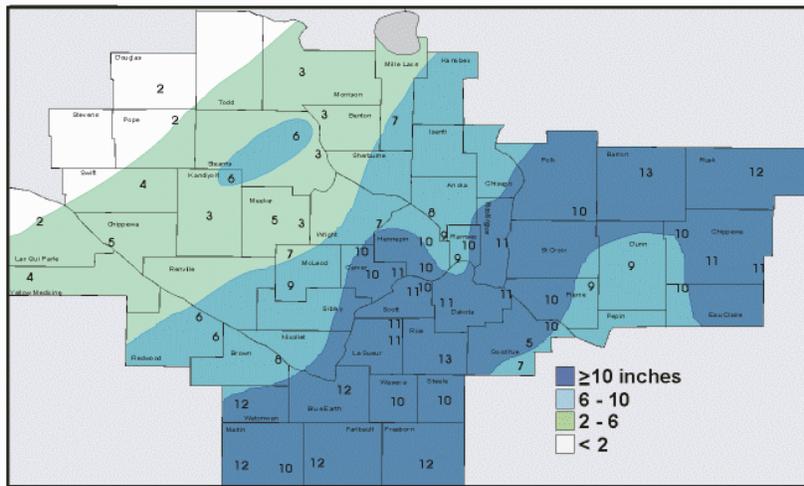
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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MINNESOTA, Central and South Central

MN Z044>045-051>052-059>063-065>070-073>078-082>085-091>093 Mille Lacs - Kanabec - Sherburne - Isanti - Wright - Hennepin - Anoka - Ramsey - Washington - Renville - McLeod - Sibley - Carver - Scott - Dakota - Redwood - Brown - Nicollet - Le Sueur - Rice - Goodhue - Watonwan - Blue Earth - Waseca - Steele - Martin - Faribault - Freeborn

01	0200CST								Winter Storm
02	1800CST								

STORM TOTAL SNOWFALL
FEBRUARY 1-2, 2004



Low pressure over Nebraska moved across southern Minnesota during the morning of the 1st bringing a few inches of snowfall accumulation. A second, more powerful storm tracked from Missouri into Illinois early on the 2nd. The second storm dropped moderate to heavy snow across east central and south central Minnesota between the evening of the 1st and the evening of the 2nd. Snowfall totals from both storms ranged from 6 inches along a line from Redwood Falls to Mora to a foot across south central Minnesota (see attached graphic). The highest totals included 13 inches in Faribault and 12 inches at St. James, Albert Lea, and Blue Earth. Behind the second system, temperatures plummeted into the single digits and teens below zero. Wind chills dropped into the 30s below zero on the morning of the 3rd.

MN Z048-055

Pope - Swift

08	1000CST								Winter Storm
	2000CST								

Low pressure tracked over western Minnesota during the evening of the 8th. This storm dropped a narrow band of 6 to 10 inches of snow across Swift and Pope counties. Snowfall totals included 10 inches north of Appleton and 9 inches in Glenwood. In addition, northwest winds gusted up to 20 mph after the snowfall ended on the evening of the 8th causing blowing and drifting on roads and in open areas.

MINNESOTA, Northeast

NONE REPORTED.

MINNESOTA, Northwest

NONE REPORTED.

MINNESOTA, Southeast

MN Z079-086>088-094>095 Wabasha - Dodge - Olmsted - Winona - Mower - Fillmore

01	0800CST								Winter Storm
02	2300CST								

Southeast Minnesota was hit by a winter storm, which produced snow accumulations of 6 to 13 inches. Specific snowfall reports from weather observers included 12.5 inches at Stewartville and Oronoco (Olmsted County), 11 inches at Grand Meadow (Mower County), 10 inches at KAAL-TV in Austin (Mower County) and 10 inches near Elgin (Wabasha County).

Storm Data and Unusual Weather Phenomena

February 2004

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, Southwest

MN080>081-089>090-097>098 Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

01	1200CST				0	0			Winter Weather/Mix
02	1200CST								

Snowfall of 3 to 6 inches, along with the drifting of the new and previously existing snowpack, caused travel delays. Some schools cancelled or delayed classes and athletic events.

MN080>081-089>090-097>098 Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

05	0900CST				0	0			Winter Weather/Mix
06	0900CST								

Snowfall of 3 to 6 inches made travel very difficult. Wind gusts up to 30 mph caused drifting snow, which added to the hazardous travel conditions. Classes at several schools were cancelled or delayed.

MN071>072-080>081-089>090-097>098 Lincoln - Lyon - Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

11	0600CST 1900CST				0	0			Winter Weather/Mix
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Strong northwest winds, gusting as high as 40 mph, combined with heavy snow cover to cause widespread blowing and drifting snow. Visibilities were frequently below a half mile in open areas. The drifting and low visibilities made travel hazardous, and slippery roads caused by the drifting added to the hazard. Numerous schools either cancelled classes or released students early. Light snow accumulated to less than a half inch, but added to the visibility reduction at times.

MINNESOTA, West

NONE REPORTED.

MINNESOTA, West Central

NONE REPORTED.

MISSISSIPPI, Central

Issaquena County

Fitler	05 0300CST 0415CST				0	0	2K		Flash Flood
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A few roads were flooded near Fitler.

Yazoo County

Vaughan	05 0300CST				0	0	1K		Thunderstorm Wind (G52)
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A few trees were blown down.

Adams County

5 E Natchez	05 0730CST				0	0	2K		Thunderstorm Wind (G53)
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A few power lines were blown down.

Jefferson County

Mc Nair	05 0735CST				0	0	3K		Thunderstorm Wind (G50)
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A few trees were blown down on power lines.

Adams County

Natchez to 6 S Natchez	05 0803CST 1600CST				0	0	100K		Flash Flood
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Four to five inches of rain fell across a large portion of Adams county on the morning of February 5th. This heavy rain caused significant street flooding in the city of Natchez along with other major flooding across the county. Mudslides were reported across the county along with several cars being flooded due to water covering streets.

Lincoln County

1 E Brookhaven	05 0825CST				0	0	3K		Thunderstorm Wind (G53)
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A few power lines and trees were blown down.

Copiah County

Hazlehurst	05 0843CST				0	0	1K		Thunderstorm Wind (G50)
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A few trees were blown down.

Franklin County

2 NW Meadville	05 0900CST				0	0	1K		Thunderstorm Wind (G50)
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A few trees were blown down.

Storm Data and Unusual Weather Phenomena

February 2004

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									
Jefferson County									
Fayette to 15 E Fayette	05	0905CST 1330CST			0	0	50K		Flash Flood
									Four to five inches of rain fell across the southeast half of Jefferson county on the morning of February 5th. Several streets were flooded in Fayette along with numerous county roads across the southeast half of the county.
Franklin County									
5 NW Mc Call Creek	05	0915CST			0	0	1K		Thunderstorm Wind (G52)
									A few trees were snapped.
Copiah County									
Countywide	05 06	0925CST 0200CST			0	0	1M		Flash Flood
									Five to seven inches of rain fell across Copiah county on February 5th. This heavy rain flooded 5 businesses, dozens of county roads and damaged 4 bridges across the county.
Lincoln County									
2 S Caseyville	05	0930CST			0	0	1K		Thunderstorm Wind (G52)
									A few trees were blown down.
Hinds County									
Jackson	05	0933CST 1300CST			0	0	30K		Flash Flood
									Several roads were flooded in North Jackson with a few roads becoming impassable.
Copiah County									
6 SE Hazlehurst	05	1000CST			0	0	1K		Thunderstorm Wind (G50)
									A few trees were blown down.
Lincoln County									
Countywide	05 06	1005CST 0200CST			0	0	3M		Flash Flood
									Five to six inches of rain fell across all of Lincoln county on February 5th. This heavy rain flooded 25 homes, damaged 7 bridges and flooded numerous roads across the county.
Copiah County									
Georgetown	05	1015CST			0	0	1K		Thunderstorm Wind (G52)
									A few trees were snapped and one tree was uprooted.
Rankin County									
Countywide	05 06	1015CST 0200CST			0	0	6M		Flash Flood
									Five to seven inches of rain fell across the SE half of Rankin county on February 5th. This heavy rain flooded 22 homes, 32 businesses and numerous roads across the county.
Simpson County									
1 NW Harrisville to 3 N Braxton	05	1026CST 1040CST	8.5	300	0	0	250K		Tornado (F2)
									This tornado touched down just to the northwest of Harrisville and tracked northeast, passing just to the west of Braxton. This tornado caused damage to several homes along Star-Braxton Road. These homes sustained mainly roof damage along with a few homes having windows blown out. One well-constructed home had its roof peeled back. This roofing material was blown several hundred feet down wind and wrapped around trees and a fence. The worst damage occurred 1.5 miles west-norhtwest of Braxton. Here, 70 percent of the forest was flattened. The tornado continued to move northeast into Rankin county, crossing Highway 49 at the Simpson and Rankin county line.
Simpson County									
Harrisville	05	1027CST			0	0	1K		Hail (0.75)
Simpson County									
Countywide	05 06	1030CST 0330CST			0	0	150K		Flash Flood
									Five to seven inches of rain fell across Simpson county on February 5th. This heavy rain flooded numerous roads across the county and 2 homes.
Rankin County									
.5 S Piney Woods to 1 NE Piney Woods	05	1040CST 1043CST	1.5	300	0	0	10K		Tornado (F1)
									This tornado moved into Rankin county from Simpson county and continued northeast for 1.5 miles before lifting. While in Rankin county, this tornado downed and snapped dozens of trees. The total path length was 10 miles.
Rankin County									
Star	05	1041CST			0	0	1K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

February 2004

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									
Scott County									
Countywide	05	1215CST 1600CST			0	0	200K		Flash Flood
									Four to six inches of rain fell across Scott county on February 5th. This heavy rain flooded 2 homes, 3 businesses, 40 roads and damaged 6 bridges.
Simpson County									
6 S Mendenhall	05	1227CST			0	0	1K		Thunderstorm Wind (G50)
									A few trees were blown down.
Smith County									
Countywide	05 06	1230CST 0300CST			0	0	100K		Flash Flood
									Five to seven inches of rain fell across Smith county on February 5th. This heavy rain flooded numerous roads across the county and damaged one bridge.
Leake County									
Walnut Grove	05	1300CST 1500CST			0	0	10K		Flash Flood
									Heavy rains caused several roads to flood around Walnut Grove and across the southern part of Leake county.
Lawrence County									
2 W New Hebron	05	1310CST			0	0	3K		Thunderstorm Wind (G53)
									A few trees were blown down on power lines.
Simpson County									
Shivers	05	1315CST			0	0	3K		Thunderstorm Wind (G53)
									A few trees were blown down on power lines.
Newton County									
6 SSE Newton to 2.5 S Hickory	05	1320CST 1334CST	8	200	0	0	30K		Tornado (F1)
									This tornado touched down 6.5 miles south-southeast of Newton and moved northeast toward Hickory. As this tornado moved northeast it uprooted numerous trees and caused minor roof damage to 2 homes. This tornado was on the ground for 8 miles.
Franklin County									
Meadville	05	1400CST 1450CST			0	0	20K		Flash Flood
									Four to Five inches of rain fell across Franklin county during the morning of February 5th. This heavy rain flooded several roads across the county and caused one car to stall in high water.
Smith County									
Countywide	05	1410CST			0	0	3K		Thunderstorm Wind (G50)
									A few trees were blown down on power lines across the county.
Neshoba County									
Countywide	05 06	1450CST 0100CST			0	0	500K		Flash Flood
									Five to seven inches of rain fell across Neshoba county on February 5th. This heavy rain flooded 62 roads across the county. Seven homes were also flooded.
Noxubee County									
Countywide	05 06	1536CST 0100CST			0	0	100K		Flash Flood
									Five to seven inches of rain fell across Noxubee county on February 5th. This heavy rain flooded numerous roads across the county.
Newton County									
3 S Decatur	05	1545CST			0	0	1K		Hail (0.88)
Newton County									
Countywide	05 06	1600CST 0100CST			0	0	300K		Flash Flood
									Five to seven inches of rain fell across Newton county on February 5th. This heavy rain caused 2 homes to flood. In addition, 50 roads were flooded across the county.
Newton County									
Chunky	05	1602CST			0	0	1K		Hail (1.00)
Lauderdale County									
Collinsville	05	1610CST			0	0	1K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MISSISSIPPI, Central									
Lauderdale County 1 NW Collinsville to 2 N Collinsville	05	1615CST 1619CST	1.5	100	0	0	80K		Tornado (F1)
This short track tornado touched down 1 mile northwest of Collinsville and tracked northeast for 1.5 miles. This tornado blew over a house under construction, destroyed a utility shed and caused minor damage to another house. The bed of a pick-up truck was lifted and set down on a small utility trailer. In addition, several trees were uprooted as the tornado moved northeast.									
Kemper County Countywide	05 06	1630CST 0100CST			0	0	100K		Flash Flood
Five to seven inches of rain fell across Kemper county on February 5th. This heavy rain flooded numerous roads across the county.									
Lauderdale County Meehan	05	1655CST			0	0	1K		Hail (0.75)
Lawrence County Countywide	05 06	1700CST 0400CST			0	0	300K		Flash Flood
Four to six inches of rain fell across a large portion of Lawrence county on February 5th. This heavy rain flooded 3 homes and numerous roads across the county.									
Lauderdale County Meridian	05	1710CST			0	0	4K		Thunderstorm Wind (G53)
A few trees and power lines were blown down on the west and northwest sides of the city.									
Lauderdale County Countywide	05 06	1730CST 0130CST			0	0	300K		Flash Flood
Three to six inches of rain fell across Lauderdale county on February 5th with an axis of higher amounts, between 6 and 7 inches, across the northwest portion of the county. This heavy rain caused 68 roads to flood across the county and 1 home. The intersection of Interstate 20 and 59 had 1 foot of water covering it.									
Jefferson Davis County 8 NW Prentiss	05 06	1800CST 0300CST			0	0	150K		Flash Flood
Heavy rains caused a few county roads to be washed out over the northwest portion of Jefferson Davis county.									
Covington County Countywide	05 06	1840CST 0300CST			0	0	200K		Flash Flood
Heavy rains caused numerous roads to be flooded across the county. Two businesses were also flooded.									
Jasper County Northwest Portion	05 06	1940CST 0300CST			0	0	100K		Flash Flood
Heavy rains, 3 to 6 inches, caused numerous roads to flood across the northwest portion of Jasper county.									
MSZ031 Lowndes	06	0530CST 1600CST			0	0	300K		Flood
Heavy rains on February 5th caused creeks and rivers to rise out of their banks and cause flooding on February 6th. Eleven homes and 30 roads were flooded by rising streams and creeks.									
Lamar County 4 N Purvis	23	0350CST			0	0	1K		Hail (0.88)
Lamar County Sumrall	23	0830CST 1100CST			0	0	110K		Flash Flood
Heavy rains caused 10 roads to be closed due to water covering them. In addition, a few homes were flooded with 5 to 6 inches of water reported in them. This all occurred across the northern portion of the county.									
Forrest County 2 N Hattiesburg	23	0915CST 1200CST			0	0	45K		Flash Flood
Heavy rains caused 3 homes and 1 building to flood. In addition, 3 roads were closed due to high water.									
Marion County 9 SE Columbia	23	0930CST 1030CST			0	0	10K		Flash Flood
Heavy rains caused a few roads to flood.									

Storm Data and Unusual Weather Phenomena

February 2004

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, Central</u>							
Lawrence County							
Tilton	23	1100CST 1230CST			0 0	5K	Flash Flood
Heavy rains caused 2 roads to flood.							
Simpson County							
8 W Magee	23	1942CST			0 0	1K	Hail (1.00)
Forrest County							
Mc Laurin	23	2330CST			0 0	1K	Hail (0.88)
Marion County							
East Portion	25	0130CST 0300CST			0 0	10K	Flash Flood
Heavy rains caused a few roads to flood across eastern Marion county.							
Lamar County							
4 S Purvis	25	0210CST 0320CST			0 0	5K	Flash Flood
Heavy rains caused a few roads to flood.							
MSZ051>052							
Newton - Lauderdale							
	25	0500CST 0540CST			0 0	7K	Strong Wind
A few trees and power lines were blown down as gusty winds occurred near Chunky. This high wind was caused by a gravity wave passage.							
Lamar County							
Baxterville to 2 NE Baxterville	25	0810CST 0816CST			0 0	5K	Hail (1.75)
Lamar County							
Hattiesburg	25	0851CST			0 0	1K	Hail (0.75)
<u>MISSISSIPPI, North</u>							
MSZ002>006-008-014							
Marshall - Benton - Tippah - Alcorn - Tishomingo - Tate - Union							
	15	0400CST 0900CST			0 0	0.70K	Heavy Snow
A brief heavy snow storm produced between 3 and 6 inches of snow over sections of north Mississippi. Much of the snow melted several hours after the event.							
De Soto County							
Countywide	15	0515CST 0700CST			0 0	1K	Flash Flood
Several roads in both the northern and southern part of the county were covered with water.							
Lee County							
Tupelo	15	0900CST 1100CST			0 0	1K	Flash Flood
Some roads were flooded.							
Alcorn County							
Countywide	15	0920CST 1100CST			0 0	1K	Flash Flood
Numerous roads in the county were flooded.							
<u>MISSISSIPPI, South</u>							
Wilkinson County							
Ft Adams	05	0930CST 1300CST			0 0	50K	Flash Flood
Heavy rains flooded approximately 25 mobile homes and camps, as well as several roads.							
Wilkinson County							
Ft Adams	05	0930CST			0 0	1.5K	Thunderstorm Wind (G50)
Thunderstorm winds blew down several trees.							
Wilkinson County							
Woodville	05	0930CST 1100CST			0 0	75K	Flash Flood
Two businesses, a house, and a car were flooded by heavy rain.							

Storm Data and Unusual Weather Phenomena

February 2004

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, South</u>							
Amite County							
Countywide	05	1000CST 1300CST			0 0		Flash Flood
							Runoff from heavy rain caused one road to wash out.
Pike County							
Fernwood	05	1247CST			0 0		Funnel Cloud
							A funnel cloud was observed near Fernwood.
Walthall County							
Sartinsville	05	1515CST			0 0	0.75K	Thunderstorm Wind (G50)
							Two trees were blown down by thunderstorms winds.
Pearl River County							
Crossroads	25	0720CST			0 0		Hail (0.88)
							Nickel size hail covered the ground.
Pearl River County							
Picayune	25	0745CST 0750CST			0 0		Hail (0.88)
							Nickel size hail was observed.
<u>MISSISSIPPI, Southeast</u>							
Perry County							
Richton	23	1143CST 1145CST			0 0		Hail (1.00)
George County							
Agricola	24	0030CST 0032CST			0 0		Hail (0.75)
<u>MISSOURI, East</u>							
MOZ084-099							
Iron - Reynolds	05	0000CST 0600CST			0 0		Winter Storm
							Up to 6 inches of snow fell across parts of Reynolds and Iron counties in the Southeast Ozarks of Missouri. Area schools were closed for a couple of days because of the snow and hilly terrain.
<u>MISSOURI, Lower</u>							
							NONE REPORTED.
<u>MISSOURI, Northeast</u>							
							NONE REPORTED.
<u>MISSOURI, Northwest</u>							
MOZ028>030-037>038-043>044-054							
Platte - Clay - Ray - Jackson - Lafayette - Cass - Johnson - Henry	05	1300CST 1800CST			0 0		Winter Storm
							A winter storm on February 5th produced 6 to 8 inches of snow across the area.
MOZ002>007-012>016-020>023-031>032							
Nodaway - Worth - Gentry - Harrison - Mercer - Putnam - Andrew - De Kalb - Daviess - Grundy - Sullivan - Buchanan - Clinton - Caldwell - Livingston - Carroll - Chariton	05	1500CST 2000CST			0 0		Winter Storm
							A winter storm on February 5th left a wide area of 6 to 8 inches of snow.
Holt County							
Oregon	29	2030CST			0 0		Hail (0.75)
<u>MISSOURI, Southeast</u>							
MOZ076-086>087-100-107>111							
Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott	05	0200CST 0600CST			0 0		Heavy Snow
							Three to five inches of snow fell across most of southeast Missouri, except for the Bootheel area county of New Madrid, where only an inch or two fell. About five inches fell in the hillier terrain from Perryville (Perry County) southwest across Marble Hill (Bollinger County) to Van Buren (Carter County) and Doniphan (Ripley County). An area of intense snowfall moved northeast

Storm Data and Unusual Weather Phenomena

February 2004

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

from Arkansas into southeast Missouri late in the evening of February 4. Snowfall rates of up to 2 inches per hour were reported in Ripley County. Thundersnow was observed at many locations across southeast Missouri, with visibility below one quarter mile. The early morning commute on Feb. 5 was very messy. Numerous traffic mishaps were reported, including 11 in Cape Girardeau and four in Jackson. The state highway patrol district headquarters in Poplar Bluff reported about 30 accidents. Most schools were closed for the day. One death was indirectly blamed on the snow: A 55-year-old man in Piedmont slipped on his snow-covered porch and died as a result of the fall. Temperatures during this snowfall event were right near the freezing mark. As a result, the accumulation was wet and heavy. The snow was caused by a slow-moving upper level low near the Colorado/Kansas border. A weak surface low pressure center developed over Arkansas, then moved northeast into northern Tennessee by the evening of Feb. 5.

MOZ076-086>087-100-107>112-114

Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott - Mississippi - New Madrid

10	0200CST				0	0			Dense Fog
	0900CST								

A combination of dense fog and icy patches on roadways caused a rash of vehicle accidents. In New Madrid County alone, 10 to 15 accidents were reported. No life-threatening injuries were associated with any of the accidents.

MISSOURI, Southwest

MOZ066-070>071-077-080>083-090>092-094>098-102>106

Vernon - Pulaski - Phelps - Barton - Dallas - Laclede - Texas - Dent - Greene - Webster - Wright - Lawrence - Christian - Douglas - Howell - Shannon - Barry - Stone - Taney - Ozark - Oregon

05	1900CST				0	0			Winter Storm
	2200CST								

A Strong storm system developed across the central and southern Rockies. Tremendous amounts of moisture and lift moved into the Missouri Ozarks from the afternoon of the 4th and into the 5th. A mid level band of warmer air advected in from the south causing snow to change to sleet and freezing rain at times. A mixture of freezing rain, sleet, and snow accumulations of one to eight inches were observed across the entire Ozarks region. The heaviest amounts were located along the Arkansas and Missouri border where a 50 mile wide band of seven to eight inches of accumulation occurred. One to three inches of the mixed frozen precipitation occurred along the interstate 44 corridor, however, another heavier band developed across the Osage Plains of west central Missouri where four to six inches of accumulation occurred.

MONTANA, Central

NONE REPORTED.

MONTANA, East

MTZ016>026-059>062

Central And Se Phillips - Central And Southern Valley - Daniels - Sheridan - Western Roosevelt - Petroleum - Garfield - Mccone - Richland - Dawson - Prairie - Northern Phillips - Little Rocky Mountains - Northern Valley - Eastern Roosevelt

10	1200MST				0	3			Blizzard
	0900MST								

A blizzard affected most of northeast Montana, beginning during the late morning and early afternoon hours on the 10th. Strong low pressure dropped south out of Saskatchewan and into central North Dakota during the afternoon and evening. A strong cold front associated with the low swept across all of northeast Montana during the afternoon. Northwest winds increased to 30 to 50 mph with many areas reporting frequent gusts to 60 mph. A peak wind gust of 77 mph was reported in Glendive during the afternoon. Periods of snow fell during the afternoon and night. Most of the snow that fell was light and snow accumulations were generally on the order of a couple of inches. The strong wind produced severe blowing and drifting snow, and there were numerous reports of whiteout conditions with the visibility reduced to near zero. By the evening of the 10th, all roads across northeast Montana were either closed, or open to emergency travel only. All roads connecting northeast Montana with North Dakota were closed at one time or another, including Interstate 94. Many towns across northeast Montana were isolated during the afternoon and night time hours due to the road closures. At least a dozen people were stranded and had to be rescued by state and county road crews, who had to travel in near zero visibility.

Some wind gusts across northeast Montana included:

Glendive: 77 mph
 Bloomfield: 72 mph
 Zortman: 63 mph
 Wolf Point: 60 mph
 Plentywood: 60 mph
 Glasgow: 54 mph
 Polplar: 54 mph
 Malta: 50 mph

Storm Data and Unusual Weather Phenomena

February 2004

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

February 1st and continued into Monday morning the 2nd. During a 2 to 3 hour period Sunday afternoon a heavy snow band set up from around Beatrice northeast through eastern Lincoln, into Omaha and then toward Harlan Iowa. The band was only 10 to 20 miles wide, but snowfall rates under the heaviest part of it were on the order of 2 inches or even more per hour. The band lifted slowly northeast across nearly the same area from around noon through 3pm before weakening and merging with the rest of the snow that was occurring across the region at that time. Thus, those locations under the band reported the greatest storm totals with this storm. The storm closed many schools for the second Monday in a row, and some schools remained closed Tuesday, especially those that were under the heavier snow band.

Omaha Eppley picked up 11 inches of snow from this storm. When combined with the storm from the previous week, the snow depth reached 21 inches as of 900 am on 2/2/04. That set a record snow depth for the month of February. Most other locations throughout the Omaha area reported 8 to 10 inches of snowfall. The snow accumulations from the two storms caused a few roofs of weaker structures to collapse, including the roof of a barn near Arlington which killed a number of livestock.

Additional higher amounts from the storm in eastern Nebraska included 10 inches at Gretna and Papillion, 9 inches at Tecumseh, and eastern Lincoln, and 7 to 8 inches at Elkhorn, the NWS in Valley, Beatrice, Hickman, Pawnee City, Springfield, Wilber, and Tobias.

Higher storm totals in western Iowa included 9 inches at Logan, 8 inches at Oakland and Harlan and 7 inches in Little Sioux, Glenwood, Pacific Junction, Castana, and Underwood.

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

**NEZ011>012-
015>018-030>034-
042>045-050>053-
065>068-078-088-091-
093**

04	2000CST	0	0	Winter Storm
05	1600CST			

This was the third winter storm that hit most of eastern Nebraska and southwest Iowa in a week and a half period. Light to occasionally moderate snow began over the western sections of the area Wednesday afternoon or evening 2/4/04. The snow intensity and coverage then increased eastward into Thursday morning. From late Wednesday through 6am Thursday, locations from around Fairbury north northwest through Albion and Loretto picked up 4 to 6 inches of snow. Locations farther east received much less. However, the heavier snow soon spread over the rest of the area after 6 am. The snow decreased to flurries or ended over southeast Nebraska around noon but continued into late afternoon to the northwest through northeast of Fremont and Omaha. Although snow continued into Friday 2/6/04 roughly along and northeast of a line from around Columbus to Omaha, additional accumulations after late afternoon on the 5th were mostly an inch or so. For the storm through Thursday afternoon most locations reported between 5 and 8 inches. This storm again caused many schools to close, some as early as Thursday afternoon, but many on Friday.

Some of the heavier storm totals in eastern Nebraska included...10 inches at Loretto and Albion, 9 inches in Springfield, 8 inches in Elkhorn, Bennington, Norfolk, Gretna, Papillion and Walthill and 7 inches at West Point, Fremont, Uehling, the NWS in Valley and at the Lincoln airport. Omaha Eppley picked up 6.4 inches, and when combined with the two previous storms, the total snow depth reached 26 inches. This was just one inch short of the all time record in Omaha.

Some heavier storm totals in western Iowa included...8 inches in Harlan, 7 inches at Little Sioux, Underwood and Oakland.

Otoe County

Palmyra	29 1734CST	0	0	Thunderstorm Wind (G60)
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Estimated thunderstorm wind gusts over 60 mph uprooted a couple of 15 to 20 year old trees.

Lancaster County

Lincoln	29 1742CST	0	0	Thunderstorm Wind (G50)
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Estimated thunderstorm wind gusts of 60 mph blew the roof off a building in Lincoln

Cass County

Weeping Water to 4 SW Weeping Water	29 1745CST 1747CST	0	0	Thunderstorm Wind (G60)
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Estimated thunderstorm wind gusts of between 60 and 70 mph were reported from 4 miles southwest of Weeping Water into Weeping Water. The winds uprooted a few trees in town.

Otoe County

Unadilla	29 1755CST	0	0	Thunderstorm Wind (G55)
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Thunderstorm wind gusts estimated at over 60 mph blew several trees over in town.

Otoe County Nebraska City

29	1805CST	0	0	Thunderstorm Wind (G50)
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Thunderstorm wind gusts estimated at around 60 mph severely damaged a gazebo in the city park.

Storm Data and Unusual Weather Phenomena

February 2004

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

Cass County

Plattsmouth 29 1807CST 0 0 **Thunderstorm Wind (G60)**
Thunderstorm wind gusts estimated at 70 mph by emergency management blew a large tree onto a house causing severe damage.

Sarpy County

**3 NE Gretna to
1 W Bellevue** 29 1808CST
1820CST 0 0 **Thunderstorm Wind (G54)**
A thunderstorm, which produced wind gusts that were measured at a little over 60 mph by home equipment at a Cooperative Observers residence just northeast of Gretna, eventually snapped the tops of some trees just west of Bellevue.

Douglas County

Omaha 29 1825CST 0 0 **Hail (0.75)**
Reported near 72nd and Grover Streets.

Jefferson County

**Fairbury to
10 N Fairbury** 29 1910CST
1915CST 0 0 **Hail (1.00)**
One inch in diameter hail was reported from Fairbury to around 10 miles north of town.

Saline County

Western 29 1937CST 0 0 **Hail (1.00)**

NEBRASKA, Extreme Northeast

NEZ013>014

Dixon - Dakota
01 1200CST 0 0 **Winter Weather/Mix**
02 1200CST

Snowfall of 3 to 6 inches was accompanied by drifting of the new and previously existing snowpack. Travel was delayed, and classes were delayed at some schools.

NEZ013>014

Dixon - Dakota
05 0800CST 0 0 **Winter Storm**
06 0400CST

Snowfall of 5 to 7 inches was preceded by freezing rain, leaving an icy layer beneath the snow on roads. Several vehicles slid off roads and into ditches. Winds gusting up to 30 mph caused drifting snow which made travel difficult. Classes were cancelled or delayed at several schools.

NEZ013>014

Dixon - Dakota
11 0600CST 0 0 **Winter Weather/Mix**
1900CST

Strong northwest winds, gusting as high as 40 mph, combined with heavy snow cover to cause widespread blowing and drifting snow. Visibilities were frequently below a half mile in open areas. The drifting and low visibilities made travel hazardous, and slippery roads caused by the drifting added to the hazard. Numerous schools either cancelled classes or released students early. Light snow accumulated to less than a half inch, but added to the visibility reduction at times.

NEBRASKA, Extreme Southwest

NEZ079>081

Dundy - Hitchcock - Red Willow
04 0000MST 0 0 **Winter Storm**
05 0000MST

A winter storm produced a band of 5-7 inches of snow across northwest Kansas and southwest Nebraska. The heavy snow resulted in school closures and numerous minor traffic accidents in the area.

NEZ079

Dundy
29 1700MST 0 0 **Winter Storm**
2359MST

A winter storm produced 2-4 inches of snow across extreme northwest Kansas, southwest Nebraska and eastern Colorado during the afternoon and overnight hours of February 29th. The snow was accompanied by a prolonged period of 40 to 60 mph winds which brought whiteout conditions and road closures. Interstate 70 was closed for approximately 15 hours from Colby, Kansas to the Denver metro area. The highest wind gust with this storm was 66 mph reported at Flagler Colorado, with numerous reports of 45 to 55 mph winds elsewhere in northwest Kansas, southwest Nebraska and eastern Colorado.

NEBRASKA, South Central

NEZ087

Thayer
01 0000CST 0 0 0 0 **Winter Storm**
1600CST

A winter storm moving across the southern plains brought a glancing blow of snow and ice to Thayer County. The event began as a mixture of freezing drizzle and snow, before changing to all snow during the pre-dawn hours. The snow continued into mid-afternoon before tapering off. Far southeast sections of the county received up to 6 inches of snow.

Storm Data and Unusual Weather Phenomena

February 2004

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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NEVADA, West

Fast-moving winter storm system brought snow to the Sierra Nevada. Up to a foot of snow fell in the higher elevations of the Sierra.

Storm total snowfall amounts:

2 N Incline Village (7600 ft.)	5 inches
Diamond Peak Ski Resort	4-6 inches
Mt. Rose Ski Resort	5-8 inches

NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G61)
			17 1050PST						
			61 knot (70 mph) wind gust reported at Stead.						
NVZ001			Mineral/Southern Lyon		0	0			High Wind (G59)
			17 1200PST						
			59 knot (68 mph) wind gust reported at Hawthorne.						
NVZ004			Western Nevada Basin And Range		0	0			High Wind (G56)
			17 1428PST						
			56 knot (65 mph) wind gust reported at Nixon.						
NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G50)
			17 1500PST						
			50 knot (58 mph) wind gust reported at Galena RAWS.						
NVZ004			Western Nevada Basin And Range		0	0			High Wind (G57)
			17 1536PST						
			57 knot (66 mph) wind gust reported at Silver Springs. Highway 50 was closed for approximately 2 hours due to blowing dust.						
NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G53)
			17 1542PST						
			53 knot (61 mph) wind gust reported at Reno-Tahoe International Airport.						
NVZ005			Northern Washoe		0	0			High Wind (G51)
			17 1600PST						
			51 knot (59 mph) wind gust recorded at Barrel Springs RAWS sensor.						
NVZ004			Western Nevada Basin And Range		0	0			High Wind (G51)
			17 1600PST						
			51 knot (59 mph) wind gust reported at Sutcliffe.						
NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G60)
			17 1745PST						
			60 knot (69 mph) wind gust reported by trained spotter 5 miles east of Gardnerville.						
NVZ001			Mineral/Southern Lyon		0	0			High Wind (G61)
			17 1800PST						
			61 knot (70 mph) wind gust reported at Schurz.						
NVZ001			Mineral/Southern Lyon		0	0			High Wind (G97)
			17 1845PST						
			97 knot (112 mph) wind gust recorded 5 miles north of Walker Lake. Mineral County sheriff reported some structural damage and numerous power outages.						
NVZ004			Western Nevada Basin And Range		0	0			High Wind (G56)
			17 1900PST						
			56 knot (64 mph) wind gust recorded at Dead Camel Mountain RAWS sensor.						
NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G52)
			17 1920PST						
			52 knot (60 mph) wind gust at Desert Springs RAWS sensor.						
NVZ003			Greater Reno/Carson City/Minden Area		0	0			High Wind (G53)
			17 2320PST						
			53 knot (61 mph) wind gust recorded at Desert Springs RAWS sensor.						
NVZ002			Greater Lake Tahoe Area		0	0			Heavy Snow
			18 0200PST						
			19 0700PST						

A cold front moved through the Sierra Nevada on the 18th. The cold air behind the front brought heavy snow to the Sierra, and a mixture of rain and snow to the valleys to the east. Higher elevations in the Sierra received over 2 feet of snow.

Storm total snowfall total:

Mt. Rose Ski Resort	10-14 inches
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Storm Data and Unusual Weather Phenomena

February 2004

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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NEVADA, West

NVZ002

Greater Lake Tahoe Area

25	0300PST				0	0			Heavy Snow
26	2100PST								

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Sloat reported 2.30 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Storm total snowfall reports:

Diamond Peak Ski Resort	13-18 inches
Daggett Pass	20 inches
Mt. Rose summit	29 inches

Washoe County

Reno Cannon Intl Arp

25	0800PST				0	0			Heavy Rain
	2200PST								

A powerful winter storm moved through northeast California and northwest Nevada on the 25th and 26th. Ahead of the cold front on the 25th, heavy rain fell in the valleys east of the Sierra Nevada. Reno set a daily precipitation record for February 25th when 1.12 inches of rain was reported at the Reno-Tahoe International Airport. Up to two inches of rain fell in northeast California (a trained spotter at Sloat reported 2.30 inches of rain as a result of the storm). Over 3 feet of snow was reported in the higher elevations of the Sierra Nevada.

Record daily precipitation total reported at Reno-Tahoe International Airport for February 25th: 1.12 inches

NEW HAMPSHIRE, North and Central

NHZ001>008-010-013

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

03	2000EST				0	0			Winter Weather/Mix
04	0500EST								

Low pressure developing off the mid Atlantic coast during the early morning hours of Tuesday, February 3, moved northeast through the day, reaching the New England coastal waters Tuesday night. Snow moved into southern New England Tuesday evening and overspread New Hampshire and Western Maine overnight. Snow accumulated 1 to 3 inches in interior sections of Southern Maine and New Hampshire where precipitation mixed with sleet and freezing rain. Snow accumulated 3 to 6 inches in the mountains and foothills.

NHZ001>010-013>014

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

06	0900EST				0	0			Winter Weather/Mix
07	1300EST								

Low pressure over the Great Lakes redeveloped off the mid Atlantic coast Friday evening, February 5, and tracked northeast along a stationary front Friday night and into the Gulf of Maine by early Saturday morning February 6. Snow began spreading into Southern New Hampshire and Maine on Friday morning. Snow changed to sleet and freezing rain in coastal and southern interior sections of Maine and New Hampshire where accumulations by Saturday morning measured 1 to 3 inches. Snowfall accumulations of 3 to 5 inches were recorded over the mountains and foothills.

NEW HAMPSHIRE, Southern

NONE REPORTED.

NEW JERSEY, Northeast

NJZ002

Western Passaic

06	1300EST				0	0			Winter Storm
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With a marginally cold shallow air mass in place, as a low pressure system over the Ohio Valley moved northeast, a secondary low pressure system developed over the Mid Atlantic States and moved northeast across Long Island Friday afternoon, February 6th. Snow spread northeast between 4 am and 7 am on Friday, February 6th. As this low moved closer to the region, warmer air aloft wrapped around this system, which caused snow to change to freezing rain. From around 2 to 4 inches of snow was followed by from 0.33 to 0.50 inches of freezing rain. Significant ice accumulations on the wet snow pack led to hazardous road conditions and many traffic accidents across the region.

At Sussex Airport in Sussex County, 2 inches of snow was followed by 0.49 inches of freezing rain.

Storm Data and Unusual Weather Phenomena

February 2004

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

NJZ007>008	Warren - Morris	03	1000EST		0	0			Winter Weather/Mix
			1200EST						
NJZ001	Sussex	03	1100EST		0	0			Winter Storm
			2100EST						

A low pressure system that developed over the Southern Plains brought a wintry mix of snow, sleet and freezing rain to northwest New Jersey. The worst reported conditions were over the higher terrain of Sussex County where temperatures failed to get above the freezing mark. Precipitation began as snow in all areas between 9 a.m. and 11 a.m. EST. The snow changed to sleet and freezing rain by Noon EST and changed over to plain rain during the early afternoon in Warren and Morris Counties and central and southern Sussex County. Precipitation remained freezing rain over the northern and higher terrain locations in Sussex County until it ended during the evening. In Morris and Warren Counties there was little, if any, snow accumulation and ice accretions were less than one-tenth of an inch. Across Sussex County, accumulations reached up to 2 inches and ice accretions ranged from one-tenth of an inch in the central and southern part of the county to around one-quarter of an inch in the northern part of the county. Many after school and evening activities were cancelled. Weather related accidents with minor injuries occurred in Morris County.

Accumulations included 2 inches in Wantage (Sussex County). The winter weather was caused by a low pressure system that moved from eastern Texas on the morning of the second to Michigan on the morning of the 3rd. A secondary low pressure system formed in North Carolina on the morning of the 3rd and moved north and passed close to New York City early in the evening on the 3rd before moving into Maine early in the morning on the 4th. While the high pressure system position at the onset of precipitation was not in an ideal position to lock in the cold air (It was already over Nova Scotia.), the recent unseasonably cold weather kept sufficient cold air in place near the surface for the wintry mix in northwestern New Jersey.

NJZ009>010-012>022-027	Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Southeastern Burlington								
	05	2300EST			0	0			Winter Weather/Mix
	06	1000EST							
NJZ001-007>008	Sussex - Warren - Morris								
	06	0200EST			0	0			Winter Storm
		1800EST							

A low pressure system from the Gulf of Mexico brought a winter storm of snow, sleet and freezing rain to northwest New Jersey and a lighter mix of wintry precipitation throughout most of the rest of New Jersey. In northwestern New Jersey, snowfall accumulations averaged 1 to 2 inches, but ice accretions reached around half an inch, especially in Sussex County. Elsewhere in New Jersey, snowfall accumulations were generally less than one inch and ice accretions were less than one quarter of an inch. In the southern half of New Jersey, precipitation began as snow around midnight EST on the 6th. It changed quickly to sleet and freezing rain. Along the immediate coast, precipitation started as and fell as rain throughout the event. As warmer air moved in, precipitation changed to plain rain inland between 4 a.m. and 8 a.m. EST. In the northern half of the state, precipitation started as snow after midnight EST on the 6th. It changed to sleet and freezing rain between 5 a.m. and 8 a.m. EST. The warmer air had a harder time moving northwest and the transition to plain rain which began in Mercer and Monmouth Counties around 8 a.m. EST took until the afternoon in northwest New Jersey and until around 6 p.m. EST in all of Sussex County. Untreated roadways and walkways were very treacherous. Precipitation changed to plain rain around daybreak on the 6th.

The low pressure system responsible for the wintry weather developed in the western Gulf of Mexico on the 5th. It moved northeast reaching the Tennessee Valley on the evening of the 5th and into the Great Lakes on the morning of the 6th. Its associated warm front moved north from the Carolinas on the morning of the 6th into the lower Delmarva Peninsula during the afternoon of the 6th before stalling. The occluded front associated with the primary low pressure system (It went northeast from the Great Lakes through the Saint Lawrence River Valley.) moved through the region during the night of the 6th. The initial cold air near the surface was provided by a high pressure system from Eastern Canada. It moved offshore overnight on the 5th and during the day on the 6th as the southeast flow around it brought in warmer air from the Atlantic Ocean into the region. But, it took most of the day for the warmer air near the ground to reach northwest New Jersey.

NJZ020-022>027	Western Ocean - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington								
	17	1600EST			0	0			Heavy Snow
	18	0200EST							
NJZ013>014-017>019-021	Western Monmouth - Eastern Monmouth - Gloucester - Camden - Northwestern Burlington - Cumberland								
	17	1800EST			0	0			Winter Weather/Mix
	18	0200EST							

An offshore low pressure system's western edge of its precipitation shield passed over New Jersey and dropped heavy snow from Cape May County north through Ocean County. Accumulations averaged 4 to 6 inches. Farther to the north or west, there was a sharp drop in snowfall intensity and accumulations were generally 2 inches or less. Snow began falling during the late afternoon.

Storm Data and Unusual Weather Phenomena

February 2004

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

Temperatures remained above or near freezing through the evening commute and the snow did not start accumulating on roadways until after the commute was over. The first reports of accumulating snow were received after 8 p.m. EST. The snow fell heavy at times during the second half of the evening and ended during the early morning of the 18th. No major accidents were reported on either the Garden State Parkway or Atlantic City Expressway. Schools were closed on the 18th in and around Atlantic City.

Specific accumulations included 6.5 inches in Harvey Cedars (Ocean County), 6.0 inches in Margate (Atlantic County), 5.5 inches in Egg Harbor City (Atlantic County), 5.0 inches in Atlantic City (Atlantic County), Ship Bottom (Ocean County), Green Creek and Cold Spring (Cape May County), 4.5 inches in Woodbine (Cape May County), 4.1 inches in Cape May City (Cape May County), 3.9 inches in Estell Manor (Atlantic County), 3.8 inches in Port Elizabeth (Cumberland County), 3.7 inches in Beachwood (Ocean County), 2.5 inches in Browns Mills (Burlington County) and Manasquan (Monmouth County), 2.3 inches in Hammonton (Atlantic County), 2.0 inches in Oakhurst (Monmouth County) and 0.8 inches in Lindenwold (Camden County).

The low pressure system responsible for the snow developed along the coastal waters east of Georgia during the morning of the 17th. By the early evening of the 17th, a pair of low pressure systems were located east of Cape Hatteras, North Carolina and Charleston, South Carolina. These combined into one overnight and passed about 250 miles east of the southern New Jersey coast on the morning of the 18th. The low was located too far offshore to back the heavy snow bands any farther west than the southeastern New Jersey coastal counties.

NJZ001-007>008

Sussex - Warren - Morris

20	2200EST	0	0	Winter Weather/Mix
21	0700EST			

A weak warm front that moved toward northwest New Jersey during the night of the 20th produced some light freezing rain and pockets of sleet, especially over the higher terrain. Air temperatures in valley locations were generally above freezing and only some sleet occurred at the start of precipitation during the late evening. Untreated roadways became slippery. Ice accretions on exposed surfaces were generally less than five hundredths of an inch. In Lincoln Park (Morris County), the sleet covered the ground during the late evening of the 20th.

NJZ001-007>008

Sussex - Warren - Morris

24	0800EST	0	0	Winter Weather/Mix
	1900EST			

A weakening Alberta Clipper dropped between one and two inches of snow across much of northwestern New Jersey. The snow began falling in the morning after sunrise on the 24th and ended during the early evening. Because air temperatures were around freezing and most of the snow fell during the day, it mainly accumulated on just grassy surfaces. But, as skies cleared later during the evening, standing, untreated water and slush froze and caused hazardous traveling conditions. Accumulations included 2.3 inches in Budd Lake (Morris County), 2.2 inches in Colesville (Sussex County), 1.6 inches in Marcella (Morris County), 1.5 inches in Sussex (Sussex County) and 1.0 inch in Wertsville (Hunterdon County), Boonton (Morris County), Hackettstown (Warren County) and Newton (Sussex County). Accumulations elsewhere in New Jersey were less than one inch and in many places less than half an inch.

The Alberta low pressure system that brought the snow moved from the central Ohio Valley at 7 p.m. EST on the 23rd east into West Virginia around sunrise on the 24th and to the Virginia/North Carolina border during the early afternoon on the 24th. This low pressure system merged east of North Carolina during the early evening on the 24th with another developing low pressure system that formed on the South Carolina coastal waters earlier that day. By 7 a.m. EST on the 25th, the low pressure system was well offshore, about 500 miles east of the Delmarva Peninsula.

NEW MEXICO, Central and North

NMZ002-004>005-008-014

Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Northeast Highlands - Westcentral Mountains - Southwest Mountains/Upper Gila Region

04	0300MST	0	0	Winter Storm
	1200MST			

Heavy snow of 6 to 12 inches was reported across west central and north central New Mexico.

NMZ002-004>005-010>012

Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Northeast Highlands - Sandia/Manzano Mountains - Central High Plains/Estancia Valley County - Conchas Lake/Guadalupe

12	1800MST	0	0	Winter Storm
13	0800MST			

A slow and steady snow accumulated 6 to 9 inches across the central and northern mountains with several locations, such as Los Alamos and the mountain communities between Las Vegas and Santa Fe, reporting localized amounts of 10 to 14 inches. The central plains from Las Vegas, Santa Rosa and Ruidoso westward to the central mountains also reported heavy 24 hour accumulations of 5 to 8 inches.

NMZ002-004>008-010>012-016

Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Northeast Highlands - Harding - Far Northeast Plains - Westcentral Mountains - Sandia/Manzano Mountains - Central High Plains/Estancia Valley County - Conchas Lake/Guadalupe - Lincoln County High Plains/Hondo Valley

23	0600MST	0	0	Winter Storm
24	1800MST			

Storm Data and Unusual Weather Phenomena

February 2004

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, Central and North

A tap of tropical moisture provided central and eastern New Mexico with some of the state's most beneficial rain and snow in many months. Eastern slopes of the central mountains between Mountainair and Las Vegas saw heavy snow of 10 to 14 inches. Some favored areas such as Gascon northwest of Las Vegas into western Mora County and also the areas adjacent to the northeast part of the Sandia Mountains had 36 hour totals of 20 to 24 inches of wet snow. Heavy snow extended eastward from the central mountains out into the eastern plains with amounts of 8 to 12 inches over western Union County then southwest to Corona which recorded 12 to 14 inches. Snow levels remained high over the middle Rio Grande Valley, but the Albuquerque metro area enjoyed 24 hour rain totals of 0.75 to 1.50 inch.

NEW MEXICO, South Central and Southwest

NMZ025

Southern Sacramento Mountains

04	0300MST								
	1100MST				0	0			Heavy Snow

6 to 8 inches of snow fell between Cloudcroft and Mescalero within a 10 hour period.

NEW MEXICO, Southeast

NMZ028

Eddy County Plains

19	1053MST								
	1230MST				0	0	50K	0	High Wind (G52)

A potent upper level storm system propagated east over the Southern Plains on the 19th, and resulted in damaging gradient winds across the plains of southeast New Mexico. Local authorities estimated wind gusts of 60 MPH at Carlsbad, and the ASOS at the Carlsbad Airport measured a peak gust of 56 MPH. The winds downed up to twelve power poles along U.S. Highway 285 between Artesia and Carlsbad. In addition, blowing dust reduced visibility to one half mile in some locations.

NEW YORK, Central

NYZ009-015>018-022>025-036>037-044>046-055>057

Northern Oneida - Yates - Seneca - Southern Cayuga - Onondaga - Steuben - Schuyler - Chemung - Tompkins - Madison - Southern Oneida - Cortland - Chenango - Otsego - Tioga - Broome - Delaware

03	2000EST								
	2200EST				0	0	170K		Heavy Snow

A low pressure area in Missouri the morning of the the 2nd moved slowly northeast to be in Michigan the morning of the 3rd. Another low pressure area formed on the North Carolina coast also the morning of the 3rd. This low moved up the east coast of the United States to be off the Maine coast the morning of the 4th. Precipitation, mostly in the form of snow, moved into the area from the west around 6 AM to be across the entire area by noon. Snowfall amounts were mostly 4 to 8 inches. The highest amounts were at the highest elevations. In the valleys snow amounts were cut by some rain, freezing rain, and sleet. Northern Oneida County had higher amounts, 6 to 12 inches total, than neighboring counties to the south due to some added moisture from Lake Ontario and orographic lift. Snow to water ratios were around 10 to 1. Numerous accidents occurred in the afternoon and evening when people tried to return home from work.

NEW YORK, Coastal

NYZ067>068-070

Orange - Putnam - Northern Westchester

06	1200EST								
	1300EST				0	0			Winter Storm

With a marginally cold shallow air mass in place, as a low pressure system over the Ohio Valley moved northeast, a secondary low pressure system developed over the Mid Atlantic States and moved northeast across Long Island Friday afternoon, February 6th. Snow spread northeast between 4 am and 7 am on Friday, February 6th. As this low moved closer to the region, warmer air aloft wrapped around this system, which caused snow to change to freezing rain. From around 2 to 4 inches of snow was followed by from 0.33 to 0.50 inches of freezing rain. Significant ice accumulations on the wet snow pack led to hazardous road conditions and many traffic accidents across the region.

At Montgomery Airport in Orange County, 3 inches of snow was followed by 0.53 inches of freezing rain. A spotter in Circleville reported 3.5 inches of snow followed by 0.50 inches of freezing rain.

At Westchester County Airport in White Plains, 4 inches of snow was followed by 0.33 inches of freezing rain.

NEW YORK, East

NYZ032>033-039-041>042-048-063-082>083

Northern Herkimer - Hamilton - Southern Fulton - Northern Saratoga - Northern Warren - Western Schenectady - Western Ulster - Northern Fulton - Southeast Warren

03	1900EST								
	2359EST				0	0			Winter Storm

A complex storm system, moving through the Ohio Valley on February 3, transferred energy to a coastal storm off the Mid Atlantic coastline. This secondary storm tracked northeast, bringing a quick shot of moderate to occasionally heavy snow, during the evening of the 3rd, across the western Adirondacks, the Lake George Saratoga region, and elevated sections of the Mohawk Valley as well as the southern Catskills. A swath of 7-10 inches of snow fell across these areas with lesser amounts across the remainder

Storm Data and Unusual Weather Phenomena

February 2004

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

of eastern New York. The heaviest snowfall reported was 9.8 inches at Peck Lake in Fulton County. Wet snow was heavy enough to result in up to 1,000 customers temporarily without power in the Kingston area of both Ulster and Dutchess counties.

NEW YORK, North

NYZ027>028-030>031-034

Northern Franklin - Eastern Clinton - Southern Franklin - Western Clinton - Western Essex

04 0100EST 0 0 50K Winter Storm
0400EST

A low pressure system developed over the mid-Atlantic coastal area on Tuesday, February 3rd and moved northeast across southern New England the night of the 3rd and then into the Canadian Maritimes during Wednesday, February 4th. Snow developed across the area during the evening of February 3rd, and became heavy at times during the overnight period before tapering off to flurries during February 4th. Snow accumulations were generally around 6 inches with slippery traveling conditions.

NYZ026-029-035-087

Northern St. Lawrence - Southeastern St. Lawrence - Eastern Essex - Southerwestern St. Lawrence

04 0100EST 0 0 40K Winter Storm
0400EST

A low pressure system developed over the mid-Atlantic coastal area on Tuesday, February 3rd and moved northeast across southern New England the night of the 3rd and then into the Canadian Maritimes during Wednesday, February 4th. Snow developed across the area during the evening of February 3rd, and became heavy at times during the overnight period before tapering off to flurries during February 4th. Snow accumulations were generally between 6 and 10 inches with slippery traveling conditions.

NYZ026-026>027-027>028-028>029-029>030-030>031-031-087-087

Northern St. Lawrence - Northern Franklin - Eastern Clinton - Southeastern St. Lawrence - Southern Franklin - Western Clinton - Southerwestern St. Lawrence

06 0700EST 0 0 40K Winter Weather/Mix
1900EST

A complex storm system with centers over the Great Lakes region and the mid-Atlantic coast early Friday, February 6th, moved across New England Friday night (February 6). Snow developed during the morning of February 6th and mixed with sleet and freezing rain in the afternoon. Accumulations of snow were generally between 2 to 5 inches in these areas.

NEW YORK, West

NYZ006-008

Oswego - Lewis

03 2100EST 0 0 10K Heavy Snow
04 0045EST

Low pressure over Illinois tracked northeast while a secondary low developed along the mid-Atlantic coast. The storm complex brought a mix of freezing rain and snow to most of the area. East of Lake Ontario however, the precipitation fell as all snow over the higher elevations of the Tug Hill Plateau. Eight to ten inches of snow fell in a 10 hour period.

NORTH CAROLINA, Central

NCZ007>011-021>027-038>039-041

Person - Granville - Vance - Warren - Halifax - Forsyth - Guilford - Alamance - Orange - Durham - Franklin - Nash - Davidson - Randolph - Wake

15 2300EST 0 0 Winter Storm
16 0500EST

Snow began falling on the evening of the 15th, and ended the morning of the 16th. Bands of snow spread northward across the area, producing between 3 and 6 inches across the northern half of central North Carolina.

NCZ007-021>028-038>039-041>043-073>078-083>086-088>089

Person - Forsyth - Guilford - Alamance - Orange - Durham - Franklin - Nash - Edgecombe - Davidson - Randolph - Wake - Johnston - Wilson - Stanly - Montgomery - Moore - Lee - Harnett - Wayne - Anson - Richmond - Scotland - Hoke - Cumberland - Sampson

26 0900EST 0 0 Winter Storm
27 1200EST

A strong storm arrived on February 26th and continued into the morning of the 27th. This storm hit the area with a one-two punch, affecting southern sections on the 26th, then northern sections late on the 26th and the 27th. The first punch dumped heavy snow over portions of the southern Piedmont and Sandhills. Accumulations totaled 6 to locally 10 inches in areas such as Laurinburg, Hamlet, Fayetteville, and Raeford. Much lighter amounts fell to the north during the day. The second punch arrived in western sections of the area late in the day and shifted northeast across central and eastern portions overnight. The heavy snow was accompanied by thunder and lightning across the western Piedmont. Snowfall amounts ranged between 12 to 18 inches from Albemarle northeast to Greensboro. Other sections of the Piedmont, including the Triangle, received between 3 and 6 inches.

Storm Data and Unusual Weather Phenomena

February 2004

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, Central Coastal

NCZ029-044>047-079>081-090>095-098-103>104 **Martin - Pitt - Washington - Tyrrell - Western Dare - Greene - Beaufort - Western Hyde - Duplin - Lenoir - Jones - Craven - Pamlico - Carteret - Onslow - Eastern Dare - Eastern Hyde**

16	0000EST 0400EST				0	0			Winter Weather/Mix
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A wintry mix of snow and ice occurred during the early morning hours on the 16th, with snow and ice accumulations of two to four inches across the coastal plains, and up to one inch accumulation across the coastal counties of eastern North Carolina.

NCZ029-044-079-090>091-093-098 **Martin - Pitt - Greene - Duplin - Lenoir - Craven - Onslow**

26	0800EST 1200EST				0	0			Winter Weather/Mix
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A wintry mix of snow and sleet occurred, mainly across the coastal plains of eastern North Carolina, on the 26th with accumulations up to three inches.

NCZ093>095 **Craven - Pamlico - Carteret**

27	0000EST 0700EST				0	0			Storm Surge
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NCZ104 **Eastern Hyde**

27	0000EST 0300EST				0	0			High Wind (G50)
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Fifty to sixty mile per hour wind gusts were measured during the the early morning hours across Outer Banks Hyde county. High winds across the coastal counties bordering Pamlico Sound resulted in coastal flooding with water level rises three to four feet above normal on the 27th.

NORTH CAROLINA, Extreme Southwest

NONE REPORTED.

NORTH CAROLINA, North Coastal

NCZ012>017-030>032-102 **Northampton - Hertford - Gates - Pasquotank - Camden - Western Currituck - Bertie - Chowan - Perquimans - Eastern Currituck**

15	1800EST				0	0			Winter Storm
16	0200EST								

Two to as much as six inches of snow fell across portions of northeast North Carolina. Some higher amounts included: Bertie county 4-5", Pasquotank county 4-6", and Hertford county 3-4". The snow produced very slippery roadways, which resulted in several accidents and school closings for a few days.

NORTH CAROLINA, Northwest and North Central

NCZ018 **Watauga**

02	2100EST				0	0			Winter Storm
03	0900EST								

NCZ019 **Wilkes**

02	2200EST				0	0			Ice Storm
03	1000EST								

Low pressure moving up the Mid-Atlantic coast brought wintry weather conditions to the mountains and foothills of North Carolina during the evening of the 2nd through the morning of the 3rd. 5 inches of snow fell across most of Watauga County, along with one quarter inch of glaze. In Wilkes County, there was one quarter inch of ice accretion.

NCZ002-018 **Alleghany - Watauga**

05	1730EST				0	0			Ice Storm
06	0800EST								

A winter storm brought significant ice accretions to the northern mountains of North Carolina during the evening of the 5th and morning of the 6th. Ice accumulated to between a quarter and a half inch in both Watauga and Alleghany counties.

NCZ018 **Watauga**

12	0200EST 1100EST				0	0			Heavy Snow
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A winter storm brought heavy snow to Watauga County during the morning of the 12th. Five and a half inches of snow accumulation was common throughout much of the county.

NCZ004>006-018 **Stokes - Rockingham - Caswell - Watauga**

15	1000EST				0	0			Heavy Snow
16	0030EST								

An upper level disturbance moved across North Carolina during the 15th, exiting the east coast early in the morning of the 16th. This system brought several hours of moderate to heavy snow to parts of northwest North Carolina. Basically 4 to 7 inches fell across the northwest piedmont, with 4 to 6 inches falling across Watauga County in the mountains.

Storm Data and Unusual Weather Phenomena

February 2004

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, Northwest and North Central

NCZ001>002-005>006-018>020 Ashe - Alleghany - Rockingham - Caswell - Watauga - Wilkes - Yadkin

26	0630EST								
27	0430EST				0	0			Heavy Snow

During the 26th, an upper level low pressure system moved from the Gulf Coast States east into South Carolina. This helped develop a surface low along the coast. This low spread Atlantic moisture into a cold air mass, and produced a couple of bands of heavy snow. One band brought 4 to as much as 10 inches to the northwest foothills and mountains of North Carolina during the afternoon and evening of the 26th. The highest totals fell in a swath from Boone in Watauga County east to East Bend, in Yadkin County. Another band of snow developed late in the evening on the 26th and brought heavy snow to the northwest piedmont of North Carolina, which lasted into the early morning of the 27th. 5 to 9 inches of snow fell in this area, with the highest totals occurring across southern Caswell County.

NORTH CAROLINA, South Coastal

NCZ087-096-099 Robeson - Bladen - Columbus

17	0500EST								
	1000EST				0	0			Winter Weather/Mix

Rain began falling around 5 am and temperatures rose above freezing by 10 am. Ice accumulated mainly to trees, power lines, and metal surfaces, with less than a quarter inch reported. There was little damage.

NCZ087-096 Robeson - Bladen

26	0500EST								
	0900EST				0	0			Winter Storm

Sleet and snow began falling over the area around 5 am, and quickly changed to heavy snow, with occasional thunder reported. Snowfall rates as high as three inches per hour were reported. Temperatures rose well above freezing after sunrise, and the precipitation changed to rain between 9 and 10 am. Robeson county received the most snowfall, with accumulations of eight inches reported at Red Springs, and six inches at St. Pauls. Up to 4 inches of snow was reported in Bladen county, and western Columbus county reported an inch or less. There was minimal impact due to this storm, as the snow melted quickly.

NORTH CAROLINA, Southwest

NCZ049>053-059-062>065 Yancey - Mitchell - Swain - Haywood - Buncombe - Northern Jackson - Macon - Southern Jackson - Transylvania - Henderson

02	0500EST								
	1000EST				0	0			Winter Weather/Mix

Light freezing rain developed during the morning hours across the North Carolina mountains. This resulted in a thin layer of glaze that was responsible for numerous traffic accidents.

NCZ034>035-048-054-065>067 Caldwell - Alexander - Madison - McDowell - Henderson - Polk - Rutherford

02	1800EST								
	2200EST				0	0			Winter Weather/Mix

Light freezing rain, mixed occasionally with sleet, developed during the evening across portions of the mountains and foothills. Ice accretion of up to 1/8 inch occurred on elevated surfaces.

NCZ033-049>050-053-055 Avery - Yancey - Mitchell - Buncombe - Burke

02	2200EST								
03	0300EST				0	0			Sleet Storm

Sleet fell during the late evening and overnight hours, accumulating to 1 to 2 inches across portions of the mountains and foothills of North Carolina. The sleet accumulated on top of the thin layer of ice that resulted from freezing rain that fell earlier in the day. In addition, 2 to 3 inches of snow fell across portions of Avery County.

NCZ054-065 McDowell - Henderson

02	2200EST								
03	0300EST				0	0			Ice Storm

Freezing rain fell during the evening and overnight hours. Ice accretion caused some trees and large limbs to fall. Some trees fell on power lines, causing scattered outages. Sleet was mixed with the freezing rain at times, especially in McDowell County.

NCZ052-062>064 Haywood - Macon - Southern Jackson - Transylvania

05	1300EST								
	1600EST				0	0			Winter Weather/Mix

Light freezing rain developed during the afternoon across portions of the southern mountains. Light ice accretion occurred mainly on elevated surfaces, although a few slick spots developed on roads near Highlands and Cashiers.

NCZ065 Henderson

05	1300EST								
06	0200EST				0	0			Winter Weather/Mix

Light freezing rain developed during the afternoon of the 5th, and continued through the evening and overnight before intensifying during the early morning hours of the 6th.

Storm Data and Unusual Weather Phenomena

February 2004

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, Southwest</u>									
NCZ033-049>050-053	Avery - Yancey - Mitchell - Buncombe								
	05	1300EST			0	0	1K		Winter Weather/Mix
	06	1000EST							
	Light freezing rain developed during the afternoon of the 5th across portions of the central and northern mountains, and continued periodically through the morning hours of the 6th. A few slick spots developed on roads, and some isolated power outages were reported.								
NCZ034-054>055	Caldwell - McDowell - Burke								
	05	1800EST			0	0			Winter Weather/Mix
	06	0200EST							
	Light freezing rain developed across the northern foothills during the evening, and continued into the overnight hours. Ice accretion caused slick spots to develop on roads before the freezing rain intensified during the early morning hours of the 6th.								
NCZ035>037-056>057	Alexander - Iredell - Davie - Catawba - Rowan								
	05	1800EST			0	0			Winter Weather/Mix
	06	1000EST							
	Light freezing rain developed during the evening hours across portions of the northern foothills and northwest piedmont and continued through the overnight hours into the morning of the 6th. Some roads became slick and hazardous.								
NCZ034-054>055-065	Caldwell - McDowell - Burke - Henderson								
	06	0200EST			0	0	12K		Ice Storm
		1000EST							
	Freezing rain increased in intensity overnight across the foothills and southern mountains. By morning, ice accretion was responsible for numerous fallen trees, as well as widespread power outages.								
NCZ064	Transylvania								
	06	1400EST			0	0			Flood
		1800EST							
	After an extended period of heavy rainfall, the French Broad River gradually rose and overflowed its banks near Rosman, flooding some low lying spots around town. Flooding eventually developed downstream at Blantyre.								
NCZ053-065	Buncombe - Henderson								
	06	1700EST			0	0			Flood
	07	1800EST							
	Flooding along the French Broad continued downstream to affect lowland areas in Henderson County to just south of Asheville.								
Union County	Monroe to Indian Trail								
	06	1730EST			0	0			Flash Flood
		2000EST							
	Heavy rainfall caused rapid rises on several small streams, resulting in some flooded roads. One car was covered to the windshield by flood water.								
NCZ033-049>052	Avery - Yancey - Mitchell - Swain - Haywood								
	07	1500EST			0	0			Heavy Snow
	08	0600EST							
	Snow fell during much of the afternoon, evening, and overnight hours across the western mountains of North Carolina. Three to five inches of snow accumulated, mainly in areas along the Tennessee border.								
NCZ048-053-058>059-062>063	Madison - Buncombe - Graham - Northern Jackson - Macon - Southern Jackson								
	07	1500EST			0	0			Winter Weather/Mix
	08	0900EST							
	Light snow developed across portions of the North Carolina mountains during the afternoon, and continued into the morning of the 8th. Up to 2 inches accumulated by the time the snow ended.								
NCZ033-048>050-052>053	Avery - Madison - Yancey - Mitchell - Haywood - Buncombe								
	12	0000EST			0	0			Heavy Snow
		0600EST							
	Snow began during the late evening hours across the northern and central mountains, and continued overnight. By sunrise on the 12th, accumulations of 3 to 6 inches were common. The heaviest amounts occurred in the highest elevations along the Tennessee border.								
NCZ051-058>059-062>065	Swain - Graham - Northern Jackson - Macon - Southern Jackson - Transylvania - Henderson								
	12	0000EST			0	0			Winter Weather/Mix
		0600EST							
	Light snow developed across the southern mountains during the early morning hours, and accumulated up to 2 inches in some areas by daybreak.								

Storm Data and Unusual Weather Phenomena

February 2004

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, Southwest</u>									
NCZ034>037-054>056			Caldwell - Alexander - Iredell - Davie - McDowell - Burke - Catawba						
	12	0400EST 1000EST			0	0			Winter Weather/Mix
			Snow developed over the foothills and portions of the western Piedmont during the morning, accumulating to a quick inch or so in some areas. Most of this snow accumulated in about an hour during mid-morning, as a band of heavy snow moved over the area.						
NCZ062>064			Macon - Southern Jackson - Transylvania						
	15	0600EST 1200EST			0	0			Winter Weather/Mix
			Light snow fell off and on during the morning hours across the southern mountains, accumulating up to 3 inches. Most of the snow fell in elevations above about 2500 feet.						
NCZ033-035			Avery - Alexander						
	15	0700EST 1500EST			0	0			Winter Weather/Mix
			Light snow, mixed at times with sleet developed during the morning across portions of the northern mountains and northern foothills, and persisted into the afternoon. Up to an inch of snow had accumulated by mid-afternoon, and some roads became slick and hazardous.						
NCZ034-036>037-048>050-053>057			Caldwell - Iredell - Davie - Madison - Yancey - Mitchell - Buncombe - McDowell - Burke - Catawba - Rowan						
	15	1200EST			0	0			Winter Weather/Mix
	16	0000EST							
			Snow and sleet fell periodically during the afternoon and evening across much of the mountains, northern foothills, and northwest piedmont. Up to 2 inches of snow accumulated across the area, causing slick spots to develop on some roads.						
NCZ033-035			Avery - Alexander						
	15	1500EST 2100EST			0	0			Heavy Snow
			Snow fell for much of the afternoon and evening across the northern mountains and northern foothills of North Carolina. Accumulations totaled 3-5 inches in Avery County, and across the northern half of Alexander County. Some sleet mixed with the snow at times, creating hazardous driving conditions.						
NCZ058>059-062			Graham - Northern Jackson - Macon						
	26	0400EST 0900EST			0	0			Winter Weather/Mix
			Light snow developed during the pre-dawn hours across the southwest mountains. Up to 3 inches accumulated by late morning.						
NCZ048-051>053-059-062>065			Madison - Swain - Haywood - Buncombe - Northern Jackson - Macon - Southern Jackson - Transylvania - Henderson						
	26	0900EST 1800EST			0	0			Heavy Snow
			Snow intensity increased during the late morning across the North Carolina mountains, and continued through the afternoon. Total accumulations of 3 to 5 inches occurred, but much of it melted rapidly.						
NCZ033-036-049>050-054>057-066>072-082			Avery - Iredell - Yancey - Mitchell - McDowell - Burke - Catawba - Rowan - Polk - Rutherford - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus - Union						
	26	1000EST			0	0	3.1M		Heavy Snow
	27	0200EST							
			Heavy snow began to fall across the foothills, piedmont, and northern mountains of North Carolina during the late morning. Although snowfall intensity decreased dramatically during the early-to-middle portion of the afternoon, heavy snow redeveloped during the late afternoon, and continued into the evening and overnight hours. Scattered thunderstorms contributed to intense snowfall rates of 2 to 3 inches per hour from time to time, especially in the piedmont, where total snowfall of 12-22 inches occurred. The heaviest amounts occurred in the southwest piedmont, particularly in southern portions of Charlotte metro. Thousands of people were stranded on I-77 during the early afternoon, and some required rescue. The weight of the snowfall caused damage to numerous roofs, while some roofs completely collapsed. Across the foothills and northern mountains, accumulations were considerably lighter, generally in the 4-8 inch range, although amounts of 10-16 inches fell along the Blue Ridge north of I-40.						
NCZ034>035-037			Caldwell - Alexander - Davie						
	26	1500EST			0	0			Heavy Snow
	27	0200EST							
			Heavy snow developed during the late afternoon of the 26th across portions of the northern foothills and northwest piedmont, and continued through the early morning hours of the 27th. Total snow accumulation of 3-5 inches occurred. However, isolated thunderstorms contributed to locally heavier amounts as high as a foot, particularly in the Mocksville area.						

Storm Data and Unusual Weather Phenomena

February 2004

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 DAKOTA, Central and West

accompanied the snowfall resulting in decreased visibilities to a quarter (1/4) mile at times in blowing snow. The combination of snow and winds made for difficult travel and several County Sheriff's offices advised no travel. One fatality (indirect) was reported in north central North Dakota when a 19 year old female lost control of her vehicle and slid into a parked vehicle. The North Dakota Highway Patrol reported the accident was caused by icy roads combined with blowing and drifting snow sticking to the pavement. The same accident resulted in four other injuries (indirect). There were over a dozen other vehicles and several semi-trailers that lost control and went into ditches.

NORTH DAKOTA, East

NDZ014-024-028-038- Benson - Eddy - Griggs - Barnes - Ransom - Sargent 049-052

10	1524CST								
11	1550CST				0	0			Blizzard

An Alberta Clipper system tracked from near Minot at 6 pm tuesday (10th), through Wahpeton and Alexandria, to near Minneapolis by noon on wednesday (11th). A surface high also built into eastern Montana, aligning a strong surface pressure gradient over central North Dakota. Winds gusted around 35 mph along with 1 to 3 inches of new snow. Along with the snow already on the ground, this made for ground blizzard conditions from Benson county down through Sargent county. Several accidents were reported along Interstate 94 just west of the Oakes exit. Schools were closed on wednesday in Barnes and Ransom counties.

OHIO, East

OHZ059

Belmont

03	0415EST								
	0805EST				0	0			Flood

An ice jam caused flooding along Little McMahon Creek (near Willow Grove Rd) between St Clairsville and Neffs.

Belmont County

2 N St Clairsville to Belmont

03	0805EST								
	1100EST				0	0			Flash Flood

Jugg Rd (Rte 433) flooded north of St Clairsville. Flooding continues on Route 149 because of an ice jam on McMahon Creek. Route 149 re-opened 1030 AM; Jugg Rd re-opened 11 AM.

Belmont County

Belmont to Powhatan Pt

03	1233EST								
	1600EST				0	0			Flash Flood

Ice jam caused flooding on Route 148 between Powhatan Pt and Captina. Route 149 flooded again near Belmont at Cleves Crossing.

OHZ039>041-

048>050-058>059

Tuscarawas - Carroll - Columbiana - Coshocton - Harrison - Jefferson - Guernsey - Belmont

05	2100EST								
06	0700EST				0	0			Ice Storm

An ice storm began in the late afternoon or early evening of the 5th. Everyone got a glaze of ice one quarter of an inch thick.

OHZ039>040-

048>050-057>058-068

Tuscarawas - Carroll - Coshocton - Harrison - Jefferson - Muskingum - Guernsey - Noble

06	0725EST								
07	2200EST				0	0	45K		Flood

Rain, snow melt, and ice jams flooded some streams and some roads. At 725 AM, in Harrison Co, Route 51 was closed between Bowerston and Scio. At 740 AM, Coshocton Co reported widespread flooding; Guernsey had some roads flooded; Muskingum said Wills Creek had flooded and closed roads in the Gaysport area.. At 745 AM, Carroll Co had roads and basements flooded. At 135 PM, many roads were still flooded in Carroll and Tuscarawas Counties. At 149 PM, flooding was reported just west of Adena. Some basements were flooded. At 140 PM, Guernsey and Muskingum Counties reported widespread flooding. While most flooded ending by 9 AM on the 7th, flooding continued in Coshocton, Guernsey, and Tuscarawas counties til 10 PM February 7.

OHZ059-069

Belmont - Monroe

06	0900EST								
	1400EST				0	0			Flood

Ice jam break up and movement caused numerous streams to go over their banks. Some roads were closed.

OHIO, North

OHZ029>033-

037>038-047

Richland - Ashland - Wayne - Stark - Mahoning - Morrow - Holmes - Knox

05	1500EST								
06	0300EST				0	0	1.0M		Winter Storm

An area of low pressure over central Indiana on February 5th moved northeast into lower Michigan by daybreak on the 6th. Snow associated with this low spread into northern Ohio during the late afternoon hours of the 5th. The snow quickly changed to freezing rain from west to east during the evening hours. The freezing rain then continued for the remainder of the evening and finally ended during the early morning hours of the 6th. Ice accumulations of greater than one quarter inch were reported across the area. The most significant ice accumulations occurred south of U.S. Route 30 from Mansfield to Canton where up to one half inch was

Storm Data and Unusual Weather Phenomena

February 2004

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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OHIO, North

reported in spots. Snowfall totals during this event ranged from 3 to 4 inches in Mahoning County to just a few tenths in Morrow and Knox counties.

OHIO, Northwest

NONE REPORTED.

OHIO, Southeast

NONE REPORTED.

OHIO, Southwest

NOT RECEIVED.

OKLAHOMA, Eastern

OKZ049-053-076 Pushmataha - Choctaw - Le Flore
14 0700CST
2000CST

0 0

Heavy Snow

A vigorous upper low moved across north Texas during the day on the 14th. Cold air associated with this low allowed snow to fall across southeast Oklahoma. The snow began during the morning hours and was characterized by bands and bursts of heavy snow as the day progresses. Snowfall amounts were spotty with many places only receiving two or three inches. However, a few places received more. Some of those were Hugo in Choctaw county with 4 inches, Muse in southern Le Flore county with 4 inches and Albion in Pushmataha county with 6 inches. Much of the snow accumulated on grassy surfaces but in the heavier areas slushy to snow packed roads were reported.

OKLAHOMA, Extreme Southeast

NONE REPORTED.

OKLAHOMA, Panhandle

NONE REPORTED.

OKLAHOMA, Western, Central and Southeast

OKZ004>005-009>010 Harper - Woods - Ellis - Woodward

01 0600CST
1900CST

0 0

Winter Storm

Precipitation started as light freezing rain or freezing drizzle causing icy conditions to develop across northwest Oklahoma. The precipitation eventually changed to snow. Snowfall totals as high as 5 to 6 inches were reported in this area. The freezing precipitation and snow combined to create slick and hazardous conditions across northwest Oklahoma with many traffic accidents reported.

OKZ006>008-011>013-015-017>020 Alfalfa - Grant - Kay - Major - Garfield - Noble - Dewey - Blaine - Kingfisher - Logan - Payne

01 0800CST
2230CST

0 0

Winter Weather/Mix

Precipitation began as rain across this area, eventually changing to freezing rain, sleet, and then finally snow. Snowfall amounts of up to 3 inches were reported in some areas. With the rain and freezing rain, icy conditions developed across the area. Numerous traffic accidents were reported with the slick and hazardous roads. One woman was killed and five others injured in a traffic accident during the early afternoon hours about four and a half miles southeast of Seiling on Highway 270 in Dewey county.

OKZ004-013>025 Harper - Noble - Roger Mills - Dewey - Custer - Blaine - Kingfisher - Logan - Payne - Beckham - Washita - Caddo - Canadian - Oklahoma

04 0500CST
05 1400CST

0 0

Winter Weather/Mix

A mix of rain, sleet, and snow fell across the area. Snowfall totals of 1 to 3 inches were reported across most of the area, with a few locations receiving almost 4 inches. Numerous traffic accidents were reported due to the mixed precipitation causing slick and hazardous road conditions. Several injuries were reported with these accidents. The winter precipitation forced Oklahoma State University officials to cancel evening classes and close the campus early on February 4th. The precipitation changed to freezing drizzle or snow flurries before ending from west to east across the area.

Storm Data and Unusual Weather Phenomena

February 2004

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, Central and East

ORZ045	Foothills Of The Blue Mountains	25	1400PST 1900PST		0	0	3K		High Wind (G55)
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High winds blew a tree onto a home in Milton Freewater. Photo is courtesy of weather spotter Umatilla 23H.

Localized high winds along the immediate Blue Mountain Foothills blew a tree onto a home in Milton-Freewater. A weather spotter six miles ESE of Milton-Freewater also reported one quarter to one half inch diameter tree limbs blown down. Power outages occurred across parts of Athena.

OREGON, Northwest

ORZ009	Western Columbia River Gorge	02	0100PST 1800PST		0	0			Heavy Snow
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Hood River received 1 inch of snow.

ORZ009	Western Columbia River Gorge	13	0300PST		0	0			Heavy Snow
		14	1500PST						

Both Cascade Locks and Hood River received 2 inches of snow.

ORZ011	Northern Oregon Cascades	26	1500PST		0	0			Heavy Snow
		27	1500PST						

Timberline reported 11 inches of snow, Santiam Pass 9 inches, 8 inches at both Santiam Junction and Mt Hood Meadows, and 7 inches at Tombstone.

OREGON, Southeast

ORZ062	Baker	16	1700MST		0	0			Heavy Snow
		17	1100MST						

Please see narrative for Idaho this date.

OREGON, Southwest

ORZ021-021>022	South Central Oregon Coast - Curry County Coast	02	0500PST 0630PST		0	0			High Wind (G62)
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Cape Blanco recorded a peak gust of 62 mph at this time.

This was a minimal high wind event for which no warning was issued. The above observations did meet High Wind Warning criteria, however. Cape Blanco winds (sustained, gust, or both) met high wind criteria continuously from 0300 PST until 0600 PST on 02/02.

Storm Data and Unusual Weather Phenomena

February 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OREGON, Southwest									
ORZ031			Central & Eastern Lake County						
		03 1406PST			0	0			Heavy Snow
		Spotter LA20 at Summer Lake reported a 11 hour snow accumulation of 6 inches ending at 1400 PST. This report verified a Heavy Snow Warning, but no warning or advisory was in effect. This was the only report received, so it is possible that this was an isolated area of heavy snow.							
ORZ021			South Central Oregon Coast						
		06 0100PST 0400PST			0	0			High Wind (G40)
		Cape Blanco recorded sustained winds 40 mph or greater continuously during this time interval. The strongest recorded sustained wind was 43 mph. This was another minimal high wind event for which no warning was issued. Warning verifying winds were recorded only at Cape Blanco.							
ORZ021			South Central Oregon Coast						
		13 1200PST			0	0			High Wind (G58)
		Cape Blanco recorded a gust to 58 mph as well as a sustained wind of 45 mph. A High Wind Warning was issued for the ORZ021 headlands and exposed beaches at 1821 PST on 02/12. This warning was extended to the ORZ022 headlands and exposed beaches at 2355 PST on 02/12. The warning was cancelled at 1100 PST on 02/13. Soon afterwards the above gust was recorded, the only observation that verified the warning.							
ORZ021-021-021-021>022-022			South Central Oregon Coast - Curry County Coast						
		15 2030PST 16 0500PST			0	0			High Wind (G71)
		Sustained winds recorded at Cape Blanco. A High Wind Warning was issued for the headlands and exposed beaches of Oregon zones ORZ021/022 at 0500 PST on 02/15 and expired at 0715 PST on 02/16. The above observations verified the warning.							
Coos County Countywide									
		16 1038PST 17 1028PST			0	0			Flash Flood
		See below.							
Curry County Countywide									
		16 1038PST 17 1028PST			0	0			Flash Flood
		See below.							
Josephine County Countywide									
		16 1038PST 17 1028PST			0	0			Flash Flood
		See below. An Urban and Small Stream Flood Warning was issued for Oregon zones ORZ021/022/024 effective at the above listed times. No verifying reports were received, but heavy rains did occur and small streams were running high.							
ORZ029>031			Klamath Basin - Northern & Eastern Klamath County & Western Lake County - Central & Eastern Lake County						
		16 1535PST 17 1155PST			0	0			High Wind (G40)
		See below. A High Wind Warning was issued for the above zones effective at the above times. The warnings was downgraded to a Wind Advisory at 1155 PST on 02/17. No verifying observations were received.							
ORZ021-021-021-021>022			South Central Oregon Coast - Curry County Coast						
		17 0800PST 1530PST			0	0			High Wind (G74)
		Gust recorded at Cape Blanco. Gusts to 58 mph were recorded at 0900 and 1000 PST as well. A High Wind Warning was issued for the headlands and exposed beaches of Oregon zones ORZ021/022 at 1535 PST on 02/16 and expired at 1155 PST on 02/17. The above observations verified the warning, but it was cancelled too early as observations meeting high wind warning criteria continued until 1800 PST on 02/17.							
ORZ030			Northern & Eastern Klamath County & Western Lake County						
		17 0819PST			0	0			Heavy Snow
		A spotter at Crescent reported an 8 hour snow accumulation of 6 inches ending at 0800 PST. The above observation verified Heavy Snow Warning criteria, but no warning or advisory was in effect at the time. The above observation was the only report received, so it is possible that this was an isolated event.							

Storm Data and Unusual Weather Phenomena

February 2004

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

OREGON, Southwest

ORZ026-026-026	Jackson County	25	0530PST		0	0	4K		High Wind (G60)
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A spotter in Rogue River reported that a 10'x10'x15' steel canopy staked to the ground with railroad spikes was picked up and overturned by strong winds. Several trees were also blown down.

A High Wind Warning was issued for Oregon zone ORZ026 at 0525 PST on 02/25 and expired at 1200 PST on 02/25. It appears that this warning verified.

ORZ021-021-021-021>022-022-022-022-022	South Central Oregon Coast - Curry County Coast	25	1330PST		0	0			High Wind (G78)
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Max sustained wind recorded at Cape Blanco.

A High Wind Warning was issued for the coastal headlands and exposed beaches of Oregon zones ORZ021/022 at 0444 PST on 02/24 and expired at 1845 PST on 02/25. Wind records indicate that this was actually two high wind events. The first lasted from 0700 PST to 1400 PST on 02/25, and the second event lasted from 2200 PST to 2300 PST on 02/25. The maximum verifying observations from Gold Beach and Cape Blanco are listed above for each event. It appears that the warning was cancelled several hours too early...between the first and second events.

PACIFIC

NOT RECEIVED.

PACIFIC OCEAN

Pt Piedras Blancas To Pt Arguello Wwd 60Nm									
2 S Pismo Beach to 1 W Pismo Beach	02	1455PST	1459PST		0	0			Waterspout

Just west of Oceano Dunes, a waterspout was reported by a park ranger.

San Francisco / San Pablo / Suisun Bay And W Delta Golden Gate									
	17	1434PST	1439PST		0	0			Marine Tstm Wind

A thunderstorm produced a 43 knot (49 mph) wind gust at the Golden Gate.

Pigeon Pt To Pt Arena Ca Wwd 20Nm Pillar Point									
	17	1500PST	1510PST		0	0			Marine Tstm Wind

A thunderstorm over the ocean produced a 35 knot (40 mph) wind gust approximately 17 nautical miles southwest of Pillar Point.

Pt Piedras Blancas To Pigeon Pt Ca Wwd 20Nm Pt. Piedras Blancas									
	25	1100PST	1105PST		0	0			Marine Tstm Wind

Thunderstorm over the nearby waters produced a 39 knot (45 mph) wind gust approximately 20 miles west of Pt. Piedras Blancas.

Monterey Bay Monterey Pier									
	25	1100PST	1105PST		0	0			Marine Tstm Wind

Strong thunderstorm produced 43 knot (49 mph) wind gust near the Monterey Pier.

Storm Data and Unusual Weather Phenomena

February 2004

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, Central

PAZ005>006-010>012-017>019-024>028-033>037-041>042-045>046-049>052-056 **Mckean - Potter - Elk - Cameron - Northern Clinton - Clearfield - Northern Centre - Southern Centre - Cambria - Blair - Huntingdon - Mifflin - Juniata - Somerset - Bedford - Fulton - Franklin - Tioga - Northern Lycoming - Sullivan - Southern Clinton - Southern Lycoming - Union - Snyder - Montour - Northumberland - Perry**

03	1000EST 2000EST				0	0			Heavy Snow
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A low pressure system moved northeast from the western Gulf Coast states on Monday, February 2nd, into the western Great Lakes by early Tuesday morning, February 3rd. A new low pressure system then developed along the North Carolina coast during Tuesday morning, and then lifted north along the east coast, reaching southern New England by Tuesday evening. This combination of storm systems spread a swath of heavy snow across central Pennsylvania during Tuesday, with total accumulations generally ranging from 8 to 12 inches. Snow began falling early Tuesday morning around 4 am EST, with snowfall intensities quite high during the Tuesday morning commute. Snowfall rates exceeded 3 inches per hour in some locations. This created extremely hazardous driving conditions, and resulted in the closure of many schools and businesses. The snow gradually tapered off in intensity by mid to late afternoon, with some sleet and freezing rain mixing in with the snow at times. The snow finally ended early Tuesday night.

PAZ004>005-010>011-017>019-024>028-033>036-042-049>053-056>059-063>066 **Warren - Mckean - Elk - Cameron - Clearfield - Northern Centre - Southern Centre - Cambria - Blair - Huntingdon - Mifflin - Juniata - Somerset - Bedford - Fulton - Franklin - Sullivan - Union - Snyder - Montour - Northumberland - Columbia - Perry - Dauphin - Schuylkill - Lebanon - Cumberland - Adams - York - Lancaster**

06	0500EST 1500EST				0	0			Ice Storm
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A low pressure system developed along the western Gulf Coast on Thursday, February 5th, and then moved north northeastward into the lower Great Lakes by Friday morning, February 6th. As the low tracked toward the lower Great Lakes, a large area of precipitation moved across central Pennsylvania from late Thursday night into Friday. With cold low level air initially in place, the precipitation began as a mixture of snow, sleet and freezing rain, and then changed to all freezing rain by early Friday morning. The precipitation then changed to plain rain during the mid morning hours of Friday. Ice accretion of one quarter to one half inch was common across central Pennsylvania by early Friday morning, in addition to several inches of snow and sleet accumulation. The ice accretion, combined with gusty winds, resulted in some fallen tree limbs, as well as hazardous travel conditions during the Friday morning commute. Many schools and businesses were either closed, or had delayed openings as a result of treacherous conditions during the morning hours.

PAZ036

Franklin

06	1700EST 1900EST				0	0			Flood
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Flooding occurred along Conococheague Creek and Back Creek in Greene and Hamilton townships, and Antietam Creek in Washington township. Several roads were flooded and closed.

PAZ065

York

06	1800EST				0	0			Flood
07	1200EST								

Flooding was extensive along Codorus Creek, especially from Glen Rock to York. In Hanover, one home had a basement collapse due to flood waters. Route 616 was closed in Manchester and Codorus townships, along with several other roads throughout the county.

PAZ066

Lancaster

06	1800EST				0	0			Flood
07	0800EST								

IFLOWS gages exceeded flood stage on Chickies Creek near Manheim, Little Chickies Creek near Mount Joy, Pequea Creek near Paradise, and Mill Creek at Smoketown. An ice jam also formed on Little Chickies Creek in Rapho township, causing road flooding. Several water rescues were performed on the Conestoga River.

PAZ064

Adams

06	1800EST 2100EST				0	0			Flood
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Heavy rain caused flooding in portions of Adams County. Four roads were closed due to flooding during the height of the high water in the Gettysburg area, which occurred between 6 and 7 pm.

PAZ066

Lancaster

07	0245EST 0600EST				0	0			Flood
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Heavy rain and snow melt caused the Conestoga River at Lancaster to exceed its flood stage. The river rose above its flood stage of 11.0 feet at 2:45 EST on Saturday, February 7th, crested at a stage of 11.1 feet at 4:00 EST, then fell back below flood stage at 06:00 EST on the 7th.

Storm Data and Unusual Weather Phenomena

February 2004

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

PAZ060>062	Berks - Lehigh - Northampton	03	0800EST 1200EST		0	0			Winter Weather/Mix
PAZ054>055	Carbon - Monroe	03	0900EST 1900EST		0	0			Winter Storm

A low pressure system that developed over the Southern Plains brought a wintry mix of snow, sleet and freezing rain to Berks County, the Lehigh Valley and the Poconos. The worst reported conditions were over the higher terrain of the Poconos where temperatures failed to get above the freezing mark. Precipitation began as snow in all areas between 8 a.m. and 9 a.m. EST. The snow changed to freezing rain in Berks County and the Lehigh Valley by 11 a.m. EST. Precipitation then changed to all rain by noon EST. There was little, if any, snow accumulation and ice accretions were less than one-tenth of an inch. Across the Poconos, conditions varied based upon elevation. In the valleys, precipitation changed to freezing rain and then rain during the afternoon. Over the higher terrain, precipitation fell as mainly snow and accumulated up to 6 inches. Precipitation ended during the early evening and any standing water or slush froze as temperatures dropped below freezing in all areas. Accidents once again spread south into the Lehigh Valley and Berks County.

In Carbon County, traffic on U.S. 209 heading north into Jim Thorpe was backed up to Lehighton due to accidents and road conditions. In Penn Forest Township, a car slid into a utility pole and set it on fire. In Mahoning Township, two roads were closed including Pennsylvania State Route 443 because of numerous accidents and hazardous driving conditions. Schools dismissed early and Lehighton and Palmerton Schools were closed on the 4th. Several roads were also closed in Monroe County. The worst reported accident occurred in Middle Smithfield Township when a car and truck collided. The driver of the car was hospitalized. In Berks County, numerous accidents were reported in Penn Township, Womelsdorf Borough and Maxatawny Township during the morning and early afternoon. More accidents occurred during the evening as temperatures dropped; several had minor injuries and caused road closures. A mother and child were injured after she struck a utility pole in Cumru Township. Other accidents with injuries occurred in Robeson, Washington and Brecknock Townships. A few roads (including Pennsylvania State Route 10) were closed for hours.

Accumulations included 6 inches in Tobyhanna (Monroe County). Ice accretions in the Poconos averaged between one-quarter and one-half of an inch. The winter weather was caused by a low pressure system that moved from eastern Texas on the morning of the second to Michigan on the morning of the 3rd. A secondary low pressure system formed in North Carolina on the morning of the 3rd and moved north and passed close to New York City early in the evening on the 3rd before moving into Maine early in the morning on the 4th. While the high pressure system position at the onset of precipitation was not in an ideal position to lock in the cold air (It was already over Nova Scotia.), the recent unseasonably cold weather kept sufficient cold air in place near the surface for the wintry mix in northeastern Pennsylvania.

PAZ054>055-060>062	Carbon - Monroe - Berks - Lehigh - Northampton	05	2300EST		0	0			Winter Storm
		06	1800EST						
PAZ067>071	Chester - Montgomery - Bucks - Delaware - Philadelphia	05	2300EST		0	0			Winter Weather/Mix
		06	0900EST						

A low pressure system from the Gulf of Mexico brought a winter storm of snow, sleet and freezing rain to Berks County, the Lehigh Valley and the Poconos and a lighter mix of wintry precipitation throughout the rest of Eastern Pennsylvania. In the Poconos, snowfall accumulations averaged 1 to 2 inches, but ice accretions reached half an inch. In Berks County and the Lehigh Valley, snowfall accumulations were generally less than half an inch and ice accretions averaged around half an inch. Elsewhere in Eastern Pennsylvania, there was little if any snow and ice accretions were less than one quarter of an inch. Precipitation started as light snow throughout Eastern Pennsylvania around midnight EST on the 6th. Precipitation changed to sleet and freezing rain around 3 a.m. EST, except it took until 7 a.m. EST in the Poconos. Precipitation changed to plain rain in Philadelphia and Delaware Counties between 7 a.m. and 8 a.m. EST and between 8 a.m. and 10 a.m. EST in Berks County and the northwest Philadelphia suburbs. The change to plain rain took until around Noon EST in the Lehigh Valley and most of the afternoon to work its way through the Poconos. Temperatures during the day were marginal for freezing rain (barely below freezing) and this coupled with the indirect insolation from the sun kept ice accretions down.

The worst traveling conditions occurred during the pre-dawn and morning hours. Many accidents involved single vehicles than spun around, overturned or rolled into ditches. In Berks County, a woman suffered a serious head injury when her vehicle overturned in Maxatawny Township. In Bethel Borough, a 15-year-old girl was flown to Hershey Medical Center after a vehicle she was a passenger in spun out of control on Pennsylvania State Route 501 and she was thrown out a side door as the vehicle slid down a fifteen foot embankment into a tree. Both Pennsylvania State Routes 10 and 724 were closed because of icy conditions and accidents in Robeson and Cumru Townships. Other road closures in Berks County occurred in Ontelaunee and Upper Tulpehocken Townships. Many schools had delayed openings or were closed all together as close to Philadelphia as its northwestern suburbs. It was the sixth day of the winter that schools were closed in Allentown (Lehigh County). In Berks County, about 9,000 homes and businesses lost power in Birdsboro and Shillington as ice-laden tree limbs took down power lines. All power was restored by the evening of the 6th.

Storm Data and Unusual Weather Phenomena

February 2004

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

The low pressure system responsible for the wintry weather developed in the western Gulf of Mexico on the 5th. It moved northeast reaching the Tennessee Valley on the evening of the 5th and into the Great Lakes on the morning of the 6th. Its associated warm front moved north from the Carolinas on the morning of the 6th into the lower Delmarva Peninsula during the afternoon of the 6th before stalling. The occluded front associated with the primary low pressure system (It went northeast from the Great Lakes through the Saint Lawrence River Valley.) moved through the region during the night of the 6th. The initial cold air near the surface was provided by a high pressure system from Eastern Canada. It moved offshore overnight on the 5th and during the day on the 6th as the southeast flow around it brought in warmer air from the Atlantic Ocean into the region. But, it took most of the day for the warmer air near the ground to reach the Poconos.

PAZ054>055

Carbon - Monroe

20	2200EST				0	0			Winter Weather/Mix
21	0400EST								

A weak warm front that moved toward the Poconos during the night of the 20th produced some light freezing rain and pockets of sleet, especially over the higher terrain. Untreated roadways became slippery. Ice accretions on exposed surfaces were generally less than five hundredths of an inch.

PAZ054>055-

060>062-067>069

Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks

24	0500EST				0	0			Winter Weather/Mix
	1900EST								

A weakening Alberta Clipper dropped between one and four inches of snow across much of Eastern Pennsylvania. The snow began falling around sunrise on the 24th and ended during the late afternoon and early evening. Because air temperatures were around freezing and most of the snow fell during the day, it mainly accumulated on just grassy surfaces. The only main exception was in Berks County where it snowed the heaviest and several snow related accidents occurred. In Amity Township, a three vehicle accident occurred on the Ben Franklin Highway and a 22-year-old woman suffered a serious head injury. In Reading, the intersection of Robeson and McKnight Streets was closed for about five hours after a home heating oil delivery truck rolled onto its passenger side and 40 gallons of oil spilled on the roadway. Accidents caused a couple of other roadway closures in Amity and Spring Townships.

In all areas, as skies cleared later during the evening, standing, untreated water and slush froze and caused hazardous traveling conditions. Accumulations included 3.7 inches in Wyomissing (Berks County), 3.6 inches in Saylorburg (Monroe County), 3.5 inches in Frederickville (Berks County), 3.4 inches in Boyertown (Berks County), 3.1 inches in Lehighton (Carbon County), 2.5 inches in Williams Township (Northampton County), 2.3 inches in Palm (Montgomery County), 2.2 inches at the Lehigh Valley International Airport, 2.0 inches in Pocono Summit and Forks Township (Northampton County), 1.9 inches in Springtown (Bucks County) and 1.5 inches in Blue Bell (Montgomery County) and 1.3 inches in Phoenixville (Chester County). Accumulations around the local Philadelphia area were less than one inch and in many places less than half an inch.

The Alberta low pressure system that brought the snow moved from the central Ohio Valley at 7 p.m. EST on the 23rd east into West Virginia around sunrise on the 24th and to the Virginia/North Carolina border during the early afternoon on the 24th. This low pressure system merged east of North Carolina during the early evening on the 24th with another developing low pressure system that formed on the South Carolina coastal waters earlier that day. By 7 a.m. EST on the 25th, the low pressure system was well offshore, about 500 miles east of the Delmarva Peninsula.

PENNSYLVANIA, Northeast

PAZ038>040

Bradford - Susquehanna - Northern Wayne

03	2100EST				0	0	30K		Heavy Snow
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A low pressure area in Missouri the morning of the the 2nd moved slowly northeast to be in Michigan the morning of the 3rd. Another low pressure area formed on the North Carolina coast also the morning of the 3rd. This low moved up the east coast of the United States to be off the Maine coast the morning of the 4th. Precipitation, mostly in the form of snow, moved into the area from the west around 10 AM. Snowfall amounts were mostly 6 to 8 inches across much of Bradford, Susquehanna and Northern Wayne Counties. The highest amounts were at the highest elevations. In the valleys snow amounts were reduced by some rain, freezing rain, and sleet. Snow to water ratios were around 10 to 1. During the afternoon and evening, numerous accidents occurred when people tried to return home from work.

PENNSYLVANIA, Northwest

NONE REPORTED.

PENNSYLVANIA, West

PAZ008-015>016-022

Venango - Clarion - Jefferson - Armstrong

03	0700EST				0	0			Winter Storm
	1130EST								

A combination of heavy snow and an ice storm struck these counties. Freezing rain began after 11 PM on the 2nd. The freezing rain left a glaze of ice at least one quarter inch thick, before changing to heavy snow in the early morning hours. Brockway received 11 inches of snow; Cooksburg 9; Frogtown 9, Franklin 6, Sagamore 6.

Storm Data and Unusual Weather Phenomena

February 2004

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, West

**PAZ007-009-013>014- Mercer - Forest - Lawrence - Butler - Indiana - Westmoreland - Fayette
023-030-032**

03	0700EST 1200EST				0	0	10K		Ice Storm
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An ice storm began after 9 PM on the 2nd, continued overnight. By 7 AM on the 3rd, most places had a glaze of ice one quarter inch thick. Butler County reported the glaze half an inch thick. Ice was so heavy, it caused a utility pole to snap, fall, and damage a large business building in Indiana County.

**Washington County
Monongahela**

03	1212EST 1500EST				0	0	30K		Flash Flood
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An ice jam on Pigeon Creek caused flooding near the intersection of Shannon Rd and Hazelkirk Rd, damaging 20 buildings.

**Westmoreland
County
Smithton**

03	1502EST 1730EST				0	0			Flash Flood
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Creek Rd south of Smithton closed by ice jam flooding from Jacobs Creek.

PAZ020

Beaver

03	1855EST 2200EST				0	0			Flood
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Ice jam caused flooding of Hookstown Grade Rd near Beaver Falls.

**PAZ007>009-
013>016-020>023-
029>032**

Mercer - Venango - Forest - Lawrence - Butler - Clarion - Jefferson - Beaver - Allegheny - Armstrong - Indiana - Washington - Westmoreland - Greene - Fayette

05	2000EST				0	0			Ice Storm
06	1100EST								

An ice storm began in the late afternoon or early evening of the 5th. Most places got a glaze of ice one quarter of an inch thick. Jefferson County reported ice 1.5 inches thick; Westmoreland 0.8; Armstrong Forest Indiana 0.5 inches thick.

**PAZ014-020>022-030-
032**

Butler - Beaver - Allegheny - Armstrong - Westmoreland - Fayette

06	0730EST				0	0	85K		Flood
07	0900EST								

By 730 AM, the combined effects of rain, snow melt, and ice jam movement flooded basements in southern Allegheny County; and near Everson in Westmoreland Co. By 810 AM, Armstrong, Beaver, and Butler counties reported widespread flooding. By 130 PM, the Connoquenessing Creek in Beaver County had moderate flooding; ice jams caused flooding in southern Fayette County. Elsewhere, flooding became widespread across several more counties.

PAZ031

Greene

06	0900EST				0	0			Flood
07	0900EST								

Ice jam break up and movement caused numerous streams to go over their banks. Some roads were closed.

PAZ029

Washington

06	1143EST				0	0			Flood
07	0900EST								

Flooding began in Finleyville and Washington. Many state and county roads flooded because of rain, snow melt, and ice jam break up and movement.

PAZ021-029>030

Allegheny - Washington - Westmoreland

07	0100EST 2200EST				0	0	18K		Flood
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On the Monongahela River, Charleroi rose above its 28 ft flood stage at 1 AM on the 7th, crested at 30.2 ft at 7 AM on the 7th, and fell below flood stage at 10 PM on the 7th. Elizabeth rose above its 20 ft flood stage at 2 AM on the 7th, crested at 21.3 ft at 11 AM, and fell below flood stage at 10 PM on the 7th.

PUERTO RICO

NONE REPORTED.

RHODE ISLAND

RIZ006

Washington

18	0200EST 2300EST				0	0			Winter Storm
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A coastal storm passed well southeast of New England, bringing heavy snow and strong winds to Block Island, where a trained spotter reported a storm total of 6 inches. Snowfall amounts tapered off quickly on the mainland, with 2 to 4 inches of snow reported on the south coast.

Storm Data and Unusual Weather Phenomena

February 2004

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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SOUTH DAKOTA, West

SDZ001>002-012>014-024>032-041>044-046>047-049-072>074	Harding - Perkins - Butte - Northern Meade Co Plains - Ziebach - Northern Black Hills - Northern Foot Hills - Rapid City - Southern Foot Hills - Central Black Hills - Southern Black Hills - Custer Co Plains - Pennington Co Plains - Haakon - Fall River - Shannon - Jackson - Bennett - Mellette - Todd - Tripp - Sturgis / Piedmont Foothills - Southern Meade Co Plains - Hermosa Foothills								
	28	1800MST			0	0	0	0	Winter Storm
	29	2359MST							

A powerful upper level storm system moved slowly across the Central Rockies and then through the Northern and Central Plains, bringing abundant precipitation and heavy snow to much of Western and South Central South Dakota. The storm began to affect the region on the 28th as rain and snow developed across far Western South Dakota late in the afternoon. Precipitation changed over to all snow during the evening hours and then continued through the overnight. Precipitation tapered off in the morning. Then as low pressure began to move south and east of the region, precipitation moved back northward across all of Western and South Central South Dakota on the afternoon of the 29th and continued into the morning hours of March 1st. Rain changed over to snow across Central South Dakota during the evening hours of the 29th. As low pressure moved away from the area, strong northwest winds developed late on the 29th and continued through the afternoon of March 1st. The winds caused significant blowing and drifting of the snow and created near blizzard conditions at times. Travel became nearly impossible across the area and Interstate 90 across Western South Dakota was closed to travel on the morning of March 1st. Snowfall totals of 6 to 12 inches were common across the Western South Dakota Plains. 10 to 20 inches fell across the Northern and Eastern Foothills, as well as much of the Black Hills. Snow drifts up to 6 feet high developed across parts of the Plains due to the strong winds.

TENNESSEE, Central

Wayne County Countywide	05	0900CST 1020CST			0	0			Flash Flood
			Several county roads were underwater and impassable.						
TNZ008>010-024-027>028-030>033-057>063-065>066-075-078>079-093>095	Sumner - Macon - Clay - Humphreys - Davidson - Wilson - Smith - Jackson - Putnam - Overton - Hickman - Lewis - Williamson - Maury - Marshall - Rutherford - Cannon - White - Cumberland - Bedford - Warren - Grundy - Wayne - Lawrence - Giles								
	05	1000CST			0	0			Flood
	06	1200CST							

Coles Ferry Road and Langford Road were flooded and impassable.

Mill Creek was 6 feet over its banks at the intersection of Thompson Lane and Glen Rose at 1019 AM CST in Davidson County. Water covered state Highway 96 in Rutherford County. Several homes were flooded in the Walter Hill Subdivision. 5 teenagers had to be rescued from the top of a Jeep Grand Cherokee due to high water at the Rebel Meadow subdivision in Williamson County. Water was covering the parking lot and playground at Nolensville Elementary school so school was closed early at 1030 AM.

Old Creek Road was closed and Spring Creek Church Road was under water in Jackson County. Also, at 430 PM CST, there was stream overflow at the intersection of Greenwood Ridge Road and Old Roaring River Road, about 5 miles east of Gainesboro.

Roads were flooded and closed in Sumner, Overton, Clay, Warren, Marshall, Cannon and Cumberland Counties. One motorist had to abandon his vehicle on Pettigap Road in Warren County because he tried to drive through a flooded roadway. A school bus driver, Diane Walsh, was trapped in a school bus in Clay County by floodwater near Wet Mill Creek in Mordock Hollow.

Numerous roads were closed and impassable according to TDOT in Putnam County. South Cumberland Street in Lebanon became impassable. Numerous other roads were flooded countywide in Wilson County. Stewarts Ferry Pike was flooded and impassable around 11 PM CST. Paint Rock Road and Clydon Road were flooded were flooded in Humphreys County. Coles Ferry Road and Langford Road were flooded and impassable in Sumner County. Numerous secondary roads were closed due to high water in Bedford County. There was widespread flooding on Higgins Rd.

McClanahan Road and County House Road, just south of Carthage, were flooded. 4 houses and 5 mobile homes were submerged by water at Watervale, about 3 miles west of Carthage. Homes were surrounded by water in the Roundlick Creek subdivision. Damage to roads in Smith county alone was \$25,000. Several water rescues had to be made to rescue those trapped in their homes.

Roads were flooded in White County. Schools were closed early. A water rescue in a vehicle was made on Blue Springs Road. A 1997 Buick LeSabre had water up to the shoulders of the driver.

Several county roads were under water and impassable in Wayne and Lawrence Counties. One home had a flooded basement in Lawrenceburg. Napier Road near Hohenwald was under water and impassable. Numerous roads were closed in Macon and Clay Counties. Two families had to be evacuated, one near Lafayette and the other family at Red Boiling Springs.

Stones River Road and Christian-Fosterville Roads were closed. Several homes were flooded in the Walter Hill area around 3 PM

Storm Data and Unusual Weather Phenomena

February 2004

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

CST. Portions of Nolensville Road and South Hall Road were flooded in Williamson County. Hwy 46 at Lyles was closed due to high water. School was dismissed early on Feb. 5th. Hwy 129 near Lynnville in Giles county was under water. Flooding along the Elk River near Elkton killed 27 Holstein steers worth about \$40,000.

Roads were impassable in Marshall due to flooding on the Duck River.

Bedford County Wartrace

05	0926CST								
	1130CST				0	0			Flash Flood

EM reported widespread flooding along Higgins Road.

TNZ058-060-093>095

Lewis - Maury - Wayne - Lawrence - Giles									
15	1100CST								
	1500CST				0	0			Heavy Snow

Snow fell fast and furious. Snow totals ranged from 5 inches at Waynesboro...7 inches at Columbia to as much as 11 inches in Summertown, in the northwest part of Lawrence County.

TNZ059-061>063-065>066-075-077>080

Williamson - Marshall - Rutherford - Cannon - White - Cumberland - Bedford - Coffee - Warren - Grundy - Van Buren									
15	1300CST								
	1600CST				0	0			Heavy Snow

Snow fell fast and furious. Snow totals ranged from 4 inches to as much as 9 inches in the Cumberland Plateau.

Some snow amounts were:

ROCK ISLAND	4 INCHES
SPENCER	6 INCHES
10 NW CROSSVILLE	9 INCHES
MCMINNVILLE	7 INCHES
SHELBYVILLE	5 INCHES
WOODBURY	5 INCHES
LEWISBURG	6 INCHES
CENTERTOWN	4 INCHES (Warren County)
FALL CREEK FALLS	4 INCHES
CROSSVILLE	8 INCHES
FAIRFIELD GLADE	5 INCHES
THOMPSON STATION	4 INCHES
MURFREESBORO	4 INCHES

TNZ033

Overton									
26	0500CST								
	0900CST				0	0			Heavy Snow

7 inches of snow fell at Hanging Limb in Overton County.

TNZ032-064

Putnam - Dekalb									
26	0900CST								
	1200CST				0	0			Heavy Snow

Cookeville and Smithville had 4 inches of snow while Monterey in Putnam County had 8 inches.

TENNESSEE, East

TNZ018-041-043-045-047-072-074

Johnson - Cocke/Smoky Mountains - Southeast Greene - Unicoi - Southeast Carter - Blount/Smoky Mountains - Sevier/Smoky Mountains									
07	2015EST								
	0800EST				0	0			Heavy Snow

3-6 INCHES OF SNOW

TNZ018-045-047

Johnson - Unicoi - Southeast Carter									
11	2300EST								
	0600EST				0	0			Heavy Snow

4-5 INCHES OF SNOW

TNZ012>014-035-081>083-098

Scott - Campbell - Claiborne - Morgan - Sequatchie - Bledsoe - Rhea - Marion									
15	2000EST								
	0400EST				0	0			Heavy Snow

4 to 10 inches of snow was reported...mainly across the higher elevations. 1-3 inches fell across the lower elevations of the Tennessee Valley.

Storm Data and Unusual Weather Phenomena

February 2004

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, East

TNZ015-017>018-044-046 **Hancock - Sullivan - Johnson - Washington - Northwest Carter**

15	2100EST				0	0			Heavy Snow
16	0600EST								

4-8 INCHES OF SNOW

4-8 inches of snow was reported...mainly across the higher elevations. 1-3 inches fell across the lower elevations of the Tennessee Valley.

TNZ012>017-035>040-042-044-046-067-069>070-081>083-098 **Scott - Campbell - Claiborne - Hancock - Hawkins - Sullivan - Morgan - Anderson - Union - Grainger - Hamblen - Northwest Cocke - Northwest Greene - Washington - Northwest Carter - Roane - Knox - Jefferson - Sequatchie - Bledsoe - Rhea - Marion**

26	1200EST				0	0			Heavy Snow
	2300EST								

3-6 INCHES OF SNOW

TNZ018-041-043-045-047 **Johnson - Cocke/Smoky Mountains - Southeast Greene - Unicoi - Southeast Carter**

26	1200EST				0	0			Heavy Snow
	2300EST								

8-12 INCHES

Generally 6-10 inches of snow was reported across the higher elevations. 14 inches fell on Roan Mountain in Carter County.

TENNESSEE, South Central

Franklin County

Decherd	05	1630CST			0	0			Flash Flood
		1915CST							

Flash flooding occurred with a few roads with several inches of water over them near Decherd.

Lincoln County

Countywide	05	1700CST			0	0			Flash Flood
		1930CST							

Widespread flash flooding occurred with several roads covered with several inches of water countywide.

Moore County

Lynchburg	05	1700CST			0	0			Flash Flood
		1930CST							

Flash flooding occurred with water over highway 50 near Lynchburg.

TNZ096>097-097 **Lincoln - Franklin**

05	2030CST				0	0			Flood
06	0200CST								

Several roads had six inches to one foot of water covering them near Skinem, including Molino Road and Highway 110.

TNZ097 **Franklin**

26	0600CST				0	0			Winter Storm
	0800CST								

Three inches of snow occurred 10 miles south of Winchester on Keith Springs Mountain.

TENNESSEE, West

Shelby County

Memphis	05	0700CST			0	0	1K		Flash Flood
		0900CST							

Water reached up to several houses. Several streets were flooded.

Madison County

Adair	05	0705CST			0	0	1K		Flash Flood
		0900CST							

Several streets were flooded.

Chester County

Countywide	05	1000CST			0	0	1K		Flash Flood
		1130CST							

Several roads in the county were flooded.

Hardin County

Savannah	05	1000CST			0	0	1K		Flash Flood
		1200CST							

Two residences had flood water in their yards and nearly reached inside their homes.

Storm Data and Unusual Weather Phenomena

February 2004

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, West

TNZ053>055-089>092 Chester - Henderson - Decatur - Fayette - Hardeman - McNairy - Hardin

15	0400CST	0	0	0.70K	Heavy Snow
	0900CST				

A brief heavy snow storm dropped between 3 and 6 inches over southern sections of West Tennessee. Some areas of Fayette County had as much as 8 inches. Most of the snow melted within hours after the event.

TNZ004

Henry

25	0930CST	0	0	5K	Strong Wind
	1000CST				

Strong winds knocked down a utility pole near the town of Como. A car then tried to avoid the pole and drove into some of the wires causing a small grass fire.

TEXAS, Central

TXZ054-113>114-127>128

Nolan - Jones - Shackelford - Taylor - Callahan

24	1900CST	0	0		Winter Weather/Mix
25	0500CST				

A surprise snow storm dropped one to three inches of snow across the Interstate 20 corridor of the Big Country. There were reports of isolated amounts of up to four inches in the hills surrounding the Abilene area.

Runnels County

16 SE Ballinger to
19 SE Ballinger

29	0445CST	0	0	7K	Thunderstorm Wind (G67)
	0455CST				

An isolated severe thunderstorm went through the southeastern tip of Runnels County and Southwest Coleman County along Lake Ivie. Damage was limited to pole barns and camper shelters at a camp near the lake. Wind gusts were measured at 77 MPH at one location and 59 MPH at another.

Coleman County

Leaday

29	0455CST	0	0	8K	Thunderstorm Wind (G67)
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TEXAS, Central Southeast

Brazos County

College Station

24	2110CST	0.2	50	0	0	25K	Tornado (F0)
	2113CST						

Several homes received minor damage by A&M High School at intersection of Pheasant and West Ridge.

TEXAS, Extreme West

NONE REPORTED.

TEXAS, Mid - South

La Salle County

Woodward

23	2325CST	0	0		Hail (0.75)
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La Salle County

Cotulla

24	0020CST	0	0		Hail (0.88)
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Webb County

12 S Laredo

24	0115CST	0	0		Hail (1.75)
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Duval County

Rios

24	1015CST	0	0		Thunderstorm Wind (G50)
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Roof blown off barn in Rios. Power lines also reported down around Rios.

Jim Wells County

Orange Grove

24	1055CST	0	0		Hail (0.75)
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Nueces County

Agua Dulce

24	1104CST	0	0		Hail (1.00)
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Quarter-size hail reported by law enforcement along Highway 44 between Agua Dulce and Banquete.

Nueces County

San Pedro

24	1115CST	0	0	100K	Thunderstorm Wind (G52)
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Winds blew off roof of one wing of the San Pedro Elementary School.

Nueces County

Robstown

24	1125CST	0	0		Hail (1.00)
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Refugio County

5 S Tivoli

24	1130CST	0	0		Hail (1.75)
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Video from public of golfball-size hail along Highway 35 South of Tivoli.

Storm Data and Unusual Weather Phenomena

February 2004

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, Mid - South

Nueces County

Corpus Christi

24 1150CST 0 0 Hail (1.00)

Quarter-size hail reported by trained spotter at Alameda and Robert Drive. Numerous other reports throughout Corpus Christi of hail ranging from pea to penny-size from 1130 to 1200 CST.

San Patricio County

Aransas Pass

24 1220CST 0 0 Hail (0.88)

A strong negatively tilted upper level trough, accompanied by cold mid and upper level temperatures as well as strong upper level diffluence, approached from the Big Bend and northern Mexico during the late night and early morning hours of the 23rd and 24th. This led to the development of scattered showers and thunderstorms across the Rio Grande Plains early on the morning of the 24th. The showers and thunderstorms organized into a squall line around 930 a.m. across Duval and McMullen counties, in response to the powerful upper level disturbance out of Mexico and increasing easterly low level inflow off the Gulf of Mexico. A bow echo formed around 10 a.m. across eastern Duval county and raced quickly east into Jim Wells county, intensifying as it moved into a more unstable airmass across the Coastal Bend. The bow echo was accompanied by winds of 50 to 60 mph across eastern Duval, Jim Wells and far western Nueces and San Patricio counties with hail ranging from penny to quarter-size. The squall line continued through the southern Coastal Bend between 11 a.m. and noon and weakened as it moved off the coast after noon. Winds of 40 to 50 mph and pea to quarter-size hail were reported across the eastern half of Nueces and San Patricio counties, including metro Corpus Christi. An isolated severe thunderstorm ahead of the squall line produced golfball-size hail across Refugio county, covering State Highway 35. In addition to hail and strong to severe winds, the squall line dumped heavy rainfall across the area which produced minor stream flooding. Doppler Radar estimated as much as two inches of rain fell across the Coastal Bend, with a daily record of 1.37 inches being established at the Corpus Christi International Airport.

TEXAS, North

McLennan County

Crawford

04 2110CST 0 0 Hail (0.88)

TXZ091>095-

Montague - Cooke - Grayson - Fannin - Lamar - Wise - Denton - Collin - Hunt - Delta - Tarrant - Dallas

102>106-118>119

14 0100CST 0 0 Heavy Snow
1800CST

An upper level storm system moved across North Central Texas late Friday night February 13th, and during the day Saturday February 14th, producing measurable snow across all but extreme southeast parts of North Texas. Snow began falling Friday night across the southwest parts of North Texas, then spread northeast across the rest of the region late Friday night and early Saturday morning. The snow ended over southwest parts of the region Saturday morning, and across the northeast early Saturday evening. Heavy snow of 4 to 5.5 inches fell on the 14th, from Montague and Wise counties eastward as far as Lamar and Delta counties, and south into northern Tarrant, northern Dallas, and northern Hunt counties. 1 to 3 inches of snow fell across the rest of North Texas, except for a small strip southeast of a Palestine to Hearne line, where only a trace was reported.

Navarro County

Brushie Prairie

29 0900CST 0 0 10K Thunderstorm Wind (G52)

The roof of a mobile home was ripped off by high winds on County Road 3090 near Brushie Prairie.

Tarrant County

Crowley

29 1500CST 1 0 Heavy Rain
1600CST

A woman drowned after being swept away as she tried to wade across a rain swollen creek near Bicentennial Park. The heavy rain that caused the creek to rise had ended two to three hours previous to the drowning. F?IW

TEXAS, North Panhandle

TXZ005-010-015

Lipscomb - Hemphill - Wheeler

04 0600CST 0 0 Heavy Snow
1200CST

A low pressure system in the upper atmosphere tracked east out of Arizona and New Mexico and across the Oklahoma and Texas panhandles during the morning hours. Heavy snow fell across the extreme eastern Texas panhandle producing four inches of snow at Mobeetie in Wheeler county...four inches of snow at Canadian in Hemphill county...and four to five and a half inches of snow at Lipscomb in Lipscomb county.

TXZ017>018

Randall - Armstrong

23 1545CST 0 0 Heavy Snow
24 0000CST

A storm system in the upper atmosphere approached the Texas panhandle during the afternoon and evening hours producing heavy snow across the south-central Texas panhandle. Umbarger in Randall county received four inches of snow and Claude in Armstrong county also received four inches of snow. In Deaf Smith county...Hereford reported four inches of snow in a twenty-four hour period and Bootleg received nearly six inches of snow.

Storm Data and Unusual Weather Phenomena

February 2004

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

TEXAS, South Panhandle

TXZ021-028>029	Parmer - Lamb - Hale								
	24	1000CST			0	0			Heavy Snow
		2200CST							

A strong upper level storm moved from the Southern Rockies into the Southern Plains on the 24th. Precipitation ahead of this system began as rain but changed to snow over the southern Panhandle of Texas during the mid-morning hours and across the Texas South Plains by midday as the cold air deepened across the region. The snow continued through the late evening, at first melting on contact, but eventually accumulating to 1 to 3 inches over much of the South Plains, extreme Southern Panhandle, and Rolling Plains. Four to six inches occurred in Hale, Lamb, and Parmer Counties.

TEXAS, Southeast

Tyler County									
7 E Rockland	04	1940CST			0	0			Hail (0.75)

TEXAS, West

TXZ045>046-050>051-058-060>062-067>069-074>075	Gaines - Dawson - Andrews - Martin - Reeves County And Upper Trans Pecos - Winkler - Ector - Midland - Ward - Crane - Upton - Davis / Apache Mountains Area - Pecos								
	12	0700CST			0	0	0	0	Winter Weather/Mix
	14	1000CST							

An upper level storm system took up residence over the border area west of El Paso late on the 11th, and persisted until it ejected east over West Texas during the overnight hours of the 13th and the early morning of the 14th. An arctic cold front swept south across the region in advance of the upper low. An extended period of weak isentropic upglide over the shallow surface cold dome resulted in a light freezing drizzle and snow flurries across much of West Texas. A thin sheet of ice (1/8 to 1/4 of an inch thick) coated driving surfaces including bridges and overpasses. Numerous traffic accidents occurred across the area. Five fatalities and eight injuries were indirectly attributed to the icy conditions.

The frozen precipitation began early on the 12th immediately behind the passing cold front. The onset of wintry weather just before rush hour resulted in approximately sixty-five traffic accidents on overpasses in the Midland/Odessa area. All overpasses on Loop 250 in Midland were closed by local authorities. In addition, parts of Interstate 20 near Stanton were closed due to a "major" traffic collision.

Hazardous driving conditions from Pecos County to the Davis Mountains resulted in up to sixty weather related accidents during the evening of the 12th. Although no injuries were reported, several highways were closed including U.S. Highways 285 and 382 in southern Pecos County, and Highway 118 through the Davis Mountains. The Pecos Department of Public Safety office reported a total of 140 weather related accidents in their area of jurisdiction throughout the event.

Freezing drizzle again spread northeast across the Upper Trans Pecos and the Permian Basin early on the 13th. A head on collision was reported on an icy overpass along the Andrews Highway north of Odessa in the pre-dawn hours. Dangerous conditions brought traffic to a standstill and caused up to twenty accidents along Interstate 20 between West Odessa and Monahans shortly after sunrise. One such accident included a school bus that rolled over just west of Penwell. Fortunately, no children were onboard and no injuries were reported.

Authorities in Reeves County were forced to close Interstates 10 and 20 where they converge southwest of Pecos after several accidents occurred in that area. A temporary shelter was established in Pecos to house stranded travelers.

The upper level storm system began to track east across West Texas late on the 13th. As it did, cooling associated with large scale deep layer lift resulted in light to moderate snowfall mixing with freezing drizzle. The already hazardous driving conditions on area roadways and highways deteriorated further. Numerous accidents were reported across the area, with the first indirect fatality of the event occurring around 2000 LST when a teenage girl lost control of her vehicle and rolled on U.S. Highway 62 in northern Gaines County. Three others were injured.

Two fatal accidents occurred along Interstate 20 around 2100 LST. The icy interstate highway led to a single car roll over one mile west of Stanton that resulted in two deaths, and another single car roll over on the icy Rankin Highway overpass in Midland claimed one life.

A fourth fatality accident occurred just as the lingering wrap around precipitation was moving out of the region around 0900 LST on the 14th. A single vehicle roll over on U.S. Highway 87 twenty miles north of Big Spring claimed one life and injured five others.

TXZ045-050-074-258	Gaines - Andrews - Davis / Apache Mountains Area - Guadalupe Mountains Of Culberson County								
	19	0300CST			0	0	35K	0	High Wind (G82)
		1500CST							

A potent upper level storm system propagated east across the Southern Plains on the 19th, and resulted in severe mountain winds

Storm Data and Unusual Weather Phenomena

February 2004

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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UTAH, East

UTZ023-025-028	Eastern Uinta Mountains - Tavaputs Plateau - La Sal & Abajo Mountains								
	27	0000MST			0	0			Winter Storm
	29	0000MST							

Low pressure interacted with a moist and unstable airmass and produced 1 to 3 feet of snow across the mountains of extreme eastern Utah. Local amounts near 4 feet were measured across the Eastern Uinta Mountains.

UTAH, West and Central

NOT RECEIVED.

VERMONT, North and Central

VTZ010-012	Orange - Windsor								
	03	2300EST			0	0	20K		Winter Storm
	04	0400EST							

A low pressure system developed over the mid-Atlantic coastal area on Tuesday, February 3rd and moved northeast across southern New England the night of the 3rd and then into the Canadian Maritimes during Wednesday, February 4th. Snow developed across the area during the late afternoon and evening of February 3rd, and became heavy at times during the overnight period before tapering off to flurries early on February 4th. Snow accumulations were generally between 6 and 8 inches with slippery traveling conditions.

VTZ003-007-017	Orleans - Caledonia - Eastern Chittenden								
	04	0100EST			0	0	30K		Winter Storm
		0400EST							

A low pressure system developed over the mid-Atlantic coastal area on Tuesday, February 3rd and moved northeast across southern New England the night of the 3rd and then into the Canadian Maritimes during Wednesday, February 4th. Snow developed across the area during the evening of February 3rd, and became heavy at times during the overnight period before tapering off to flurries during February 4th. Snow accumulations were generally around 6 inches with slippery traveling conditions.

VTZ001>002-005>006-008>009	Grand Isle - Western Franklin - Western Chittenden - Lamoille - Washington - Western Addison								
	04	0100EST			0	0	10K		Winter Storm
		0400EST							

A low pressure system developed over the mid-Atlantic coastal area on Tuesday, February 3rd and moved northeast across southern New England the night of the 3rd and then into the Canadian Maritimes during Wednesday, February 4th. Snow developed across the area during the evening of February 3rd, and became heavy at times during the overnight period before tapering off to flurries during February 4th. Snow accumulations were generally between 6 and 8 inches with slippery traveling conditions.

VTZ002>003-007-010>012-016-019	Western Franklin - Orleans - Caledonia - Orange - Western Rutland - Windsor - Eastern Franklin - Eastern Rutland								
	06	0800EST			0	0	40K		Winter Weather/Mix
		1900EST							

A complex storm system with centers over the Great Lakes region and the mid-Atlantic coast early Friday, February 6th, moved across New England Friday night (February 6). Snow developed during the morning of February 6th and mixed with sleet and freezing rain in the afternoon. Accumulations of snow were generally between 2 to 4 inches in these areas.

VERMONT, South

VTZ014	Western Windham								
	03	2000EST			0	0			Winter Storm
		2359EST							

A complex storm system, moving through the Ohio Valley on February 3, transferred energy to a coastal storm off the Mid Atlantic coastline. This secondary storm tracked northeast, bringing a quick shot of moderate to occasionally heavy snow, during the evening of the 3rd, across elevated sections of the Green Mountains of Windham County. A swath of 7-10 inches of snow fell in this area with slightly lesser amounts across the remainder of extreme southern Vermont. The heaviest snowfall reported was 9.5 inches at West Wardsboro.

VIRGIN ISLANDS

NONE REPORTED.

VIRGINIA, East

VAZ060-065>068-070-079>082-087>098	Prince Edward - Mecklenburg - Lunenburg - Nottoway - Amelia - Chesterfield - Brunswick - Dinwiddie - Prince George - Charles City - Greensville - Sussex - Surry - James City - York - Southampton - Isle Of Wight - Newport News - Norfolk - Suffolk - Chesapeake - Virginia Beach								
	15	1800EST			0	0			Winter Storm
	16	0200EST							

One to three inches of snow fell across portions of southcentral and southeast Virginia. Some higher amounts included: City of Hampton 3", Brunswick county 2-3", Western Branch in Chesapeake 2-3", Wakefield in Sussex county 2.5", and City of Virginia

Storm Data and Unusual Weather Phenomena

February 2004

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, East

**VAZ063>064-
070>078-082>085-090**

Beach 2.5". The snow produced very slippery roadways, which resulted in several accidents and school closings for a few days.
**Hanover - Caroline - Chesterfield - Henrico - King William - King And Queen - Essex - Westmoreland -
 Richmond - Northumberland - Lancaster - Charles City - New Kent - Gloucester - Middlesex - James City**
 17 1300EST 0 0
 2100EST Winter Weather/Mix

One half inch to two inches of snow fell across portions of central Virginia and the Virginia northern neck. The snow produced slippery roadways, which resulted in a few accidents.

VIRGINIA, Extreme Southwest

**VAZ001>002-
005>006-008**

Lee - Wise - Scott - Russell - Washington
 15 2100EST 0 0 Heavy Snow
 16 0600EST

4-8 INCHES OF SNOW

**VAZ001>002-
005>006-008**

Lee - Wise - Scott - Russell - Washington
 26 1200EST 0 0 Heavy Snow
 2300EST

3-6 INCHES OF SNOW

VIRGINIA, North

VAZ021-025>030-041

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Fauquier
 03 0300EST 0 0 Winter Storm
 1500EST

Snow and freezing rain overspread the region early on the 3rd, and the precipitation continued through the afternoon. Snowfall amounts ranged from five to ten inches, and ice accumulations averaged one quarter to one half inch. Due to hazardous travel conditions, most area schools either opened late or closed for the day. Several automobile accidents were reported to the State Police.

VAZ031-040-042

Clarke - Rappahannock - Loudoun
 03 0300EST 0 0 Winter Weather/Mix
 1500EST

Snow and freezing rain began early on the 3rd, and the precipitation continued through the afternoon. Snowfall amounts averaged one to two inches, and ice accumulations measured one tenth to two tenths inch. Due to hazardous travel conditions, area schools opened late or closed for the day. Several minor automobile accidents were reported.

**VAZ025-027>028-
040-050**

Augusta - Shenandoah - Frederick - Rappahannock - Orange
 05 1700EST 0 0 Winter Storm
 06 2000EST

An area of low pressure brought freezing rain and sleet to Northern Virginia as it moved northeast. One third to one half inch of ice accumulated and formed a glaze on the roads and power lines. This led to school closures, some automobile accidents, and scattered power outages. 15 thousand customers lost power across portions of Virginia.

**VAZ030-038>039-
041>042-051-053>055**

Warren - Greene - Madison - Fauquier - Loudoun - Culpeper - Fairfax - Arlington - Stafford
 05 1700EST 2 1 Winter Weather/Mix
 06 2000EST

An area of low pressure produced freezing rain and sleet in Northern Virginia as it tracked northeast. One to two tenths inch of ice accumulated. This ice coated surfaces, downed power lines, and felled trees. As a result, there were school closures/delays, automobile accidents, and scattered power outages. In Stafford County, an automobile accident claimed the lives of two students as they traveled to school. A third student was seriously injured. M15VE, F16VE

VAZ028-042

Frederick - Loudoun
 06 1400EST 0 0 Flood
 07 0300EST

Heavy rainfall and melting snow produced some flooding across Northern Virginia. Radar estimates and rain gauge data indicated that two to three inches of rain fell over this area. Some roads were blocked after small streams came out of their banks. Goose Creek in Leesburg rose to 13.1 feet before cresting early on the 7th. Water approached Route 15 near Lime Kiln Road and Oatlands Mill Road. Other significant rises were noted on area rivers on the 7th and 8th.

**Augusta County
Crimora**

06 1545EST 0 0 Flash Flood
 1945EST

**Highland County
Southeast Portion**

06 1545EST 0 0 Flash Flood
 1945EST

Storm Data and Unusual Weather Phenomena

February 2004

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

Nelson County

Shipman	06	1545EST 1945EST			0	0			Flash Flood
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Staunton (C)

Staunton	06	1545EST 1945EST			0	0			Flash Flood
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Waynesboro (C)

Waynesboro	06	1545EST 1945EST			0	0			Flash Flood
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The combination of heavy rainfall and melting snow lead to flash flooding across the Central Shenandoah Valley and the Central Foothills. Radar estimates and rain gauge data indicated two to three inches of rain fell over this area. Some small creeks and streams came out of their banks and covered nearby low lying fields and roadways.

VIRGINIA, Northwest

NONE REPORTED.

VIRGINIA, Southwest

VAZ018>020-023>024 Craig - Alleghany - Bath - Botetourt - Rockbridge

02		2330EST			0	0			Heavy Snow
03		1130EST							

VAZ046

Appomattox

03		0200EST 0900EST			0	0			Ice Storm
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Low pressure moved up the Atlantic Coast late on the 2nd and during the morning of the 3rd. This resulted in heavy snowfall across the Southern Shenandoah Valley, and Alleghany Highlands, and heavy ice in Appomattox County in the piedmont. 4 to 10 inches of snow fell, with the highest amounts occurring over the higher terrain of Craig and Bath counties in southwest Virginia. More than a quarter inch of glaze accumulated on trees in Appomattox County.

VAZ010>014-016>020-024-032

Bland - Giles - Wythe - Pulaski - Montgomery - Carroll - Floyd - Craig - Alleghany - Bath - Rockbridge - Patrick

05		1830EST			0	0			Ice Storm
06		1200EST							

A storm system moved across the Ohio Valley during the evening of the 5th, and morning of the 6th. High pressure was wedged down the east slopes of the mountains...with temperatures below freezing. The result was that significant ice accretions occurred across the New River Valley, Alleghany Highlands, Southern Shenandoah Valley, and locations along the Blue Ridge near the North Carolina and Virginia border. Most of these locations saw 1/4 to 1/2 inch of glaze. Numerous vehicle accidents were reported in Carroll County due to the slick highways. A tree was also downed by the weight of the ice in Galax. The ice also brought down a few trees in Alleghany County.

VAZ044-058>059

Pittsylvania - Halifax - Charlotte

07		0400EST			0	0			Flood
09		0730EST							

One to one and a half inches of rainfall, combined with some snowmelt caused portions of the Dan and Roanoke rivers to flood during February 7-9th.

Minor flooding occurred along the Roanoke River at Randolph, as the river rose above flood stage of 21 feet at 10:45 am on the 7th, then crested about a foot and a half above flood stage at 8:30 pm on the 7th, falling below flood stage at 5:45 am on the 8th.

Minor flooding occurred along the Dan River. In Danville, the river rose above the flood stage of 17 feet at 4:00 am on the 7th, crested just over half a foot above flood stage at 11:00 am on the 7th, then fell below flood stage at 7:30 pm on the 7th. At Paces, the river rose above the 20 foot flood stage at 5:15 pm on the 7th, crested just under a foot above flood stage at 5:00 am on the 8th, then fell below flood stage at 1:15 pm on the 8th. At South Boston, the river rose above the 19 foot flood stage at 4:00 am on the 7th, cresting almost 5 feet over flood stage at 3:00 pm on the 8th, then dropping below flood stage at 7:30 am on the 9th.

VAZ009>010-012-014>017-032>034-043>044-046

Smyth - Bland - Wythe - Montgomery - Grayson - Carroll - Floyd - Patrick - Franklin - Bedford - Henry - Pittsylvania - Appomattox

15		1430EST			0	0			Heavy Snow
16		0015EST							

A potent upper level storm system moved across North Carolina during the afternoon and evening of the 15th, moving off the coast early on the 16th. This storm brought a swath of heavy snow to a good portion of Western Virginia. Amounts ranged from 4 to 8 inches in a path from the Mountain Empire of Southwest Virginia, east to the Blue Ridge from Floyd County south to the North Carolina border, then east into the foothills and piedmont of southern Virginia. The highest amounts of 7 to 8 inches were reported in portions of Smyth, Wythe, Grayson, Floyd and Franklin counties.

Storm Data and Unusual Weather Phenomena

February 2004

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

VAZ044-058

Pittsylvania - Halifax

26 2200EST

27 0500EST

0 0

Heavy Snow

During the 26th, an upper level low pressure system moved from the Gulf Coast States east into South Carolina. This helped develop a surface low along the coast. This low spread Atlantic moisture into a cold air mass, and produced a heavy band of snow late on the evening of the 26th, into the early morning of the 27th. This band of snow accumulated to 6 to as much as 12 inches over the southern sections of Pittsylvania and Halifax Counties, including the cities of Danville and South Boston. The heaviest amounts were located near the North Carolina and Virginia border.

WASHINGTON, Northeast

WAZ033-035

Washington Palouse - Upper Columbia Basin

01 0145PST

1115PST

0 0

Heavy Snow

On February 1st during the night and early morning hours a winter storm dumped heavy snow on Adams, Lincoln, and Whitman Counties. Spotters in Pullman and Odessa each reported 4 inches of new snow. A spotter in Ritzville had 4.8 inches of new snow.

WASHINGTON, Northwest

King County

(Sea)Seattle-Tacoma

06 1420PST

0 0

Lightning

An airport ramp worker was dazed after lightning struck the plane he was attending at Seatac Airport.

WAZ008-011

Tacoma Area - Southwest Interior

24 0900PST

1200PST

0 0

40K

Strong Wind

Strong winds knocked out power to about 2000 homes. A few trees fell, one of them damaged a car.

WASHINGTON, Southeast

WAZ026

Kittitas Valley

25 1253PST

1915PST

0 0

Heavy Snow

Four to six inches of snow fell in the Kittitas Valley. The city of Ellensburg received four to five inches of snow. Higher elevations 10 miles north of Ellensburg at an elevation of 2500 feet received six inches of snow. Several motor vehicle accidents occurred on Interstate 82 on Manastash Ridge due to poor driving conditions.

WASHINGTON, Southwest

WAZ023

West Columbia River Gorge

02 0100PST

1800PST

0 0

Heavy Snow

Carson received 2 inches of snow.

WEST VIRGINIA, East

**WVZ048>050-
052>055**

Grant - Mineral - Hampshire - Berkeley - Jefferson - Pendleton - Hardy

03 0300EST

1500EST

0 0

Winter Storm

Snow and freezing rain overspread the Panhandle of West Virginia during the early morning hours on the 3rd. The precipitation continued through the afternoon. Snowfall amounts ranged from five to ten inches, and ice accumulations averaged one quarter to one half inch. Due to hazardous travel conditions, most area schools closed for the day. Several minor accidents were reported.

WVZ051

Morgan

03 0300EST

05 1500EST

0 0

Winter Weather/Mix

Snow and freezing rain overspread the Panhandle of West Virginia during the early morning hours on the 3rd. The precipitation continued through the afternoon. Three inches of snow fell in Morgan County. Most schools were closed. Some minor accidents were reported.

WVZ049>050-053

Mineral - Hampshire - Jefferson

05 1700EST

06 2000EST

0 0

Winter Storm

An area of low pressure brought freezing rain and sleet to West Virginia. One third to one inch of ice accumulated in Eastern West Virginia on roads and power lines. This led to school closures, some automobile accidents, and scattered power outages.

WVZ051>052

Morgan - Berkeley

05 1700EST

06 2000EST

0 0

Winter Weather/Mix

An area of low pressure brought freezing rain and sleet to West Virginia. Less than one quarter inch of ice coated roads and power lines in Eastern West Virginia. This led to some school closures, automobile accidents, and scattered power outages.

Storm Data and Unusual Weather Phenomena

February 2004

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

WVZ048-050>053-055 Grant - Hampshire - Morgan - Berkeley - Jefferson - Hardy

06	1400EST				0	0			Flood
08	1145EST								

Heavy rainfall and melting snow produced some flooding across the Eastern Panhandle of West Virginia. Radar estimates and rain gauge data indicated that two to three inches of rain fell over the region. Some roads were blocked after small streams came out of their banks. The South Branch of the Potomac, at Springfield, rose to 16.7 ft late on the 6th due to ice jams further up stream. Several roads and low water bridges in and around the Cacapon River, in Morgan County, were closed due to high water and ice jams. The Opequon Creek, near Martinsburg, also rose above the critical 10 ft stage on the 7th. Other significant rises were noted over area rivers on the 7th and 8th.

WEST VIRGINIA, North

WVZ023-041 Preston - Tucker

03	0800EST				0	0			Ice Storm
	1200EST								

An ice storm began after 9 PM on the 2nd, continued overnight. By 8 AM on the 3rd, most places had a glaze of ice one quarter inch thick.

**Ohio County
Triadelphia**

03	1204EST				0	0			Flash Flood
	1500EST								

Three ice jams on Middle Wheeling Creek caused flooding.

**Brooke County
Follansbee**

03	1525EST				0	0			Flash Flood
	1900EST								

An ice jam on Buffalo Creek, south of Wellsburg, flooded Follansbee.

WVZ021

Marion

03	1855EST				0	0			Flood
	2200EST								

Ice jam on Paw Paw Creek near Rivesville...and an ice jam on Booth Creek near Boothsville...are causing flooding.

WVZ001>004-023-041

Hancock - Brooke - Ohio - Marshall - Preston - Tucker

05	2000EST				0	0			Ice Storm
06	0900EST								

An ice storm began in the late afternoon or early evening of the 5th. Most places got a glaze of ice one quarter of an inch thick. The glaze was half an inch thick in Preston and Tucker counties.

WVZ001>003

Hancock - Brooke - Ohio

06	0700EST				0	0			Flood
	2100EST								

Rain, snow melt, Ice jams and ice movement has flooded some roads. At 7 AM, in Hancock Co, Kings Creek ice jam flooded northern end of Weirton.

WVZ004-021>023-041

Marshall - Marion - Monongalia - Preston - Tucker

06	0745EST				0	0			Flood
07	0900EST								

Rain and snow melt caused flooding. A few ice jams that moved or broke up contributed to the flood. At 745 AM, Marshall Co reported these roads flooded because of ice jams: CR 54, Fish Creek Rd, CR 74. In Marion Co, by 335 PM route 19, and other roads, were flooded near Rivesville. In Marshall Co, by 322 PM, flooding was reported on Fish Creek. Some roads in other counties were flooded.

WVZ012

Wetzel

06	0900EST				0	0			Flood
	1500EST								

Ice jam break up and movement, plus rain and snow melt, caused numerous streams to go over their banks. Some roads were closed.

WVZ041

Tucker

08	0000EST				0	0			Heavy Snow
	0800EST								

Snow began the evening of the 7th, and accumulated 6 inches by midnight. By 8 AM on the 8th, Canaan Valley reported a total of 13 inches; Davis 10 inches of snow.

WEST VIRGINIA, Southeast

WVZ045

Greenbrier

02	2300EST				0	0			Heavy Snow
03	1030EST								

Storm Data and Unusual Weather Phenomena

February 2004

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

Low pressure moved up the Mid Atlantic Coast during the late evening of the 2nd and morning of the 3rd. Heavy snow fell across the county, with a range from 5 to 7 inches.

WVZ042>045

Mercer - Summers - Monroe - Greenbrier

05	2000EST				0	0			Ice Storm
06	1130EST								

A storm system moving across the Ohio Valley brought an ice storm to southeast West Virginia during the evening of the 5th and morning of the 6th. A quarter to one half inch of glaze was common...especially in the Greenbrier valley. The heavy glaze lead to downed trees in Greenbrier county. Numerous vehicle accidents were reported throughout Southeast West Virginia due to the icy road conditions.

WEST VIRGINIA, West

WVZ046

Pocahontas

02	2300EST				0	0			Heavy Snow
03	0800EST								

A southeast low level flow kept the atmosphere just cold enough for snow in the upper Greenbrier Valley. A snow accumulation of 6 to 8 inches was common across the county. Snowshoe had a 9 inch accumulation, with their total snow depth going from 12 inches to 21 inches.

WVZ035>036

Raleigh - Fayette

05	1400EST				0	0	75K		Ice Storm
06	0100EST								

Freezing rain fell with surface temperatures in the upper 20s. Liquid amounts were in the .3 to .6 inch range. Ice accretion was from a quarter inch to over a half inch. Large branches fell across power lines, causing power outages. Approximately 18,000 customers were without electricity.

WVZ046

Pocahontas

05	1600EST				0	0			Winter Storm
06	0500EST								

Snow and sleet accumulated a few inches before changing to freezing rain. The ice accretion was from a half inch to an inch. Fallen trees and branches blocked roads. The debris from the fallen trees, plus the ice accumulation, forced the ski resort at Snowshoe to temporarily close.

WVZ005-013-020-028>032-038>040-047

Wayne - Lincoln - Doddridge - Braxton - Gilmer - Lewis - Harrison - Taylor - Webster - Upshur - Barbour - Randolph

06	0100EST				0	0	45K		Flood
07	0800EST								

Rains of 1.5 to 2.5 inches fell in 12 to 18 hours from the 5th into the 6th. Water from small streams flooded roads. Mudslides also occurred.

Later, minor river flooding occurred along the Tygart Valley River basin, including the Buckhannon River. The river crested at 16.9 feet at Belington. Flood stage at Belington is 14 feet. The river crested around 21.4 feet at Philippi. Flood stage at Philippi is 19 feet. Minor river flooding was also seen along the Little Kanawha River. The river crested around 24 feet in Glenville, just a foot above flood stage.

WISCONSIN, Northeast

WIZ022-031-037>040-045-048>050-073>074

Door - Shawano - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc - Southern Marinette - Southern Oconto

05	2100CST				0	0			Heavy Snow
06	0900CST								

Low pressure moved from the southern plains to southern Lake Michigan. Heavy snow began late in the evening on the 5th and continued into early on the 6th. Highest snowfall totals included 11.0 inches at North Bay and 4 miles northeast of Sister Bay (Door co.), 10.5 inches at Marinette (Marinette co.), 10.0 inches at Crivitz (Marinette co.), Fish Creek and Baileys Harbor (Door co.), 8.5 inches at Oconto and Oconto Falls (Oconto co.), 8.0 inches at Sturgeon Bay (Door co.) and 7.8 inches at Green Bay (Brown co.).

WIZ005-010>013-018>022-030-073>074

Vilas - Oneida - Forest - Florence - Northern Marinette - Lincoln - Langlade - Menominee - Northern Oconto - Door - Marathon - Southern Marinette - Southern Oconto

19	1400CST				0	0			Winter Storm
20	1600CST								

Low pressure moved from Colorado, across southern Wisconsin, to lower Michigan. This system left a swath of heavy snow across north-central and northeast Wisconsin. Highest snowfall totals included 13.0 inches at Marinette (Marinette co.), 12.1 inches at Athelstane (Marinette co.), 11.5 inches at Crivitz-High Falls (Marinette co.), 11 inches at Suring (Oconto co.) and Merrill (Lincoln co.) and 10.0 inches 4miles east of Sister Bay (Door co.).

Storm Data and Unusual Weather Phenomena

February 2004

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, Northwest

WIZ002>004-006>009 Bayfield - Ashland - Iron - Burnett - Washburn - Sawyer - Price

01	1500CST				0	0			Heavy Snow
03	0400CST								

Snow fell for a prolonged period. When most accumulating snow ended, 14 inches had fallen at Winter, Loretta, and Spooner, 12 inches fell at Butternut, 10.5 inches fell near Phillips, and 10 inches fell at Mason.

WISCONSIN, Southeast

WIZ046>047-051>052-056>057-062>063-067>068 Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Iowa - Dane - Lafayette - Green

05	0200CST				0	0			Heavy Snow
06	0600CST								

Heavy snow accumulating to 6 to over 9 inches affected parts of south-central and east-central Wisconsin. In addition, northeast to east winds gusting to 22 to 26 knots (25 to 30 mph) resulted in blowing and drifting snow which hindered travel. Snow started to fall about 1600 CST on February 4th, while 1-inch accumulations were noted by 1800 CST. Much of the snow accumulations occurred by 1400 CST on February 5th. A severe weather spotter in Westfield (Marquette Co.) reported 9.6 inches for high honors. Other reports, based on spotter, highway department, and cooperative sources, included 9.5 inches in Baraboo and 8.5 inches in Reedsburg (Sauk Co.); 8.0 inches in Wisconsin Dells (Columbia Co.); roughly 8.0 inches in the extreme northwest corner of Iowa County west of Avoca, and in extreme northwest Green Lake County northwest of Princeton; 7.0 inches in Monroe (Green Co.), about 6.5 inches in extreme western Lafayette County and extreme western Fond du Lac County; 6.5 inches in Mazomanie and Fitchburg (Dane Co.); and 6.1 inches in Elkhart Lake (Sheboygan Co.). Based on newspaper reports, it's safe to estimate that 100 to 150 vehicle accidents occurred due to icy and snow-covered roads during the height of this heavy snow event. Elsewhere across south-central and southeast Wisconsin, 3 to 5.5 inches of snow accumulated, resulting in dozens of additional vehicle accidents.

WIZ046>047-051>052-056>060-062>063-065>072 Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha

08	2100CST				0	0			Winter Weather/Mix
09	1800CST								

Strong southwest winds behind a cold front gusted to 30 to 43 knots (35 to 50 mph) over much of south-central and southeast Wisconsin. These wind gusts knocked many tree branches out of trees. In addition, these winds were responsible for widespread blowing and drifting of recent new snows which made it difficult for highway snowplow crews keep roads open during the pre-dawn hours. Jefferson County is documented separately as a "High Wind" event due to a peak gust of 55 knots (63 mph) measured at a severe weather spotter's residence on the southwest side of the city of Watertown. Several public schools delayed the start of classes or canceled classes due to the blowing and drifting snow and poor road conditions. A high school student was killed (indirect death) during the late evening hours of February 8th, in a 3-vehicle accident in Cedarburg (Ozaukee Co.) due to icy, windswept, road conditions.

WIZ064 Jefferson

09	0230CST				0	0			High Wind (G55)
	0900CST								

Powerful southwest winds behind a cold front gusted to 55 knots (63 mph) at a severe weather spotter's residence on the southwest side of the city of Watertown (Jefferson Co.). Elsewhere across the county gusts were in the 43 to 52 knot range (50 to 60 mph). These wind gusts knocked many tree branches out of trees. In addition, these winds were responsible for widespread blowing and drifting snow which made it difficult for highway snowplow crews keep roads open during the pre-dawn hours.

WIZ046>047-051 Marquette - Green Lake - Fond Du Lac

25	0200CST				0	0			Dense Fog
	0900CST								

Dense fog developed overnight, resulting in visibilities of 1/4 mile or less. Newspaper reports indicated that many icy frost deposits occurred on roads and bridges. Snowmelt due to maximum temperatures in the mid to upper 30s on February 24th contributed the moisture needed to saturate the air as the night progressed. Newspaper reports indicated that some vehicle accidents occurred.

WIZ046>047-051>052-057>059-063>066-068>072 Marquette - Green Lake - Fond Du Lac - Sheboygan - Columbia - Dodge - Washington - Dane - Jefferson - Waukesha - Milwaukee - Green - Rock - Walworth - Racine - Kenosha

26	0200CST				0	0			Dense Fog
	0900CST								

Dense fog developed overnight, resulting in visibilities of 1/4 mile or less. Newspaper reports indicated that many icy frost deposits occurred on roads and bridges. Snowmelt due to maximum temperatures in the mid to upper 30s on February 25th contributed the moisture needed to saturate the air as the night progressed. Newspaper reports indicated that some airplane flights were delayed and at least a dozen vehicle accidents occurred.

WIZ052-059>060 Sheboygan - Washington - Ozaukee

27	0500CST				0	0			Dense Fog
	0900CST								

Dense fog developed overnight, resulting in visibilities of 1/4 mile or less. Newspaper reports indicated that many icy frost deposits

Storm Data and Unusual Weather Phenomena

February 2004

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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WISCONSIN, Southeast

occurred on roads and bridges. Snowmelt due to maximum temperatures in the mid to upper 30s on February 26th contributed the moisture needed to saturate the air as the night progressed. Newspaper reports indicated that some vehicle accidents occurred.

WISCONSIN, Southwest

WIZ017-029-032>034-041-043>044 Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Juneau - Adams

01	1500CST				0	0			Winter Storm
03	0600CST								

Parts of southwest and central Wisconsin were hit by a winter storm, which produced 6 to 11 inches of snow. Specific snowfall reports included 11.0 inches at Greenwood (Clark County) and Gilmanton (Buffalo County), 9.5 inches at Perkinstown (Taylor County), 9.0 inches at Osseo (Trempealeau County), 7.0 inches at Hatfield (Jackson County) and Big Flats (Adams County) and 8.0 inches at La Crosse (La Crosse County).

WIZ042>044-053>055-061 Monroe - Juneau - Adams - Vernon - Crawford - Richland - Grant

05	1500CST				0	0			Winter Storm
06	0400CST								

6 to 9 inches of snow affected parts of southwest and central Wisconsin. Snowfall reports from weather observers included 8.7 inches at Readstown (Vernon County) and 8 inches at both Plainville (Adams County) and Platteville (Grant County). Other reports included 7.8 inches near Steuben (Crawford County), 7.5 inches at Mauston (Juneau County), as well as Richland Center and Hub City (Richland County). Cuba City (Grant County) had 6.5 inches of snow, while 6.0 inches was reported at Wilton (Monroe County) and Mt. Sterling (Crawford County).

WIZ017-029 Taylor - Clark
19 2300CST 0 0 Winter Storm
20 1100CST

Snowfall accumulation of 6 to 7 inches affected parts of north central Wisconsin. Snowfall reports from weather observers included 7.0 inches at Goodrich and Medford (Taylor County), 6.0 inches at Perkinstown and Gad (Taylor County) and 6.5 inches at Dorchester (Clark County).

WISCONSIN, West

WIZ014>016-023>028 Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire

01	0200CST				0	0			Winter Storm
02	1800CST								

Low pressure over Nebraska moved across central Wisconsin during the morning of the 1st bringing a few inches of snowfall accumulation. A second, more powerful storm tracked from Missouri into Illinois early on the 2nd. The second storm dropped moderate to heavy snow across west central Wisconsin between the evening of the 1st and the evening of the 2nd. Snowfall totals from both storms ranged from 9 to 13 inches, with the highest amounts falling in Barron and Rusk counties. Behind the second system, temperatures plummeted into the single digits and teens below zero. Wind chills dropped into the 30s below zero on the morning of the 3rd.

WYOMING, Central and West

WYZ010 Northeast Johnson County
11 0730MST 0 0 Blizzard
12 1200MST

Gusty north wind created white-out conditions near Buffalo. Interstate 90 was closed from Buffalo north to the Sheridan County line during portions of the morning as blowing and drifting snow caused visibilities to drop to near zero.

WYZ001>002-014>015-017-025-027 Yellowstone National Park - Absaroka Mountains - Wind River Mountains West - Wind River Mountains East - Wind River Basin - Upper Green River Basin Foothills - South Lincoln County

11	1800MST				0	0			Extreme Cold/Wind Chill
12	1200MST								

Bitter cold arctic air settled over parts of Wyoming. Overnight temperatures fell to 25 to 35 below zero (-36 in Grant Village of Yellowstone National Park) on the 12th.

WYZ025>026 Upper Green River Basin Foothills - Upper Green River Basin
16 0035MST 0 0 Dense Fog
0900MST

Visibilities dropped to one-quarter of a mile at times during this period.

Storm Data and Unusual Weather Phenomena

February 2004

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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WYOMING, Central and West

WYZ005-007>010-014>020-022>030 Southwest Big Horn Basin - Owl Creek & Bridger Mountains - Bighorn Mountains West - Bighorn Mountains Southeast - Northeast Johnson County - Wind River Mountains West - Wind River Mountains East - Upper Wind River Basin - Wind River Basin - Lander Foothills - Green Mountains & Rattlesnake Range - Natrona County Lower Elevations - Casper Mountain - Star Valley - Salt River & Wyoming Ranges - Upper Green River Basin Foothills - Upper Green River Basin - South Lincoln County - Rock Springs & Green River - Flaming Gorge - East Sweetwater County

26	0500MST				0	0			Heavy Snow
29	0200MST								

Two potent winter storms dropped heavy snow across western and central Wyoming. General snowfall accumulations ranged from 3 to 6 inches in the lowest elevations of southwest Wyoming, increasing to 9 to 12 inches in lower elevations of central Wyoming. Upwards of 2 feet of snow fell in the Wyoming, Salt, Wind River, and Big Horn Mountains. Snowfall combined with some areas of 20 to 30 mph wind and created difficult travelling conditions through much of the state.

WYOMING, Extreme Southwest

NOT RECEIVED.

WYOMING, North Central

WYZ099 Sheridan Foothills

29	0700MST				0	0			Heavy Snow
	1331MST								

February was a quiet month with only one major snow event...with this occurring on the last day of the month. This major winter storm mainly affected areas of South Central and Southeast Montana. For a complete storm report listing from the Billings County Warning Area, please refer to the section of Storm Data for Montana, South. The following snow totals were reported for Sheridan County:

11 inches 10SW Sheridan; 15 inches 1N Dayton; 12 inches 28W Sheridan; 13 inches 15S Sheridan.

WYOMING, Northeast

WYZ054>058-071 Northern Campbell - South Campbell - Western Crook - Wyoming Black Hills - Weston - Northeastern Crook

28	1800MST				0	0	0	0	Winter Storm
29	2359MST								

A powerful upper level storm system moved slowly across the Central Rockies and then through the Northern and Central Plains, bringing abundant precipitation and heavy snow to much of Northeast Wyoming. The system began to affect Northeast Wyoming on the afternoon of the 28th as rain and snow overspread the area. Precipitation changed over to all snow during the evening hours and continued through the overnight. There was a brief break in the precipitation during the morning hours of the 29th. Snow then redeveloped across the area in the afternoon and persisted into the morning hours of March 1st. Strong northwest winds developed late on the 29th as low pressure began to move away from the area. The winds caused significant blowing and drifting of snow into the next day. Snowfall amounts across Northeast Wyoming were generally in the 5 to 12 inch range, with locally higher amounts across the Bear Lodge Mountains and the Wyoming Black Hills.

WYOMING, Southeast

WYZ059>068-070 Converse - Niobrara - Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Goshen - Pine Bluffs

28	0500MST				0	0			Winter Storm
29	2200MST								

Heavy snow and gusty winds occurred over much of southeast Wyoming with near-blizzard conditions in some areas. Snowfall amount from 6 to 12 inches were common with local amounts in excess of 12 inches over the Snowy Range. Winds in excess of 35 mph also caused significant blowing and drifting snow resulting in many road closures.

Storm Data and Unusual Weather Phenomena

April 2003

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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Additions/Corrections

LOUISIANA, Southeast

St. Charles Parish

Destrehan	07	1530CST 1545CST			0 0	15K	Hail (1.00)
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Hail up to the size of quarters was reported.

TEXAS, North

Young County

Padgett	05	1710CST			0 0		Hail (2.75)
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Stephens County

1 N Crystal Falls	05	1729CST			0 0		Hail (1.75)
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Young County

Eliasville	05	1732CST 1737CST			0 0		Hail (1.00)
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Young County

Graham	05	1743CST 1747CST			0 0		Hail (4.00)
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Palo Pinto County

6 W Graford	05	1808CST 1814CST			0 0		Hail (4.00)
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Golfball to softball size hail occurred for 6 minutes.

Palo Pinto County

Possum Kingdom Lake	05	1808CST			0 0		Hail (1.75)
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Palo Pinto County

5 N Graford	05	1818CST			0 0		Hail (2.75)
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Palo Pinto County

5 N Graford	05	1818CST			0 0		Thunderstorm Wind (G69)
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Palo Pinto County

12 W Graford	05	1820CST 1822CST	0.3	100	0 0	250K	Tornado (F1)
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Brief tornado touchdown reported on the east side of Possum Kingdom Lake. 25 mobile homes were damaged or destroyed at Sky Camp, Lefty's, and P. K. Lodge. No people were injured.

Young County

3 N Eliasville	05	1840CST			0 0		Hail (2.75)
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Parker County

5 E Peaster	05	1906CST			0 0		Hail (1.75)
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Jack County

4 S Bryson	05	1917CST			0 0		Hail (0.88)
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Parker County

Springtown	05	1918CST 1923CST			0 0		Hail (1.75)
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Tarrant County

Saginaw	05	1933CST			0 0		Hail (1.75)
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Tarrant County

Saginaw	05	1940CST			0 0		Hail (2.75)
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Storm Data and Unusual Weather Phenomena

April 2003

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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Additions/Corrections

TEXAS, North

Denton County 2 N Roanoke	05	2123CST			0	0			Hail (1.75)
Occurred at Interstate 35 and Highway 114.									
Dallas County Dallas	05	2126CST			0	0			Hail (1.50)
Valley View Mall in North Dallas had heavy ping pong ball size hail.									
Rockwall County Rockwall	05	2130CST			0	0			Hail (4.50)
Denton County Roanoke	05	2131CST			0	0			Hail (0.88)
Denton County 1 W Lewisville	05	2145CST			0	0			Hail (1.00)
Denton County 2 E Argyle	05	2146CST			0	0			Hail (1.00)
Dallas County Sachse	05	2150CST			0	0			Hail (1.25)
Denton County 3 SW Lewisville	05	2150CST			0	0			Hail (1.00)
Hunt County Greenville	05	2150CST			0	0			Hail (1.00)
Hunt County Caddo Mills	05	2151CST			0	0			Hail (1.00)
Rockwall County Rockwall	05	2205CST			0	0			Hail (1.00)
Montague County 2 N Bowie	05	2214CST			0	0			Hail (1.75)
Collin County Plano	05	2216CST			0	0			Hail (2.00)
Occurred in western part of Plano at Spring Creek and Tollway.									
Montague County Stoneburg	05	2223CST			0	0			Hail (1.75)
Cooke County Lindsay	05	2230CST			0	0			Hail (2.50)
Collin County Plano	05	2232CST			0	0			Hail (3.00)
Hunt County Caddo Mills	05	2235CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

April 2003

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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Additions/Corrections

TEXAS, North

Hopkins County Cumby	05	2250CST			0	0			Hail (1.75)
Hunt County 1 S Greenville	05	2313CST			0	0			Hail (2.00)
Cooke County Gainesville	05	2321CST			0	0	4M		Hail (2.50)
Large hail damaged approximately 1,000 cars and about the same number of homes.									
Cooke County Gainesville	05	2321CST			0	0			Thunderstorm Wind (G52)
Hunt County Caddo Mills	05	2322CST			0	0			Hail (1.75)
Hopkins County Sulphur Spgs	05	2340CST			0	0			Hail (2.00)
Hunt County Cash	05	2341CST			0	0			Hail (1.75)
Hopkins County 3 S Sulphur Spgs	05	2345CST			0	3			Hail (2.75)
Three persons injured by baseball size hail.									
Grayson County Whitesboro	05	2355CST			0	0	250K		Hail (2.75)
Grayson County 1 SW Sherman	06	0030CST			0	0	10M		Hail (2.75)
Hail up to baseball size did extensive damage in Sherman to cars and houses. This is the same storm that hit the Whitesboro area earlier.									
Hopkins County Sulphur Spgs	06	0035CST			0	0			Hail (1.00)
Hopkins County Sulphur Spgs	06	0035CST			0	0	5K		Thunderstorm Wind (G60)
Trees and utility lines were blown down by high winds.									
Fannin County Ector	06	0112CST			0	0			Hail (1.75)
Fannin County Savoy	06	0112CST			0	0			Hail (1.75)
Fannin County 4 N Bonham	06	0135CST			0	0			Hail (1.75)
Lamar County Paris	06	0222CST			0	0			Hail (1.00)
Dime to quarter size hail covering the ground.									
On April 5th, a lone supercell thunderstorm developed around 300 pm southeast of Claremont, in Kent County. This storm quickly became severe, and by 500 pm had moved eastward into western Young County in North Central Texas. This storm produced large hail, straight line damaging winds, and at least four weak tornadoes across North Central Texas from 510 pm cdt until 1050									

Storm Data and Unusual Weather Phenomena

April 2003

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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Additions/Corrections

TEXAS, North

pm cdt. This storm quickly dissipated after the last severe weather report at 1050 pm. The damage path across North Texas extended from Padgett, in western Young County, to west of Sulphur Springs in Hopkins County, a distance of approximately 192 miles. This was one of the costliest storms on record to hit North Texas, with damage estimates approximately 885 million dollars.

TEXAS, North

Eastland County

8 NW Cisco to
10 NNW Cisco

15	2100CST 2105CST	2.4	300	0	0	5K	Tornado (F0)
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The tornado moved mostly through open country damaging fences and tearing sheet metal off a barn, then moved into southern Stephens County before lifting 3 miles southeast of Eolian. This was reported by a rancher, whose property the tornado passed through.

Stephens County

10.6 S Eolian to
3 SE Eolian

15	2105CST 2130CST	9.6	300	0	0	5K	Tornado (F0)
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The tornado moved through open country damaging fences and trees before lifting 3 miles southeast of Eolian. This was reported by a rancher, whose [property the tornado passed through.

Stephens County

6 S La Casa

15	2140CST			0	0		Hail (1.00)
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Eastland County

1 NW Ranger

15	2213CST	0.1	50	0	0		Tornado (F0)
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A brief tornado was observed by a trained spotter.

Palo Pinto County

2 N Gordon

15	2248CST			0	0		Hail (1.50)
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Hood County

5 S Granbury

16	0200CST			0	0	100K	Lightning
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Lightning hit an Oncor transmission line between Somervell County and Parker County, causing at least 4 power plants to temporarily shut down. 300,000 to 400,000 customers across Texas were without electricity from 15 minutes to 2 hours before power was restored.

Montague County

5 E Bowie

16	0200CST			0	0		Thunderstorm Wind (G52)
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A tree was blown onto a road by thunderstorm winds.

Tarrant County

Ft Worth

16	0300CST			0	0	90K	Lightning
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A lightning started fire in northeast Ft Worth severely damaged a house and it's contents.

Navarro County

3 SE Corsicana

16	1555CST			0	0		Hail (1.75)
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Navarro County

3 SE Corsicana

16	1610CST			0	0		Hail (1.75)
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Golfball size hail was reported at Mildred.

Navarro County

4 S Corsicana

16	1612CST			0	0		Hail (0.88)
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Nickel size hail was reported at Angus.

Van Zandt County

6 E Canton

16	1619CST			0	0		Hail (1.75)
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Golfball size hail covered the ground.

Navarro County

Eureka

16	1621CST			0	0		Hail (2.75)
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Storm Data and Unusual Weather Phenomena

May 2003

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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Additions/Corrections

TEXAS, North

Van Zandt County Van	16	1635CST			0	0			Hail (0.88)
Henderson County 6 S Athens	16	1706CST			0	0			Hail (1.75)
Navarro County 5 E Eureka	16	1707CST			0	0			Hail (1.75)
Henderson County Chandler	16	1720CST			0	0			Hail (0.75)
Anderson County Cayuga	16	1724CST			0	0			Hail (1.75)
Freestone County 2 N Fairfield	16	1817CST			0	0			Hail (1.75)
Anderson County Neches	16	1820CST			0	0			Hail (0.88)
Anderson County Tucker	16	1905CST			0	0			Hail (0.88)
Limestone County New Hope	16	1920CST			0	0			Hail (1.75)
Occurred on the east side of Lake Limestone.									
Leon County Centerville	16	2000CST			0	0			Hail (1.75)
Robertson County 2 E Franklin	16	2030CST 2033CST			0	0			Hail (2.75)
Golfball to baseball size hail was reported.									
Milam County 4 SE Milano	16	2125CST			0	0			Hail (0.75)
Jack County 12.2 NNW Jacksboro to Jacksboro	16	2200CST			0	0			Thunderstorm Wind (G53)
The 61 mph wind gust occurred at Bear Mountain just west of Highway 148.									

Storm Data and Unusual Weather Phenomena

June 2003

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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Additions/Corrections

GULF OF MEXICO

**Atchafalaya R To
Cameron La Out
20Nm**

16 SE Cameron	03	2020CST			0	0			Marine Tstm Wind
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LOUISIANA, Southwest

Vernon Parish

7 W Lacamp	02	1425CST			0	0			Hail (0.88)
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Avoyelles Parish

8 N Simmesport	03	1540CST			0	0	2K		Thunderstorm Wind (G50)
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Several trees were blown down.

Beauregard Parish

Ragley	03	1647CST			0	0	5K		Thunderstorm Wind (G50)
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Crossarms of powerline poles torn off near South Beauregard High School.

Calcasieu Parish

Gillis	03	1710CST			0	0			Hail (1.75)
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Calcasieu Parish

3 W Sulphur	03	1810CST			0	0			Hail (1.75)
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Jefferson Davis Parish

Lacassine	03	1811CST			0	0	150K		Thunderstorm Wind (G50)
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A construction company business building had the roof and one wall blown down. A mobile home nearby had its roof torn off. Several trees and power lines were blown down.

Cameron Parish

10 SE Grand Lake	03	1925CST			0	0			Hail (0.75)
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St. Mary Parish

Berwick	11	0805CST			0	0	2K		Thunderstorm Wind (G50)
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Trees were blown down.

St. Mary Parish

Franklin	11	0835CST 0930CST			0	0	5K		Flash Flood
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Around ten inches of rain fell in less than six hours, resulting in serious street flooding in Franklin and along Highway 182.

Iberia Parish

3 NE New Iberia	11	0915CST 1000CST			0	0	100K		Flash Flood
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Around eight inches of rain in two hours resulted in a dirt bridge being washed away near New Iberia. 34 homes were flooded in the Loreauville area.

St. Landry Parish

Lawtell	12	0734CST			0	0	50K		Thunderstorm Wind (G50)
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A barn was destroyed and fence blown down in Lawtell. A mobile home was overturned near Opelousas, and a tree was blown down.

Avoyelles Parish

Center Pt	12	0740CST			0	0	2K		Thunderstorm Wind (G50)
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Trees were blown down.

Lafayette Parish

Carencro	12	0808CST			0	0	2K		Thunderstorm Wind (G50)
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Storm Data and Unusual Weather Phenomena

June 2003

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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Additions/Corrections

LOUISIANA, Southwest

Trees and power lines were blown down.

St. Martin Parish Breaux Bridge	12	0840CST			0 0	5K	Thunderstorm Wind (G50)
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Trees were blown down.

Vernon Parish 4 W Anacoco	12	1235CST			0 0	2K	Thunderstorm Wind (G50)
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Trees and power lines were blown down.

Vernon Parish Leesville	12	1253CST			0 0		Hail (0.88)
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Avoyelles Parish Effie	12	1410CST			0 0	2K	Thunderstorm Wind (G50)
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Trees were blown down on Highway 115.

Vernon Parish 3 N Evans	13	1303CST			0 0	2K	Thunderstorm Wind (G50)
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Trees were blown down on Highway 111.

Vernon Parish Leesville	13	1330CST			0 0	2K	Thunderstorm Wind (G50)
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Trees were blown down.

NEW MEXICO, Central and North

Colfax County 24 SE Raton	04	1229MST	0.5	100	0 0		Tornado (F0)
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A weak tornado was observed by storm chasers over the open rangeland of east central Colfax County or about 15 miles southwest of Capulin.

OKLAHOMA, Panhandle

OKZ003 Beaver	28	2320CST			0 0	5K	Strong Wind
	29	2330CST					

A strong thunderstorm over Beaver county about eight miles west and one and a half miles south of Slapout Oklahoma knocked out electricity and tree branches were blown off. Also...four big power line poles were blown down. The Oklahoma Mesonet site at Slapout Oklahoma was only about one quarter of a mile from this location and only registered thirty-seven knots at the time of the high winds.

TEXAS, Southeast

Hardin County 4 NW Thicket	02	1445CST			0 0		Hail (0.75)
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Newton County 10 SSE Call	03	1830CST			0 0	2K	Thunderstorm Wind (G50)
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Trees and power lines were blown down.

Jasper County 4 E Buna	03	1900CST			0 0		Hail (0.75)
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Jasper County Jasper	12	1138CST			0 0	2K	Thunderstorm Wind (G50)
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Trees were blown down.

Newton County 10 NE Newton	12	1218CST			0 0		Thunderstorm Wind (G50)
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Storm Data and Unusual Weather Phenomena

June 2003

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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Additions/Corrections

TEXAS, Southeast

Toledo Bend Dam recorded a 50 knot wind gust.

MONTANA, East

Richland County

Savage

02	2245MST			0	0			Thunderstorm Wind (G52)
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Storm Data and Unusual Weather Phenomena

August 2003

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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Additions/Corrections

TEXAS, South Central

Lee County

Lexington	11	1300CST 1320CST			0	0	20K	0	Thunderstorm Wind (G60)
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A severe thunderstorm moved southward across northern Lee County and produced severe winds as it approached Lexington. The damaging winds knocked down several trees in the area.

Comal County

New Braunfels	11	1350CST 1400CST			0	0	20K	0	Thunderstorm Wind (G60)
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A severe thunderstorm produced damaging winds that knocked down trees and blew over power lines in the New Braunfels area. Additional minor damage was reported to roofs of homes and outbuildings

Fayette County

Fayetteville to Schulenburg	11	1350CST 1430CST			0	0	100K	0	Thunderstorm Wind (G60)
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Severe thunderstorms moving southward through eastern Fayette County produced damaging winds that blew down trees and power lines from Fayetteville to Schulenburg. Power was lost to nearly 1400 persons for several hours as a result of the storm. One man pumping gas at Schulenburg narrowly avoided injury when winds detached the roof from a store and it landed beside him.

Bastrop County

Bastrop	11	1400CST 1420CST			0	0	20K	0	Thunderstorm Wind (G60)
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A severe thunderstorm produced damaging winds as it approached Bastrop. The severe winds knocked down several trees.

Hays County

San Marcos	11	1410CST 1430CST			0	0	30K	0	Thunderstorm Wind (G60)
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Severe thunderstorm winds blew down power lines around the San Marcos, causing power outages for several hours .

Bexar County

Randolph Afb	11	1425CST 1428CST			0	0	20K	0	Thunderstorm Wind (G54)
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A severe thunderstorm wind gust was measured at 54 knots at Randolph AFB as the winds knocked over trees near Universal City.

Medina County

2 E Castroville to 5 SW Castroville	11	1450CST 1505CST			0	0	850K	0	Thunderstorm Wind (G90)
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Severe thunderstorm winds struck just east of Castroville and moved southwestward through the town. Damage was first indicated approximately 2 miles east of Castroville, along the north side of US90, where 8 to 10 telephone poles had been snapped near the base. The estimated wind gusts at this point were between 80 to 100 miles per hour. The damage path was between one-quarter and one-half mile in width, with no indication of rotation or twisting. The storm continued to move toward the southwest where it damaged several mobile homes in the valley mobile home park along FM471. Much of the damage was minor, and confined to outbuildings. Numerous trees were damaged or uprooted, with limbs up to 8 inches in diameter snapped off. Several vehicle were also damaged. Wind gusts in this area were estimated in the 50 to 60 mile per hour range. As the storm continued southwestward into the Castroville area, it struck a little league baseball field complex north of the Castroville Airport. Here chain link fence was bent over in sections along the outfield fence line. Only the sections with plywood signs attached were damaged. The severe winds continued southwestward to the Airport, where they destroyed most of the The Fixed Base Operator hanger, and damaged or destroyed five aircraft and equipment housed inside hanger. Several adjacent hangers located at the airport received minor or no damage. Estimated damages from the downburst were \$250,000 to aircraft, \$100,000 to the hangars, and \$500,000 to equipment.

Fayette County

La Grange	11	1455CST 1510CST			0	0	50K	0	Thunderstorm Wind (G60)
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Severe thunderstorm winds knocked over trees and blew down power lines in the LaGrange area.

Storm Data and Unusual Weather Phenomena

August 2003

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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Additions/Corrections

TEXAS, South Central

Medina County

Castroville

11	1512CST 1513CST	0.2	30	0	0	3K	0	Tornado (F1)
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The tornado touched down very near the Fixed Base Operator hanger, where rotation was noted in a path up to 30 yards wide. The damage path was in a northeast to southwest direction which was the same track of the straight line winds. This short lived tornado was estimated to have reached F1 intensity and was likely on the ground for only a few seconds. Several witnesses in adjacent hangers described the sound of a loud train as the tornado hit the airport. Four men narrowly escaped injury by ducking for cover between two couches as it struck.

Gonzales County

**7 N Gonzales to
2 N Gonzales**

11	1520CST 1540CST			0	0	20K	0	Thunderstorm Wind (G60)
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Severe thunderstorm winds knocked over several trees just north of Gonzales

Lavaca County

**Shiner to
Yoakum**

11	1525CST 1545CST			0	0	20K	0	Thunderstorm Wind (G80)
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Severe thunderstorm wind gusts, measured by a co-operative observer at 80 knots, knocked over scores of trees from Shiner to west of Yoakum to Sweet Home.

De Witt County

**20 NE Cuero to
Cuero**

11	1540CST 1600CST			0	0	30K	0	Thunderstorm Wind (G60)
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Severe thunderstorm winds knocked over power lines from near Yoakum in western Lavaca County to Cuero.

Storm Data and Unusual Weather Phenomena

October 2003

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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Additions/Corrections

ATLANTIC OCEAN

**Fire Island Inlet Ny To
Sandy Hook Nj Out
20Nm**

Sandy Hook Bay	15	0136EST 0200EST			0	0			Marine Tstm Wind
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**Montauk Point Ny To
Sandy Hook Nj 20 To
40Nm**

Sandy Hook Bay	15	0136EST 0200EST			0	0			Marine Tstm Wind
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As a line of showers and thunderstorms moved east, peak wind gusts to 41 knots was measured by the National Ocean Service Buoy at Sandy Hook at 2:36 am and at 3:00 am.

**Long Island Sound E
Of New Haven Ct To
Port Jefferson Ny**

2 E New London Harbo	29	0842EST			0	0			Marine Tstm Wind
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A severe thunderstorm produced a 34 knot wind gust, which was measured by the National Weather Service's Automated Surface Observing System at Groton-New London Airport.

**Moriches Inlet To Fire
Island Inlet Ny Out
20Nm**

6 NW Moriches Inlet	29	0846EST 0915EST			0	0			Marine Tstm Wind
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A severe thunderstorm produced a 34 knot wind gust, which was measured by the National Weather Service's Automated Surface Observing System at Shirley-Brookhaven Airport.

**Montauk Point To
Moriches Inlet Ny Out
20Nm**

23 SW Montauk Point	29	0900EST			0	0			Marine Tstm Wind
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A severe thunderstorm produced a 34 knot wind gust, which was measured by the National Data Buoy Center Buoy 44017.

**Long Island Sound E
Of New Haven Ct To
Port Jefferson Ny**

2 E New London Harbo	29	0955EST			0	0			Marine Tstm Wind
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A severe thunderstorm produced a 36 knot wind gust, which was measured by the National Weather Service's Automated Surface Observing System at Groton-New London Airport.

Storm Data and Unusual Weather Phenomena

November 2003

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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Additions/Corrections

CONNECTICUT, Southern

CTZ005>006-009	Northern Fairfield - Northern New Haven - Southern Fairfield								
	13	0900EST 2300EST			0	0			High Wind (G65)

As a rapidly intensifying low pressure system moved northeast, its' associated strong cold front swept east of the area between 5 am and 8 am. With high pressure building east behind this front, strong and gusty west winds occurred. The highest winds occurred behind this front, mainly during the late morning and early afternoon. After a brief "lull," west winds peaked once again during Thursday evening, November 13th. The highest winds occurred across the higher terrain.

In Wolcott, which is at an elevation of about 900 feet above M.S.L., a wind gust to 75 MPH was measured by a spotter's wind system. At other locations in New Haven County, wind gusts ranged from 39 MPH at Tweed Airport in New Haven at 2:05 pm to 43 MPH at the Meriden Airport at 10:08 am.

In Middlesex County, a wind gust to 49 MPH was measured in Middletown.

In New London County, the highest wind gusts ranged from 40 MPH at Gales Ferry to 48 MPH at New London. At Groton Airport, the highest wind gust was 44 MPH at 3:54 pm.

In Fairfield County, wind gusts ranged from 43 MPH at Westport to 49 MPH at Sikorsky Airport in Bridgeport at 8:28 pm. There were reports of numerous downed trees and power lines, which resulted in widespread power outages throughout the area. In Ridgefield, a large tree fell across Bailey Avenue Thursday morning and two 100 foot spruce trees fell on Barrick Hill Thursday evening. Meanwhile, a utility pole was tipped over around 2 pm in the afternoon in Stratford, and a large tree fell across the Center Street Extension in Bridgeport.

MICHIGAN, Upper

MIZ001>005-009-084	Keweenaw - Ontonagon - Northern Houghton - Baraga - Marquette - Gogebic - Southern Houghton								
	12	1800EST			0	0			Winter Storm
	13	0527EST							

MIZ006>007-085	Alger - Luce - Northern Schoolcraft								
	13	0000EST 0527EST			0	0			Blizzard

A rapidly deepening storm moved across northern Wisconsin eastward into southeast Canada. Snow developed over western and central Upper Michigan and became heavy at times. Northwest winds behind the storm increased to as high as 40 mph, resulting in areas of blowing and drifting snow. Blizzard conditions occurred near Lake Superior in Alger, Luce and Northern Schoolcraft Counties with frequent periods of zero visibility. Schools and a few businesses were closed in Gogebic, Ontonagon, Baraga and Marquette counties and some roads were blocked in Houghton and Keweenaw counties. The snow was wet and heavy, breaking off tree branches and downing power and telephone lines and hampering plowing and cleanup efforts. Roads were slick and hazardous, restricting travel across the area.

NEW JERSEY, Northeast

NJZ002>006-011	Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union								
	13	0720EST 2200EST			0	1			High Wind (G50)

As a rapidly intensifying low pressure system moved northeast, its' associated strong cold front swept east of the area between 3 am and 6 am. With high pressure building east behind this front, strong and gusty west winds occurred. The highest winds occurred behind this front, mainly during the morning and early afternoon. After a brief "lull," west winds peaked once again during Thursday evening, November 13th. High winds downed numerous trees and power lines, which resulted in widespread power outages throughout the area. Thousands of power outages were confirmed by the New Jersey Board of Public Utilities.

Here are selected high wind measurements and damage reports from across the region.

In Bergen County, high winds downed trees onto power lines, which resulted in a partial closure of Rosalie and Hopper Roads at 7:20 am. Spotters also reported numerous trees and power lines downed, which resulted in partial road closures in North

Storm Data and Unusual Weather Phenomena

November 2003

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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Additions/Corrections

NEW JERSEY, Northeast

At Teterboro Airport, the highest sustained wind speed was 37 MPH at 7:41 am and the highest wind gust was 47 MPH at 1:31 pm.

In Essex County, the broadcast media reported downed power lines in Newark at 8:00 am. A spotter's wind system measured a gust to 58 MPH at Maplewood at 12:30 pm. At Newark Airport, the highest sustained wind speed was 46 MPH at 1:52 pm and the highest wind gust was 58 MPH at 12:54 pm. At Caldwell Airport, the highest wind gust was 47 MPH at 9:35 pm. A 71 year old man was injured around 9:20 am when a live utility wire fell on his head.

In Hudson County, a spotter's wind system in the Jersey City-North Bergen area, measured a wind gust to 59 MPH at 12:30 pm. A spotter's wind system in Harrison measured a wind gust to 51 MPH at 12:51 pm.

ALASKA, Southeast

AKZ020>023-025>029 **Glacier Bay - Eastern Chichagof Island - Salisbury Sound To Cape Fairweather Coastal Area - Cape Decision To Salisbury Sound Coastal Area - Juneau Borough And Northern Admiralty Island - Inner Channels From Kupreanof Island To Etolin Island - Dixon Entrance To Cape Decision Coastal Area - Southern Inner Channels - Misty Fjords**

01	2020AST								
02	0500AST			0	0	14K			High Wind (G61)

A low pressure storm system deepened rapidly during this time in the northern Gulf of Alaska. The low dropped 22mb in 48 hours time, bottoming out at 978mb over Icy Bay. The main surface front associated with this low, swept through the Panhandle from the southwest on the night of December 1st-2nd. Though widespread high winds occurred, the damage that was reported from this wind event was minor.

AKZ028

Southern Inner Channels

04	1100AST								
	1140AST			0	0	2K			High Wind (G58)

A surface low of 970mb, moved into the southern Gulf of Alaska (near 52N143W) on this date. The associated southeasterly pressure gradient was strong enough to temporarily generate high winds through the topographically favored Tongass Narrows. A peak wind gust to 67 mph was recorded at the Ketchikan airport.

AKZ027>029

Dixon Entrance To Cape Decision Coastal Area - Southern Inner Channels - Misty Fjords

15	0645AST								
	2000AST			0	0	30K			High Wind (G70)

A powerful front, associated with a low in the Aleutian chain, lifted through southern Southeast Alaska on this date. Damaging south-southeast winds resulted. Peak winds included: 82 mph at the Hydaburg AWOS, 60 mph at the Ketchikan airport, and estimated gusts to 80 mph in both Craig and Metlakatla. The high winds downed trees and broke power lines in numerous locations. Power outages occurred in the communities of Craig, Thorne Bay and Hydaburg. In Metlakatla harbor, high winds tore a third of the roof off a three story cold storage building. The concrete structure had a wood and shingle roofing system. Advisory level winds (40 mph or more) were experienced elsewhere in Southeast Alaska from this frontal system.

AKZ029

Misty Fjords

15	1200AST								
	1600AST			0	0				Heavy Snow

A strong, slow moving front associated with a 948mb low in the Aleutian chain, lifted through the Southern Panhandle on this date. Overrunning snowfall of 19 inches occurred in roughly 18 hours time, in the town of Hyder.

AKZ027>029

Dixon Entrance To Cape Decision Coastal Area - Southern Inner Channels - Misty Fjords

18	1600AST								
	2330AST			0	0	4K			High Wind (G64)

A 972mb low moved northward through the eastern Gulf (roughly 80 miles offshore) during this time. Strong southeasterly winds developed throughout Southeast Alaska, but reached warning criteria in the Southern Panhandle. Peak winds included: Ketchikan airport roof winds at 74 mph, Metlakatla harbor at 66 mph, and Hydaburg at 63 mph. Minor damage was reported.

Storm Data and Unusual Weather Phenomena

December 2003

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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Additions/Corrections

ALASKA, Southeast

AKZ017-020>023-025>028

Cape Fairweather To Cape Suckling Coastal Area - Glacier Bay - Eastern Chichagof Island - Salisbury Sound To Cape Fairweather Coastal Area - Cape Decision To Salisbury Sound Coastal Area - Juneau Borough And Northern Admiralty Island - Inner Channels From Kupreanof Island To Etolin Island - Dixon Entrance To Cape Decision Coastal Area - Southern Inner Channels

21	1000AST						High Wind (G78)
22	0800AST			0	0	510K	

A low moved northward from the Southern Gulf of Alaska up into Prince William Sound during this time. The associated frontal system swept through the Panhandle and generated widespread high south-southeast winds. Peak winds included: 90 mph Ketchikan airport roof, 71 mph Ketchikan harbor, 83 mph Hydaburg, and 67 mph Cape Decision. Significant damage occurred in the Ketchikan area. A DeHavilland Beaver floatplane that was tied down on the tarmac at the airport, was flipped by the winds violently and totaled. The aircraft was strapped by rope to metal rings in three concrete blocks weighing one ton each. The rope was pulled right through the metal by the winds. There were also numerous reports of downed trees, as well as siding and roof shingle wind damage. The winds also combined with the rain from this storm to cause a major landslide that blocked South Point Higgins Road in Ketchikan for about eight hours.

AKZ018

Taiya Inlet And Klondike Highway

22	0000AST 0800AST					10K	Winter Storm
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A low that bottomed out at 967mb, moved north from the southern Gulf up into Prince William Sound during this time. A strong southerly flow developed behind the associated front and ushered in warmer air. Sea level locations throughout Southeast Alaska changed over to rain as the snow level quickly rose in elevation during this storm. Only the higher elevations along the Klondike Highway remained snow into Monday morning. A quick foot of snow was reported overnight on White Pass (3116' ASL). The nearest automated observing station located at the Skagway airport measured south winds gusting as high as 43 mph. The combination of heavy snow and gusty winds helped cause a three foot high, 120 foot long avalanche over the Klondike Highway. This major roadway between the Northern Panhandle and Canada, was closed for nearly 18 hours. No injuries were reported.

AKZ019

Haines Borough And Lynn Canal

30	0030AST 0800AST					1K	Heavy Snow
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A 985mb low moved to within 60 miles of Cape Fairweather and caused a moist southerly flow to develop across Southeast Alaska. Overrunning snowfall of 10 inches occurred in the community of Haines.

ALASKA, Southern

AKZ181-185

Alaska Peninsula - Eastern Aleutians

02	0000AST					30K	High Wind (G139)
03	1600AST			0	0		

AKZ161-181

Bristol Bay - Alaska Peninsula

02	2159AST						Blizzard
03	1600AST			0	0		

An intense storm developed over the North Pacific. The storm moved into the Bering Sea then east as another low formed along its front that moved along the Aleutian chain. The storm produced wind gusts measured at 139 KTS at Haystack Hill airport on Unalaska Island. This airport is just south of the Dutch Harbor Airport. The AWOS at the Dutch Harbor Airport blew over in the wind event. Engineers familiar with this equipment estimate that the wind gusts had to be around 140 KTS to cause that kind of damage. As the storm moved northeast it produced blizzard conditions in Cold Bay for over 12 hours from the evening of the second through the early morning of the third. Winds peaked along the Alaska Peninsula in King Cove with reports of winds gusting around 96 KTS before the wind equipment was rendered inoperable by the strong winds. As the storm progressed east it brought blizzard conditions to the northern portions of Bristol Bay in the community of Ekwok. The river observer at Ekwok reported wind gusts estimated at 70 mph with blizzard conditions.

FLORIDA, West Central

FLZ039

Levy

07	0400EST 0700EST						Frost/Freeze
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Light winds and clear skies allowed temperatures to drop to 30 degrees near Bronson.

Storm Data and Unusual Weather Phenomena

December 2003

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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Additions/Corrections

FLORIDA, West Central

Lee County

Cape Coral	16	1730EST			0	0	20K		Thunderstorm Wind (G50)
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Thunderstorms along a strong cold front produced damaging winds that knocked down several trees and power lines at the intersection of Nicholas Parkway and 4th Avenue Southeast.

FLZ039-042-048

Levy - Citrus - Hernando

18	0400EST			0	0			Frost/Freeze
	0700EST							

A cold front passed through the area a day earlier allowing overnight temperatures to drop to 30 in Bronson, 28 in Brooksville, and 30 in Inverness.

FLZ039-042>043-048-051>052

Levy - Citrus - Sumter - Hernando - Hillsborough - Polk

21	0100EST			0	0			Frost/Freeze
	0800EST							

Clear skies and light winds behind a cold front lead to the first hard freeze of the season for parts of west central Florida. Overnight low temperatures in the low to mid 20s were found in Levy, Citrus, Hernando, and Sumter counties. Low temperatures included 20 degrees in Brooksville, 22 in Chiefland, 25 in Inverness, and around 30 degrees along the Hillsborough/Polk county line.

MICHIGAN, Upper

MIZ001>007-009-013>014-085

Keweenaw - Ontonagon - Northern Houghton - Baraga - Marquette - Alger - Luce - Gogebic - Delta - Southern Schoolcraft - Northern Schoolcraft

10	1200EST			0	0			Heavy Snow
12	2249EST							

A low pressure system that developed in the plains, moved northeast through the central Great Lakes. Rain and snow developed over Upper Michigan on the 9th, and then changed to a heavy wet snow on 10th. By the time the storm moved away on the 12th, the combination of system and lake effect snows deposited as much as 23 inches at Phoenix and 22 inches at Mohawk in Keweenaw County and 22 inches at the Marquette National Weather Service office. Nineteen inches fell at Watton in Baraga County, 17 inches at Ironwood, 15 inches at Bruce Crossing in Ontonagon County, 12 Inches at Wetmore in Alger County, and 11 inches at McMillan in Luce County and at Germfask in Schoolcraft County..

MICHIGAN, West

MIZ064-071

Allegan - Van Buren

19	0300EST			0	0			Heavy Snow
20	0100EST							

A narrow dominant lake effect snow band developed over the western half of Allegan county and most of Van Buren county. Six to twelve inches of snow fell in a band from Holland to Paw Paw. Most of the snow fell between 6 a.m. and 10 p.m. on the 19th, though the event lasted for twenty two hours, from the early morning hours of the 19th until around 1 a.m. on the 20th. The heaviest snowfall report was received from Paw Paw (Van Buren county), where twelve inches of snow was reported.

MIZ064

Allegan

24	1300EST			0	0			Heavy Snow
25	0700EST							

This was a combination low pressure system and lake enhanced snowfall event. Up to six inches of snow fell in a narrow area of Allegan county west of US-31.

Reference Notes:

Storm Data Disclosure

Storm Data is an official publication of the National Oceanic and Atmospheric Administration (NOAA) which documents the occurrence of storms and other significant weather phenomena having sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce. In addition, it is a partial record of other significant meteorological events, such as record maximum or minimum temperatures or precipitation that occurs in connection with another event.

Some of the information appearing in Storm Data may have been provided by or gathered from sources outside the National Weather Service (NWS), such as the media, law enforcement and/or other government agencies, private companies, individuals, etc. An effort is made to use the best available information, but because of time and resource constraints, information from these sources may be unverified by the NWS. Therefore, when using information from Storm Data, customers should be cautious as the NWS does not guarantee the accuracy or validity of the information. Further, when it is apparent information appearing in Storm Data originated from a source outside the National Weather Service (frequently credit is provided), Storm Data customers requiring additional information should contact that source directly. In most cases, NWS employees will not have the knowledge to respond to such requests. In cases of legal proceedings, under Department of Commerce regulations and/or rules of the court, NWS employees are not legally obligated to provide written or verbal testimony.

Fatality Codes: For events that include a fatality, there is a code containing the gender, age and fatality location at the end of the event narrative.

1st letter: Gender (M/F) – 2nd numbers: Age – 3rd letters Fatality location (see table below)

Example: M51IW – Male, 51 years of age, fatality occurred In Water.

Fatality Location Abbreviations:

BF	Ball Field	MH	Mobile Home
BO	Boating	OT	Other
BU	Business	OU	Outside/Open Areas
CA	Camping	PH	Permanent Home
EQ	Heavy Equipment/Construction	SC	School
GF	Golfing	TE	Telephone
IW	In Water	UT	Under Tree
LS	Long Span Roof	VE	Vehicle

List of Acronyms:

NWS	- National Weather Service
NOAA	- National Oceanic and Atmospheric Administration
WCM	- Warning Coordination Meteorologist – The meteorologist at each NWS Office responsible for reporting severe weather events
LST	- Local Standard Time Storm Data attempts to always use “Standard Time”
EST	- Eastern Standard Time
EDT	- Eastern Daylight Time

CST - Central Standard Time
CDT - Central Daylight Time
PST - Pacific Standard Time
PDT - Pacific Daylight Time

Other Notes:

An “Episode” is an entire storm system and can contain many different types of events.

An “Event” is an individual type of storm event.

When listing wind speed values under “Character of Storm”, ex. High Wind (G81), the G indicates a “Gust” which is a peak 5-second averaged wind speed in Knots (kts). 1 kt. = 1.152 mph. This number can be either E (estimated) by damage caused, or M (measured) by known calibrated anemometers. Ex. (M61) = measured 61 knots or E(75) = estimated at 75 knots.

All wind speeds listed are estimated by NWS personnel by the amount and type of damage unless otherwise noted with an “M” which represents an actual wind speed as measured by official NWS approved anemometer.

When listing hail size under “Character of Storm”, ex. Hail (2.25), the hail size is given in inches and hundredths of inches.

When listing property and crop damage, the figures indicated are the best guess made by the NWS from the available sources of information at the time of the printing.

The fatalities, injuries, and damage amounts appearing in tropical cyclone events are attributed only to wind damage experienced in the coastal counties/parishes listed. Other tropical cyclone related events such as tornadoes and flooding are listed within their separate event types.

The Saffir-Simpson Scale

Category One Hurricane:

Winds 74-95 mph (64-82 kt or 119-153 kph). Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage.

Category Two Hurricane:

Winds 96-110 mph (83-95 kt or 154-177 kph). Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.

Category Three Hurricane:

Winds 111-130 mph (96-113 kt or 178-209 kph). Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the hurricane center. Flooding near the coast destroys smaller structures with larger structures damaged by battering of floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

Category Four Hurricane:

Winds 131-155 mph (114-135 kt or 210-249 kph). Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km).

Category Five Hurricane:

Winds greater than 155 mph (135 kt or 249 kph). Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.

The Fujita Scale

F-Scale	Intensity	Wind Speed (mph)	Typical Damage (Suggested)
F0	Gale Tornado	40 - 72	Tree branches broken, chimneys damaged, shallow-rooted trees pushed over; sign boards damaged or destroyed, outbuildings and sheds destroyed
F1	Moderate	73 - 112	Roof surfaces peeled off, mobile homes pushed off foundations or overturned, moving autos pushed off the roads, garages may be destroyed. Category 1-2 hurricane wind speed
F2	Significant	113 - 157	Roofs blown off frame houses; mobile homes rolled and/or destroyed, train boxcars pushed over; large trees snapped or uprooted; airborne debris can cause damage. Category 3-4 hurricane wind speed
F3	Severe	158 - 206	Roofs and walls torn off well constructed houses; trains overturned; large trees uprooted, can knock down entire forest of trees. Category 5 hurricane wind speed
F4	Devastating	207 - 260	Well-constructed frame houses leveled; structures with weak foundations blown off some distance; automobiles thrown, large airborne objects can cause significant damage.
F5	Incredible	261 - 318	Brick, stone and cinderblock buildings destroyed, most debris is carried away by tornadic winds, large and heavy objects can be hurled in excess of 100 meters, trees debarked, asphalt peeled off of roads, steel reinforced concrete structures badly damaged.
F6	Inconceivable	319 - 379	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the damage produced by F4 and F5 wind speeds that would surround the F6 winds.



Typical F0 Tornado Damage

Note the trees are stripped of leaves, but the trees remain standing. Only light roof damage and a few missing shingles.



Typical F1 Tornado Damage

Note the uprooted trees and missing shingles from the roof. There is significant roof damage.



Typical F2 Tornado Damage

This home is missing its entire roof but the exterior walls remain intact. Some of the stronger hardwood trees remain standing.



Typical F3 Tornado Damage

This home is missing the entire roof as well as some of the exterior walls. Trees are blown over or snapped near the base and outbuildings are destroyed.



Typical F4 Tornado Damage

This home is almost completely obliterated, with no walls standing. The debris from the home is where the house once stood.



Typical F5 Tornado Damage

These homes have been completely removed from their original locations. The debris field has been scattered some distance from their foundation.



Typical F5 Tornado Damage

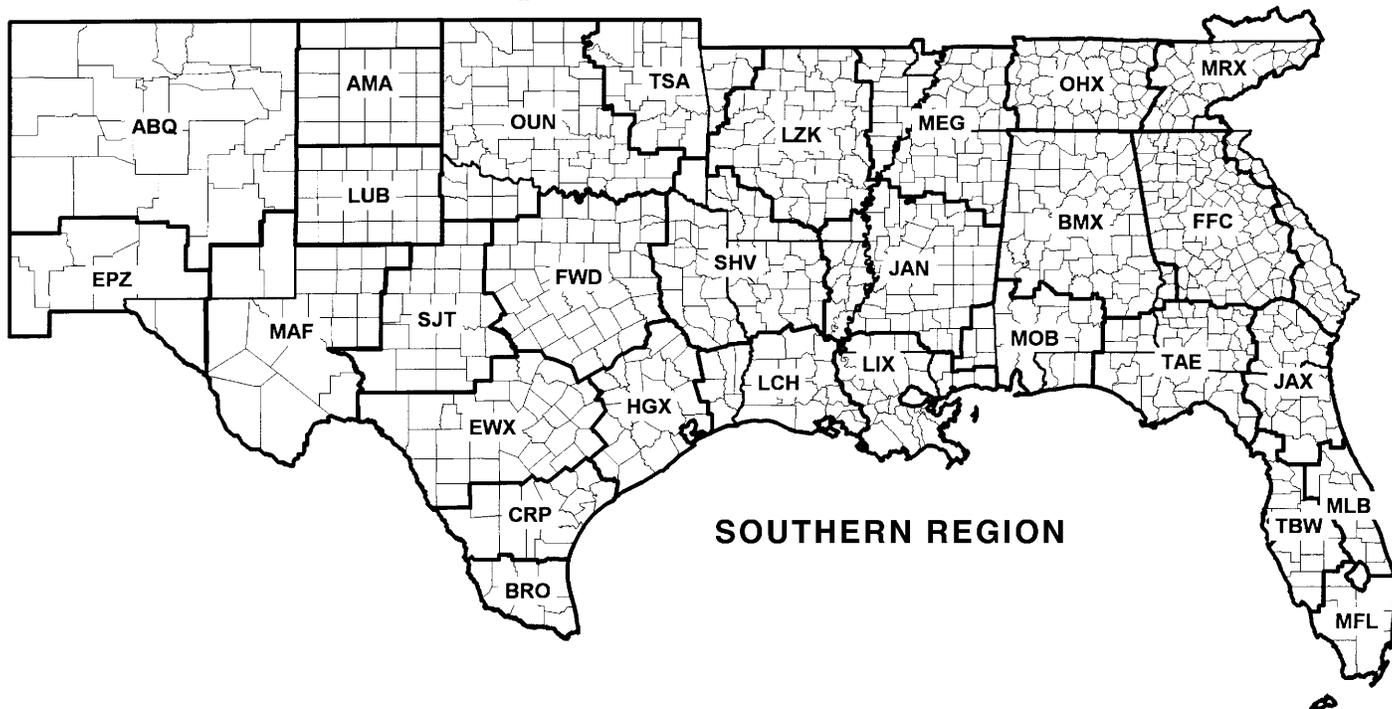
The asphalt surface has been peeled off of this road.

(All photographs courtesy of Brian Smith, Meteorologist, National Weather Service, Valley NE.)

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS

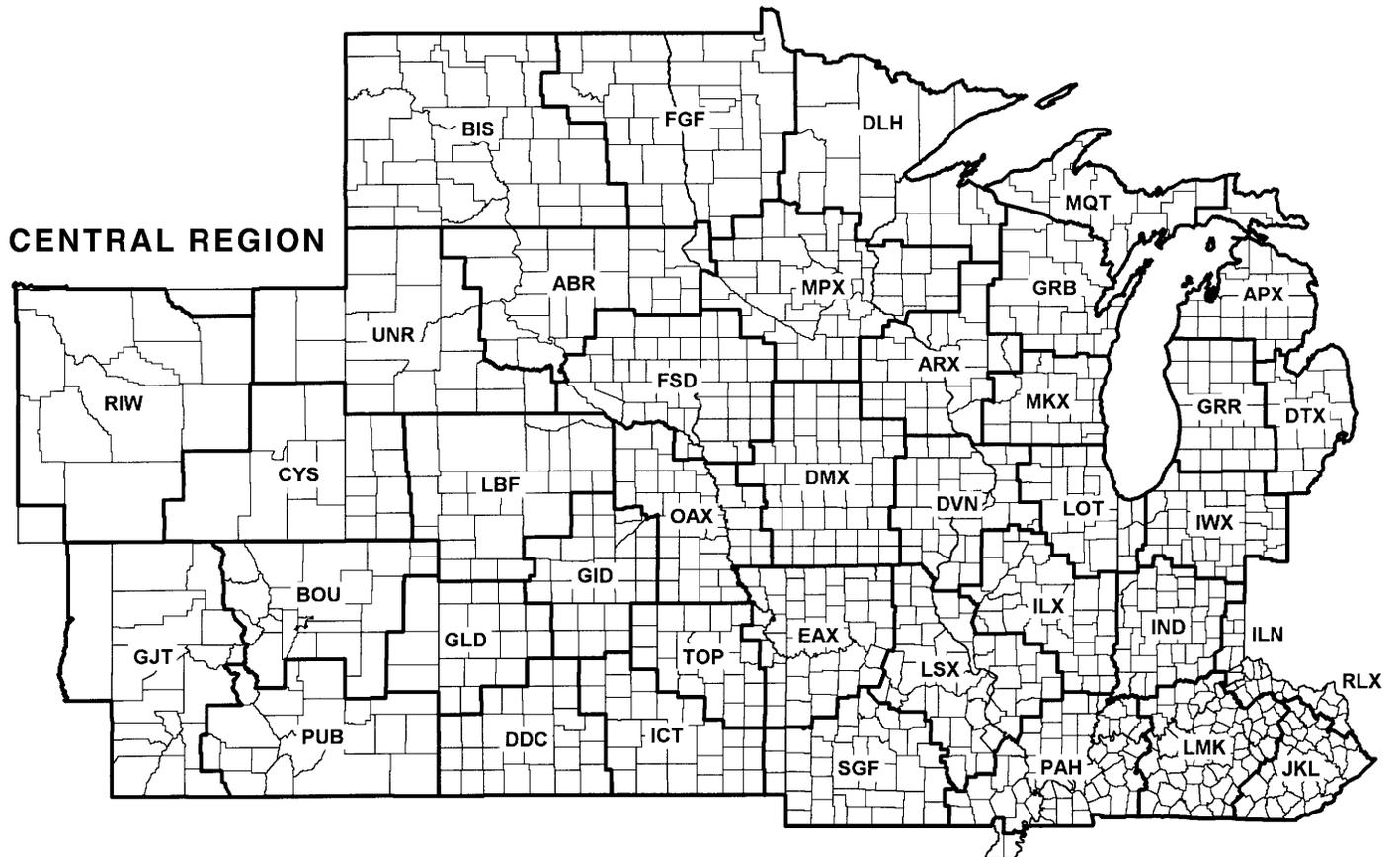
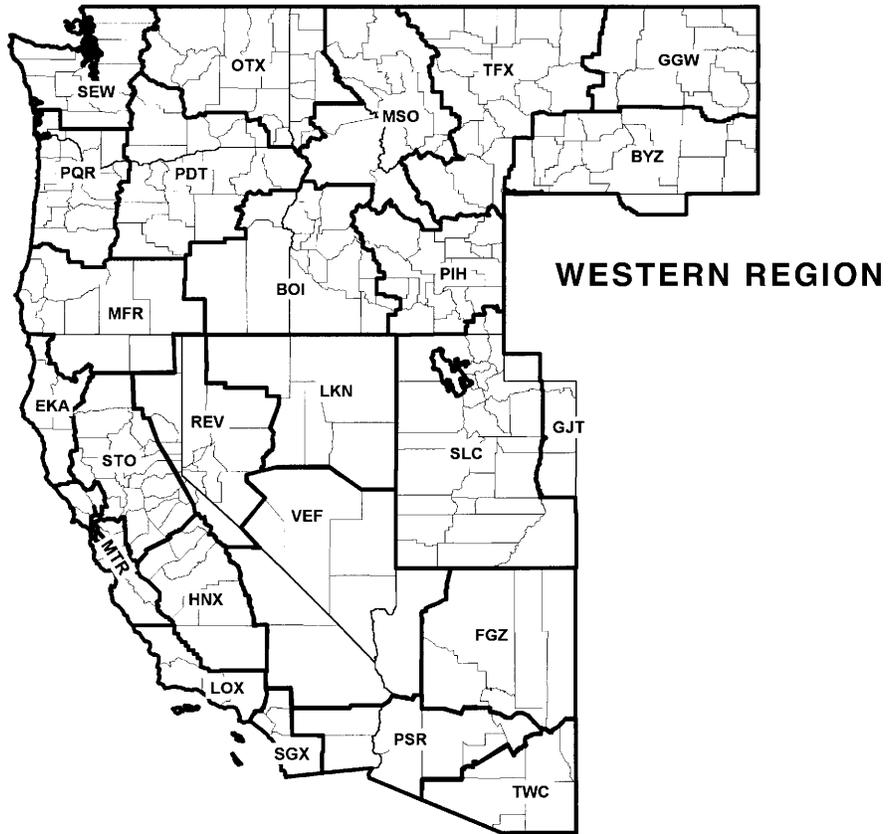


EASTERN REGION

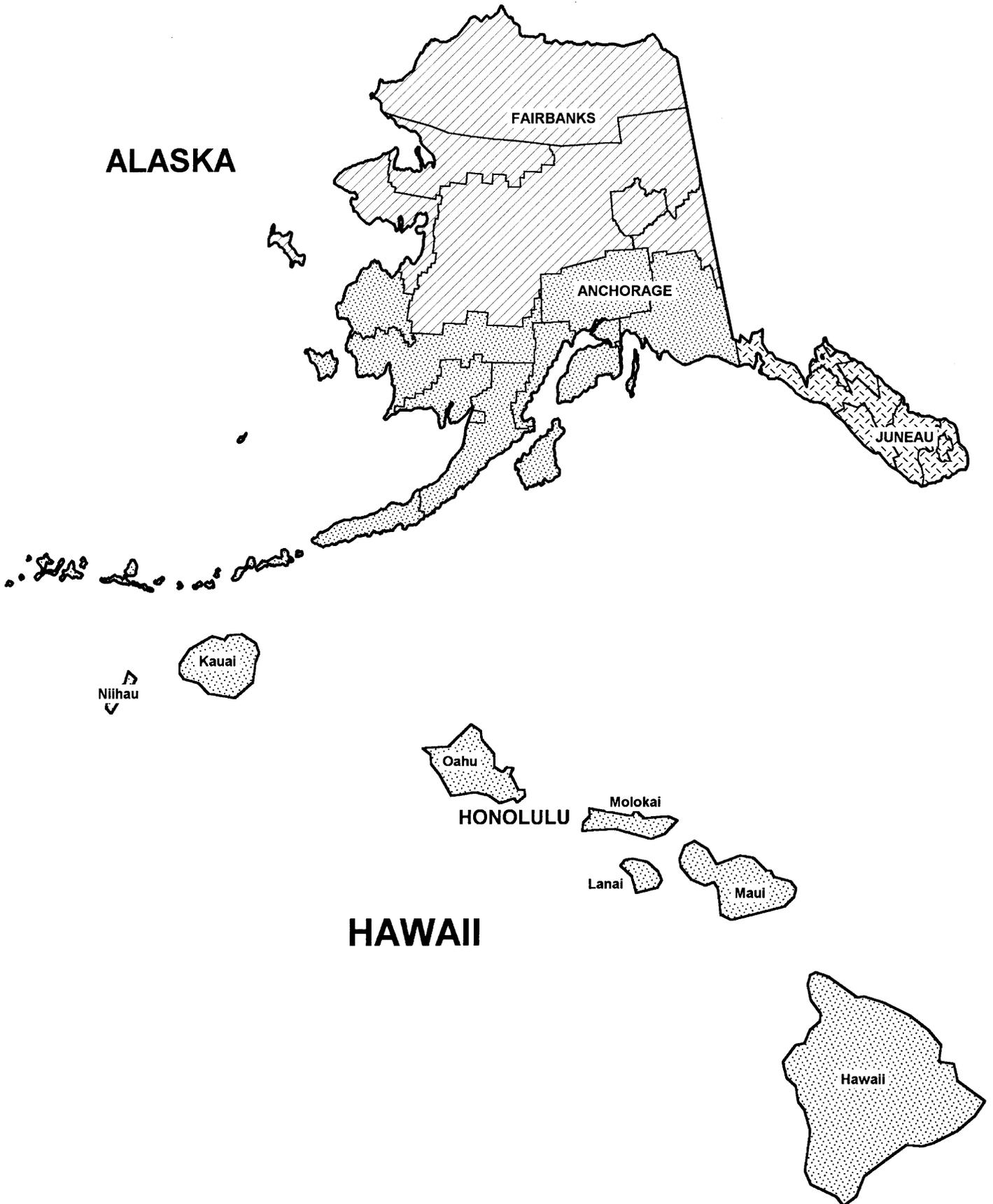


SOUTHERN REGION

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS



MODERNIZED COUNTY WARNING AREAS



These and other publications are available from the National Climatic Data Center

Hourly Precipitation Data

This publication contains hourly precipitation amounts obtained from recording rain gages located at National Weather Service, Federal Aviation Administration, and cooperative observer stations. Published data are displayed in inches and tenths or inches and hundredths at local standard time. **HPD** includes maximum precipitation for nine (9) time periods from 15 minutes to 24 hours, for selected stations.

Climatological Data

Monthly editions contain station daily maximum and minimum temperatures and precipitation. Some stations provide daily snowfall, snow depth, evaporation, and soil temperature data. Each edition also contains monthly summaries for heating and cooling degree days (65 degree F base). The July issue contains a recap of monthly heating degree days and snow data for the preceding July through June.

The Annual issue contains monthly and annual averages of temperature, precipitation, temperature extremes, freeze data, soil temperatures, evaporation, and a recap of monthly cooling degree days.

Storm Data

Monthly issues contain a chronological listing, by states, of occurrences of storms and unusual weather phenomena. Reports contain information on storm paths, deaths, injuries, and property damage. An "Outstanding storms of the month" section highlights severe weather events with photographs, illustrations, and narratives. The December issue includes annual tornado, lightning, flash flood, and tropical cyclone summaries.

Monthly Climatic Data for the World

This publication contains monthly means for temperature, pressure, precipitation, vapor pressure, and sunshine for approximately 2,000 surface data collection stations worldwide and monthly mean upper air temperatures, dew point depressions, and wind velocities for approximately 500 observing sites.

Local Climatological Data

LCD publications summarize temperature, relative humidity, precipitation, cloudiness, wind speed and direction observations for several hundred cities in the U.S. and its territories. Each monthly publication also contains the 3 hourly weather observations for that month and an hourly summary of precipitation. Annual **LCD** publications contain a summary of the past calendar year as well as historical averages and extremes.

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