

FEBRUARY 2003
VOLUME 45
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 complex storm system brought wintery weather across northern Virginia between February 14 and 18th. Nicknamed the "President's Weekend Snowstorm of 2003", this storm is listed as the 5th heaviest snowstorm in Washington D.C. since 1870. A total of 16.7 inches of snow and sleet was recorded at Reagan National Airport. Pictured is a wintery scene from Leesburg, VA where snow amounts ranged from 20 to 36 inches. (Photo courtesy: Jim DeCarufel, NWS Forecast Office Baltimore/Washington.)

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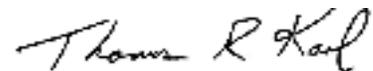
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The editor of **STORM DATA** solicit your help in acquiring photographs (prints or slides; black and white, or color), maps, clippings, etc. of significant or severe weather events (past or present) for use in the "Outstanding Storms of the Month"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

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Any such items received by the editor will be for use in **STORM DATA** only. Any other use will be with the permission of the owner of said items. Materials will be returned if requested.

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Thomas R. Karl
Director,
National Climatic Data Center

February 2003 Confirmed Tornadoes



F Scale	F0	F1	F2	F3	F4	F5	Total
Number	11	6	1	0	0	0	18

F Scale

- + F0
- ◇ F1
- F2
- F3
- △ F4
- ⊠ F5

OUTSTANDING STORMS OF THE MONTH

**THERE IS NO
“OUTSTANDING STORM OF THE MONTH”
FOR THE MONTH OF FEBRUARY 2003.**

Storm Data and Unusual Weather Phenomena

February 2003

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>									
Talladega County									
Lincoln	04	0110CST			0	0	1K	0	Thunderstorm Wind (G50)
A few trees were blown down around the city of Lincoln.									
Hale County									
Moundville	15	2030CST			0	0	2K	0	Thunderstorm Wind (G50)
A large shed was blown over and destroyed at the Oak Hill Cemetary. Many large tree limbs were also snapped off.									
Marengo County									
2.7 NNW Linden to 4.6 NNE Linden	15	2036CST 2040CST	2.5	80	0	0	90K	0	Tornado (F1)
In what was believed to be the first tornado in Alabama in 2003, a small tornado touched down briefly in the northern half of Marengo County between Linden and Demopolis. No injuries or deaths were reported with the short-lived tornado.									
The tornado first touched down about 1.6 miles west-northwest of Providence on the west side of US 43 and about half a mile south of County Road 44. The tornado traveled northeasterly moving across County Road 44 and through the western sections of Chickasaw State Park. Where it first touched down, two mobile homes were damaged and a number of trees were either uprooted or snapped off. The tornado damaged one house significantly on the west side of US 43 just north of Chickasaw State Park and moved across US 43 downing several more trees. The tornado ended after crossing US 43 about 2.1 miles north of Providence on the east side of US 43.									
The tornado was rated an F1 primarily due to the damage done to the house just north of Chickasaw State Park. The tornado path length was 2.5 miles with a width of about 80 yards. The tornado began around 8:36 pm and ended at approximately 8:40 pm.									
The weak tornado was produced on the north side of a bow echo. Cyclonic rotation is often induced on the north side of the center of the bow. Bow echoes are known primarily for producing downbursts or straight line wind damage but also have the capability of producing weak tornadoes as apparently happened in this case.									
Beg: 32 20.719/87 48.459 End: 32 22.297/87 46.702									
Marengo County									
Faunsdale	15	2053CST			0	0	9K	0	Thunderstorm Wind (G50)
A few trees were blown down and one landed on an automobile.									
Montgomery County									
3 SE Snowdoun	16	0030CST			0	0	8K	0	Thunderstorm Wind (G55)
Several large tree limbs were snapped off. One home sustained siding damage. One large barn was damaged.									
Lamar County									
Vernon	21	2350CST			0	0	10K	0	Flash Flood
	22	0100CST							
Some road flooding was reported on Highway 17 near Vernon. An embankment caved in along the highway.									
Pickens County									
6 E Carrollton	22	0025CST			0	0	3K	0	Thunderstorm Wind (G55)
A few large trees were blown down on Highway 86 east of Carrollton. One tree was blocking the roadway.									
Marion County									
Hackleburg	22	0155CST			0	0	0	0	Hail (0.88)
Penny to nickel size hail was reported in Hackleburg.									
St. Clair County									
Countywide	22	0330CST			0	0	3K	0	Thunderstorm Wind (G50)
Several power lines were blown down across the county.									
Blount County									
Cleveland	22	0338CST			0	0	0	0	Hail (0.88)
Penny to quarter size hail was observed in Cleveland. Trees were blown down around the same time in Hayden and in Rosa.									
Chilton County									
6 NW Jemison	22	0400CST 0600CST			0	0	12K	0	Flash Flood
County Road 46 was flooded as heavy rain fell in a short period of time. One vehicle was stranded in the high water and two occupants were rescued by the fire department.									
Etowah County									
Sardis City	22	0400CST			0	0	0	0	Hail (0.75)
Penny size hail was reported near Sardis City.									
<u>ALABAMA, North</u>									
Lauderdale County									
Florence	15	0840CST 2005CST			0	0			Flash Flood
a few roads flooded in city									

Storm Data and Unusual Weather Phenomena

February 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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ALABAMA, North

Limestone County

Athens	15	0930CST 1115CST			0	0			Flash Flood
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Flash flooding occurred.

Lawrence County

Courtland	15	0933CST 1115CST			0	0			Flash Flood
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County road 150 flooded with a few outlying roads closed.

Colbert County

Sheffield	15	1030CST 1115CST			0	0			Flash Flood
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Flash flooding with a few roads flooded.

Jackson County

Stevenson	15	2000CST			0	0			Thunderstorm Wind (G60)
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a few power lines blown down

Dekalb County

Henagar	15	2105CST			0	0			Thunderstorm Wind (G60)
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a few trees and power lines down.

Franklin County

3 E Russellville	21	2156CST 0400CST			0	0			Flash Flood
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Water over county road 77 and mud creek road.

Lauderdale County

Anderson	21	2156CST 0400CST			0	0			Flash Flood
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Two roads closed due to high waters.

Lauderdale County

Lexington	21	2156CST 0400CST			0	0			Flash Flood
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Two roads closed due to high waters

Lauderdale County

Rogersville	21	2156CST 0400CST			0	0			Flash Flood
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Two roads closed due to high waters.

Lauderdale County

Florence	22	0030CST 0400CST			0	0			Flash Flood
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McFarland Park flooded.

Colbert County

Leighton	22	0100CST 0400CST			0	0			Flash Flood
----------	----	--------------------	--	--	---	---	--	--	-------------

Sixth Street closed due to two foot of flood waters in Leighton.

Lawrence County

Courtland	22	0100CST 0400CST			0	0			Flash Flood
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Water over road on county road 150.

Lawrence County

Hillsboro	22	0100CST 0400CST			0	0			Flash Flood
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Water over road on county road 217.

Morgan County

Decatur	22	0148CST 0400CST			0	0			Flash Flood
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Three roads closed due to flood waters.

Limestone County

Athens	22	0245CST 0400CST			0	0			Flash Flood
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Water over road along Highway 251.

Madison County

Owens Xrds	22	0200CST 0400CST			0	0			Flash Flood
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Lyons road and Piney woods road flooded.

Storm Data and Unusual Weather Phenomena

February 2003

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, North</u>									
Marshall County									
Union Grove	22	0210CST 1000CST			0	0			Thunderstorm Wind (G60)
									Power pole and a few power lines down.
Madison County									
Harvest	22	0240CST 0400CST			0	0			Flash Flood
									Fords chapel road flooded.
Madison County									
Hazel Green	22	0240CST 0400CST			0	0			Flash Flood
									Flood lane flooded.
Madison County									
Moores Mill	22	0240CST 0400CST			0	0			Flash Flood
									Moores mill and Braves road flooded.
Limestone County									
Athens	22	0245CST 0400CST			0	0			Flash Flood
									Huntsville Browns Ferry road flooded.
Madison County									
Huntsville	22	0330CST 0400CST			0	0			Flash Flood
									Numerous roads flooded in the county. Water covering roads at Highway 72 and Rockcut road.
Franklin County									
Russellville	22	0358CST 1000CST			0	0			Flash Flood
									County road 77 and Mud creek road with flash flooding.
Marshall County									
Grant	22	0405CST 0410CST			0	0			Hail (0.75)
									Penny hail
Dekalb County									
5 SE Crossville to 7 SE Crossville	22	0410CST 0415CST			0	0			Hail (0.75)
									penny hail.
Dekalb County									
Ider	22	0435CST 0440CST			0	0			Thunderstorm Wind (G60)
									A few power lines down.
Jackson County									
Langston	22	0440CST 0445CST			0	0			Hail (0.88)
									nickel hail.
Jackson County									
Langston	22	0440CST 0445CST			0	0			Thunderstorm Wind (G60)
									A few power lines down
Jackson County									
Section	22	0440CST 0445CST			0	0			Hail (0.88)
									nickel hail.
Jackson County									
Section	22	0440CST 0445CST			0	0			Thunderstorm Wind (G60)
									A few power lines down.
Lauderdale County									
Countywide	22	0450CST 1000CST			0	0			Flash Flood
									Numerous roads flooded countywide.

Storm Data and Unusual Weather Phenomena

February 2003

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

ALABAMA, North

Jackson County

Countywide	22	0500CST 1000CST			0	0			Flash Flood
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Numerous roads flooded countywide.

Dekalb County

Ft Payne	22	0600CST 1000CST			0	0			Flash Flood
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highway 35 flooded

Dekalb County

Rainsville	22	0600CST 1000CST			0	0			Flash Flood
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highway 35 flooded.

Morgan County

Decatur	22	0605CST 1000CST			0	0			Flash Flood
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Two streets flooded.

Limestone County

Countywide	22	0645CST 1000CST			0	0			Flash Flood
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Numerous roads flooded and closed countywide.

Limestone County

Countywide	22	0645CST 1000CST			0	0			Flash Flood
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Numerous roads flooded and closed countywide.

Madison County

Countywide	22	0645CST 1000CST			0	0			Flash Flood
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Numerous roads flooded county wide.

Marshall County

Countywide	22	0645CST 1000CST			0	0			Flash Flood
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numerous flooded roads countywide.

Lawrence County

Countywide	22	0655CST 1000CST			0	0			Flash Flood
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Numerous roads flooded countywide.

Franklin County

3 E Russellville	22	0946CST 1600CST			0	0			Flash Flood
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County road 77 flooded.

Jackson County

Countywide	22	0946CST 1600CST			0	0			Flash Flood
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21 county roads with flooding occurring.

Lauderdale County

Countywide	22	0946CST 1600CST			0	0			Flash Flood
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Numerous roads flooded countywide.

Limestone County

Athens	22	0946CST 1600CST			0	0			Flash Flood
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Huntsville Browns ferry road flooded.

Madison County

Countywide	22	0946CST 1600CST			0	0			Flash Flood
------------	----	--------------------	--	--	---	---	--	--	-------------

Numerous roads flooded countywide.

Marshall County

Countywide	22	0946CST 1600CST			0	0			Flash Flood
------------	----	--------------------	--	--	---	---	--	--	-------------

Numerous roads flooded countywide.

Storm Data and Unusual Weather Phenomena

February 2003

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, North</u>									
Morgan County									
Decatur	22	0946CST 1600CST			0	0			Flash Flood
			Two streets flooded.						
Colbert County									
Leighton	22	0950CST 1600CST			0	0			Flash Flood
			Sixth street flooded in Leighton.						
Dekalb County									
Ft Payne	22	0950CST 1600CST			0	0			Flash Flood
			Several streets flooded.						
Dekalb County									
Rainsville	22	0950CST 1600CST			0	0			Flash Flood
			Several streets flooded.						
Lawrence County									
Countywide	22	0950CST 1600CST			0	0			Flash Flood
			Numerous roads flooded countywide.						
<u>ALABAMA, Southeast</u>									
Dale County									
4 NE Ozark	22	0600EST			0	0	3K		Thunderstorm Wind (G50)
			Trees and power lines down. Reported by the Dale County EMA.						
Houston County									
Dothan	22	0630EST			0	0	3K		Thunderstorm Wind (G50)
			Trees and power lines down. Reported by the Houston County EMA.						
<u>ALABAMA, Southwest</u>									
Choctaw County									
Needham	15	1940CST 1941CST			0	0	8K		Thunderstorm Wind (G50)
			High winds from a thunderstorm blew down several trees just north of Needham.						
Baldwin County									
Fairhope	21	1448CST 1450CST			0	0	5K		Thunderstorm Wind (G53)
			High winds from a thunderstorm blew down a couple of trees near the Fairhope Pier. Wind speeds at the pier were estimated at 60 mph.						
Escambia County									
Wallace	21	2335CST 2337CST	0.1	20	0	0	8K		Tornado (F0)
			A weak tornado blew down several trees near Barnett Crossroads which is near exit 69 on I-65. No injuries were reported.						
Conecuh County									
4 E Lenox	21	2340CST 2341CST	0.1	20	0	0	8K		Tornado (F0)
			A weak tornado briefly touched down east of Lenox. The tornado blew down several trees.						
Clarke County									
Fulton	22	0030CST 0031CST			0	0	10K		Thunderstorm Wind (G50)
			High winds from a thunderstorm blew some tin off a school building and scattered it around the school. The tin was blown from a make shift building that was added to the school. Trees were also blown down.						
Crenshaw County									
Highland Home	22	0325CST 0326CST			0	0	25K		Thunderstorm Wind (G50)
			High winds from a thunderstorm blew down several trees. Some of the trees fell on a couple of homes and caused minor damage to them.						
<u>ALASKA, Northern</u>									
AKZ201-203-207-213>214			Western Arctic Coast - Central Beaufort Sea Coast - Chukchi Sea Coast - St Lawrence Is. Bering Strait - Yukon Delta						
	03	0855AST			0	0			Blizzard
	06	2053AST							

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
ALASKA, Northern									
AKZ216		Lower Koyukuk Middle Ykn Vlys							
		03	1000AST			0	0		Heavy Snow
		04	1000AST						
AKZ213		St Lawrence Is. Bering Strait							
		04	1555AST			0	0		High Wind (G57)
		05	0915AST						
		<p>A 978mb low and associated occluded front moved north from Bristol Bay through the Yukon Delta before dissipating along the Western Arctic Coast. During the same time period a 1036mb high over Siberia slowly drifted eastward to the Central Arctic Ocean. As the low moved north towards the opposing high, a strong pressure gradient between these two systems developed resulting in very strong winds across western Alaska and portions of the Central Beaufort Sea Coast. Moisture brought north with the low pressure center and frontal boundary developed into widespread snowfall, locally heavy. This snowfall, combined with the strong winds, resulted in blizzard conditions in blowing snow. Gambell, Tin City, Kivalina, Point Lay, Nuiqsut, Deadhorse, and Cape Romanzof automated weather systems all reported visibilities of less than 1/4 mile. Heavy snow was reported by the Kaltag Co-Op observing site where 6 inches of new snow fell over a 24 hour period.</p> <p>High Winds occurred at: Zone 203: Deadhorse ASOS - gust 58 mph. Zone 213: Tin City AWOS - gust 64 mph; Gambell AWOS gust 66 mph.</p>							
AKZ225>226		Denali - Ne. Slopes Of The Ern Ak Rng							
		03	1500AST			0	0		High Wind (G58)
		05	1148AST						
		<p>A strong low pressure system and associated occluded front over the northern Gulf of Alaska moved north resulting in a significant pressure gradient over the Alaska Range. This gradient, coupled with the channeling affects in the narrow passes of the mountains resulted in very strong winds in these channeled areas. Wind gusts to 67mph were recorded by the weather observer in Healy with gusts estimated up to up 63 mph along the eastern slopes of the Alaska Range.</p>							
AKZ218		S. Slopes Of Ern Brooks Range							
		04	0000AST			0	0		Heavy Snow
		05	0000AST						
		<p>A stationary front along the southern slopes of the Brooks Range was the focal point for the development of heavy snowfall as warmer, moist air was forced over this front by an approaching warm front to the south. Locally heavy snow occurred as the warmer moist air interacted with the relatively colder air near the stationary front. Over six inches of new snow was reported by the Co-Op Observer at Wiseman over a 24 hour period.</p>							
AKZ223		Deltana And Tanana							
		04	1153AST			0	0		High Wind (G63)
		05	0153AST						
		<p>High winds blew across the Deltana and Tanana Flats region as a warm front pushed through from the south. Strong pressure differences between this frontal boundary and high pressure to the south of the Alaska Range created wind gusts measured up to 73 mph at the Delta Junction ASOS site.</p>							
AKZ221		Wrn Tanana Vly Wrn Yukon Vly							
		04	1600AST			0	0		Ice Storm
			1900AST						
		<p>As a warm front approached and passed from the south, an area of freezing rain developed over the Western Tanana Valley. Warm, moist air associated with this front was forced aloft over the underlying frozen surface. Rain developed aloft as temperatures rose above the freezing mark in a narrow layer of the lower atmosphere. Rainfall around the warm front reached the ground where it froze on contact creating sheets of ice on exposed surfaces. A tenth of water equivalent was measured near the Tanana ASOS before the rain ended.</p>							
AKZ203		Central Beaufort Sea Coast							
		06	1053AST			0	0		High Wind (G50)
			1953AST						
		<p>Strong winds along the Central Beaufort Sea Coast developed as a high over the Beaufort Sea strengthened to 1042mb and an occluded front pushed north of the Brooks Range. The resulting strong easterly pressure gradient between these two systems produced wind gusts of 58 mph at the Deadhorse ASOS site.</p>							
AKZ225		Denali							
		07	1442AST			0	0		High Wind (G50)
			1633AST						
		<p>Locally high winds developed in channeled areas of the Central Alaska Range as a strong high pressure ridge developed to the south of the mountain range. The differential pressure between the ridge to the south, and trough to the north of the mountain range were sufficient enough to produce high winds. Wind gusts of 58 mph were reported by the Healy weather observer.</p>							
AKZ213		St Lawrence Is. Bering Strait							
		08	1055AST			0	0		Blizzard
			1855AST						
		<p>Snow and strong winds developed along the Bering Sea Coast in response to a low pressure center over Western Norton Sound and a 1036mb high pressure center over Eastern Siberia. The resulted gradient between these two systems was sufficient enough to produce wind gusts up to 50 mph at Tin City. These strong winds, combined with the snowfall around the surface low, resulted in a visibility</p>							

Storm Data and Unusual Weather Phenomena

February 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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ALASKA, Northern

AKZ218>220

reduction at Tin City to less than 1/4 mile for an extended period.

S. Slopes Of Ern Brooks Range - Upper Koyukuk Valley - Yukon Flats Nearby Uplands

09	1030AST				0	0			Heavy Snow
10	1453AST								

Heavy snow fell along a slow moving warm frontal boundary that stretched eastward from a low pressure center near Bettles, to the Canadian border. Locations reporting 6 inches of snowfall in less than 24 hours included the augmented Bettles ASOS site, and the Department of Transportation observing sites at Coldfoot and Sevenmile Camp.

AKZ220

Yukon Flats Nearby Uplands

11	0500AST				0	0			Heavy Snow
12	0500AST								

A wave of low pressure formed along a stationary front near Livengood helping to produce locally heavy snowfall. Cold air wrapping around the surface low helped intensify snowfall amounts as it mixed with relatively warmer, moist air from the southwest. The heavy snow was very localized around the Livengood area as the low along the front in that area dissipated fairly quickly over a 12-18 hour period.

AKZ214

Yukon Delta

11	1155AST				0	0			Blizzard
	1755AST								

Winds reaching 35 to 40 mph caused blowing snow that reduced the visibility around Cape Ramonzo to near zero. These strong winds were a result of a locally tight surface pressure gradient that existed between a stationary front over the Lower Yukon Delta, and a strong high pressure ridge over the Bering Sea.

AKZ203

Central Beaufort Sea Coast

19	1653AST				0	0			Blizzard
	2153AST								

A building high pressure center over the Beaufort Sea helped create strong easterly winds along the Central Beaufort Sea Coast. Winds reached 45 mph at Deadhorse creating blowing snow that reduced the visibility to less than 1/4 mile for 5 hours before the winds diminished.

AKZ213

St Lawrence Is. Bering Strait

24	2055AST				0	0			Blizzard
27	1055AST								

A 981mb low over the Bering Sea, coupled with strong high pressure ridging along the Bering Sea Coast produced blizzard conditions at Tin City. Winds of 35 to 45 mph caused blowing snow that significantly reducing local visibility to near zero. These conditions subsided for a day as the low began to fill and drift southward. This system however re-intensified again as the low deepened to 970mb and began to move northward across the Bering Sea. High pressure ridging remained in place helping to intensify the surface gradient as the low tracked north. As a result, blizzard conditions at Tin City occurred for a second time in association with the same surface features.

ALASKA, Southeast

NONE REPORTED.

ALASKA, Southern

AKZ101

Anchorage Muni To Bird Creek

03	0905AST				0	0			High Wind (G73) ^M
	1600AST								

Strong occluded front in an arc through lower Cook Inlet then south as a cold front, with a diffuse warm front eastward through Kachemak Bay and southeast of Middleton Island, produced locally strong southeast winds across portions of Turnagain Arm and the Upper Anchorage Hillside. Gusts reached 84 mph at the McHugh Creek RWIS site in western Turnagain Arm at 1105 am, with winds first gusting near 75 mph at 9:05 am. Between 10 and 11 am, an unconfirmed report of a 93 mph gust was received from the Site Summit automated system, located along one of the surrounding mountains...at an elevation of more than 2500 feet.

By 4 pm, winds had diminished significantly.

AKZ101-125

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

04	0400AST				0	0			High Wind (G78) ^M
	2200AST								

Wrn P.W. Snd & Kenai Mtns

25 N Seward

04	2000AST				0	0	1K		Flash Flood
05	1045AST								

A strong frontal system moving toward the area was preceded by strong southeast winds around Turnagain Arm and the Upper Anchorage Hillside.

Unofficial wind gusts of 102 mph were recorded at Site Summit (just east northeast of the Anchorage Bowl) around 1 pm Tuesday. Strongest winds in the Anchorage Municipality were reported along the Upper Hillside at the Glen Alps site and also at the McHugh Creek Seward Highway RWIS, along the northwest shore of Turnagain Arm. Glen Alps peak winds reached at least 80 mph (software

Storm Data and Unusual Weather Phenomena

February 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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ALASKA, Southern

problems resulted in missing gusts)...while gusts as high as 90 mph were recorded at McHugh Creek.

Additionally, extremely heavy rains fell around the Portage Valley, through much of Prince William Sound, around Resurrection Bay and Seward. 24 hour precipitation totals between 9 and 10 inches were reported around the Portage Valley near the Visitor Center and also just north of Seward in the Lawing area. No significant flooding was reported, however.

Additionally, very heavy rains were reported along south and southeast exposures of the Kenai Peninsula and also in parts of northeast Prince William Sound. Precipitation totals in the 10-15 inch range in less than a 48 hour period prompted an extraordinary winter flood warning for small streams in these areas. Usually at this time of year, rivers and streams are ice covered and precipitation is mostly snow.

Seward reported anywhere from 4 to 9 inches of rain, with heaviest amounts just north of town in a 48 hour period. Girdwood police called in that small creeks and streams in that area were running "quite full", however no actual reports of flooding were received in that particular area. To the south, however, the heavy rains did cause water over the Seward Highway in the Glacier and Salmon Creek areas north of town.

AKZ195

Pribilof Islands

04	1000AST								
	2253AST			0	0				Blizzard

An intense, elongated low located over the southern tip of the Alaska Peninsula and western Bristol Bay moved over western Alaska and the Alaska Peninsula. The storm produced blizzard conditions over the Pribilofs where wind gusts reached 44 mph and visibilities were mostly 1/4 mile or less in snow and blowing snow.

AKZ145

Susitna Valley

06	1000AST								
	1300AST			0	0	10K			Avalanche

An avalanche shut down the Seward Highway between Anchorage and Girdwood Wednesday, causing power outages in several communities.

The State DOT was doing avalanche control along the highway when the slide occurred near Bird Flat at about 11 am. The department had the road reopened several hours later.

According to Chugach Electric, the avalanche caused structural damage to an electrical line. Power was knocked out to Girdwood, Indian, Bird and Hope. Also, the Whittier Tunnel was closed temporarily because of the power outage.

AKZ111

Matanuska Valley

09	1300AST								
				1	1				Avalanche

Two snow-boarders were caught in an avalanche off Hatch Peak (in Hatcher Pass). One dug out, the other was buried for 2 hours then finally dug out by rescuers who attempted, unsuccessfully, CPR.

Heavy wet snow fell in the Pass during the prior week, with more than a foot since Thursday. High winds over the weekend shifted snow loads to lee slopes, including the northeast-facing run near the Pass. Both snow-boarders were at the base of the mountain when the avalanche let go.

M24OU

Storm Data and Unusual Weather Phenomena

February 2003

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

ALASKA, Southern AKZ145

Susitna Valley

12 1200AST

0 0

Heavy Snow

13 2100AST

A very strong and cold high developed over the Arctic Ocean just north of Alaska earlier in the week. Temperatures just north of the Alaska Range fell all day on the 12th, through the teens into single digits. The arctic front set up along the Alaska Range, with the Range acting as the boundary under the depth of the cold air rose enough to allow the front to move south. Cold air behind the front slipped through Windy Pass and into the Cantwell area, dropping temperatures into the single digits also. Meanwhile, a flow of moist maritime air moved into the area from the Gulf of Alaska ahead of a weak low centered far south of the State. Overrunning of the cold air produced heavy snow near the Alaska Range, helped by orographic lift and upslope flow aloft.

Heaviest snowfall set up in a band from the Peters Hills northeast to Chulitna and included the Igloo on the Parks Highway. In Talkeetna, just to the south, snow turned to rain just after 6 am on the 13th as temperatures rose into the middle 30s. Water equivalents of the snowfall on the 12th and 13th were 0.83 at Eureka, 0.29 inches at Cantwell and 0.13 inches at Skwentna. Talkeetna received 0.99 inches of rain and melted snow on the same two days.

Snowfalls:

North side of Peters Hills, Kenny Creek Lodge - "Over 2 feet".

Igloo Lodge at milepost 187 on the Parks Highway - "About 2 to 3 feet of wet, heavy snow".

DOT camp at milepost 121 - 6 inches at the shop. Amounts increased beginning at milepost 158 on the Parks Highway. At the "Turnaround Point" milepost 161 there was 1.5 feet of snow.

On the other side of the Alaska Range (zone 151-Kuskokwim Valley), McGrath recorded 9.6 inches of snow from the same weather system.

Within McKinley National Park, isolated reports from the Communications Dispatch Center were that only a "dusting fell at Park headquarters".

Although no damage reports were received, the Igloo Lodge co-op observer relayed that the Igloo structure itself was in danger of collapsing due to the heavy weight of about 4 feet of wet snow. The observer also reported that cars were stuck on the Parks Highway during the height of the storm. DOT road crews were still trying to clear the highway as of 9 am AST on the 14th.

AKZ145

Susitna Valley

23 0000AST

0 0

Heavy Snow

24 2359AST

AKZ101

Anchorage Muni To Bird Creek

23 1600AST

0 0

High Wind (G66)

24 0500AST

An occluded front, associated with a strong low near the Aleutians, moved up into South-central Alaska early Monday, continuing north into the Susitna Valley thereafter.

The front produced areas of heavy snow in the Susitna Valley, mostly in northern sections. At the Kenny Creek Lodge, at Mile 17.5 on the Petersville Road, a spotter report indicated 2 feet of snow fell in less than a 24 hour period, ending mid afternoon Monday. Heavy snow was also reported at Chulitna, Hayes River, Big River Lakes and near Skwentna.

The same front also produced locally strong southeast winds through western Turnagain Arm and along the upper Anchorage Hillside. Peak winds reached 78 mph from the southeast at McHugh Creek at 5:05 pm AST Sunday. Winds at Glen Alps were clocked at up to 66 mph at 8 pm and again at midnight.

AKZ145

Susitna Valley

25 1800AST

0 0

Heavy Snow

26 1200AST

A weakening occluded front, moving northeast through South-central Alaska early Wednesday, brought locally moderate amounts of snow to the northern Susitna Valley area. A report along Petersville Road confirmed a 6 hour snowfall of between 6 and 8 inches. Heavy snow was reported continuously around Chulitna for most of the day. Local snowfall totals of 12 or more inches were estimated across the northern Susitna Valley Wednesday.

AMERICAN SAMOA

NONE REPORTED.

ARIZONA, Central and Northeast

AZZ006>008-015>018- Grand Canyon Country - Coconino Plateau - Yavapai County Mountains - Western Mogollon Rim - Eastern Mogollon Rim - White Mountains - Northern Gila County - Oak Creek And Sycamore Canyons

24 2000MST

0 0

Winter Storm

26 1800MST

A strong Pacific storm system moved across northern Arizona with widespread snow and rain. The greatest amounts of snow fell at the North Rim of the Grand Canyon, Eastern Mogollon Rim, Northern Gila County, and the White Mountains. Some of the lower elevations picked up more than an inch and a half of rain. Some of the storm total snowfall amounts were: Greer 20 inches, Forest Lakes 16 inches, Christopher Creek 14 inches, Pinetop and Alpine 12 inches, Happy Jack, Crown King, and Kachina Village all had

Storm Data and Unusual Weather Phenomena

February 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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ARIZONA, Central and Northeast

10 inches, Grand Canyon-North Rim 9 inches and Munds Park 9 inches, and Bagdad 5 inches. Heavy snow caused pine trees to fall over power and phone lines in the Ponderosa Park area south of Prescott. Over 800 customers were without power. Thousands of pine trees fell along Highway 260 between Heber, Forest Lakes, and Christopher Creek and along Highway 87 between Pine and Clint's Well. Hundreds of trees also fell along Lake Mary Road between Clint's Well and Happy Jack. Some of the trees were up to 6 inches in diameter where they snapped in half.

Gila County

**Payson to
Punkin Center**

27	0600MST								
	2300MST				0	0			Flash Flood

Snowmelt and runoff from rain resulted in considerable flows in the Tonto Creek, between Payson and Roosevelt Lake. Four roads, which cross the Tonto Creek, were closed by Gila County Public Works. The Tonto Basin area was affected the most by the flood. About 300 people in several subdivisions along the east side of Tonto Creek were isolated. Secondary Forest Service roads were inaccessible due to mud. Gila County Emergency Services assisted the Sheriff's Department and the Public Works Department in ferrying medical supplies and basic food staples across Tonto Creek.

AZZ015>016-018

Western Mogollon Rim - Eastern Mogollon Rim - Northern Gila County

27	1400MST								
	28 1100MST				0	0			Heavy Snow

The second storm in a week brought heavy snow to portions of central Arizona. The heaviest snow fell along the southern facing slopes of the Mogollon Rim. Forest Lakes picked up 12.5 inches of snow in just 15 hours...for a total of 44 inches of new snow since February 24th. The town of Pine received 8 inches of new snow for a total of 24 inches in four days. Ten inches of new snow fell in Happy Jack in 12 hours for a total of 23 inches. Kachina Village received 6 inches of snow in just 3 hours (midnight to 3 AM). Tonto Village picked up 7 inches of new snow for a total of 20 inches. Hart Prairie received 11.5 inches of new snow. A 14-vehicle pileup, including an 8,000-gallon gasoline tanker and four tractor-trailers, closed westbound Interstate 40 in Flagstaff for five hours on the 27th. Only two minor injuries were reported in the pile-up. Traffic was backed up for two miles.

ARIZONA, Northwest

NONE REPORTED.

ARIZONA, South

AZZ019

Northern Greenlee

13	0900MST								
	14 0100MST				0	0	0	0	Heavy Snow

A weak system moved over southeast Arizona on February 13th and 14th, which caused heavy snow in the White Mountains. This system tapped into deep tropical moisture as it moved over Southern California coast, which also created widespread heavy rain across central and southern Arizona. The colder portions of the air mass moved over Arizona late morning of the 13th. The first precipitation band moved through Northern Greenlee county by noon on February 13th, with initial snow reports of 4 to 6 inches at Hannagan Meadow. Snow showers continued periodically with snow levels fluctuated between 9000 feet and 7500 feet during the event. Hannagan Meadow recorded a total of 14 inches of snow through the event.

AZZ019

Northern Greenlee

25	1700MST								
	26 0500MST				0	0	0	0	Heavy Snow

Another winter storm system developed over the Pacific coast and dropped down over central and southern Arizona on February 25th and 26th. The best forcing associated with this system would mainly impact the White mountains in Northern Greenlee county along with strong up-slope winds. Showers started out late on the 25th, with initial snow levels around 7500 feet. By the morning of the 26th, Hannagan Meadow recorded 12 inches of snow. Other snow reports included 8 inches on Mt. Graham and 6 inches on Mt. Lemmon .

ARIZONA, Southwest

Maricopa County

Countywide

12	1400MST								
	14 0500MST				0	0			Heavy Rain

A large area of low pressure developed over the sub-tropics and moved northward . The relatively warm system moved slowly, and disturbances embedded within the southerly flow produced significant rains.

Heavy rainfall spread across most of Maricopa County, leaving some streets flooded, and many washes running. The heaviest amounts were in the Northwest valley, where many gages had between 3 and 4 inches of rain. One automatic gage near the White Tank mountains picked up 4.13 inches for its storm total.

Maricopa County

Phoenix

26	1640MST								
					0	0			Heavy Rain

The second major winter storm of February dropped between one and 2 inches of rain during a two-day period. Minor street flooding and small hail, about pea size, accompanied the storm.

Maricopa County

Carefree

27	1750MST								
					0	0			Hail (1.50)

Large hail in Carefree, reported by local TV station. Small hail was also reported by spotters in Phoenix just before 5 pm MST.

Storm Data and Unusual Weather Phenomena

February 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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ARKANSAS, Central and North Central

ARZ025-030>034-037>047-052>057-062>069	Jackson - Logan - Conway - Faulkner - White - Woodruff - Scott - Yell - Perry - Polk - Montgomery - Garland - Saline - Pulaski - Lonoke - Prairie - Monroe - Pike - Clark - Hot Spring - Grant - Jefferson - Arkansas - Dallas - Cleveland - Lincoln - Desha - Ouachita - Calhoun - Bradley - Drew						
24	1956CST				0 0		Winter Storm
25	0400CST						



In the picture: Snow covered the intersection of Highway 107 and Kiehl Avenue in Sherwood (Pulaski County) during the evening of 02/24/2003.

A major winter storm affected much of central and southern Arkansas from the 24th through the 25th. Precipitation began moving into western Arkansas late in the afternoon on the 24th, overspread the rest of the area and ended early in the morning on the 25th. A mixture of freezing rain, sleet and snow fell over the southern third of the state. Snowfall amounts in this area were on the order of an inch or two. A wide swath of snow and sleet occurred across the central third of the state. Snowfall amounts were mostly in the range of 4 to 8 inches, but isolated (unofficial) amounts of 8 to 12 inches were reported from east of Mena to Jessieville, Perryville and Mayflower. Very hazardous driving conditions resulted from the wintry precipitation, with numerous traffic accidents reported during the height of the storm.

ARZ025-031>034-038>039-041>047-052>057-062>069	Jackson - Conway - Faulkner - White - Woodruff - Yell - Perry - Montgomery - Garland - Saline - Pulaski - Lonoke - Prairie - Monroe - Pike - Clark - Hot Spring - Grant - Jefferson - Arkansas - Dallas - Cleveland - Lincoln - Desha - Ouachita - Calhoun - Bradley - Drew						
26	0214CST 0900CST				0 0		Ice Storm

An ice storm affected mainly the southeast half of Arkansas from the night of the 25th into the morning of the 26th. Freezing rain overspread the area from the southwest during the evening of the 25th and continued into the morning hours of the 26th. Freezing rain amounts of 1/4 to 1/3 inch were common, but isolated totals reached 1/2 to 2/3 of an inch. Icing occurred on already snow covered roads in some cases, with widespread hazardous driving conditions resulting. In general, ice buildup on power lines was minimal...and power outages were limited. It was estimated that between 5000 and 6000 customers across the area were without power for a period of time.

ARKANSAS, East

ARZ008>009-017>018-026>028	Randolph - Clay - Lawrence - Greene - Craighead - Poinsett - Mississippi						
06	0100CST 1100CST				0 0	7K	Heavy Snow

Heavy snow fell across much of northeast Arkansas. Most areas saw between 3 and 5 inches of snow with isolated area receiving as much as 6 inches.

Storm Data and Unusual Weather Phenomena

February 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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ARKANSAS, East

ARZ018

Greene

**09 1600CST
2000CST**

0

0

1K

Heavy Snow

Heavy snow fell across parts of Greene county with 2 inches of accumulation reported.

**ARZ018-026-028-
035>036-048>049**

Greene - Craighead - Mississippi - Cross - Crittenden - St. Francis - Lee

**25 0200CST
1200CST**

0

0

7K

Heavy Snow

Heavy snow fell across much of east Arkansas with most locations receiving 2 to 4 inches of snow.

ARKANSAS, Northwest

**ARZ001>002-010>011-
019>020-029** **Benton - Carroll - Washington - Madison - Crawford - Franklin - Sebastian**

**09 0430CST
1300CST**

0

0

Heavy Snow

Heavy snow fell across much of Northwest Arkansas during the morning hours before tapering off to flurries during the early afternoon hours. The heaviest snow occurred in Benton county as part of a band of heavy snow that extended southwest into Northeast Oklahoma. Some snowfall amounts included 8 inches at Pea Ridge, 7 inches at Siloam Springs, 5 inches at Eureka Springs, 5 inches at Fayetteville and 4 inches at Fort Smith. This snow caused hazardous road conditions. One fatality occurred as a car slid off Highway 59 three miles north of Van Buren and hit a tree. Several other accidents occurred across the area but no other serious injuries were reported.

ARZ001>002-010

Benton - Carroll - Washington

**23 0900CST
1800CST**

0

0

Heavy Snow

A powerful upper level system moving southeast into the area from the central Rockies produced heavy snow across the northwest corner of Arkansas from the mid morning hours into the late afternoon hours. Several accidents occurred due to the snow but no serious injuries were reported. Some snowfall amounts included 7 inches at Bella Vista, 6 inches at Eureka Springs and 5 inches at Bentonville, Siloam Springs, Berryville, Green Forrest, Fayetteville and Springdale.

**ARZ001>002-010>011-
019**

Benton - Carroll - Washington - Madison - Crawford

**26 0200CST
1000CST**

0

0

Winter Weather/Mix

A thin layer of ice formed on roads in Northwest Arkansas early in the morning as light freezing drizzle fell. The Arkansas State Police responded to nine accidents in Benton, Carroll, Washington and Madison counties. One particularly troublesome spot was at a ridge along Highway 71 near the Washington-Crawford border.

ARKANSAS, Southeast

ARZ074>075

Ashley - Chicot

**25 0230CST
1300CST**

0

0

100K

Ice Storm

Freezing rain caused 1/4 to 1/2 inch of ice to accumulate on trees and powerlines. This ice accumulation caused numerous trees and power lines to be knocked down.

ARKANSAS, Southwest

NONE REPORTED.

ATLANTIC OCEAN

**Little Egg Inlet To
Great Egg Inlet Nj Out
20Nm**

5 NE Brigantine

22 1441EST

0

0

Marine Tstm Wind

A band of thunderstorms produced wind gusts to 34 knots (39 mph) along the Atlantic/Ocean County border in the Beach Haven and Little Egg Inlets.

**Chesapeake Bay New
Pt Comfort To Cp
Henry Va**

**New Point Comfort to
Cape Henry**

22 1500EST

0

0

Marine Tstm Wind

A wind gust of 68 knots was measured at the Chesapeake Bay Bridge Tunnel.

**Chesapeake Bay New
Pt Comfort To Cp
Henry Va**

Kiptopeke

22 1506EST

0

0

Marine Tstm Wind

A wind gust of 39 knots was measured at Kiptopeke.

Storm Data and Unusual Weather Phenomena

February 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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ATLANTIC OCEAN

**Manasquan Inlet To
Little Egg Inlet Nj Out
20Nm**

5 SE Tuckerton 22 1500EST 0 0 0 Marine Tstm Wind

A band of thunderstorms produced wind gusts to 34 knots (39 mph) along the Atlantic and Ocean County border at the Beach Haven and Little Egg Inlets.

CALIFORNIA, Extreme Southeast

NONE REPORTED.

CALIFORNIA, North Central

NONE REPORTED.

CALIFORNIA, Northeast

CAZ072 Greater Lake Tahoe Area

15 1800PST 0 0 Heavy Snow

16 0600PST

Boreal Ski Area reported 12 inches of snow overnight.

CAZ072 Greater Lake Tahoe Area

15 1800PST 0 0 Heavy Snow

16 0600PST

Squaw Valley Ski Area reported 8 inches of snow overnight at the 6200 foot elevation.

CAZ072 Greater Lake Tahoe Area

15 1800PST 0 0 Heavy Snow

16 0615PST

Alpine Meadows Ski Area reported 12 inches of snow overnight at the 7000 foot elevation with 17 inches at 8600 feet.

CAZ072 Greater Lake Tahoe Area

15 1900PST 0 0 Heavy Snow

16 0630PST

CALTRANS reported 8-10 inches of new snow overnight in Meyers, CA and 12 inches at Echo Summit on U.S. Highway 50. Four inches of snow fell between 3 and 4 a.m. in Meyers.

CAZ072 Greater Lake Tahoe Area

15 1900PST 0 0 Heavy Snow

16 0700PST

8 inches of snow fell overnight in South Lake Tahoe, CA.

CAZ072 Greater Lake Tahoe Area

15 1900PST 0 0 Heavy Snow

16 0700PST

10 inches of snow reported overnight in Truckee, CA.

CAZ071 Lassen/Eastern Plumas/Eastern Sierra

15 1900PST 0 0 Heavy Snow

16 0700PST

CALTRANS reported 8 inches of new snow overnight at Yuba Pass.

CAZ073 Mono

16 0047PST 0 0 High Wind (G53)

Measured by automated sensor at Walker, CA.

CAZ073 Mono

16 0330PST 0 0 Heavy Snow

0530PST

6 inches of snow fell in Mammoth Lakes, CA during this 2-hour period.

CALIFORNIA, Northwest

NONE REPORTED.

CALIFORNIA, South Central

Fresno County

1.7 WNW (Fch) Chandle 01 0000PST 0 0 Wildfire

14 1500PST

See January 2003 description of the Marks-Nielson Fire.

CAZ096>097 S Sierra Mtns - Tulare Cty Mtns

01 0000PST 0 0 Drought

28 2359PST

Storm Data and Unusual Weather Phenomena

February 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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CALIFORNIA, South Central

With relatively mild temperatures, drier than normal conditions continue for the cool season of Interior Central California. Rainfall totals for areas north of the Tehachapi Mountains ranged from only 37% to 67% of normal for the month of February.

CAZ095-098>099

Kern Cty Mtns - Indian Wells Vly - Se Kern Cty Desert

01	1647PST				0	0	3K		Strong Wind
02	0830PST								

In a post-frontal environment, gusty northwest wind affected the Kern County and Desert areas late in the evening of the 1st and morning of the 2nd.

CAZ089>092

W Central S.J. Valley - E Central S.J. Valley - Sw S.J. Valley - Se S.J. Valley

03	0100PST				0	0			Frost/Freeze
10	0900PST								

This cool season for Interior Central California was very mild with only a few cold nights for the local agricultural concerns. This particular cool spell in February was one of the few multiple night frost events this season. While the mornings of the 3rd-7th and the 10th had minimum temperatures in the agricultural belt generally around 30F or higher, the mornings of the 8th and 9th saw temperatures dip into the mid to upper 20s. Readings on the 9th in the agricultural belt varied from 26F at Merced and Delano to 30F at Porterville, Visalia, Hanford, and Collins Corner northeast of Fresno. The coldest location was 24F reported at Coalinga on the 6th and 9th of the month.

CAZ091

Sw S.J. Valley

04	0600PST				0	3	20K		Dense Fog
	0900PST								

Patchy dense fog with visibility less than 100 feet was between Hanford and Selma on the morning of the 4th.

CAZ092

Se S.J. Valley

07	0355PST				0	0			Dust Storm
	0800PST								

CAZ092

Se S.J. Valley

07	0355PST				0	0	50K		Strong Wind
	0800PST								

Winds generally in the 40-50 MPH range but with some gusts measured to 60 MPH led to a trailer being towed overturning at the base of the Tehachapi Mountains as well as a gravel truck being overturned southeast of Bakersfield early on the morning of the 7th. Areas of near-zero visibility on Highway 223 south-southeast of Bakersfield were also reported due to blowing dust during the same time period. Power outages occurred in Maricopa, Arvin, and Bakersfield as the result of the strong wind on the South Valley floor.

CAZ091

Sw S.J. Valley

07	0400PST				0	1	100K		Dense Fog
	0800PST								

Excessive speed and seasonal dense fog lowering visibilities to less than 100 feet caused a crash between two trucks early on the 7th 2 miles northwest of Alpaugh in Southwest Tulare County.

Kern County

Grape Vine

11	0730PST				0	0			Heavy Rain
12	2100PST								

Kern County

Lamont

11	0730PST				0	0			Heavy Rain
12	2100PST								

Tulare County

Visalia

12	0500PST				0	0			Heavy Rain
	1700PST								

CAZ095

Kern Cty Mtns

12	0943PST				0	0	50K		Flood
	2359PST								

Significant rain amounts fell in the Tehachapi Mountains leading to runoff onto the Southern San Joaquin Valley floor around the Grapevine and Mettler. Furthermore, rain on the 12th resulted in street flooding in the South Valley town of Lamont with record rainfall of 0.91 inches for the day at Visalia in Tulare County. Mud slides were reported on the Grapevine just before 10 AM on the 12th due to the heavy rain. Mojave and Rosamond in the Kern County Desert had substantial sheet flow from the steady rain. Rock falls were reported on Highway 178 as it wound through the Kern River Canyon. In Sand Canyon near Tehachapi flooding forced the rescue of a motorist trapped by high water.

CAZ091>092-095

Sw S.J. Valley - Se S.J. Valley - Kern Cty Mtns

11	0922PST				0	0			High Wind (G71)
12	0800PST								

Low pressure southwest of the South California coast provided for gusty southeast wind over the Tehachapi Mountains and on the South San Joaquin Valley floor during the 11th. At the base of the Grapevine at the foot of the Tehachapi Mountains adjacent to the South San Joaquin Valley floor, wind gusts to 71 knots and steady wind of 57 knots were reported. In the adjacent Tehachapi Pass area of the Kern Mountains gusts to 43 knots were observed. On the South Valley floor Meadows Field at Bakersfield had wind gusts to 43 MPH.

Storm Data and Unusual Weather Phenomena

February 2003

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

CALIFORNIA, South Central

Kern County

China Lake	13	1140PST 2100PST			0	0			Heavy Rain
Locally heavy rain of 1.67" occurred during the day ending around 2100 PST. Sheet water flow continued to plague the low lying areas near Rosamond through this time period.									

Fresno County

Firebaugh	13	1604PST 1630PST			0	0			Funnel Cloud
Several reports of funnel cloud sitings were made in and around the west valley town of Firebaugh.									

Fresno County

1 NW Fig Garden	13	2145PST 2345PST			0	0	100K		Heavy Rain
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Fresno County

5 NE Kerman	13	2200PST 2240PST			0	0			Heavy Rain
Urban flooding to a depth of 3 feet occurred around Northwest Fresno due to heavy rain on the evening of the 13th. A harbinger of the event saw 1.4 inches of rain fall in the Kerman area by 2240 PST... then 1.91" at Madera Ranchos from 2200-2340 PST... and 2.5" between 2200 and 2300 PST with a total of 3.4" of rain between 2145 and 2345 PST in northwest Fresno.									

CAZ096

S Sierra Mtns	16	0300PST 0900PST			0	0			Winter Storm
A fast-moving cold front put 12 inches of new snow on the ground at Kaiser Point in the Southern Sierra Nevada early on the 16th.									

CAZ091>092-095-098>099

Sw S.J. Valley - Se S.J. Valley - Kern Cty Mtns - Indian Wells Vly - Se Kern Cty Desert	19 20	1430PST 1213PST			0	0	28K		Strong Wind
Cold-frontal passage brought strong north wind to the southern portion Interior Central California late afternoon and early evening of the 19th. In the Kern County Desert area some power line damage was reported along Highway 14 along with blowing dust/sand from the situation. Wind speed gusts were generally 40-50 MPH with one isolated report of 74 knots at Government Peak in the Southeast Kern Desert early on the morning of the 20th. On the South San Joaquin Valley floor wind speeds reached 37 MPH at Hanford and 44 MPH at Bakersfield. The strong wind caused a major power outage affecting 12,000 customers in the city of Lemoore and an additional 18,000 customers elsewhere in Kings and Southwest Fresno Counties.									

Tulare County

Visalia	19	1530PST 1535PST			0	0			Funnel Cloud
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Tulare County

Cutler	19	1630PST 1635PST			0	0			Funnel Cloud
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CAZ095

Kern Cty Mtns	24 25	1700PST 0300PST			0	0			Winter Storm
High amounts of snow were reported above the 6000 foot level in the Kern County Mountains on the 24th. Significant amounts of snow (5-7") were reported in the Tulare County Mountains but did not reach warning threshold levels.									

CALIFORNIA, Southeast

NONE REPORTED.

CALIFORNIA, Southwest

CAZ048	02	San Bernardino County Valley/The Inland Empire 0400PST 1000PST			0	0	15K		High Wind (G45)
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CAZ061	02	Coachella Valley 0400PST 1000PST			0	0	15K		Dust Storm
High winds blew trees down in the communities of Redlands, Jurupa, and Riverside. Blowing sand and dust disrupted traffic and outdoor activities in the Coachella Valley.									

San Diego County

Miramar to 3 W Escondido	11	0800PST 1119PST			0	1	20K		Urban/Sml Stream Fld
Heavy rains caused Escondido Creek to overflow it's bank in the Harmony Grove area. One motorist had to be rescued after his vehicle stalled while trying to cross a flooded roadway.									

Storm Data and Unusual Weather Phenomena

February 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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CALIFORNIA, Southwest

San Bernardino County

Fontana to	11	0915PST			0	2	300K		Urban/Sml Stream Fld
Victorville	14	0600PST							

San Diego County

Escondido to	11	1045PST			0	1	50K		Urban/Sml Stream Fld
La Mesa	13	2300PST							

Riverside County

Perris to	13	1017PST			0	0	100K		Urban/Sml Stream Fld
Menifee		1700PST							

A warm wet storm dropped 5 to 10 inches of rain over the mountains and 2 to 4 inches across the valleys and coast over a three day period. Parts of Interstate 215 near Devore, and Interstate 15 in Fontana were flooded. Street flooding was reported in many valley and coastal locations, and also in the Apple Valley. Mud and rock slides blocked Highway 18 in the San Bernardino mountains. Moderate erosion occurred to levees along washes and creeks leading through the foothills and at the base of the mountains. Several commercial buildings had roofs collapse from backed up rainwater.

Orange County

Laguna Beach	11	1749PST			0	0			Urban/Sml Stream Fld
		1907PST							

Aliso Creek flooded Pacific Coast Highway at it's crossing in Laguna Beach.

San Diego County

2.5 W San Ysidro	14	0600PST			1	0			Urban/Sml Stream Fld
		0700PST							

Two men tried to wade across the rain-swollen Tijuana River near the Hollister Street bridge before dawn. One man was swept away and drowned. M22IW

San Diego County

5 N La Jolla	15	1600PST			1	0			Rip Currents
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A swimmer was caught in a rip current off Torrey Pines State Beach and drowned. F34IW

San Bernardino County

Fontana to	24	1800PST			0	0	100K		Heavy Rain
San Bernardino	26	0900PST							

CAZ055>056-058

San Bernardino County Mountains - Riverside County Mountains - San Diego County Mountains	25	0030PST			0	0	200K		Heavy Snow
		1600PST							

Orange County

Fullerton to	25	0107PST			0	1	150K		Heavy Rain
San Clemente	27	2100PST							

CAZ060

Apple And Yucca Valleys	25	0400PST			0	0			Winter Weather/Mix
		1600PST							

Riverside County

Temecula to	25	0623PST			0	24	250K		Heavy Rain
San Jacinto	27	2100PST							

San Diego County

Oceanside to	25	0733PST			1	3	250K		Heavy Rain
San Ysidro	27	2200PST							

M42IW

Orange County

Irvine	25	1148PST			0	0			Flash Flood
		1208PST							

Twelve to eighteen inches of snow fell in the San Bernardino Mountains above 7000 feet. In the San Jacinto Mountains of Riverside County, 11 to 20 inches fell between 5600 feet and the ridgetop. In the Laguna Mountains of San Diego County, 8 to 13 inches of snow fell. Interstate 15 was closed for several hours due to heavy snowfall in the Cajon Pass. Snow fell as low as 3200 feet. Accumulations over 6 inches were reported around 4000 feet. The heavy snow caused tree branches to break and fall onto power lines. Urban and small stream flooding was reported in Apple Valley where one inch of rain fell. West of the mountains, 1 to 4 inches of rain fell. Low lying areas in San Bernardino flooded. Two homes were flooded in Glen Avon, and many roads between Moreno Valley and Perris were flooded. Canyon Lake overflowed it's spillways. Rapid water rises were reported in the south and east portions of Irvine. Street flooding was reported along the coast between Oceanside and Mission Beach. Further inland, one man drowned while wading a swollen creek near Rainbow. Flooding of low lying areas and roads was observed from Fallbrook to Spring Valley.

Storm Data and Unusual Weather Phenomena

February 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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CALIFORNIA, Upper

CAZ082-082

South Central Siskiyou County

16 1800PST **0 0** **Heavy Snow**

Mount Shasta Ski Park at elevation 7600 feet recorded 13 inches of snow in 14 hours ending at 1800 PST.

The above observations were recorded at altitudes above the warning range, which extends up to 6000 feet. However, it is likely that snow amounts that would verify a warning occurred below 6000 feet. A Winter Storm Warning was issued for California zones CAZ080/082 above 4000 feet at 1400 PST on 02/14 and expired at 0500 PST on 02/16.

CALIFORNIA, West South Central

CAZ047-059-059

Los Angeles County Valleys - Antelope Valley

12 1212PST **0 0** **Flood**
2215PST

A powerful winter storm brought heavy rain to Southern California and especially Los Angeles county. Rainfall totals over coastal areas ranged from 1 to 5 inches with higher amounts in the mountains. Widespread flooding was reported across Los Angeles county in such communities as Quartz Hill and Van Nuys.

Ventura County

1 W (Ntd)Nas Point Mu; 24 0800PST **0 0** **Funnel Cloud**

A weather observer at the Point Mugu Naval Base reported a funnel cloud offshore of the base.

CAZ053>054

Ventura County Mountains - Los Angeles County Mountains Excluding The Santa Monica Range

24 1300PST **0 0** **Winter Storm**
25 0900PST

A winter storm brought heavy snow and gusty winds to the mountains of Ventura and Los Angeles counties. Snowfall totals ranged between 3 and 12 inches at elevations below 7000 feet to between 12 and 24 inches above 7000 feet. Gusty winds between 35 and 50 mph combined with the heavy snow to reduce visibilities to near zero at times during the snow event.

CALIFORNIA, Western

NONE REPORTED.

CARIBBEAN SEA AND TROPICAL ATLANTIC

Atl Nearshore Waters

Rio Guajataca Pr Ewd

Thru Usvi

San Juan 11 0803AST **0 0** **Waterspout**
0833AST

The FAA observer at the Luis Muñoz Marin International airport tower sighted a waterspout about 5 miles north of the airport. No movement was reported but doppler radar detected showers moving west at 15 mph.

Deerfield Beach To

Ocean Reef Fl

8 NE Port Everglades 20 1648EST **0 0** **Waterspout**

A pilot reported a waterspout in the Atlantic.

Cocoa Beach To

Jupiter Inlet Fl Out

20Nm

Vero Beach 21 1419EST **0 0 0 0** **Marine Tstm Wind**

A thunderstorm wind gust to 34 knots was recorded at Vero Beach Airport.

Cocoa Beach To

Jupiter Inlet Fl Out

20Nm

Vero Beach 21 2238EST **0 0 0 0** **Marine Tstm Wind**

A thunderstorm wind gust to 34 knots was recorded at Vero Beach Airport.

Flagler Beach To Cocoa

Beach Fl Out 20Nm

5 N Port Canaveral 28 1455EST **0 0 0 0** **Marine Tstm Wind**

A thunderstorm wind gust to 34 knots was recorded at NASA weather tower 42.

COLORADO, Central and Northeast

COZ035>036

Larimer & Boulder Counties Between 6000 & 9000 Feet - Jefferson & W Douglas Counties Above 6000 Feet / Gilpin / Clear Creek / Ne Park Counties Below 9000 Feet

05 1800MST **0 0** **Heavy Snow**
06 1500MST

Heavy snow fell across portions of the Front Range Foothills. Snowfall totals included: 17 inches at Genesee, 16 inches at Lookout Mountain, 11 inches at Chief Hosa, 7 miles southwest of Boulder and 3 miles southeast of Indian Hills, 10.5 inches at Gold Hill and 10 inches at Intercanyon and 4 miles east-northeast of Conifer.

Storm Data and Unusual Weather Phenomena

February 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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COLORADO, Central and Northeast

COZ033>034-036-039 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 - Jefferson & W Douglas Counties Above 6000 Feet / Gilpin / Clear Creek / Ne Park Counties Below 9000 Feet - Boulder & Jefferson Counties Below 6000 Feet / W Broomfield County

09	1800MST	0	0	High Wind (G70)
10	1133MST			

High winds blew across the North-Central Mountains as well as areas in and near the Front Range Foothills. Peak wind gusts included: 80 mph (70 kts), 1.5 miles south of Fritz Peak, 75 mph (65 kts) atop Corona Pass, 73 mph (63 kts) atop Blue Mountain and at the National Wind Technology Center and 70 mph (61kts) at Rocky Flats. At least four multi-car accidents occurred along State Highway 93, between Golden and Boulder, as blowing snow caused whiteout conditions during the afternoon and evening hours.

COLORADO, East Central

NONE REPORTED.

COLORADO, South Central and Southeast

COZ079-081-087 Wet Mountains Between 8500 And 10000 Ft - Teller County / Rampart Range Above 7500 Ft / Pikes Peak Between 7500 & 11000 Ft - Walsenburg Vicinity / Upper Huerfano River Basin Below 7500 Ft

02	2000MST	0	0	Heavy Snow
03	0700MST			

An upper level weather disturbance moving across the region produced some heavy snow...including 6 inches around Beulah in Pueblo county, Divide in Teller county and Walsenburg in Huerfano county. Nine inches of snow occurred at Rye in Pueblo county.

COZ072>073-077>088 Northern Sangre De Cristo Mountains Between 8500 & 11000 Ft - Northern Sangre De Cristo Mountains Above 11000 Ft - West / Central Fremont County Below 8500 Ft - Westcliffe Vicinity / Wet Mountain Valley Below 8500 Ft - Wet Mountains Between 8500 And 10000 Ft - Wet Mountains Above 10000 Ft - Teller County / Rampart Range Above 7500 Ft / Pikes Peak Between 7500 & 11000 Ft - Pikes Peak Above 11000 Ft - Canon City Vicinity / Eastern Fremont County - Northern El Paso County / Monument Ridge / Rampart Range Below 7500 Ft - Colorado Springs Vicinity / Southern El Paso County / Rampart Range Below 7500 Ft - Pueblo Vicinity / Pueblo County Below 6300 Ft - Walsenburg Vicinity / Upper Huerfano River Basin Below 7500 Ft - Trinidad Vicinity / Lower Huerfano River Basin & Western Las Animas County Below 7500 Ft

05	1500MST	0	0	Heavy Snow
06	2300MST			

An upper level disturbance produced widespread snow across the region, and heavy snow across the southeast mountains and adjacent plains. Some of the heavier snow totals include the following: 6 inches in Black Forest and Monument in El Paso county and around Westcliffe in Custer county. Eight inches of snow was noted in the vicinity of Colorado City and Pueblo county and Penrose in Fremont county. Nine inches fell around Aguilar in Las Animas county and Victor in Teller county. Ten inches occurred at Fountain in El Paso county...La Veta in Huerfano county and Rye in Pueblo county. Eleven inches fell around Beulah in Pueblo county. Up to 14 inches accumulated in the vicinity of Walsenburg in Huerfano county.

COZ072 Northern Sangre De Cristo Mountains Between 8500 & 11000 Ft

09	0615MST	0	0	High Wind (G87)
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An isolated high wind event with a gust to 100 mph was logged 7 miles west of Westcliffe. Very strong northwest flow was evident.

COZ072-087 Northern Sangre De Cristo Mountains Between 8500 & 11000 Ft - Walsenburg Vicinity / Upper Huerfano River Basin Below 7500 Ft

10	1240MST	0	0	High Wind (G69)
	1625MST			

A brief high wind event was recorded in the Sangre de Cristo mountains to the Walsenburg area. An empty truck was blown over near Walsenburg on Interstate 25.

COZ068 Eastern San Juan Mountains Above 10000 Ft

13	0100MST	0	0	Heavy Snow
	1500MST			

A mild upper disturbance brought snow to the higher elevations of the eastern San Juan mountains...with 7 inches measured at the summit of Wolf Creek Pass in Mineral county.

COZ072>075-079>085-087 Northern Sangre De Cristo Mountains Between 8500 & 11000 Ft - Northern Sangre De Cristo Mountains Above 11000 Ft - Southern Sangre De Cristo Mountains Between 7500 & 11000 Ft - Southern Sangre De Cristo Mountains Above 11000 Ft - Wet Mountains Between 8500 And 10000 Ft - Wet Mountains Above 10000 Ft - Teller County / Rampart Range Above 7500 Ft / Pikes Peak Between 7500 & 11000 Ft - Pikes Peak Above 11000 Ft - Canon City Vicinity / Eastern Fremont County - Northern El Paso County / Monument Ridge / Rampart Range Below 7500 Ft - Colorado Springs Vicinity / Southern El Paso County / Rampart Range Below 7500 Ft - Walsenburg Vicinity / Upper Huerfano River Basin Below 7500 Ft

18	0700MST	0	0	Heavy Snow
19	0700MST			

An upper level weather disturbance combining with moist upslope flow produced heavy snow amounts across portions of south central

Storm Data and Unusual Weather Phenomena

February 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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COLORADO, South Central and Southeast

and southeast Colorado. Some of the heavier snow totals are as follows:
6 to 7 inches around Beulah in Pueblo county and Colorado Springs and Manitou Springs and El Paso county. Seven inches fell west southwest of Wetmore in Custer county. Eight to 9 inches was measured at the Air Force Academy in El Paso county and in Florence in Fremont county. Isolated heavier amounts occurred in the following locations: 10 inches at La Veta in Huerfano county and the area up against the northern Sangre de Cristo mountains 7 miles west of Westcliffe. Eleven inches covered Cuchara in Huefano county, and an area approximately 15 miles to the southwest of Colorado Springs. A foot of snow fell on Penrose in Fremont county and Yoder in El Paso county...while 13 inches of snow was noted at Falcon in El Paso county. Finally, 14 inches of snow occurred in Canon City in Fremont county.

COZ059>060 **Leadville Vicinity / Lake County Below 11000 Ft - Eastern Sawatch Mountains Above 11000 Ft**
 21 1500MST 0 0 Heavy Snow
 22 1100MST

An upper level weather disturbance brought heavy snow to the higher elevations of the Upper Arkansas River Basin. Six inches of snow was noted at the Monarch Ski Area in Chaffee county, while 7 inches of snow occurred at Leadville in Lake county.

COZ066>068 **La Garita Mountains Above 10000 Ft - Upper Rio Grande Valley / Eastern San Juan Mountains Below 10000 Ft - Eastern San Juan Mountains Above 10000 Ft**
 24 1500MST 0 0 Heavy Snow
 28 1500MST

Two moist upper level storm system produced copious amounts of snow over the higher portions of the eastern San Juan and La Garita mountains. Many areas above 9500 feet received 12 to 36 inches of snow during the prolonged event.

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 Drought
 28 2359MST

Despite many significant snowfall events in the mountains and some northern valleys of western Colorado, extreme drought conditions persisted throughout western Colorado. Please see the March 2003 Storm Data publication for a continuation of this drought saga.

COZ003-009>010-012>013-017>018 **Roan And Tavaputs Plateaus - 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**
 02 0600MST 0 0 Winter Weather/Mix
 04 0300MST

A storm system moved across western Colorado and produced significant snowfall across the southern and central mountains, and portions of the northern mountains. Snowfall amounts ranged from 5 to 10 inches according to SNOTEL data. Widespread amounts from 9 to 10 inches occurred across the northwest San Juan Mountains, the Uncompahgre Plateau, and the West Elk and Sawatch Mountains.

COZ002 **Central Yampa River Basin**
 02 0800MST 0 0 Winter Weather/Mix
 04 0200MST

A cold storm system produced significant snowfall across the central Yampa River Basin in northwest Colorado. Widespread snowfall amounts of three inches occurred across the area.

COZ018 **Northwestern San Juan Mountains**
 06 1250MST 0 0 Landslide
 1255MST

A large rock slide covered US Highway 550 about two miles south of Ouray, shutting down the highway for several hours. Melted snow percolating through the mountain may have been responsible for loosening the rocks and boulders.

COZ019 **Southwestern San Juan Mountains**
 12 2100MST 0 0 Heavy Snow
 14 0400MST

A moist southwest flow ahead of a potent storm system resulted in heavy snowfall across the southwestern San Juan Mountains. SNOTEL data and reports from the Colorado Avalanche Information Center indicated 8 to 18 inches of snowfall across the area.

COZ004-009>010-012>013-017>018 **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**
 12 2100MST 0 0 Winter Weather/Mix
 14 0400MST

Widespread significant snowfall occurred across the mountains of western Colorado as a moist Pacific storm system moved across the

Storm Data and Unusual Weather Phenomena

February 2003

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COLORADO, West

COZ004-009>010-012>013-017>019

area. Snowfall accumulations ranged from 6 to 12 inches with local amounts up to 16 inches based on SNOTEL data.
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

17	1800MST	0	0						Winter Weather/Mix
18	1400MST								

A storm system produced significant snowfall across the mountains of western Colorado. SNOTEL data indicated widespread snowfall amounts ranging from 5 to 12 inches throughout the mountains of western Colorado. Local amounts from 14 to 19 inches were reported across the San Juan Mountains.

COZ004

Elkhead And Park Mountains

21	0100MST	0	0						Winter Storm
	2100MST								

An upper level disturbance combined with strong upslope flow resulted in heavy snow and strong winds across the Elkhead and Park Mountains in northwest Colorado. Snowfall amounts ranged from 12 to 18 inches. A sustained wind of 38 mph with a gust to 61 mph was measured at the Storm Peak Laboratory.

COZ005-010-013

Upper Yampa River Basin - Gore And Elk Mountains/Central Mountain Valleys - Flattop Mountains

21	0100MST	0	0						Winter Weather/Mix
	2100MST								

An upper level disturbance combined with orographic lift to produce significant snow across portions of the central and northern mountains. Snowfall ranged from 5 to 11 inches across the Upper Yampa River Valley, and the Flat Tops, Gore, and Elk Mountains.

COZ004-010-013

Elkhead And Park Mountains - Gore And Elk Mountains/Central Mountain Valleys - Flattop Mountains

22	1000MST	0	0						Heavy Snow
23	0300MST								

A strong and fast moving storm system produced heavy snow across the mountains of northwest Colorado, and portions of the west-central mountains. SNOTEL data indicated 12 to 18 inches fell across the Elkhead, Park, and Flat Tops Mountains. Snowfall amounts from 9 to 16 inches occurred across the portions of the Gore and Elk ranges.

COZ002-005

Central Yampa River Basin - Upper Yampa River Basin

22	1200MST	0	0						Winter Weather/Mix
23	0300MST								

A fast moving storm system produced significant snowfall across the high valleys of northwest Colorado. Widespread snowfall amounts of 5 inches occurred from Hayden to Steamboat Springs in the central and upper Yampa River Basin.

COZ009-012

Grand And Battlement Mesas - West Elk And Sawatch Mountains

22	1200MST	0	0						Winter Weather/Mix
23	0300MST								

A fast moving storm system produced significant snowfall across the central mountains of western Colorado. SNOTEL data indicated widespread 5 to 10 inch amounts across the Grand and Battlement Mesas, as well as the West Elk and Sawatch Mountains.

Montezuma County

1.5 N Cortez

22	1730MST	0	0		20K				Thunderstorm Wind (G45)
	1740MST								

An apparent microburst from a late winter thunderstorm struck a rural area just north of Cortez. The strong winds tore a section of a roof off a house and damaged some out buildings.

COZ004

Elkhead And Park Mountains

23	0000MST	0	0						Heavy Snow
	2300MST								

An upper level trough followed by northwest flow brought heavy snow to the northern mountains of western Colorado. SNOTEL data and ski resort observations indicated snowfall amounts from 8 to 14 inches across the Elkhead and Park mountains with local amounts from 20 to 24 inches.

COZ013

Flattop Mountains

23	0000MST	0	0						Winter Weather/Mix
	2359MST								

An upper level trough moved across the area resulting in snowfall amounts from 5 to 9 inches across the Flattops, West Elk and Sawatch Mountains. Snowfall amounts were primarily obtained from SNOTEL data.

COZ004-013

Elkhead And Park Mountains - Flattop Mountains

24	1900MST	0	0						Heavy Snow
25	1500MST								

A strong and moist Pacific storm system produced snowfall amounts generally from 1 to 2 feet across the northern mountains of western Colorado. Snow accumulations of 29 inches occurred at the Rabbit Ears Pass SNOTEL in the Park Mountains, and 27 inches fell at the Ripple Creek SNOTEL in the Flat Tops Mountains.

COZ010

Gore And Elk Mountains/Central Mountain Valleys

24	1900MST	0	0						Heavy Snow
25	1500MST								

A strong Pacific storm system produced heavy snow across the Gore and Elk Mountains in west-central Colorado. The heaviest amounts

Storm Data and Unusual Weather Phenomena

February 2003

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COLORADO, West

COZ002>003-005

occurred at the Vail Mountain SNOTEL and Vail Ski Area where 14 to 15 inches fell, respectively.

Central Yampa River Basin - Roan And Tavaputs Plateaus - Upper Yampa River Basin

24	2000MST								
		0	0						Heavy Snow
25	1500MST								

A strong Pacific storm system combined with cold air from the north to produce widespread heavy snow across the high valleys and plateau areas of northwest Colorado. Snowfall amounts ranged from 7 inches to over one foot. The heaviest snowfall occurred in the upper Yampa River Basin where up to 18 inches accumulated at Clark and Stage Coach.

COZ001

Lower Yampa River Basin

24	2000MST								
		0	0						Winter Weather/Mix
25	1500MST								

A strong Pacific storm system combined with cold air from the north to produce widespread moderate snowfall across the lower Yampa River Basin in northwest Colorado. Snowfall amounts ranged from 3 to 5 inches.

COZ009-012-017>019

Grand And Battlement Mesas - West Elk And Sawatch Mountains - Uncompahgre Plateau And Dallas Divide - Northwestern San Juan Mountains - Southwestern San Juan Mountains

24	2200MST								
		0	0						Heavy Snow
28	1100MST								

A series of strong and moist Pacific storm systems brought a prolonged period of snowfall to the central and southern mountains of western Colorado. Periods of moderate to heavy snow lasted for over three days with snowfall totals ranging from two to four feet. The heaviest amounts according to SNOTEL data were 59 inches at Columbine Pass on the Uncompahgre Plateau, 53 inches at Park Reservoir on the Grand Mesa, and 47 inches at Spud Mountain in the San Juan Mountains.

COZ014

Upper Gunnison River Valley

25	0300MST								
		0	0						Winter Weather/Mix
26	0300MST								

A strong Pacific storm system combined with cold air from the north to produce moderate snowfall across the upper Gunnison River Valley. Snowfall amounts ranged from 3 to 5 inches according to the county sheriff's office.

COZ021>023

Four Corners / Upper Dolores River Basin - Animas River Basin - San Juan River Basin

25	0900MST								
		0	0						Heavy Snow
26	1500MST								

A series of moist Pacific storm systems produced heavy snow across the valleys of southwest Colorado. Snowfall accumulations ranged from 6 to 14 inches with the heaviest amounts generally occurring across the higher terrain adjacent to the San Juan Mountains. Scattered thunderstorms produced local snowfall rates of 1 to 2 inches an hour during the afternoon and evening hours of the 25th.

COZ007>008

Debeque To Silt Corridor - Central Colorado River Basin

25	0900MST								
		0	0						Winter Weather/Mix
	1500MST								

A strong Pacific storm system produced moderate snowfall along the Interstate 70 corridor in the central and upper Colorado River Basin. According to weather spotters, snowfall ranged from 3 inches at Battlement Mesa to around 6 inches at Avon

COZ021>023

Four Corners / Upper Dolores River Basin - Animas River Basin - San Juan River Basin

27	1600MST								
		0	0						Heavy Snow
28	1100MST								

A strong and moist Pacific storm system moved over the four corners area and produced heavy snow across the lower elevations of southwest Colorado. The airmass was very unstable resulting in scattered thunderstorms and snowfall rates of 1 to 2 inches an hour during the evening of February 27th. In Montezuma county, 8 inches accumulated at Mesa Verde National Park, 9 inches fell at Dolores, and 12 inches accumulated at Mancos. In La Plata and Archuleta counties, 8 inches fell near Ignacio and Arboles.

COZ006

Grand Valley

28	0000MST								
		0	0						Winter Weather/Mix
	0600MST								

A disturbance moving across the area in a moist westerly flow produced a band of snow across the Grand Valley resulting in 2 to 4 inches of snowfall across the area. The heaviest snowfall occurred approximately 6 miles northwest of Grand Junction.

COZ020

Paradox Valley / Lower Dolores River Basin

28	0000MST								
		0	0						Winter Weather/Mix
	1100MST								

A disturbance moving through a moist westerly flow resulted in 3 to 6 inches of snowfall across the area. Some of the heaviest snow fell in the Egnar area where 5 to 6 inches was reported.

CONNECTICUT, Northeast

CTZ002>004

Hartford - Tolland - Windham

07	0500EST								
		0	0						Winter Storm
08	1900EST								

A winter storm passing southeast of Nantucket brought heavy snow to northern Connecticut. Totals of 5 to 10 inches were common in Hartford, Tolland, and Windham counties with the greatest amounts reported in Windham County. No significant storm damage was reported, mainly due to the fluffy, light nature of the snow as temperatures dropped into the teens and 20s during the height of the storm. The main impact was on travel, as motorists failed to negotiate slick roadways. State police handled dozens of fender-benders on the highways but no injuries were reported.

Storm Data and Unusual Weather Phenomena

February 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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CONNECTICUT, Northeast

Officially, the storm total at Bradley International Airport in Windsor Locks was 5.3 inches. Other snowfall totals as reported by trained spotters included 12 inches in Woodstock; 11 inches in Mansfield, Thompson, and South Killingly; 10 inches in East Hartford, Glastonbury, Storrs, Stafford Springs, Ashford, Pomfret, and Danielson; 8 inches in Farmington, Newington, Hartford, East Windsor, and Coventry; and 6 inches in Granby.

CTZ002>004

Hartford - Tolland - Windham

17	1000EST								
18	2300EST			0	0				Winter Storm

A major winter storm impacted southern New England with heavy snow and strong winds as it tracked southeast of Nantucket. Snowfall totals of 12 to 20 inches were widely observed in Hartford, Tolland, and Windham counties. No significant damage was reported due to the storm, primarily since the snow was fluffy and light with temperatures in the teens and 20s. Impact on travel was minimal, since the storm affected the region on Presidents Day and most schools were closed that week. However, there were numerous reports of minor accidents as a result of slippery roads. No injuries were reported.

Officially, the storm total at Bradley International Airport in Windsor Locks was 15.0 inches. This set a new daily snowfall record, breaking the previous record of 7.6 inches which fell on the same date in 1952.

Other snowfall totals, as reported by trained spotters, included 20 inches in Hartford, Manchester, and Union; 18 inches in Farmington, Wethersfield, Glastonbury, Andover, and Woodstock; 16 inches in West Hartford and Storrs; 15 inches in Simsbury, Newington, Mansfield, Ashford, and Thompson; and 14 inches in Unionville.

CTZ002

Hartford

23	2100EST								
	2330EST			0	0	15K			Strong Wind

Strong winds brought down power lines and knocked out electrical service to customers in Avon, Canton, and Simsbury. In all, about 6,000 customers were left without power.

CONNECTICUT, Northwest

CTZ001

Northern Litchfield

17	1100EST								
18	0200EST			0	0				Winter Storm

On February 17, a low pressure area developed in the Tennessee Valley and tapped into copious Gulf of Mexico moisture. At the same time, a strong arctic high built southward from eastern Canada, then drifted east into the Gulf of Maine. The low pressure area rapidly redeveloped off the North Carolina coast, then tracked northeast, and was east of Cape Cod by early February 18. This storm delivered the fifth major snowstorm of this season to Litchfield County. A swath of 9 to 18 inches of snow blanketed northwest Connecticut. Some selected specific amounts included 17.9 inches at Bakersville, 9 inches at Norfolk and 13.3 inches at Winsted. A northeast wind between 10 to 25 mph produced some minor blowing and drifting of the snow.

CONNECTICUT, Southern

CTZ005>012

Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex - Southern New London

07	1130EST								
	1600EST			0	0				Heavy Snow

As a low pressure system developed off the Mid Atlantic Coast, heavy snow occurred throughout the region.

Snowfall amounts ranged from 6 to near 10 inches. Here are selected specific snowfall amounts for:

Fairfield County: from 6.0 inches at Sherman to 9.1 inches at Danbury. At Sikorsky Airport in Bridgeport, 7.0 inches was measured.

New Haven County: from 6.0 inches at West Haven to 8.5 inches at Wolcott.

Middlesex County: from 6.3 inches at Old Saybrook to 8.0 inches at Haddam.

New London County: from 6.0 inches at East Lyme to 9.5 inches at Colchester.

CTZ005>012

Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex - Southern New London

17	0500EST								
18	0000EST			0	0				Heavy Snow

With an exceptionally strong high pressure system over New England, a low pressure system developed off the Mid Atlantic Coast. Periods of light snow developed as northeast winds increased to around 15 mph across Southern CT Sunday evening, February 16th. Snow became widespread and heavy, falling at rates up to 2 to 3 inches per hour Sunday night and Monday, February 17th. Heavy snow blown by northeast winds 20 to 30 mph caused near blizzard conditions throughout the area. Record heavy snowfalls crippled mass transit. In addition, widespread minor tidal flooding accompanied this system.

Storm Total Snowfall ranged from around 13 to 24 inches.

Storm Data and Unusual Weather Phenomena

February 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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CONNECTICUT, Southern

Here are selected specific snowfall amounts for:

Fairfield County: from 16.0 inches at Norwalk to 24.0 inches at New Fairfield. At Sikorsky Airport in Bridgeport, 17.0 inches was measured.

New Haven County: from 15.0 inches at Milford to 24.0 inches at Wolcott.

Middlesex County: from 15.0 inches at Haddam to 15.7 inches at Old Saybrook.

New London County: from 13.0 inches at Taftville to 21.0 inches at Preston.

DELAWARE

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

04	1300EST 1700EST	0	0	1K	Strong Wind
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An intensifying low pressure system moved from the Great Lakes the morning of the 4th into the Canadian Maritimes the morning of the 5th. Its associated cold front passed through Delaware during the day on the fourth. Strong gusty northwest winds accompanied the front and persisted for several hours behind it during the afternoon of the 4th. The peak wind gust at the Dover AFB and the New Castle County Airport was 48 mph and in Georgetown was 41 mph.

DEZ001>002

New Castle - Kent

06	2030EST	0	0	Heavy Snow
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07	1300EST			
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DEZ003

Inland Sussex

06	2030EST	0	0	Winter Storm
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07	1300EST			
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DEZ004

Delaware Beaches

06	2030EST	0	0	Winter Weather/Mix
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07	1300EST			
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A winter storm that lasted about eighteen hours dropped about 5 to 8 inches of snow across Kent and New Castle Counties and from less than one inch to around five inches in Sussex County. Snow moved into the region during the evening of the sixth and fell at a fairly steady rate throughout the event. Precipitation mixed with sleet and rain across Sussex County which held accumulations down. The highest accumulations in Sussex County were in the northwest part of the county. The winter storm ended during the early afternoon of the 7th. Specific accumulations included 8.0 inches in Woodside (Kent County), 6.8 inches in Newark (New Castle County), 6.0 inches at the New Castle County Airport and Harrington (Kent County), 5.3 inches at the Dover Air Force Base, 5.0 inches in Lincoln (Sussex County), 3.0 inches in Greenwood and Milford (Sussex County), 1.5 inches in Georgetown (Sussex County) and 0.5 inches in Ocean View (Sussex County). The low pressure system responsible for the snow formed across the Gulf Coast States during the day on the 6th and moved quickly northeast to near Elizabeth City, North Carolina the morning of the 7th and well offshore by that evening. While the low pressure system itself was relatively weak and a fast mover, precipitation intensity was aided by a strong subtropical jet which brought moisture from the tropical Pacific Ocean into the region.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

10	0800EST 1800EST	0	0	0	Winter Weather/Mix
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The combination of a low pressure system that moved off the South Carolina coast and a cold front that moved through from the Great Lakes caused snow to fall during the daylight hours of the 10th across Delaware. Accumulations were mainly between one and two inches with the highest amounts in Sussex County. Since temperatures were either at or slightly above the freezing mark, the snow did not stick to roadways, but mainly accumulated on snow covered surfaces.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

12	0800EST 1500EST	0	0	1K	Strong Wind
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A strong cold front moved through Delaware during the morning of the 12th. Gusty west winds accompanied the passage and continued for several hours into the early afternoon. Peak wind gusts averaged between 40 and 45 mph. The gusty winds caused blowing and drifting snow, especially on roadways with western exposure. Peak wind gusts included 44 mph at Dover Air Force Base, 42 mph at Lewes (Sussex County) and Delaware City (New Castle County) and 41 mph at the New Castle County Airport.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

15	0000EST 1800EST	0	0	0	Winter Weather/Mix
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A weak low pressure system brought light snow to the northern half of Delaware and a mixture of light rain, freezing rain and light snow to the southern half of Delaware. In New Castle County, precipitation fell as light snow and ended during the morning of the 15th. In Kent County, precipitation fell mainly as light snow, but was mixed with rain at times prior to sunrise on the 15th. The steadiest snow was over during the morning, but intermittent light snow continued into the afternoon. In Sussex County, precipitation began as light rain and slowly transitioned to freezing rain during the morning of the 15th and then to light snow by the afternoon of the 15th before ending toward evening. Untreated roadways were slippery. The highest accumulations were in Kent County, but due to the freezing rain some of the most treacherous driving conditions were in Sussex County. Specific accumulation included 3.0 inches at Dover Air Force Base, 2.2 inches in Bear (New Castle County), 2.0 inches in Harrington (Kent County), 1.0 inch at the New Castle County Airport and

Storm Data and Unusual Weather Phenomena

February 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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DELAWARE

Milford (Sussex County) and just a trace in Georgetown (Sussex County) The low pressure system responsible for the light precipitation scooted from west to east across Kentucky and Virginia during the first half of the day on the 15th before heading offshore. In its wake a large high pressure system started to build southeast from nearby Canada and helped set the stage for the most significant snowstorm in seven years.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

16	0300EST	0	0	4.4M	Winter Storm
17	1600EST				

DEZ003>004

Inland Sussex - Delaware Beaches

17	0300EST 0900EST	0	0	100K	Strong Wind
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DEZ002>004

Kent - Inland Sussex - Delaware Beaches

17	0600EST 1100EST	0	0	1M	Astronomical High Tide
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The most powerful storm to affect Delaware since the Blizzard of 1996 struck during the President's Day Weekend. Snow spread from south to north during the pre-dawn on Sunday the 16th. The heaviest snow fell during the daylight hours of the 16th. Precipitation started mixing with and changing to sleet from south to north during the evening of the 16th. In Sussex County, precipitation changed to freezing rain during the second half of the evening and even changed to plain rain toward and along the coast around midnight EST. Similar precipitation types fell overnight. Precipitation changed back to all snow before it ended during the day on the 17th in New Castle County. It remained a mixed bag before it ended during the afternoon of the 17th in Kent County and changed back to a mixture of freezing rain, sleet and rain before it ended the same afternoon in Sussex County. Governor Ruth Ann Minner declared a state of emergency during the morning of the 16th. Only vehicles for emergency and snow clearing operations were permitted on the roadways. Bidding laws were suspended for snow purchases. Public transportation was halted and roads and bridges may be closed at any time. Abandoned vehicles were towed at the owner's expense. Unauthorized drivers were ticketed. Shelters were opened to house people affected by the coastal flooding. The National Guard sent in troops and donated Humvees to help clear the roads. The National Guard also assisted emergency personnel with transporting doctors and nurses to and from hospitals. Many malls and movie theaters either closed early or never opened on the 16th. Malls, businesses, universities, schools and shopping centers were closed on the 17th which was a federal holiday - President's Day. Businesses and universities started to reopen on the 18th. The State of Emergency was lifted at 6 a.m. EST on the 18th, except in the city of Wilmington. There was no public transportation or schools open on the 18th. Funerals and elective surgical procedures were cancelled. Organizers had to postpone scheduled events. Life returned closer to normal as the week continued. Numerous accidents occurred when the storm began on the 16th. After that, the timing of the storm (during the holiday weekend) kept the number of accidents and rescues down. The fluffy nature of the snow led to few power outages. Most were caused by vehicles crashing into utility poles. The worst damage from the storm was caused by the weight of the snow and sleet which caused numerous roof collapses. No serious injuries were reported. Moderate tidal flooding occurred and affected South Bethany (Sussex County), particularly residents on Ocean Drive the worst. Service on the Cape May/Lewes Ferry was suspended from the afternoon of the 16th through the morning of the 18th.

In New Castle County on the 16th, there were fifty-three accidents and two hundred forty-four disabled vehicles through 1 p.m. EST. The roof of an apartment complex in New Castle collapsed. Public transportation was restored on the 19th. In Kent County, shelters were opened for low lying areas. Flights in and out of Dover Air force Base were cancelled through the 20th. Road crews had a hard time keeping secondary and tertiary roads clear with drifts that reached four feet. They started to make headway on the 18th. Hundreds of abandoned vehicles complicated the road clearing. Schools reopened on the 20th. Several major roof collapses occurred in and around Dover. An 80,000 square foot section of the Client Logic Warehouse's roof collapsed. A roof collapse at the Dover Skating Rink destroyed its lockers and bathrooms. At the Air Force Base, a storage facility's roof collapsed and damaged supplies that were destined for the Middle East and Europe. In Sussex County, road crews had similar problems keeping back roads opened prior to the 19th due to four foot drifts and hundreds of abandoned vehicles. Government offices were closed through the 18th and many schools were closed through the 19th. While wind gusts reached to around 50 mph during the height of the storm early on the 17th, less than thirty power outages were reported. Moderate tidal flooding occurred with the morning high tide on the 17th. In Rehoboth Beach, steps to the boardwalk were washed away and its boardwalk boards were loosened. In Dewey Beach, waves crested four dunes and spilt onto Delaware State Route 1. It was closed between Dewey Beach and Bethany Beach the morning of the 17th. South Bethany bore the brunt of the damage. Breaches in the dune line on the north side reached six feet wide. Ocean Drive was heavily damaged by tidal flooding. Debris, sand and water littered the road. All side streets leading from the ocean to Delaware State Route 1 were flooded. Oceanfront homes sustained damage from the waves. The National Guard assisted in the evacuation of twenty people from five homes. In Indian River Bay, minor tidal flooding prompted a recommended evacuation in Oak Orchard and Long Neck. Delaware State Route 24 in Pot Nets was flooded.

Specific accumulations included 24.3 inches in Bear (New Castle County), 23.0 inches in Newark (New Castle County), 21.0 inches in Dover (Kent County), 20.0 inches in Harrington (Kent County), 19.5 inches in Wilmington (New Castle County), 13.0 inches in Milton (Sussex County) and Rehoboth Beach (Sussex County), 12 inches in Millsboro and Long Neck (Sussex County), 11 inches in Dewey Beach and Georgetown (Sussex County) and 8 inches in Bethany Beach (Sussex County). The peak wind gust at Lewes was 48 mph and in Georgetown was 44 mph. The morning high tide on the 17th at Breakwater Harbor (Sussex County) reached 7.70 feet above mean lower low water. The low pressure system which helped cause the heavy snow formed to the lee of the southern Rockies on the 14th. It moved to southern Missouri by the morning of the 15th, the lower Tennessee Valley the morning of the 16th, reformed off the Virginia coast the morning of the 17th and was southeast of Cape Cod on the 18th. Of equal or greater importance was a large high pressure system that moved over nearby Canada and northern New England throughout this event. This locked very cold air in place,

Storm Data and Unusual Weather Phenomena

February 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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DELAWARE

slowed the low pressure system down and prevented it from going farther north thus leaving Delaware on the snowier side of the system. Warm air did move in aloft between 5,000 and 10,000 feet and was the reason the snow changed to sleet and freezing rain during the evening and overnight on the 16th.

Kent County Countywide

22	0800EST 1500EST				0	0			Heavy Rain
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Sussex County Countywide

22	0800EST 1500EST				0	0			Heavy Rain
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A large swath of moderate to heavy rain with embedded thunderstorms moved across the Delmarva Peninsula during the day on the 22nd. Rainfall totals averaged around half an inch per hour during the thunderstorms and storm totals across Delaware averaged between one and a half and three inches. The combination of the heavy rain and melting snow produced roadway flooding and ponding of water in poor drainage areas. The weight of the snow and rain on area roofs led to interior leaks and one major warehouse collapse. In Dover, a 300 foot by 500 foot section of the Playtex Warehouse collapsed. The warehouse was totaled. Several other Dover businesses closed because of roof safety concerns. Storm totals included 2.46 at the Dover Air Force Base, 1.90 inches in Greenwood (Sussex County), 1.62 inches in Georgetown (Sussex County) and 1.54 inches in Milford (Sussex/Kent County border). The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

New Castle County North Portion

22	1236EST 1930EST				0	0			Flash Flood
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DEZ001

New Castle

22	1930EST				0	0			Flood
24	0906EST								

A large swath of moderate to heavy rain with embedded thunderstorms moved across the Delmarva Peninsula during the day on the 22nd. Rainfall totals averaged around two-thirds of an inch per hour during the thunderstorms and storm totals across New Castle County averaged between two and three inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas. Flooding also reached the first floor of several apartments and homes. It also led to flooding along the Christina River Basin. The weight of the snow and rain on area roofs led to a couple of building collapses. During the afternoon near New Castle, the roof of a beer distributor collapsed. The roof of a pipe and tubing distribution center also collapsed. A building in Wilmington was evacuated after a partial roof collapse. No serious injuries were reported. Major roadways were flooded in the county including Delaware State Routes 1 and 9. Roadway ponding reached as high as five feet north of Wilmington. The heavy rain led to about 1,600 Conectiv customers losing power. The Christina River at Coochs Bridge was above its 9 foot flood stage from 1236 p.m. EST on the 22nd through 906 a.m. EST on the 24th. It crested at 12.20 feet at 730 p.m. EST on the 22nd. The Christina River at Newark was above its 13 foot flood stage from 616 p.m. EST on the 22nd through 140 a.m. EST on the 23rd. It crested at 14.28 feet at 930 p.m. EST on the 22nd. Storm totals included 2.55 inches in Newark, 2.36 inches at the New Castle County Airport, 2.23 inches in Bear and 1.99 inches in Wilmington. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd. For the month of February, the precipitation total of 5.21 inches at the New Castle County Airport was the eighth wettest February on record.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

22	2100EST				0	0	0		Dense Fog
23	1100EST								

The combination of heavy rain, humid air moving over the snow pack and relatively light winds produced widespread dense fog across Delaware from the evening of the 22nd into the morning of the 23rd. Widespread visibilities were under one quarter of a mile. Visibilities improved late in the morning on the 23rd once a strong low pressure system exited the region and winds increased from the west and northwest.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

23	1200EST 2100EST				0	0	1K		Strong Wind
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As an intense low pressure system lifted northeast away from the region, strong gusty west to northwest winds moved into the area during the afternoon and the first half of the evening of the 23rd. Peak wind gusts averaged around 45 mph. The peak wind gusts was 46 mph at Dover Air Force Base, 45 mph at the New Castle County Airport and 37 mph in Georgetown (Sussex County).

DEZ003

Inland Sussex

23	1327EST				0	0			Flood
24	0857EST								

Runoff from the heavy rain on the 22nd and the snow melt throughout the weekend (the 22nd and 23rd) led to minor flooding along the Nanticoke River in Sussex County. The Nanticoke River at Bridgeville was above its 8 foot flood stage from 127 p.m. EST on the 23rd through 857 a.m. EST on the 24th. It crested at 8.28 feet at 725 p.m. EST on the 23rd. Storm totals included 1.90 inches in Greenwood, 1.62 inches in Georgetown and 1.54 inches in Milford.

Storm Data and Unusual Weather Phenomena

February 2003

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DELAWARE

DEZ003>004

Inland Sussex - Delaware Beaches

26	0500EST				0	0		0	Winter Weather/Mix
27	0200EST								

A weak low pressure system developed along a stationary front across the southeastern United States during the evening of the 25th. It moved off the South Carolina coast during the day on the 26th and farther offshore that evening. Southern parts of Delaware were close enough to this low pressure system to receive a steady light snow from the early morning of the 26th until just past midnight on the 27th. Untreated roads were slippery. Accumulations included 1.5 inches in Lewes and Greenwood (Sussex County), 1.3 inches in Long Neck (Sussex County) and 1.0 inch in Milford (Sussex/Kent County line).

DEZ001-003>004

New Castle - Inland Sussex - Delaware Beaches

27	1500EST				0	0			Winter Weather/Mix
28	1200EST								

DEZ002

Kent

27	1630EST				0	0			Heavy Snow
28	1200EST								

Another winter storm affected Delaware and dropped heavy snow across Kent County. Less snow fell elsewhere in the state. Snow began during the afternoon of the 27th and continued until around noon EST on the 28th. The heaviest snow fell during the night of the 27th. Accumulations ranged from one to five inches with the highest amounts in Kent County. Specific accumulations included 5.0 inches in Harrington (Kent County), 4.0 inches in Dover (Kent County), 4.5 inches in Greenwood (Sussex County), 4.0 inches in Milford (Kent County), 3.5 inches in Bear (New Castle County), 3.0 inches in Newark (New Castle County), 2.5 inches in Harbeson (Sussex County), 2.0 inches at the New Castle County Airport and 1.5 inches in Georgetown (Sussex County). The low pressure system developed in the western Gulf of Mexico during the day on the 26th and moved northeast into Alabama the morning of the 27th and then well east of Cape Hatteras, North Carolina by the morning of the 28th. The snowfall on this date helped to establish a new all-time record snowfall for the month of February at New Castle County Airport of 31.6 inches. The previous record was 27.5 inches set in February of 1979. The unseasonably cold weather all meteorological winter (28.2 degrees) was cold enough to give New Castle County Airport its sixth coldest winter on record.

DISTRICT OF COLUMBIA

DCZ001

District Of Columbia

06	1900EST				0	0			Winter Storm
07	1100EST								

Low pressure tracked from the Gulf Coast to the Carolinas on the 6th then off the Atlantic coast on the 7th. This storm dropped light to moderate snow between the evening of the 6th and Noon on the 7th. Five inches of accumulation was reported at the National Arboretum. A total of 6.6 inches of snow fell at Reagan Washington National Airport. Several traffic accidents were reported across the metropolitan area.

DCZ001

District Of Columbia

14	0800EST				0	0			Winter Storm
18	1200EST								

A complex storm system produced copious amounts of wintery precipitation across the Washington D.C. metropolitan area between the evening of the 14th and midday on the 18th. The first batch of precipitation fell between the evening of the 14th and the evening of the 15th in the form of light to moderate snow or rain. The second batch of precipitation fell between midnight on the 16th through midday on the 17th in the form of heavy snow or sleet. The third batch of precipitation on the back side of the storm fell between the evening of the 17th and midday on the 18th in the form of scattered snow showers. Nicknamed the President's Weekend Snowstorm of 2003, this storm will go down in history as the 5th heaviest snowstorm in Washington D.C. since records began in 1870. A total of 16.7 inches of snow and sleet was recorded at Ronald Reagan Washington National Airport.

This massive storm took a heavy toll on residents, structures, transportation systems, emergency responders, businesses, livestock, and travelers. Local officials urged people to stay off the roads during the height of the storm between the morning of the 16th and the morning of the 17th. Roads were covered by deep snow and sleet and were nearly impassible. National Airport was shut down on the 16th, stranding hundreds of travelers. Above ground subway stations and all Metrobus service was suspended during the height of the storm. Emergency personnel and those needing emergency transport had to be taken to their destinations in 4 wheel drives. Main highways were partially cleared by the 18th but it took up to 5 days to reach some secondary and residential roads. Schools were closed up to 4 days after the storm ended. Heavy accumulations weighed down on buildings and several structural collapses occurred. A portion of the roof collapsed at the historic O Street Market. A drugstore in Northeast collapsed. The awning on a Georgetown restaurant caved in. The federal government was shut down for two days by the storm.

DCZ001

District Of Columbia

22	0800EST				0	0			Flood
23	0600EST								

A combination of 2.5 to 3 inches of rain that fell between the evening of the 21st and the morning of the 23rd and snow melt from the massive snowstorm of 14-18 February led to urban flooding. The Mt. Vernon Square/UDC subway station was closed by flood waters. Thirty basements across the city were flooded. In addition, Columbia Road NW, Whitney Young Bridge, and Naylor Road were covered by water.

DCZ001

District Of Columbia

23	0600EST				0	0	0.10K		Strong Wind
	2200EST								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>FLORIDA, Southern</u>									
FLZ074									
Coastal Dade									
	17	1012EST			1	0			Excessive Heat
	Baltimore Oriole's pitcher Steve Bechler, collapsed and died while participating in conditioning drills. The medical examiner determined that the death was due to heat but that ephedrine pills taken three hours earlier had contributed to the death.								
	M23BF								
Collier County									
Naples	22	2050EST			0	0			Thunderstorm Wind (G55)
	Two trees were blown down in the city of Naples.								
Palm Beach County									
Boca Raton	23	1155EST			0	0			Thunderstorm Wind (G50)
	A tree was blown down near the intersection of Lyons Road and Powerline Road.								
<u>FLORIDA, West Central</u>									
Levy County									
Williston	22	1504EST			0	0			Hail (0.75)
Levy County									
7 SW Williston	22	1555EST			0	0			Thunderstorm Wind (G50)
	Law enforcement reported power lines down.								
<u>FLORIDA, West Panhandle</u>									
Okaloosa County									
Ft Walton Beach	21	0347CST 0350CST			0	0	2M		Thunderstorm Wind (G90)
	A line of severe thunderstorms moved across the coastal portions of the county during the early morning hours. The most intense part of the line of storms was along the coast in the vicinity of Okaloosa Island in the Fort Walton Beach area. Very strong straight line winds associated with a "bow echo" along the line storms produced extensive wind damage to the west wing of the Blue Horizon Beach Resort. The strong blast of wind tore the roof off of the three story west wing of the condos, and deposited it in the adjacent parking lot and onto Santa Rosa Blvd., the highway located just north of the condominium complex. Some of the roof debris also hit and damaged the Sugar Isle Motel, which is located next door to the Blue Horizon. About 60 rooms of the Blue Horizon's west wing received major structural and water damage, and significant damage also occurred to automobiles in the adjacent parking lot, which were hit by flying debris. In addition, power lines and power polls along Santa Rosa Blvd were also downed by debris and high winds.								
Santa Rosa County									
Milton	21	2030CST			0	0	5K		Lightning
	Lightning from a thunderstorm hit the communication center in Milton and started a fire. The fire was put out with minor damage occurring to some electronic equipment at the center.								
Escambia County									
Bratt	22	0155CST 0157CST			0	0	8K		Thunderstorm Wind (G50)
	High winds from a thunderstorm blew down several trees just east of Bratt.								
<u>GEORGIA, East Central</u>									
Lincoln County									
2 N Lincolnton	22	0900EST			0	0	0	0	Thunderstorm Wind (G55)
	Sheriff reported treesdown.								
Columbia County									
Harlem to Appling	22	1005EST			0	0	0	0	Thunderstorm Wind (G60)
	Sheriff reported scattered trees down from Harlem to Appling.								
Mcduffie County									
Countywide	22	1010EST			0	0		0	Thunderstorm Wind (G60)
	EOC reported trees down countywide.								
Columbia County									
6 ENE Appling to 8 ENE Appling	22	1018EST 1021EST	2	150	0	0	310K	2K	Tornado (F2)
	A combination of an intense microburst and a tornado produced winds estimated at 120-130mph. A barn and camper trailer. Moderate damage was done to 4 homes with minor damage to 34 other homes. Debris from the barn was found a mile downstream. The microburst width was 1/8-1/4 mile wide with the vortex circulation about 50 yds wide.								
Richmond County									
Augusta	22	1115EST			0	0		0	Thunderstorm Wind (G55)
	EOC reported trees and powerlines down in west Augusta.								
Burke County									
Countywide	22	1145EST			0	0		0	Thunderstorm Wind (G60)
	Sheriff reported trees down throughout the county.								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>GEORGIA, Lower</u>									
Coffee County									
Douglas	22	1100EST			0	0	10K		Thunderstorm Wind
Power lines down in and near Douglas and on Highway 135 in Southwestern Douglas. Power lines also down 5 miles south of Douglas and road signs flying across the road in Broxton.									
Atkinson County									
Pearson	22	1115EST			0	0	15K		Thunderstorm Wind
Power pole down on Fears Ave. Trees down on West Albany Ave. Large trees on roadway on Old Douglas Highway, north side of Pearson.									
Clinch County									
5 N Dupont	22	1120EST			0	0	2K		Thunderstorm Wind
Large tree limbs and power lines down.									
Bacon County									
Alma to 2 N Alma	22	1130EST			0	0	10K		Thunderstorm Wind
Large trees blown down across power lines with some power poles snapped.									
Appling County									
Baxley	22	1131EST	0.1	.1	0	1	50K		Tornado (F0)
One mobile home flipped over with a minor injury. EMA reports twisted tops of pine trees in nearby woods.									
Wayne County									
Jesup	22	1200EST 1230EST			0	0			Tstm Wind/Hail
Brief power outages.									
Pierce County									
2 N Blackshear	22	1200EST			0	0			Thunderstorm Wind (G60)
Large live oak and pine trees uprooted and down across power lines along Highway 82 north of Blackshear.									
Camden County									
Waverly	22	1400EST			0	0	10K		Thunderstorm Wind
Large trees downed by high winds. Power poles down with a few poles snapped off.									
Glynn County									
Sterling	22	1405EST			0	0	2K		Thunderstorm Wind
Trees damaged with large limbs torn off and in roadway.									
Charlton County									
Folkston	22	1510EST			0	0	5K		Thunderstorm Wind (G60)
On North 3rd St. tops of pine trees snapped off 30 feet above the ground.									
<u>GEORGIA, North and Central</u>									
Fayette County									
6 NW Fayetteville to 1 NW Fayetteville	04	0425EST			0	0	4K		Thunderstorm Wind (G50)
The Fayette county Emergency Management Director reported that several power lines were brought down by high winds and/or trees being blown down onto the power lines between the Fulton/Fayette county line on Georgia Highway 92 to just northwest of Fayetteville. In addition, one of the downed trees took out a gas meter and caused a gas leak.									
GAZ001>003-005>009-013>016-021-024									
Dade - Walker - Catoosa - Murray - Fannin - Gilmer - Union - Towns - Pickens - Dawson - Lumpkin - White - Cherokee - Banks									
	06	1500EST 2000EST			0	0			Winter Weather/Mix
A weak upper-level disturbance combined with temperatures near 32 degrees Fahrenheit to produce light snow across several north Georgia counties. While most of these counties only received a trace of snow or sleet, the higher elevations of Dade, Dawson, Towns, Union, and White counties received 1 to 2 inches of snow.									
GAZ024>025-027-037>039									
Banks - Jackson - Madison - Oconee - Oglethorpe - Wilkes									
	16 17	2000EST 0300EST			0	0			Winter Weather/Mix
A very strong wedge of cold air, associated with a Canadian high pressure system over the mid-Atlantic, nosed down the east side of the Appalachians into north and east Georgia. Warm air just above the layer of cold air resulted in light freezing rain and freezing drizzle in several northeast Georgia counties. The area most affected was between Danielsville, Washington, Lexington, and Jefferson. Just a light glazing of ice was reported in these counties, primarily on trees, power lines, and bridges. No significant problems were noted.									
Cobb County									
Marietta	22	0230EST			0	0	5K		Thunderstorm Wind (G45)
The Atlanta Journal-Constitution reported that thunderstorm winds blew a large 100 foot by 40 foot tent with steel tables and wicker chairs up and onto the roof of a Marietta furniture store. Wind gusts were estimated at 50 mph in this thunderstorm.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, North and Central									
Gwinnett County									
Snellville	22	0530EST			0	0	2K		Thunderstorm Wind (G50)
The Gwinnett county Emergency Management Director reported that three trees were down on Clipper Street and five trees were down on Harbor Oaks Drive.									
Muscogee County									
Columbus	22	0615EST			0	0	5K		Thunderstorm Wind (G55)
The Muscogee county 911 center reported that numerous trees and power lines were down.									
Troup County									
6 E Andersons Corner	22	0618EST			0	1	100K		Thunderstorm Wind (G65)
The Troup county 911 center reported that strong straight-line thunderstorm winds destroyed one mobile home and severely damaged three other mobile homes in a mobile home park in the extreme southeast corner of Troup county on Salem-Chipley Road just off U.S. Highway 27. One man was injured when he was trapped inside his damaged mobile home by a large fallen pine tree, which crashed through the chimney of the mobile home and tore through one end of the home. Numerous trees and power lines were also blown down in the same general area. The Columbus Ledger-Enquirer reported that the mobile home park resembled a bomb zone with numerous huge pine trees uprooted or ripped off by the thunderstorm winds.									
Spalding County									
2 NW Griffin to Orchard Hill	22	0630EST 0700EST			0	0	10K		Thunderstorm Wind (G50)
The Griffin Daily News reported that numerous trees and power lines were blown down, especially on the west side of Griffin. Several traffic signals were also blown down at busy intersections in Griffin. In addition, several hundred residents were without power because of the downed trees and power lines.									
Newton County									
1 E Covington	22	0715EST			0	0	1K		Thunderstorm Wind (G50)
The Newton county 911 center reported that several trees were blown down near the intersection of U.S. Highway 278 and Georgia Highway 142.									
Henry County									
Ola	22	0720EST			0	0	2K		Thunderstorm Wind (G50)
The Henry county 911 center reported that numerous trees were blown down near the intersection of Georgia Highway 81 and Keys Ferry Street. The public reported that two large pine trees were blown down in McDonough on Daley Mill Road.									
Floyd County									
Rome	22	0730EST			0	0			Heavy Rain
	23	1200EST							
The Rome News Tribune reported that heavy rain of 3 inches in a 24-hour period resulted in the flooding of several streets in the Rome area. Old Dalton Road had to be closed for several hours, and Reeceburg and Burkhalter Roads were also threatened by flooding. The flooding continued into the early morning hours of the next day.									
Walton County									
Monroe	22	0735EST			0	0			Hail (0.75)
The Walton county 911 center reported dime size hail.									
Walton County									
Monroe	22	0735EST			0	0	0.50K		Thunderstorm Wind (G50)
The Walton county 911 center reported that two trees were blown down.									
Chattahoochee County									
1 N Cusseta	22	0745EST			0	0	1K		Thunderstorm Wind (G50)
The Chattahoochee county 911 center reported that several trees were blown down along Georgia Highway 26 just north of Cusseta.									
Morgan County									
Madison	22	0745EST			0	0			Hail (0.75)
The Morgan county 911 center reported dime size hail.									
Morgan County									
Madison	22	0745EST			0	0	1K		Thunderstorm Wind (G50)
The Morgan county 911 center reported that several trees were blown down.									
Barrow County									
Bethlehem	22	0800EST			0	0	2K		Thunderstorm Wind (G50)
The Barrow county 911 center reported that some power lines down on Brisco Mill Road.									
Clarke County									
Athens	22	0800EST			0	0	0.25K		Thunderstorm Wind (G35)
The Clarke county 911 center reported that one tree was blown down in the city.									
Greene County									
Greensboro	22	0800EST			0	0	0.25K		Thunderstorm Wind (G35)
The Greene county 911 center reported that one tree was blown down.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
GEORGIA, North and Central							
Jasper County							
Monticello	22	0800EST			0 0	1K	Thunderstorm Wind (G50)
The Jasper county 911 center reported that several trees were blown down.							
Marion County							
Buena Vista	22	0800EST			0 0	1K	Thunderstorm Wind (G50)
The Marion county 911 center reported that several trees were down on Georgia Highway 26.							
Taylor County							
Reynolds	22	0800EST			0 0	0.75K	Thunderstorm Wind (G50)
The Taylor county 911 center reported that three trees were blown down.							
Oglethorpe County							
Stephens	22	0805EST			0 0	3K	Thunderstorm Wind (G50)
The Oglethorpe county 911 center reported that several power lines were down.							
Sumter County							
Americus	22	0810EST			0 0		Heavy Rain
The Sumter county 911 center reported that heavy thunderstorm rain resulted in minor street flooding.							
Sumter County							
Americus	22	0810EST 0815EST			0 0	3K	Thunderstorm Wind (G50)
The Sumter county 911 center reported that power lines were down on Georgia Highway 49 at Southland Road and also on Pine Point Road. A few trees were also down in this same general area.							
Houston County							
Warner Robins	22	0850EST			0 0		Heavy Rain
An amateur radio operator reported that there were was minor street flooding near the Warner Robins High School.							
Houston County							
Warner Robins to 3 S Warner Robins	22	0850EST			0 0	1K	Thunderstorm Wind (G50)
The Houston county 911 center reported that several trees were down at Georgia Highway 247 and Hawkinsville Road. The public reported that a large pine tree was down and some smaller trees on a golf course south of Warner Robins. Pea size hail was also noted in this area.							
Wilkes County							
Washington	22	0851EST			0 0		Hail (0.75)
The Wilkes county 911 center reported dime size hail.							
Twiggs County							
Jeffersonville	22	0900EST			0 0	2K	Thunderstorm Wind (G50)
The Twiggs county 911 center reported that several trees were down along U.S. Highway 80 around Jeffersonville.							
Bleckley County							
Cochran	22	0920EST			0 0	3K	Thunderstorm Wind (G50)
The Bleckley county 911 center reported that several trees and one power line were down.							
Hancock County							
Sparta	22	0927EST			0 0	3K	Thunderstorm Wind (G50)
The Hancock county 911 center reported that several trees and some power lines were blown down.							
Washington County							
Sandersville	22	0930EST			0 0	0.25K	Thunderstorm Wind (G35)
The Washington county 911 center reported that one tree was blown down.							
Wilkinson County							
Irwinton	22	0930EST			0 0	3K	Thunderstorm Wind (G50)
The Wilkinson county 911 center reported that several trees and some power lines were down.							
Laurens County							
Dudley	22	0940EST			0 0	3K	Thunderstorm Wind (G50)
The Laurens county 911 center reported that some trees and power lines were down.							
Dodge County							
Eastman	22	0945EST			0 0	0.25K	Thunderstorm Wind (G35)
The Dodge county 911 center reported that one tree was down.							
Warren County							
Warrenton to Cadley	22	0945EST 0955EST			0 0	3K	Thunderstorm Wind (G50)
The Warren county 911 center reported that several trees were blown down.							
Glascocock County							
Hadden	22	1000EST			0 0	25K	Thunderstorm Wind (G50)
The Glascocock county 911 center reported that several trees and power lines were blown down. Some of the trees also landed on and caused damage to several vehicles.							

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
<u>GEORGIA, North and Central</u>							
Jefferson County							
Louisville	22	1000EST			0 0	3K	Thunderstorm Wind (G50)
							The Jefferson county 911 center reported that power lines were down.
Johnson County							
Wrightsville	22	1000EST			0 0	1K	Thunderstorm Wind (G50)
							The Johnson county 911 center reported that several trees were down.
Washington County							
Sandersville	22	1015EST			0 0	1K	Thunderstorm Wind (G50)
							The Washington county 911 center reported that some more trees were blown down.
Montgomery County							
Uvalda to Alston	22	1100EST			0 0	15K	Thunderstorm Wind (G50)
							The Montgomery county 911 center reported that numerous trees and power lines were blown down. One house sustained some structural damage also as a result of the wind and downed trees.
Treutlen County							
Soperton	22	1110EST			0 0	0.25K	Thunderstorm Wind (G35)
							The Truetlen county 911 center reported that one tree was down.
Chattooga County							
Countywide	22	0600EST 0700EST			0 0		Heavy Rain
Dade County							
Countywide	22	0600EST 0700EST			0 0		Heavy Rain
Floyd County							
Countywide	22	0600EST 0700EST			0 0		Heavy Rain
							The Dade, Chattooga, and Floyd county Emergency Management Directors reported that heavy rain was causing minor street flooding, especially in urban areas such as Summerville in Chattooga county. Minor flooding was also reported near creeks and streams as a result of the heavy rain.
GAZ019-054							
							Floyd - Fayette
	22	1500EST 1605EST			0 0	6K	Strong Wind
							The Rome News Tribune reported that strong post-cold frontal winds gusting from 40 to 45 mph blew a 40-foot section of roof off the top of a downtown Rome furniture store. In addition, two trees were blown down, one on Dalton Road and another on Horseleg Creek Road. Winds in the 30 to 35 mph range, associated with this same cold front, also caused damage further south later in the afternoon. An off duty National Weather Service employee reported that a large 50 foot tall or greater pine tree was broken in two by strong winds. The tree landed on and caused damage to a fence.
<u>GEORGIA, Northeast</u>							
GAZ017							
							Habersham
	06	1600EST 2200EST			0 0		Winter Weather/Mix
							Light snow fell during the late afternoon and evening, and was mixed at times with sleet and freezing rain. Accumulations generally ranged from 1 to 2 inches.
GAZ010							
							Rabun
	06 07	2000EST 0400EST			0 0		Heavy Snow
							Light snow began falling during the late afternoon of the 6th, and increased in intensity during the evening and overnight hours. By early morning on the 7th, snowfall averaged around 3 inches across the county, with slightly higher amounts observed in the highest elevations.
<u>GEORGIA, Southeast</u>							
Screven County							
6 NW Sylvania	22	1130EST			0 0		Thunderstorm Wind (G52)
							Mobile home blown off its foundation.
Screven County							
Sylvania	22	1220EST			0 0		Thunderstorm Wind (G50)
							Several trees, large limbs, and power lines were down.
Chatham County							
Countywide	22	1315EST 1330EST			0 0		Thunderstorm Wind (G52)
							Numerous trees, large limbs, and power lines were downed.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>GEORGIA, Southeast</u>									
Candler County									
Aline	22	1200EST			0	0			Thunderstorm Wind (G52)
									Trees and limbs were down
Jenkins County									
Scarboro	22	1200EST			0	0			Thunderstorm Wind (G50)
									Several trees, large limbs and power lines were down.
Tattnall County									
Collins	22	1200EST			0	0			Thunderstorm Wind (G50)
									Several trees were down.
Evans County									
Daisy	22	1210EST 1215EST			0	0			Thunderstorm Wind (G50)
									Several trees were down.
Tattnall County									
Mendes	22	1210EST			0	0			Thunderstorm Wind (G50)
									Several trees and large limbs were down.
Bulloch County									
Central Portion to Statesboro	22	1215EST 1230EST			0	0			Thunderstorm Wind (G50)
									Several traffic signs were down and several large limbs.
Liberty County									
Central Portion to 1 E Dorchester	22	1230EST 1245EST			0	0			Thunderstorm Wind (G52)
									Numerous trees, large limbs, and power lines were down.
Bryan County									
Pembroke	22	1240EST			0	0			Thunderstorm Wind (G50)
									Several trees were down.
Bulloch County									
Portal to Statesboro	22	1240EST 1255EST			0	0			Thunderstorm Wind (G52)
									Numerous trees, large limbs, power lines and highway signs were down.
Effingham County									
Guyton	22	1245EST			0	0			Thunderstorm Wind (G50)
									Several trees, large limbs, and power lines were down.
Effingham County									
Springfield	22	1255EST			0	0			Thunderstorm Wind (G50)
									Several trees were down.
Effingham County									
Marlow	22	1259EST			0	0			Thunderstorm Wind (G50)
									Several trees and power lines were down.
Effingham County									
Egypt	22	1300EST			0	0			Thunderstorm Wind (G50)
									Several trees and large limbs were down.
Long County									
1 N Ludowici	22	1230EST			0	0			Thunderstorm Wind (G50)
									Several trees and large limbs were down.
<u>GEORGIA, Southwest</u>									
Grady County									
12 N Cairo	16	0825EST	0.2	150	0	0	75K		Tornado (F1)
									A tornado briefly touched down on Ridge Road, just south of the Grady-Mitchell county line. It damaged two homes, and knocked down trees and power lines. The tornado moved northeast into southern Mitchell County. Reported by the Grady County EMA.
Mitchell County									
6 SW Pelham to 4 WSW Pelham	16	0826EST 0830EST	2.2	150	0	0	350K		Tornado (F1)
									The tornado which initially touched down just south of the Grady-Mitchell county line, continued northeast, and lifted just north of County Road 262. The worst damage occurred from Wade Road to County Road 262. It destroyed three mobile homes and severely damaged three frame homes. Several mobile homes and a few frame homes sustained minor damage. The tornado toppled numerous trees and some power lines. Reported by the Mitchell County EMA.
Dougherty County									
Albany	22	0845EST			0	0	1K		Thunderstorm Wind (G50)
									Trees down. Reported by the Dougherty County EMA.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>GEORGIA, Southwest</u>									
Lowndes County									
Valdosta	22	1035EST			0	0	20K		Thunderstorm Wind (G50)
Numerous trees down. Two homes damaged by fallen trees. Reported by Lowndes County 911.									
<u>GULF OF MEXICO</u>									
Corpus Christi To Baffin Bay									
3 N Corpus Christi	15	0630CST			0	0			Marine Tstm Wind
Matagorda Ship Chnl To Pt Aransas Out 20Nm									
Pltfm 17Se Prt Arnsas	15	0718CST			0	0			Marine Tstm Wind
Matagorda Ship Chnl To Pt Aransas Tx 20 To 60Nm									
Pltfm 17Se Prt Arnsas	15	0718CST			0	0			Marine Tstm Wind
Pt Aransas To Baffin Bay Tx 20 To 60Nm									
30 E Corpus Christi	15	0718CST			0	0			Marine Tstm Wind
Pt Aransas To Baffin Bay Tx Out 20Nm									
15 S Port Aransas	15	0718CST			0	0			Marine Tstm Wind
Pt O'Connor To Aransas Pass									
Port O'Connor	15	0735CST			0	0			Marine Tstm Wind
Pt Aransas To Baffin Bay Tx 20 To 60Nm									
45 SE Baffin Bay	15	0900CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
Dauphin Island	15	1842CST 1843CST			0	0			Marine Tstm Wind
Mobile Bay									
Pinto Island	15	2300CST 2301CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm									
22 SSE Biloxi	21	0910CST			0	0			Marine Tstm Wind
Mobile Bay									
2 E Pinto Island	21	0923CST 0924CST			0	0			Marine Tstm Wind
Mobile Bay									
4 SE Alabama Port	21	1000CST 1001CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm									
22 SSE Biloxi	21	1047CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
4 SW Dauphin Island	21	1100CST 1101CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
10 S Dauphin Island	21	1233CST 1234CST			0	0			Marine Tstm Wind

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GULF OF MEXICO									
Mobile Bay									
4 SE Alabama Port	21	1245CST 1246CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
13 S Dauphin Island	21	1352CST 1353CST			0	0			Marine Tstm Wind
Mobile Bay									
2 W Point Clear	21	1412CST 1413CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
15 S Ft Morgan	21	1600CST 1601CST			0	0			Marine Tstm Wind
Pascagoula Ms To Sw Pass Of Ms R Out 20Nm									
38 ESE Pointe A La Hae	21	2330CST			0	0			Marine Tstm Wind
Destin To Pensacola Fl Out 20Nm									
Pensacola Beach	22	0254CST 0255CST			0	0			Marine Tstm Wind
Destin To Pensacola Fl 20 To 60Nm									
50 S Navarre	22	0300CST 0301CST			0	0			Marine Tstm Wind
Pensacola Fl To Pascagoula Ms Out 20Nm									
Perdido Key	22	0300CST 0301CST			0	0			Marine Tstm Wind
Tarpon Springs To Suwannee River Fl Out 20Nm									
Homossassa River	22	1542EST			0	0			Marine Tstm Wind
Tarpon Springs To Suwannee River Fl Out 20Nm									
4 NE Anclote Key	22	1554EST			0	0			Marine Tstm Wind
Englewood To Tarpon Springs Fl Out 20Nm									
7 S St Petersburg Beach	22	1630EST			0	0			Marine Tstm Wind
Tampa Bay									
Old Tampa Bay	22	1710EST 1715EST			0	0			Marine Tstm Wind
Strong low pressure over Tennessee with a southward extending cold front moved east during the day. A squall line developed over the Gulf of Mexico ahead of the cold front and created gale force wind gusts in the coastal waters near and north of Tampa Bay. The squall line quickly weakened as it moved onshore.									
Chokoloskee To Bonita Beach Fl Out 20Nm									
30 W Wiggins Pass	22	1900EST			0	0			Marine Tstm Wind
A thunderstorm wind gust estimated at 37 knots occurred over the Gulf of Mexico.									
Key W To Dry Tortugas Waters									
1 N Dry Tortugas	22	1944EST			0	0			Marine Tstm Wind
Wind gust 37 knots (43 mph) measured at Dry Tortugas CMAN station.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>GULF OF MEXICO</u>									
E Cp Sable To Chokoloskee Fl Out 20Nm									
5 SW Cape Sable	22	2201EST			0	0			Marine Tstm Wind
A thunderstorm wind gust of 35 knots was estimated in the Gulf of Mexico.									
Florida Bay									
7 NE Duck Key	23	0024EST			0	0			Marine Tstm Wind
Wind gust 34 knots (39 mph) measured at Long Key CMAN station.									
<u>HAWAII</u>									
HIZ001>003-005>007									
Kauai - Oahu - Maui - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona									
	05	1030HST			0	0			Heavy Surf/High Surf
	08	0500HST							
A storm low north of the state produced surf of 10 to 20 feet along the north- and northwest-facing shores of all the islands. Haena Beach on the north shore of Kauai was closed on the 7th because of the hazardous surf. However, there were no reports of serious injuries or property damage there or anywhere else around the Hawaiian Islands.									
Hawaii County									
8 SE Volcano	06	0700HST			0	0			Wildfire
	28	2359HST							
A lava-ignited fire in Hawaii Volcanoes National Park--on the Big Island of Hawaii--burned more than 2000 acres of mainly brush land through the end of February. The fire did get close enough to Chain of Craters Road to shut it down from time to time, which prevented local residents and tourists from seeing the lava flows from Kilauea Volcano. Officials also had to move a couple of portable ranger stations and restrooms that had been threatened by the blaze. Local fire crews and some firefighters from the mainland battled the flames, but it was difficult to contain because the lava acts as a continuous ignition source. There were no reports of serious injuries or property damage.									
HIZ004-007>008									
North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau									
	06	1800HST			0	0			High Wind (G70)
	07	0400HST							
West winds aloft, ahead of a cold front, gusted to as high as 70 knots near the summits of Mauna Kea and Mauna Loa on the Big Island of Hawaii. No serious injuries or property damage were reported.									
HIZ001>003-005>007									
Kauai - Oahu - Maui - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona									
	11	0500HST			0	0			Heavy Surf/High Surf
	12	1800HST							
A storm low far northwest of Hawaii generated surf of 10 to 15 feet along the north- and northwest-facing shores of all the islands. There were no reports of serious property damage or injuries.									
Maui County									
3 W Lahaina	13	1120HST 1200HST			0	0			Funnel Cloud
An airplane pilot spotted a funnel cloud offshore from Lahaina, West Maui, during the late morning of the 13th. The funnel cloud was moving north paralleling the shoreline. The feature apparently dissipated without incident.									
Kauai County									
4 W Hanalei to Lihue	13	1400HST 2000HST			0	0			Heavy Rain
A shear line, or dissipating cold front, passing through the state brought heavy showers and rain to the northern and eastern parts of Kauai. The showers caused minor stream and drainage ditch flooding, and ponding of roadways. The main road leading to and from Hanalei was closed for a time because of water flowing across the highway from nearby flooded, low-lying taro patches. Some minor landslides occurred in the Lumahai area just west of Hanalei as well. Also, the lifeguard station at Haena Beach Park closed in the afternoon after flooding occurred at the park and campsite. There were no reports of serious injuries or property damage, however.									
Honolulu County									
Kaaawa to Kaneohe	14	0040HST 0200HST			0	0			Heavy Rain
The shear line moving through the state reached Oahu and brought heavy rainfall to windward parts of the island. Ponding of roadways occurred, along with minor stream and drainage ditch flooding. No serious injuries or property damage were reported.									
Maui County									
Maunaloa to Hana	14	0200HST 1100HST			0	0			Heavy Rain
Shear line showers and rain produced minor stream and drainage ditch flooding, and ponding of roadways, throughout Molokai, Lanai, and windward sections of Maui. However, no serious injuries or property damage were reported.									
Honolulu County									
Kahuku to Waikiki	14	0620HST 1200HST			0	0			Heavy Rain
Remnant showers from a shear line moving through Hawaii brought more nuisance flooding, ponding of roadways, and occasional									

Storm Data and Unusual Weather Phenomena

February 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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HAWAII

power failures to windward Oahu and parts of East Oahu. The rains also loosened the soil enough in the higher elevations around Waialae Nui that a large boulder broke free and nearly hit a home in the neighborhood along Malu Street. However, no serious property damage or injuries were reported islandwide.

HIZ004-007>008 **North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau**

14	1030HST				0	0			Winter Storm
15	0025HST								

West to northwest winds gusted to 70 mph and temperatures fell into the 20's near the summits of Mauna Kea and Mauna Loa on the Big Island of Hawaii. Snow fell and accumulated to about a foot in some locations, and closed the Mauna Kea access road on Saturday, the 15th. However, there were no reports of serious injuries or property damage.

Maui County
Pauwela to
Kipahulu

14	1100HST				0	0			Heavy Rain
	2000HST								

Heavy showers and rain from a shear line caused ponding of roadways, and minor stream and drainage ditch flooding in windward upslope and windward coastal areas of East Maui. There were no reports of serious property damage or injuries.

Hawaii County
Hawi to
7.5 S Paho

14	1700HST				0	0			Heavy Rain
	2000HST								

A weakening shear line with heavy showers produced minor stream and drainage flooding, and ponding of roadways in windward coastal and windward upslope areas of the Big Island of Hawaii, from windward Kohala to Puna. However, no serious injuries or property damage were reported.

HIZ004-007>008 **North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau**

15	0025HST				0	0			High Wind (G65)
	0800HST								

West to northwest winds gusted to 75 mph near the summits of Mauna Kea and Mauna Loa on the Big Island of Hawaii. No serious property damage or injuries were reported.

HIZ004-008 **North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau**

19	0800HST				0	0			Heavy Surf/High Surf
	1800HST								

A low more than 1000 miles east of the state generated surf of 8 to 12 feet along the east-facing shores of the Big Island of Hawaii. There were no reports of serious injuries or property damage.

Hawaii County
9 W Kamuela

20	0530HST				0	0			Wildfire
	1600HST								

A fire burned about 100 acres between Highway 19, Spencer Park, and the Mauna Kea Beach Hotel in leeward Kohala on the Big Island of Hawaii. The blaze caused no serious injuries or property damage, but fire officials did close Spencer Park on the 21st and 22nd as a precaution just in case the fire reignited. The cause of the blaze was unknown.

Hawaii County
2 S Pahala

22	2100HST				0	0			Wildfire
	1515HST								

A wildfire scorched nearly 2000 acres in Kau District on the Big Island of Hawaii. Although most of the area burned was brush land, a state experimental agriculture station and fruit trees were damaged by the flames. No damage cost estimates were available, however. There were no serious injuries. Lightning was suspected as the cause of the fire.

HIZ001>003-005>007 **Kauai - Oahu - Maui - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona**

24	0700HST				0	0			Heavy Surf/High Surf
	1200HST								

A storm low far northwest of Hawaii caused surf of 10 to 15 feet along the north- and northwest-facing shores of all the islands. No serious property damage or injuries were reported.

IDAHO, Extreme Southeast

NONE REPORTED.

IDAHO, North
IDZ005-007

Northern Clearwater Mountains - Orofino / Grangeville Region

01	0000MST				0	0			Flood
	0000MST								

Continuous rainfall for several days caused small creeks to rise and overtop their banks in Clearwater County, Idaho. County officials had to sandbag Orofino Creek near Orofino, as well as portions of the towns of Weippe and Pierce, where flood waters covered and washed out county roads and affected some homes.

IDZ005>006 **Northern Clearwater Mountains - Southern Clearwater Mountains**

01	0700MST				0	0			Heavy Snow
	0700MST								

Storm Data and Unusual Weather Phenomena

February 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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IDAHO, North

Winter storm brought heavy wet snow to the Clearwater Mountains of Idaho. Snowfall amounts ranged from 8 inches at Hemlocke Butte to 9 inches at Crater Meadows and Dixie.

IDZ005>006

Northern Clearwater Mountains - Southern Clearwater Mountains

16	1100MST								
		0	0						Winter Storm
17	1100MST								

Winter storm brought heavy snow and gusty southwest winds to the Clearwater Mountains of Idaho. Snowfall amounts ranged from 6 inches at Elk Butte to 11 inches at Crater Meadows and Hemlock Butte. Lolo Pass received 19 inches of new snow. Southwest winds of 20 to 35 mph caused blowing and drifting of snow and reduced visibility.

IDZ005>006-010

Northern Clearwater Mountains - Southern Clearwater Mountains - Eastern Lemhi County

20	0700MST								
		0	0						Winter Storm
23	0700MST								

Strong winter storm impacted most of north central Idaho for several days with heavy snow and gusty west winds. Storm total snowfall ranged from one to two feet in the mountains. Lolo Pass received 28 inches of new snow and Mountain Meadows 31 inches. West to northwest winds of 15 to 30 mph with localized gusts to 35 mph, caused areas of blowing and drifting of snow and poor visibility.

IDAHO, Northwest

IDZ003>004

Idaho Palouse - Central Panhandle Mountains

01	0000PST								
		0	0			30K			Flood
	1800PST								

Periods of heavy rain and snowmelt led to flooding on both the smaller and major rivers across eastern Kootenai, Shoshone and much of Latah counties. The flood stage on the Couer d'Alene river at Cataldo peaked at 43.7 ft with flood stage of 43 feet. This caused flooding around a home near Wolf Creek Lodge and road closures on Riverview Drive.

IDZ001-004

Northern Panhandle - Central Panhandle Mountains

16	0500PST								
		0	0						Heavy Snow
17	1500PST								

A cold Pacific trough preceded by a sub tropical plume of moisture produced widespread mountain snow across the Idaho panhandle mountains. The heaviest snow fell at elevations above 4000 feet from the morning of the 16th through the afternoon of the 17th. Some snowfall totals included: Lost Lake SNOTEL...10", Humboldt Gulch SNOTEL...9", Mosquito Ridge SNOTEL...10", Bear Mountain SNOTEL...17", Schweitzer Ski Resort...12".

Shoshone County

Pinehurst

17	1430PST								
		0	0			100K			Thunderstorm Wind (G50)
	1445PST								

An isolated thunderstorm produced localized straight line winds which led to wind damage on 6th Street in the city of Pinehurst. Several homes reported minor damage. One residence that was hit the hardest sustained roof damage to the home and nearby shed, along with knocking down a 70 foot section of fencing and half a dozen of tall shrubs.

IDZ027

Lewis And Southern Nez Perce

18	0700PST								
		0	0						Heavy Snow
	1500PST								

A cold vigorous upper level disturbance parked over the southern portions of the Idaho panhandle lead to widespread snow showers throughout the day. Snow became heavy as it accumulated above 2000 feet. Some snow totals included: Winchester...4" and Nez Perce...4".

IDZ001-004

Northern Panhandle - Central Panhandle Mountains

19	1500PST								
		0	0						Heavy Snow
21	0600PST								

A persistent moist westerly flow led to heavy mountain in snow in the Idaho panhandle from the night of the 19th through the early morning of the 21st. The heaviest snow accumulated above 3000 feet. Some snow totals included: Lost Lake SNOTEL...12", Sunset SNOTEL...12", Mica Creek SNOTEL...12", Mosquito Ridge SNOTEL...13", Bear Mountain SNOTEL...11", Schweitzer Mountain Ski Resort...10".

IDZ004-027

Central Panhandle Mountains - Lewis And Southern Nez Perce

21	1500PST								
		0	0						Heavy Snow
22	0700PST								

A cool and unstable northwesterly flow gave way to numerous snow showers across the Central panhandle mountains and the higher Camas prairie regions above 3000 feet. Some snow totals included: Lost Lake SNOTEL...10", Lookout Ski Resort...10", Winchester...4".

IDZ001

Northern Panhandle

22	1130PST								
		2	3						Avalanche
	1300PST								

After a night of new snowfall and warming daytime temperatures, two separate avalanches occurred just an hour and a half apart and within 20 miles of each other. The first event took place around 11:30 am near Keokee Lake about 10 miles northwest of Schweitzer Ski Resort. A couple of back country skiers were caught in an avalanche, and one was buried. The second event took place around 1 pm about 5 miles east of Priest Lake. A group of snowmobilers were caught in an avalanche, and one was buried.
M35OU, M45OU

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>IDAHO, Southeast</u>									
IDZ022>023									
South Central Highlands - Caribou Highlands									
	01	1800MST			0	0			Heavy Snow
	02	0900MST							
Heavy snow fell at elevations above 6000 feet with amounts in the 6 to 12 inch range at SNOTEL sites. It was also the heaviest snowfall of the winter season in the city of Pocatello with 3 to 4 inches falling.									
IDZ022>023									
South Central Highlands - Caribou Highlands									
	04	0500MST			0	0			Heavy Snow
		1700MST							
6 to 12 inches of snow fell at elevations above 6000 feet in the southern highlands.									
IDZ018>019-031									
Sawtooth Mountains - Upper Snake Highlands - Big And Little Wood River Region									
	16	0100MST			0	0			Heavy Snow
		2000MST							
A pacific storm brought heavy snow the the central mountains and upper snake river highlands. 6 to 10 inches fell in Ketchum, 8 inches fell in Stanley, 12 inches at Lakeside Lodge in Fremont County, and 8 inches at Ashton.									
IDZ019>020-032									
Upper Snake Highlands - Upper Snake River Plain - Lost River / Pahsimeroi									
	24	0100MST			0	0			Extreme Cold/Wind Chill
		1000MST							
The first arctic frontal boundary of the winter season filtered through southeast Idaho on February 23rd and behind it strong northerly winds. Wind chill temperatures during the early morning hours of the 24th were widespread 20 to 30 below zero including the cities of Island Park, Driggs, Arco, and Rexburg.									
<u>IDAHO, Southwest</u>									
NONE REPORTED.									
<u>ILLINOIS, Central</u>									
Menard County									
	03	1043CST			0	0	0	0	Hail (0.88)
Oakford									
Knox County									
	11	1745CST			0	0			Thunderstorm Wind (G53)
Galesburg									
Thunderstorm winds blew down numerous light poles in Galesburg, mainly along US Routes 34 and 150 and on Interstate 74. One light pole fell onto a car breaking the windshield and denting the hood. The driver and passenger were not injured.									
Marshall County									
	11	1815CST			0	0			Thunderstorm Wind (G50)
Wenona									
Several light poles were blown down in town.									
Peoria County									
	11	1815CST			0	0			Thunderstorm Wind (G50)
Peoria									
Several trees and large power poles were blown down on the west and south sides of the city. No one was injured by the fallen trees or power poles.									
Woodford County									
	11	1830CST			0	0			Thunderstorm Wind (G54)
Eureka to		1840CST							
El Paso									
Thunderstorm winds blew down power lines in Eureka, Roanoke, Minonk, and El Paso.									

Storm Data and Unusual Weather Phenomena

February 2003

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, Central

Tazewell County

Tremont

11 1841CST 0 0 0 Thunderstorm Wind (G51)



After strong winds blew through Central Illinois...thousands of "Snow Rollers" were reported throughout the county warning area. A rare event occurred in northern portions of the Central Illinois county warning area. Thundersnow storms developed over eastern Iowa and moved rapidly east into Illinois. As the storms moved into the area, damaging winds, lightning, and near whiteout conditions were reported with the passage of the storms. After the storms weakened and moved out of central Illinois, strong gradient winds briefly developed and moved east across the county warning area. These winds created a rare phenomena...snow rollers. The snow rollers ranged in size from golfball size to over 30 inches long and a foot tall.

ILZ027>031-036>038-040>041

Knox - Stark - Peoria - Marshall - Woodford - Fulton - Tazewell - Mclean - Schuyler - Mason

14 1700CST 0 0 0 Heavy Snow
16 0300CST

Between 6 and 9 inches of snow accumulated across Knox County. The winter storm warning had a 24 hour lead time.

ILZ042>053

Logan - De Witt - Piatt - Champaign - Vermilion - Cass - Menard - Scott - Morgan - Sangamon - Christian - Macon

14 2300CST 0 0 0 Winter Storm
16 0300CST

Around a half inch of sleet accumulated across Logan County along with between 3 and 6 inches of snow with the heaviest snow in the far southern part of the county. The winter storm warning had a 27 hour lead time. The most severe winter storm of the season struck 22 counties of central IL from Friday evening on February 14 through early Sunday morning on February 16. Between 4 and 8 inches of snow accumulated along and north of Interstate 72 from Winchester to Springfield to Decatur to Champaign and Danville. There were local reports of 8 to 10 inches of snow across parts of Knox, Fulton, and Woodford counties. Around a quarter inch of ice also accumulated along the Interstate 72 corridor. In addition, winds of 30 to 50 mph especially Saturday evening caused major blowing and drifting snow across this area, with drifts as high as 3 to 5 feet. This winter storm had an average lead time of 24 hours.

ILZ068-071>073

Crawford - Clay - Richland - Lawrence

16 0900CST 0 0 0 Sleet Storm
2100CST

Between 1 and 2 inches of sleet accumulated across the southeast half of Crawford county from Robinson southeastward. Between 1 and 2 inches of sleet accumulated along and south of a Flora to Robinson line between 9 AM and 9 PM on Sunday February 16, 2003. A mixture of sleet and snow occurred north of this line up to Interstate 70, with sleet accumulations staying less than a half inch, and snowfall accumulations between 1 and 3 inches.

Storm Data and Unusual Weather Phenomena

February 2003

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

ILLINOIS, Central

ILZ073

Lawrence

23 2000CST

0

0

0

Heavy Snow

24 0400CST

Between 5 and 7 inches of snow fell across Lawrence county on February 23rd and 24th, with 6.5 inches measured in Lawrenceville. Minor blowing and drifting snow occurred. This would be the last winter storm of the season to affect southeast Illinois as low pressure moved northeast from Arkansas into Kentucky.

ILLINOIS, Northeast

ILZ032

Livingston

11 1830CST

0

0

High Wind (G60)

High winds caused 13 freight cars of a 105 car train to leave the tracks near Ancona. One of the derailed cars was carrying battery acid but no spill occurred. Some of the derailed cars damaged railroad crossing equipment as well as power lines. These high winds were associated with a strong cold which pushed across northern Illinois during the late afternoon and evening hours of February 11th.

ILZ032>033-039

Livingston - Iroquois - Ford

14 2000CST

0

0

Winter Storm

15 2000CST

A winter storm developed over the central plains Thursday February 13th and slowly moved east across the Ohio Valley on February 14th and 15th. The storm dumped between 6 and 9 inches of snow across parts of central Illinois. Chatsworth reported 8 inches, Pontiac reported 7 inches and Gibson City reported 6 inches. By Saturday morning, strong northerly winds produced significant blowing and drifting snow with near blizzard conditions in some areas on Saturday the 15th. Just north of this area across La Salle, Grundy, and Kankakee counties, snowfall amounts ranged from 3 to 5 inches.

ILZ014

Cook

16 0100CST

1

0

Extreme Cold/Wind Chill

0900CST

A 50 year old man died of hypothermia in Chicago. High temperatures on February 15th and 16th only reached the upper 20s with overnight lows in the teens. M500T

ILZ014

Cook

22 1700CST

0

0

High Wind (G54)

2000CST

Low pressure moving through the Ohio Valley on Saturday February 22nd deepened as it moved east. Northerly winds continued to increase during the late afternoon and evening, gusting to as high as 62 mph at Meigs Field in downtown Chicago.

ILLINOIS, Northwest

ILZ001>002-007-009-015>018

Jo Daviess - Stephenson - Carroll - Whiteside - Rock Island - Henry - Bureau - Putnam

11 1615CST

0

0

High Wind (G64)

1745CST

A narrow but intense line of snow showers, accompanied by some lightning, swept across much of Northwest and West Central Illinois during the late afternoon and early evening producing high winds and heavy snow. The high winds in combination with the heavy snow resulted in near blizzard conditions for a period of about 15 minutes. The strongest winds and worst conditions were generally observed north of Highway 34, where sustained wind speeds of 35 to 45 mph were common with occasional gusts to around 60 mph. The highest measured gust was 74 mph at Pearl City in Stephenson County. There were several reports of trees and power lines knocked down. The squall line generally deposited a quick one half to one inch of snow, but just as quick as the line moved in, it moved out in 15 minutes, leaving behind a bright blue sky.

ILZ007-009-015>018-024>026-034>035

Carroll - Whiteside - Rock Island - Henry - Bureau - Putnam - Mercer - Henderson - Warren - Hancock - McDonough

14 1600CST

0

0

Winter Storm

15 1200CST

A low pressure system developed over Southeast Colorado and moved into Southeast Kansas Friday night. Abundant moisture surged north into the Upper Mississippi Valley overrunning cold air at the surface. Initially the precipitation fell as rain in Southeast Iowa, Northeast Missouri and West Central Illinois during the early to middle afternoon. However, by late afternoon and evening, as the precipitation rapidly overspread the area from south to north, evaporational cooling changed any rain over to a wintery mixture of freezing rain, sleet and snow south of Highway 34, while north of Highway 34 the precipitation fell mainly as snow with some sleet and freezing rain near the Interstate 80 corridor. By Saturday morning the precipitation had changed over to snow as the surface low moved east toward the Ohio Valley allowing colder air to infiltrate the region on brisk north winds. Total snowfall accumulations by Saturday evening were generally in the range of 4 to 8 inches. Higher amounts of around 10 inches were reported in some locations between Interstate 80 and Highway 34. Winds of 20 to 30 mph produced considerable blowing and drifting snow, which greatly reduced visibilities in open areas.

ILLINOIS, South

ILZ088>090-092>094

Union - Johnson - Pope - Alexander - Pulaski - Massac

06 0600CST

0

0

Heavy Snow

2300CST

A two-part winter storm dropped an average of 3 to 5 inches of heavy wet snow across extreme southern Illinois, mainly south of the Marion and Carbondale areas. The first round of snow occurred during the early morning and dropped 1 or 2 inches. The second round

Storm Data and Unusual Weather Phenomena

February 2003

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

ILLINOIS, Southwest

ILZ079

Randolph

23 1600CST

24 0400CST

0 0

Winter Storm

Another winter storm struck extreme Southwest Illinois the 23rd - 24th. Six inches of snow accumulated across the county.

ILZ058>060-064>065-069>070-074-098>102

Greene - Macoupin - Montgomery - Bond - Fayette - Clinton - Marion - Washington - Calhoun - Jersey - Madison - St. Clair - Monroe

23 1700CST

24 0200CST

0 0

Winter Storm

Another winter storm produced snow across Southwest Illinois. Around 3 inches fell across the northern counties of the area with amounts near 6 inches across the south.

INDIANA, Central

INZ021-028>031-

035>042-046>049-

064>065-067>071

Carroll - Warren - Tippecanoe - Clinton - Howard - Fountain - Montgomery - Boone - Tipton - Hamilton - Madison - Delaware - Randolph - Hendricks - Marion - Hancock - Henry - Bartholomew - Decatur - Knox - Daviess - Martin - Lawrence - Jackson

14 1800EST

17 0000EST

0 0

Winter Storm

A series of systems brought winter weather to central Indiana. Across northern sections of central Indiana, an average of 4 to 9 inches of snow fell along with blowing and drifting conditions. Across southern sections of central Indiana, a layer of freezing rain and sleet fell followed by an average of 2 to 7 inches of snow. Numerous automobile accidents occurred, and some counties declared snow emergencies.

INZ038>042-047>049-054

Tipton - Hamilton - Madison - Delaware - Randolph - Marion - Hancock - Henry - Morgan

22 1800EST

23 0400EST

0 0

Winter Storm

Rain changed to snow behind a slow moving cold front providing parts of central Indiana with heavy snow. Snowfall was generally between 6 and 9 inches. Many automobile accidents occurred, and some areas were without power for a few hours.

INZ061-067>068

Greene - Knox - Daviess

22 1900EST

28 2359EST

0 0

Flood

Lowland flooding occurred along the White River in southwest Indiana:

Location, Flood Stage, Crest/Date

Elliston, 18.0, 19.22, 2/24

Newberry, 13.0, 13.43, 2/24

Edwardsport, 15.0, 16.50, 2/25

Petersburg, 16.0, 18.69 2/25

Hazleton, 16.0, 18.5, 2/26

INZ071

Jackson

23 0030EST

25 0000EST

0 0

Flood

The East Fork White river crested at 15.37 feet in Seymour, where the flood stage is 12.0 feet. A few roads were closed and agricultural land was flooded.

INZ061>064-067>071

Greene - Monroe - Brown - Bartholomew - Knox - Daviess - Martin - Lawrence - Jackson

23 1800EST

24 0400EST

0 0

Winter Storm

An area of low pressure brought heavy snow to southern sections of central Indiana. Around 6 inches of snow fell.

INZ070

Lawrence

26 0600EST

28 0200EST

0 0

Flood

The East Fork White river crested at 21.48 feet near Bedford, where the flood stage is 20.0 feet.

INDIANA, Northeast

INZ009-017>018-

024>027-032>034

De Kalb - Whitley - Allen - Wabash - Huntington - Wells - Adams - Grant - Blackford - Jay

22 1400EST

23 0100EST

0 0

Heavy Snow

Rain and freezing rain changed to snow in the early afternoon with a general 6 to 8 inch snowfall ending just after midnight. Higher

Storm Data and Unusual Weather Phenomena

February 2003

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, Northeast

amounts were received over Grant and Blackford counties with 10 to 11 inches reported in Marion and Hartford city.

INDIANA, Northwest

INZ010>011-019

Newton - Jasper - Benton

14	2100CST	0	0		Winter Storm
15	2100CST				

A winter storm developed over the central plains Thursday February 13th and slowly moved east across the Ohio Valley on February 14th and 15th. The storm dumped between 6 and 8 inches of snow across parts of northwest Indiana. Rensselaer reported 7 inches, Boswell reported 6.4 inches and Morocco reported 6 inches. By Saturday morning, strong northerly winds produced significant blowing and drifting snow with near blizzard conditions across parts of Benton county.

INDIANA, South Central

Harrison County

Ramsey

03	2130EST	0	0		Thunderstorm Wind (G50)
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Three trees were downed.

INZ076>079-084-090>092

Orange - Washington - Scott - Jefferson - Crawford - Harrison - Floyd - Clark

15	2000EST	0	0		Ice Storm
16	1800EST				

INZ083-089

Dubois - Perry

15	2000EST	0	0		Heavy Snow
16	1800EST				

Precipitation began over South Central Indiana late in the evening on February 15 mainly in the form of sleet. Some freezing rain also occurred during the day on February 16. Late in the afternoon of the 16th, the precipitation changed to all snow. Most of south central Indiana had one to two inches of sleet with a small amount of freezing rain. A band of heavy snow formed over the area on the evening of the 16th, which produced from four to six inches of snow accumulation.

INZ079

Jefferson

22	1845EST	0	0		Flood
23	0730EST				

The Muscatatuck River at Deputy crested at 21.5 feet at 1215 AM EST on February 23. Flood stage at Deputy is 20 feet. Minor flooding occurs at this level. County roads are under water in northeast Jefferson County, Indiana.

INZ089

Perry

25	0800EST	0	0		Flood
28	2359EST				

The Ohio River at Tell City crested around 40.6 feet at 8 AM EST on February 28. Flood stage at Tell City is 38 feet. Minor flooding occurs at this level. Indiana Highway 66 is closed two miles above Cannelton. The river begins to overflow its banks. Closing of flood gates begins. The river was still above flood stage as the month ended.

INDIANA, Southeast

NONE REPORTED.

INDIANA, Southwest

INZ081>082-085>088

Gibson - Pike - Posey - Vanderburgh - Warrick - Spencer

15	2300CST	0	0		Winter Storm
16	1900CST				

The Evansville Tri-State area received the brunt of a winter storm that began during the evening of February 15th and lasted about 24 hours. The precipitation was mainly in the form of sleet. Several inches of sleet, mixed with freezing rain and snow, resulted in major travel disruptions. Multi-vehicle pileups and highway closures were reported in Evansville near the beginning of the winter storm. A thick layer of ice caused by the compacted sleet and freezing rain mixture made travel difficult at best. The storm occurred on the Presidents Day weekend. Most schools and businesses scheduled to be open on Presidents Day were closed. The weight of the sleet caused docks at an Evansville marina to start sinking. Three covered boat houses, each holding 40 to 45 boats, were threatened. Some specific reports included: 4.3 inches at Evansville (with a liquid equivalent of 1.52 inches), 4 inches at Fort Branch in Gibson County, and 3 inches at Grandview in Spencer County.

INZ085-087>088

Posey - Warrick - Spencer

19	1200CST	0	0		Flood
28	2359CST				

The Ohio River rose above flood stage on the Mount Vernon and Newburgh gages by the 20th. The river was still rising at month's end. Through the end of the month, the flooding was generally minor, primarily confined to low-lying fields.

INZ081>082

Gibson - Pike

23	0400CST	0	0		Flood
28	2359CST				

Generally minor flooding of the White River occurred. The river crested near 18.5 feet at both Hazleton and Petersburg on February 25 and 26. Flood stage at both locations is 16 feet. Floodwaters covered low-lying woods and fields. Low lying oil fields and county roads flooded.

Storm Data and Unusual Weather Phenomena

February 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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INDIANA, Southwest

INZ081>082-085>088

Gibson - Pike - Posey - Vanderburgh - Warrick - Spencer

23 2000CST

0 0

Heavy Snow

24 0300CST

This snowstorm was short but intense. Heavy snowfall rates of up to 3 inches per hour were reported. Visibility was less than one quarter mile during the heaviest snow bursts. Total snowfall was 6 inches or more north of Interstate 64, and 4 to 5 inches elsewhere. The exception was well to the east of Evansville in Spencer County, where 2 to 4 inches fell. The heavy snow was caused by an intense upper level disturbance that moved east-northeast from Oklahoma. The surface low pressure system tracked northeast from Arkansas into south central Kentucky during the night of February 23. Specific snowfall reports included 8 inches at Hazelton in Gibson County, 5.5 inches at Petersburg in Pike County, 5 inches at St. Philip in Posey County, and 4 inches in downtown Evansville.

IOWA, Central

IAZ004>007-015>017-023>028-033>039-045-093

Emmet - Kossuth - Winnebago - Worth - Palo Alto - Hancock - Cerro Gordo - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Sac - Calhoun - Webster - Hamilton - Hardin - Grundy - Black Hawk - Carroll - Ringgold

11 1315CST

0 0

257K

High Wind (G65)

1600CST

An Alberta Clipper type low pressure passed to the north of Iowa during the day on the 11th as the vorticity center slid southeast across the area passing just northeast of Iowa. Very strong northwest winds were in place in the mid and upper levels of the atmosphere. Wind speeds were 130 kts between 9 and 10 km ASL, with 60 to 70 kt winds extending downward to within 1.5 km of the surface. A strong cold front dropped southeast across the state during the afternoon. Strong subsidence behind the front transported the stronger winds down to the surface for a period of a few hours. Winds were sustained in the 35 to 45 MPH range with occasional gusts of 60 to 65 MPH. An interesting thing with this event was the occurrence of the first convective system of the season. A line of thunderstorms developed just to the southwest of the vorticity center along the cold frontal boundary. As the cold front mentioned above moved southeast, a narrow line of thunderstorms developed along the front. The line was very fast moving. Combined with the already strong ambient winds, very strong gusts occurred with the line along with whiteout conditions in brief heavy snow and blowing snow. It was fortunate that there was no significant existing snow cover in Iowa. If there had there would have been a significant blizzard event. Though visibility was reduced to near zero with the thunderstorms, the period of visibility reduction was under 30 minutes. The strongest wind occurred in Franklin County at Latimer where a 74 MPH wind gust was recorded at 1352 CST. Wind were estimated at 70 MPH in Cerro Gordo County in Mason City proper at 1330 CST. The winds downed two large parking lot light poles. Wind gusts to around 75 MPH overturned 9 semi-tractortrailer trucks near Mason City on U.S. Highway 65. The winds also blew down several utility poles as well. Winds gusted to 60 MPH or more in the greater Waterloo area as the line passed. In Black Hawk County, the ASOS site at the Waterloo Airport recorded a 69 MPH wind gust with the passage of the thunderstorms at 1434 CST. Thunderstorms also produced 60 MPH winds at 1415 CST in Butler County as they moved through the Clarksville area. High winds in Bremer County blew down a barn near the town of Tripoli. Overall, damage was light with the event due to the fact that it occurred during the cold season since the trees were bare.

IAZ023-033>035-044>050-057>062-070>075-081>086-093>097

Pocahontas - Sac - Calhoun - Webster - Crawford - Carroll - Greene - Boone - Story - Marshall - Tama - Audubon - Guthrie - Dallas - Polk - Jasper - Poweshiek - Cass - Adair - Madison - Warren - Marion - Mahaska - Adams - Union - Clarke - Lucas - Monroe - Wapello - Ringgold - Decatur - Wayne - Appanoose - Davis

14 1100CST

0 0

170K

Winter Storm

15 1800CST

The seasons first major winter storm moved into Iowa during the day on the 14th. Low pressure moved into the southwest U.S., then across the Rockies. By the morning of the 14th, the low pushed into southwest Kansas into the Oklahoma Panhandle area. The eventual track was not typical of major snow storms in Iowa as the low tracked straight east, then eventually southeast into Alabama and Mississippi. A very wide contrast was in place between Arctic high pressure to the north and the storm to the south. For the first time in many months, this storm system had ample moisture to work with as surface dew points in the low 60s spread as far north as eastern Kansas and central Missouri. Meanwhile, north east of Iowa, where the surface flow was from, temperatures were in the -25 to -40 degree F. range over western Ontario. Precipitation spread into the state during the early morning hours of the 14th. The warm air had the upper hand initially, with the precipitation falling in the form of light rain over the south half of the state into the morning. As northeast winds strengthened, cold air was drawn down at the surface with the rain gradually changing to freezing rain and sleet from the north. Areas north of U.S. Highway 20 saw only snow with amounts in the 2 to 5 inch range. South of that, as the precipitation changed to freezing rain, many area received one to two tenths of an inch of freezing rain and sleet before the snow began. The heaviest ice accumulation was in Ida and Crawford Counties. A few area between Holstein and Schleswig received close to one quarter of an inch of ice. Some tree branches fell as a result of the ice accumulation. The changeover from to snow was slow, with the southern border of the state not changing over to snow until after midnight on the on the morning of the 15th. Once the snow began, it fell quite heavily. Snowfall rates of around an inch per hour were common. The heaviest snow fell across central Iowa, where a convective band of heavy snow developed. Snow in this band was falling at the rate of 1 to 2 inches per hours, with several reports of lightning and thunder received in the area around Des Moines. As for snow amounts, a broad area received in excess of 6 inches of snow. North of U.S. Highway 30, snowfall was generally in the 6 to 8 inch range. Much of it fell in under 10 hours during the beginning of the event. A few heavier reports were received, such as Dayton in Webster County with 9.5 inches and 8.5 inches in Rhodes in Marshall County. Southern Iowa south of U.S. Highway 34 generally received 6 to 10 inches of snow. Some of the heavier snow fell in the Ottumwa area of Wapello County with around 10 inches reported. The area between U.S. Highway 34 and U.S. Highway 30 received the greatest snowfall as the convective band of heavy snow remained over this area. Snowfall amounts in this band were generally in the 8 to 12 inch range. The heaviest snow was in the greater Des Moines area due to thunderstorm activity. Grandview Park, on the east side of

Storm Data and Unusual Weather Phenomena

February 2003

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

IOWA, Central

Des Moines, received the most with 14 inches. The Des Moines Airport received 13 inches, as did other parts of the east side of Des Moines. Windsor Heights picked up 12.3 inches, while Pleasant Hill and Alleman each received 12 inches. Due to the initial precipitation falling in the form of freezing rain and sleet, then a heavy wet snowfall on top of that, travel conditions deteriorated very rapidly. Though roads did not become impassible, however travel did become quite difficult. Gusty northeast winds of 20 to 40 MPH caused considerable drifting of the snow and some blowing snow. Had it been a drier snow, the situation would have approached blizzard conditions. The heavy snow and icing resulted in the closure and postponement of most activities scheduled for the night of the 14th and the 15th. Conditions improved once the storm moved out late on the 15th, however the improvement was slow because of the heavy wet nature of the snow.

IOWA, East Central and Southeast

IAZ040>042-051>054-063>068-077 **Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Scott - Washington**
 11 1458CST 0 0 High Wind (G52)
 1755CST

A narrow but intense line of snow showers, accompanied by some lightning, swept across much of Eastern Iowa during the mid to late afternoon producing high winds and heavy snow. The high winds in combination with the heavy snow resulted in near blizzard conditions for a period of about 15 minutes. The strongest winds and worst conditions were generally observed north of Highway 34, where sustained wind speeds of 35 to 45 mph were common with occasional gusts to around 60 mph. There were several reports of trees and power lines knocked down. The squall line generally deposited a quick one half to one inch of snow, but just as quick as the line moved in, it moved out in 15 minutes, leaving behind a bright blue sky.

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

14 1600CST 0 0 Winter Storm
 15 1200CST

A low pressure system developed over Southeast Colorado and moved into Southeast Kansas Friday night. Abundant moisture surged north into the Upper Mississippi Valley overrunning cold air at the surface. Initially the precipitation fell as rain in Southeast Iowa, Northeast Missouri and West Central Illinois during the early to middle afternoon. However, by late afternoon and evening, as the precipitation rapidly overspread the area from south to north, evaporational cooling changed any rain over to a wintery mixture of freezing rain, sleet and snow south of Highway 34, while north of Highway 34 the precipitation fell mainly as snow with some sleet and freezing rain near the Interstate 80 corridor. By Saturday morning the precipitation had changed over to snow as the surface low moved east toward the Ohio Valley allowing colder air to infiltrate the region on brisk north winds. Total snowfall accumulations by Saturday evening were generally in the range of 4 to 8 inches. Higher amounts of around 10 inches were reported in some locations between Interstate 80 and Highway 34. Winds of 20 to 30 mph produced considerable blowing and drifting snow, which greatly reduced visibilities in open areas.

IOWA, Northeast

IAZ010

Winneshiek
 02 0400CST 0 0 Winter Storm
 04 0300CST

The combination of ice, snow and wind caused hazardous traveling conditions. Freezing rain and rain preceded the snow, with snowfall amounts totaling around 3 inches. In addition, strong north winds of 30 to 40 mph caused some blowing and drifting.

IOWA, Northwest

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

11 1240CST 0 0 High Wind (G54)
 1545CST

Sustained winds of around 40 mph with gusts over 60 mph in places developed during the early afternoon and persisted for 2 to 3 hours before abating.

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

14 0630CST 0 0 Winter Storm
 2300CST

Snowfall of 3 to 6 inches was preceded by freezing rain. The combination produced hazardous travel conditions, caused several minor accidents, and forced some event cancellations. The icing was highly variable over distance, with some areas very icy while other places were mainly wet during the morning.

IAZ020-031

Plymouth - Woodbury
 14 1430CST 0 0 Winter Weather/Mix
 2300CST

A period of rain and freezing rain was followed by 1 to 3 inches of snow...causing slippery and slowed travel.

Storm Data and Unusual Weather Phenomena

February 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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IOWA, Southwest

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

14	1730CST				0	0			Winter Storm
15	1330CST								

Heavy snow fell over much of eastern Nebraska along and north of a line from David City to Lincoln to Nebraska City, and across much of southwest Iowa. The snow began Friday evening, 02/14/03, and continued into early Saturday afternoon, 02/15/03. Accumulations across much of the area were at or above 6 inches. Eight to ten inches fell along and southeast of a line from western Cass county to Gretna to Fremont, Nebraska and then to Little Sioux, Iowa. The snow was accompanied by north winds which gusted over 30 mph, which added to the poor visibilities and caused considerable drifting. The heavy snow was preceded by rain or drizzle which developed late Thursday night and continued into Friday. In most areas the precipitation changed to mix of sleet and rain late Friday afternoon before changing to snow early to mid evening. Some freezing rain also occurred, mostly along and north of a line from Columbus, Nebraska to Council Bluffs, Iowa. The freezing rain began around 5:15 pm CST and lasted from 30 minutes to several hours. Mainly just a light glazing was reported before it changed to snow, but a little more significant glazing was reported in Monona county of west central Iowa where some tree branches were downed.

Heavier snow totals in southwest Iowa included, 9 inches near Pacific Jct, 8 inches in Glenwood, Red Oak, Little Sioux and Randolph and 7 inches at Logan. Other locations in southwest Iowa generally received at least 6 inches.

KANSAS, East

KSZ008>012

Republic - Washington - Marshall - Nemaha - Brown

03	1100CST				0	0			Winter Storm
	1700CST								

Two to 3 inches of snow fell near the Nebraska border. Winds of 20 to 35 mph caused blowing and drifting of snow impeding travel for a time.

KSZ026-034>040-054>056

Jefferson - Ottawa - Dickinson - Geary - Morris - Wabaunsee - Shawnee - Douglas - Lyon - Osage - Franklin

05	1600CST				0	0			Winter Storm
06	0600CST								

A winter storm produced general amounts of one to 3 inches of snow across east central Kansas. The largest amount reported was 4 inches between Admire and Eskridge. Many vehicle accidents occurred, but no injuries were reported.

KSZ008>010-012-020-034>035-037-054

Republic - Washington - Marshall - Brown - Cloud - Ottawa - Dickinson - Morris - Lyon

14	0830CST				0	0			Dense Fog
	1500CST								

Dense fog reduced visibility to a quarter mile or less from mid morning to mid afternoon.

KSZ008-012-022>024-026-035>040-054>055

Republic - Brown - Riley - Pottawatomie - Jackson - Jefferson - Dickinson - Geary - Morris - Wabaunsee - Shawnee - Douglas - Lyon - Osage

23	0900CST				0	1			Winter Storm
	2000CST								

A winter storm brought one to 4 inches of snow to parts of northeast and east central Kansas with the largest amount near 4 inches reported near Garnett. Strong winds caused considerable blowing and drifting snow. Many schools were closed for a time. Numerous vehicle accidents occurred. One mile west of Baldwin a female driver lost control of her vehicle and was ejected from the vehicle. She suffered serious injuries and was treated at a nearby hospital.

KANSAS, Extreme Southeast

KSZ097-101

Crawford - Cherokee

23	1330CST				0	0			Winter Storm
	1530CST								

A late February snow storm affected the far southeastern corner of Kansas. Snow amounts ranged from 6 inches in central Crawford County to 10 inches near Baxter Springs. No property damages were noted.

KANSAS, North Central

NONE REPORTED.

KANSAS, Northeast

Johnson County

Edgerton

KSZ060

14	1919CST				0	0			Hail (0.75)
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Linn

23	1930CST				0	0			Winter Storm
24	0800CST								

A winter storm beginning the evening of February 23rd and ending the morning of February 24th, produced 5 to 6 inches of snow across Linn county.

Storm Data and Unusual Weather Phenomena

February 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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KANSAS, Northwest

KSZ001>004-013>016-027>029-041>042	Cheyenne - Rawlins - Decatur - Norton - Sherman - Thomas - Sheridan - Graham - Wallace - Logan - Gove - Greeley - Wichita								
	22	1800MST			0	0			Heavy Snow
	23	1200MST							

A winter storm brought 4 to 8 inches of snow across portions of northwest Kansas from Saturday evening through Sunday morning (2/22-2/23). The axis of heaviest snow fell from Benkelman, NE southeast through McDonald, KS to Grainfield and Quinter, KS. Blowing and drifting snow reduced visibility below one-half mile at times. A broad area of 2 to 5 inches of snow covered much of the remainder of northwest Kansas.

KANSAS, Southeast

KSZ067>072-082>083-091>096-098>100	Reno - Harvey - Butler - Greenwood - Woodson - Allen - Kingman - Sedgwick - Harper - Sumner - Cowley - Elk - Wilson - Neosho - Chautauqua - Montgomery - Labette								
	23	1540CST			1	15			Winter Storm
		2000CST							

A winter storm moving southeast from the Rockies across Oklahoma produced snowfalls of ranging from 6-15 inches across most of South-Central and Southeast Kansas from Sunday afternoon, the 23rd, to Monday morning, the 24th. The greatest accumulations, 13-15 inches, were measured in Harper County, with Southern Cowley, Southern Chautauqua, and Southern Montgomery counties second with depths of 10-11 inches. North winds of 20-30 mph caused widespread blowing and drifting snow, with visibilities frequently below 1 mile across the warned area.

The snow and blowing snow figured heavily in numerous accidents across the region, including Central Kansas where only 2-4 inch accumulations were measured. The accidents resulted in 21 injuries (7 in Harvey County, 6 in Saline, 4 in Montgomery, 3 in Sedgwick, and 1 in Woodson,) and 1 fatality (in Woodson County). In Saline County, snow accumulations ranged from 2-4 inches, but among the accidents was a 12-vehicle chain-reaction in Salina that closed I-70 for around 2 hours just a few miles east of the I-135 interchange. Reports from AGTAP spotters, co-operative observers and area newspapers were invaluable in the assemblage of this report. F21VE

KANSAS, Southwest

KSZ030>031-043>046-061>066-074>081-084>090	Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Morton - Stevens - Seward - Meade - Clark - Comanche - Barber								
	23	0100CST			0	0			Winter Storm
		1000CST							

A strong winter storm moved from eastern Colorado to southern Kansas bringing blizzard conditions and a swath of heavy snow. Most of southwestern Kansas was blanketed with a least 2 to 5 inches of snow, with a much heavier band centered along and 45 miles either side of a line from Kiowa through Coldwater, to Cimarron and Scott City where 10 to 14 inches were reported. Within this general area, a 20 mile wide band of 14 to 16 inch accumulations were common, extending from 10 miles south of Dodge City, through Coldwater to near Kiowa in Barber county. The largest amount reported was 17 inches by an observer at Sun City.

Many roads and highways were closed, numerous churches cancelled services and many schools closed the following Monday. Many dozen vehicle accidents were reported due to snowpacked roads and poor visibilities.

KSZ030>031-043>046-061>066-074>081-084>085	Trego - Ellis - Scott - Lane - Ness - Rush - Hamilton - Kearny - Finney - Hodgeman - Pawnee - Stafford - Stanton - Grant - Haskell - Gray - Ford - Edwards - Kiowa - Pratt - Morton - Stevens								
	28	0200CST			0	0			Winter Storm
		1500CST							

A potent winter storm moving out of New Mexico first spread freezing drizzle across the area east of Dodge City and then turned to snow, becoming heaving in many areas. Six to nine inches of snow was common in a 25 mile wide band stretching from McCracken in Rush county, southwest through Ness City, to Garden City and into western Grant county. Elsewhere, amounts ranged from 3 to 5 inches. Many schools were closed and numerous accidents were reported due to the typical winter driving conditions that usually accompanies common winter storms. Many events planned for the following day (Saturday) were cancelled.

KENTUCKY, Central

Hardin County Radcliff	03	2215EST			0	0			Thunderstorm Wind (G50)
			Two trees were downed.						
Hardin County Elizabeth Town	15	0900EST			0	0	5K		Flash Flood
		1000EST	Several automobiles were stranded in high water on Highway 62.						
Nelson County New Haven	15	0915EST			0	0			Flash Flood
		1000EST	Some creeks and streams were out of their banks.						

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
KENTUCKY, Central									
KYZ026			Ohio						
	15	1200EST			0	0			Flood
	18	1000EST							
	The Rough River at Dundee crested around 27.8 feet at 530 PM EST on February 16. Flood stage at Dundee is 25 feet. Minor flooding occurs at this level. Bottomland on the right bank is covered. The left bank about half a mile downstream from the gauge begins to flood.								
KYZ042			Bourbon						
	15	1330EST			0	0			Flood
	17	2230EST							
	Stoner Creek at Paris crested at 20.5 feet at 10 PM EST on February 16. Flood stage at Paris is 18 feet. Minor flooding occurs at this level. Water enters yards of homes downstream from the water plant. Parts of the city park are flooded.								
KYZ023>031-033>034-038-045-053			Hancock - Breckinridge - Meade - Ohio - Grayson - Hardin - Bullitt - Jefferson - Oldham - Henry - Shelby - Spencer - Nelson - Larue						
	15	1600EST			0	0	180K		Ice Storm
	16	2100EST							
	Freezing rain began late in the afternoon of the 15th. The freezing rain changed to sleet late in the evening, and alternated between sleet and light freezing rain through most of the 16th. A thick coating of mostly sleet and some freezing rain accumulated one to two inches in most locations. Most of the property damage assessment in the area was due to expenses associated with the restoration of power and post storm cleanup of tree damage. About 2200 residents in Nelson County were without power after the storm. Sections of Interstate 64 were periodically shut down during the storm.								
KYZ035>037-039>043-046>049-054>057			Franklin - Scott - Harrison - Anderson - Woodford - Fayette - Bourbon - Nicholas - Washington - Mercer - Jessamine - Clark - Marion - Boyle - Garrard - Madison						
	15	1900EST			1	0	26.3M		Ice Storm
	16	2100EST							
	Light to occasionally moderate freezing rain began on the evening of the 15th, and continued through the evening of the 16th. Reports of ice accumulations of an inch were common along and north of Interstate 64, from Frankfort to Winchester. The hardest hit areas were in and around the cities of Frankfort and Lexington, where up to an inch and a quarter of ice accumulation was observed. A 78 year old male in Lawrenceburg in Anderson County died of injuries sustained when he was struck by a falling, ice covered, tree limb. After the storm, it is estimated that nearly 125,000 residents were without power for up to five days or more. Most of the property damage was reported in the Lexington area. A great deal of the monetary damage was for cleanup and restoration of power in the days after the storm. M78UT								
KYZ061			Butler						
	16	0700EST			0	0			Flood
	25	1300EST							
	The Green River at Woodbury crested around 39.8 feet at 7 AM EST on February 18. Flood stage at Woodbury is 33 feet. Minor flooding occurs at this level. Low spots on both North and South Church Streets are flooded, along with several county roads.								
KYZ043			Nicholas						
	16	1000EST			0	0			Flood
	19	1900EST							
	The Licking River at Blue Licks Spring crested around 31.7 feet at 3 PM EST on February 17. Flood stage at Blue Licks Spring is 25 feet. Minor flooding occurs at this level. Some cultivated crop lands are flooded.								
KYZ061			Butler						
	16	1030EST			0	0			Flood
	28	0200EST							
	The Green River at Rochester crested around 22.0 feet at 7 AM EST on February 21. Flood stage at Rochester is 17 feet. Minor flooding occurs at this level.								
KYZ063			Hart						
	16	1430EST			0	0			Flood
	18	1930EST							
	The Green River at Munfordville crested near 33.0 feet at 5 PM EST on February 17. Flood stage at Munfordville is 28 feet. Minor flooding occurs at this level. The city park under the US Highway 31W bridge is flooded.								
KYZ049			Clark						
	16	1530EST			0	0	5K		Flood
	20	1300EST							
	The Kentucky River at Ford Lock crested at 32.4 feet at 11 PM EST on February 18. Flood stage at Ford is 26 feet. Minor flooding occurs at this level. Kentucky Highway 388 floods and several homes are threatened. Some of the offices at Fort Boonesboro State Park flood.								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
KYZ062			Edmonson						
	16	1700EST			0	0			Flood
	19	2000EST							
	The Green River at Brownsville crested near 23.0 feet at 3 PM EST on February 18. Flood stage at Brownsville is 18 feet. Minor flooding occurs at this level. The river begins to overflow the lock walls and some of the lower banks, creeks, sloughs, and some bottomland.								
KYZ048			Jessamine						
	16	1830EST			0	0			Flood
	21	0130EST							
	The Kentucky River at High Bridge crested at 34.5 feet at 10 AM EST on February 18. Flood stage at High Bridge is 30 feet. Minor flooding occurs at this level. Several homes in the village of High Bridge were threatened by flood waters, but were not flooded. Roads near the lock were flooded.								
KYZ071			Warren						
	17	0100EST			0	0			Flood
		1330EST							
	The Barren River at Bowling Green crested at 28.6 feet at 6 AM EST on February 17. Flood stage at Bowling Green is 28 feet. Minor flooding occurs at this level. Cultivated land begins to flood on the right bank about 8 miles downstream from the gauge.								
KYZ035			Franklin						
	17	0900EST			0	0			Flood
	21	1630EST							
	The Kentucky River at Frankfort crested at 35.1 feet at 1215 AM EST on February 20. Flood stage at Frankfort is 31 feet. Minor flooding occurs at this level. Kentucky Highway 420 is flooded one half mile north of the East-West connector. Water covers low spots in Wilson Street in Bellepoint.								
KYZ045			Nelson						
	17	1300EST			0	0	20K		Flood
	19	2000EST							
	The Rolling Fork River at Boston crested at an estimated level of 43 and a half feet around 7 PM EST on February 17. Flood stage at Boston is 35 feet. Moderate flooding occurs at this level. A few homes and trailers outside of Boston are flooded.								
KYZ026			Ohio						
	22	2000EST			0	0			Flood
	24	1030EST							
	The Rough River at Dundee crested around 26.2 feet at 130 PM EST on February 23. Flood stage at Dundee is 25 feet. Minor flooding occurs at this level. A section of Kentucky Highway 69 about half a mile long near the bridge begins to flood on the right bank.								
KYZ045			Nelson						
	24	0045EST			0	0			Flood
		1130EST							
	The Rolling Fork River at Boston crested at 35.2 feet at 4 AM EST on February 24. Flood stage at Boston is 35 feet. Minor flooding occurs at this level. Some agricultural bottomland in the area is covered.								
KYZ043			Nicholas						
	25	0700EST			0	0			Flood
	The Licking River at Blue Licks Spring crested around 25.0 feet at 7 AM EST on February 25. Flood stage at Blue Licks Spring is 25 feet. Bottomland begins to flood at this level.								
<u>KENTUCKY, Eastern</u>									
Laurel County									
Dortha	14	2248EST			0	0	50K	0	Flash Flood
	15	0400EST							
	Water was over Kentucky Highway 312 at the intersection of Interstate 75. Water also covered roads at Lily and Fariston.								
Morgan County									
6 SW Liberty Rd	15	0650EST			0	0	0	0	Flash Flood
		1000EST							
	Water was covering roads.								
Perry County									
2 W Vicco	15	0730EST			0	0	0	0	Flash Flood
		1030EST							
	One foot of water was flowing over Acup Road off of Highway 15.								
Pike County									
Varney	15	0900EST			0	0	0	0	Flash Flood
		1200EST							
	Highway 881 was closed due to high water flowing over the road.								

Storm Data and Unusual Weather Phenomena

February 2003

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>									
Magoffin County									
Salyersville	15	0915EST 1145EST			0	0	0	0	Flash Flood
Five inches of water from the State Fork was flowing across Highway 40 on the east side of town.									
Johnson County									
Paintsville	15	0920EST 1220EST			0	0	0	0	Flash Flood
Mill Branch Road was closed due to high, flowing water.									
Knox County									
Flat Lick	15	1100EST 1400EST			0	0	0	0	Flash Flood
One foot of water was flowing over roads in Flat Lick.									
Martin County									
Calf Creek	15	1130EST 1400EST			0	0	0	0	Flash Flood
Highway 292 was flooded in many locations.									
Whitley County									
Corbin	15	1137EST 1400EST			0	0	0	0	Flash Flood
Two feet of water was over 5th Street and Black Diamond Road.									
Breathitt County									
Wolverine	15	1140EST 1410EST			0	0	0	0	Flash Flood
Highway 3193 was flooded.									
Estill County									
Countywide	15	1230EST 1415EST			0	0	0	0	Flash Flood
Numerous roads had water flowing over them.									
Laurel County									
Lily	15	1230EST 1400EST			0	0	0	0	Flash Flood
Three feet of water was over Highway 578.									
Lee County									
6 NW Beattyville	15	1230EST 1500EST			0	0	0	0	Flash Flood
Numerous roads in the area had flowing water over them, with over a foot of flowing water near Crystal.									
Knox County									
2 N Barbourville	15	1315EST 1415EST			0	0	0	0	Flash Flood
Eight inches of water were flowing across Highway 11 at Longbranch.									
KYZ044-050-052-058-058>060-068>069-080-083-087-106-106>108-108>112-114>120									
	15	1436EST 1440EST			0	0	1.3M	0	Flood
Widespread flooding in low lying areas countywide.									
Floyd County									
Prestonsburg	15	1438EST 1645EST			0	0	0	0	Flash Flood
Portions of Highway 1427 and 194 were closed due to several feet of flowing water.									
Montgomery County									
Mt Sterling	15	1545EST 1845EST			0	0	0	0	Flash Flood
One to two feet of water was flowing over Hinkston Pike. Also, one foot of water was flowing over Highway 460 near Jeffersonville.									
KYZ110									
	15	1600EST			0	0	0	0	Landslide
Several mudslides occurred near Garrett and Martin. Some roads were impassable with some water over the roads.									

Storm Data and Unusual Weather Phenomena

February 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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KENTUCKY, Eastern

KYZ044-050>052-060-104-106-108>109 **Fleming - Montgomery - Bath - Rowan - Menifee - Elliott - Morgan - Wolfe - Magoffin**

15	1845EST				0	0	40K	0	Ice Storm
17	0330EST								

One and one half to two inches of ice and sleet on the ground and trees. Heavy rain inundated much of eastern Kentucky on February 14th through February 16th. Anywhere from 3 to 7 inches of rain fell over this 3 day period. This rain initially produced flash flooding for many counties of eastern Kentucky. To complicate matters, ongoing rain induced general flooding over entire counties where much of the flash flooding earlier occurred. The referenced points are generally the first in the county to get generalized flooding, with the rest of the county following suit. To further complicate matters, an ice storm from the same system occurred mainly north of the Mountain Parkway. Some counties received flooding and ice. Each county in the ice storm contained a countywide event, and the referenced location is the first one reported for the corresponding county. The large amounts of rain and ice produced significant damage to homes, cars, churches, schools, trees and power lines. No one died as a direct result of this event. However, near the onset of precipitation, one man died and two were injured in Johnson County after driving over a patch of ice and falling into a creek which contained water of around 2 feet deep.

KYZ059-085>088-107-111>112-114>115-120 **Powell - Whitley - Knox - Bell - Harlan - Johnson - Lee - Breathitt - Owsley - Perry - Pike**

16	0148EST				0	0	19.6M		Flood
20	0909EST								

At 1000 EST, February, 17, the Red River crested at 23.16 feet. This is 4.16 feet above flood stage. Widespread heavy rainfall fell across the region from February 14th through February 16th. This resulted in moderate to major flooding across the Kentucky, Cumberland, Big Sandy, and Licking River Basins. River crests at many locations were the highest since May, 1984. Three day rainfall totals in excess of four inches were prevalent during this event, with amounts of five to six inches being reported in portions of the Kentucky and Licking Basins. This caused millions of dollars worth of property damage.

KYZ085

Whitley

18	0830EST				0	0	0	0	Flood
19	2206EST								

Several roads countywide were flooded with several feet of water.

KYZ117

Leslie

22	0700EST				0	0	0	0	Landslide
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A mudslide occurred in the town of Wooten next to a trailer on Pound Mill Road.

Letcher County

Blackey

22	0740EST 1100EST				0	0	0	0	Flash Flood
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Water over Kentucky Highway 7 at Doty Creek.

Letcher County

Van

22	0754EST 1100EST				0	0	0	0	Flash Flood
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Smoot Creek Road was under water at the intersection of Kentucky Highway 15 and Kentucky Highway 160.

Whitley County

1 N Williamsburg

22	1540EST				0	0	0	0	Hail (0.75)
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Jackson County

Annville

22	1550EST				0	0	0	0	Hail (0.75)
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Owsley County

5 W Booneville

22	1552EST				0	0	0	0	Hail (1.00)
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Knox County

Gray

22	1600EST				0	0	0	0	Hail (0.75)
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Breathitt County

2 W Oakdale

22	1609EST 1610EST	0.5	75		2	7	300K	0	Tornado (F1)
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A large swath of downburst winds, nearly 450 yards wide, swept through the damaged area. Embedded in these winds was an F1 tornado, with winds between 100 and 112 mile per hour. At least five trailer homes were completely destroyed along with several other structures including tobacco barns and outbuildings. Twelve cars were also destroyed in a car lot. Numerous trees were down or uprooted. Two people died as a result of injuries from their mobile homes being tossed off of the ground.
F27MH, M40MH

Clay County

2 SE Manchester

22	1630EST				0	0	0	0	Hail (0.75)
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Perry County

Chavies

22	1635EST				0	0	0	0	Thunderstorm Wind (G55)
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Trees and power lines were down.

Breathitt County

Ned

22	1640EST				0	0	0	0	Hail (0.88)
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Storm Data and Unusual Weather Phenomena

February 2003

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>									
Clay County									
Hector	22	1705EST			0	0	0	0	Hail (0.75)
Floyd County									
1 NW Prestonsburg	22	1714EST			0	0	0	0	Hail (0.75)
Three quarter inch diameter hail was reported along Abbott Creek.									
Leslie County									
Thousandsticks	22	1715EST			0	0	0	0	Hail (0.75)
Three quarter inch diameter hail was reported along Osborne Fork.									
Floyd County									
Prestonsburg	22	1715EST			0	0	0	0	Hail (0.75)
Three quarter inch diameter hail covered the ground.									
Floyd County									
Auxier	22	1715EST			0	0	1K	0	Thunderstorm Wind (G80)
Trees were down and shingles were blown off of roofs.									
Martin County									
Inez	22	1735EST			0	0	0	0	Hail (1.75)
Floyd County									
Prestonsburg	22	1740EST			0	0	0	0	Hail (1.00)
Martin County									
2 E Inez	22	1740EST			0	0	0	0	Hail (1.00)
Martin County									
Debord	22	1740EST			0	0	0	0	Hail (1.00)
Hail covered the ground to the depth of one inch.									
Martin County									
Debord	22	1740EST			0	0	0	0	Thunderstorm Wind (G60)
Trees and power lines were down.									
Martin County									
3 SE Inez	22	1745EST			0	0	0	0	Hail (0.75)
Hail covered the ground.									
Knott County									
3 N Hindman	22	1800EST			0	0	0	0	Thunderstorm Wind (G50)
Large tree limbs were down.									
Martin County									
Threeforks	22	1800EST			0	0	0	0	Thunderstorm Wind (G55)
Trees were down.									
Letcher County									
Neon	22	1825EST			0	0	0	0	Hail (1.00)
Pike County									
Dorton	22	1835EST			0	0	0	0	Hail (1.00)
Pike County									
Lookout	22	1900EST			0	0	0	0	Thunderstorm Wind (G60)
Multiple trees were down along Kentucky Highway 195.									
Pike County									
Ashcamp	22	1915EST			0	0	0	0	Thunderstorm Wind (G60)
Numerous trees were down along Kentucky Highway 197.									
Pike County									
1 W Elk Horn City	22	1945EST			0	0	0	0	Thunderstorm Wind (G55)
Trees and power lines were down.									
KYZ085-111									
Whitley - Lee									
	23	0951EST			0	0	0	0	Flood
		2012EST							

At 1 PM EST, February 23, The Cumberland River at Williamsburg crested at 21.16 feet. This was 0.16 feet above flood stage. About one week after the deluge which caused major flooding in many areas, a second, weaker storm system moved through. This was enough to put the Kentucky and Cumberland Rivers barely above flood stage at one forecast point per river, but only for several hours. This caused little if any additional damage since the crests from the previous week were much higher.

Storm Data and Unusual Weather Phenomena

February 2003

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

KENTUCKY, Eastern

KYZ119

Martin

23 1755EST

25 0603EST

0 0 0 0 **Flood**

There was backwater flooding from the Tug Fork of the Big Sandy River. Kentucky Highway 192 was closed in several locations in the far eastern portion of the county near Hode, Warfield, and Mount Sterling. There was six feet of water over Kentucky Highway 1714 near Buck Branch Road. Riverfront Road was also closed.

KENTUCKY, Northeast

KYZ101>103-105

Greenup - Carter - Boyd - Lawrence

15 2300EST

17 1500EST

0 0 1.1M **Flood**

Three day rain totals, beginning on the 14th, totaled 4 to 6 inches. Louisa had 5.5 inches of rain, while Ashland measured 4.9 inches. Other cooperative measurements included 4.7 inches at Charley, 4.5 inches at Grayson Lake, and 4.1 inches at the Greenup Lock and Dam.

Small stream and river flooding resulted. Some roads were covered by 15 feet of water. The Little Fork flooded areas around Hitchins and Willard in Carter County. Four mobile homes and 1 single family home were destroyed in Greenup County. Three homes were affected in Lawrence County. The East Fork of the Little Sandy overflowed in Boyd County. The crest on the Little Sandy River at Grayson was 24.7 feet around 0900E on the 17th. Flood stage is 21 feet.

KYZ101>103-105

Greenup - Carter - Boyd - Lawrence

16 0400EST

17 1200EST

0 0 2.4M **Ice Storm**

Ice from freezing rain accumulated 1 to 2 inches on power lines and trees. Fallen trees and branches blocked roads and knocked out electricity and phone service. The worst conditions were in western portions of Carter and Greenup Counties compared to points further east, in Boyd and northern Lawrence Counties. Olive Hill reported an inch of ice on exposed surfaces, with no electricity for 8 days. The power outages forced the state parks at Carter Caves and Greenbo to temporarily close. A South Shore resident of Greenup County reported about 2 inches of solid ice. He said, "It looks like a war zone, all of our trees are just mangled".

Governor Patton requested a disaster declaration from President Bush, covering both the severe icing and the flooding across portions of the Commonwealth. The disaster was approved, including the 4 northeast Kentucky counties. See FEMA disaster number 1454 for county assistance.

Lawrence County

5 W Louisa

22 1730EST

0 0 1K **Thunderstorm Wind (G50)**

Trees fell across Route 32.

KENTUCKY, Northern

KYZ090-092-095>100

Gallatin - Kenton - Grant - Pendleton - Bracken - Robertson - Mason - Lewis

22 1340EST

1550EST

0 0 **Flood**

Thunderstorms producing heavy rain developed along a strong cold front during the early afternoon. The rains combined with melting ice to cause numerous high water problems across northern Kentucky. Several creeks went out of their banks, and many roads were closed due to high water. A bridge was flooded for a brief period near McKinneysburg in southern Pendleton county.

KENTUCKY, Southwest

Carlisle County

Bardwell to

Cunningham

03 1800CST

1803CST

0 0 **Thunderstorm Wind (G54)**

Winds gusted to 62 MPH at the county emergency operations center in Bardwell. Power lines were down at Cunningham.

KYZ001>009-011-013

Fulton - Hickman - Carlisle - Ballard - Mccracken - Graves - Livingston - Marshall - Calloway - Lyon - Caldwell

06 0600CST

2300CST

0 0 **Heavy Snow**

A two-part winter storm dropped an average of 3 to 5 inches of heavy wet snow across far western Kentucky, mainly from Kentucky Lake west. The first round of snow occurred during the early morning and dropped 2 to 4 inches. The second round during the evening produced another inch or two. Temperatures during the event were very close to freezing, and most of the accumulation was on grassy areas. Slushy roads were a concern, but the impact on travel was relatively minor. One of the worst accidents was a state highway plow that spun around and rolled over on Kentucky 307 in Hickman County. There were no injuries. The snow was caused by an upper level disturbance moving east northeast from the Four Corners region. Some of the highest specific snowfall amounts included:

5 inches at Paducah, 5 inches at Water Valley (in Graves County near the Tennessee border), and 4 inches at Princeton. East of Kentucky Lake, snowfall was an inch or two in most places.

KYZ001>022

Fulton - Hickman - Carlisle - Ballard - Mccracken - Graves - Livingston - Marshall - Calloway - Crittenden -

Lyon - Trigg - Caldwell - Union - Webster - Hopkins - Christian - Henderson - Daviess - Mclean - Muhlenberg -

Todd

09 1300CST

10 0100CST

0 0 **Winter Weather/Mix**

Two to four inches of snow fell across western Kentucky. The heaviest amounts were reported along the Tennessee border east of

Storm Data and Unusual Weather Phenomena

February 2003

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>									
Franklin Parish									
Countywide	21	1945CST 2100CST			0	0	5K		Flash Flood
Heavy rains caused standing water on several rural roads across the county.									
Tensas Parish									
Waterproof	21	1955CST 2230CST			0	0	1K		Flash Flood
Heavy rains caused a portion of a street in Waterproof to flood. The flooded street was state road 3209 near US Highway 65.									
Tensas Parish									
Waterproof	21	2100CST 2230CST			0	0	1K		Flash Flood
Heavy rains caused Guthrie and Bethel Courts to flood.									
<u>LOUISIANA, Northwest</u>									
Winn Parish									
2 W Calvin	21	1559CST 1945CST			0	0			Flash Flood
Flooding across Highway 156 resulting in the closure of the highway.									
Sabine Parish									
5 S Many	21	1715CST 1845CST			0	0			Flash Flood
Shady Hill Road closed due to high water.									
Jackson Parish									
2 W Jonesboro	21	1740CST 1945CST			0	0			Flash Flood
Ed Barnes Road closed and Beech Springs Road as well as Highway 34 were closed from flood waters.									
Grant Parish									
Colfax	21	1740CST 1945CST			0	0			Flash Flood
Several Parish roads were closed due to excessive heavy rainfall and brief flash flooding.									
<u>LOUISIANA, Southeast</u>									
Pointe Coupee Parish									
Countywide	21	1500CST 2300CST			0	0			Flash Flood
West Feliciana Parish									
Countywide	21	1800CST 2300CST			0	0			Flash Flood
Heavy rainfall of 3 to 6 inches caused flooding of secondary roadways and some property in low lying areas.									
Tangipahoa Parish									
Hammond	21	2332CST			0	0	1.5K		Thunderstorm Wind (G50)
Numerous trees and power lines were blown down.									
<u>LOUISIANA, Southwest</u>									
Iberia Parish									
New Iberia	06	1410CST			0	0	75K		Thunderstorm Wind (G75)
A small microburst tore through the west side of New Iberia, blowing down trees and power lines, and damaging several homes and businesses. One warehouse and neighboring homes had part of their roofs torn off.									
Vermilion Parish									
Delcambre	15	1200CST 1202CST	0.5	10	0	1	125K		Tornado (F1)
A small tornado touched down in a mobile home park, destroying four trailers. One trailer was lifted 75 yards in the air, and landed on top of a telephone pole. Only one trailer was occupied during the storm. That tenant received a broken arm and numerous cuts and bruises when her trailer flipped upside down and landed on a neighboring trailer.									
Beauregard Parish									
Longville	21	0050CST			0	0	10K		Thunderstorm Wind (G50)
A tree fell across Highway 171, causing a vehicle accident.									
Calcasieu Parish									
North Portion	21	0400CST 0600CST			0	0	10K		Flash Flood
Most highways and parish roads were closed due to high water.									
Acadia Parish									
Church Pt	21	0530CST 0700CST			0	0	75K		Flash Flood

Storm Data and Unusual Weather Phenomena

February 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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LOUISIANA, Southwest

Severe flooding occurred across northern sections of Acadia Parish, including the Church Point area. Numerous homes and businesses had water enter them, and many roads were closed.

Jefferson Davis Parish

Welsh	21	0530CST 0700CST			0	0	20K		Flash Flood
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Up to seven inches of rain fell overnight, resulting in flash flooding in Welsh, where numerous roads were closed.

LAZ030

Beauregard

	21	0600CST 1800CST			0	0	25K		Flood
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Due to heavy rains, numerous roads were closed across Beauregard Parish, including low spots in the Fields, DeRidder, Longville, Ragley, and Dry Creek areas.

LAZ027

Vernon

	21	0600CST 1800CST			0	0	50K		Flood
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Recent heavy rains resulted in widespread flooding in the Hornbeck and Anacoco areas, especially along Brushy Creek. Water entered several homes and businesses.

St. Landry Parish Countywide

	21	0700CST 0900CST			0	0	250K		Flash Flood
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Nearly five inches of rain in a few hours resulting in widespread flooding across St. Landry Parish. Numerous roads were closed, and motorists were stranded in deep water. Hundreds of homes flooded in Eunice, which locals called the worst flooding in ten years. At the airport, water was nearly two feet deep in the offices. The library, which was still closed from Hurricane Lili last fall, had water enter the building and damage the carpet.

MAINE, North

MEZ001>002

Northwest Aroostook - Northeast Aroostook

02	1300EST				0	0			Blizzard
03	1030EST								

Rapidly intensifying low pressure slowly tracked through the Gulf of Maine to Nova Scotia from Sunday the 2nd through the early morning hours of Monday the 3rd. The storm brought heavy snow and blizzard conditions to the region. Heavy snow developed during the morning of the 2nd and continued into the early morning hours of the 3rd. Localized snowfall rates of 3 to 4 inches per hour were reported at times from the evening of the 2nd through the early morning hours of the 3rd before the snow gradually diminished in intensity before ending. Strong winds developed during the late morning and afternoon of the 2nd with sustained winds of 25 to 35 mph and frequent gusts to around 45 mph. Similar wind speeds then persisted through mid morning of the 3rd. Even though the intensity of the snowfall diminished early on the 3rd...the strong winds and remaining snow still produced blizzard conditions and frequent whiteouts through mid morning of the 3rd.

Storm total snow accumulations ranged from 8 to 14 inches across northwest areas...with 18 to 24 inches of snow common across northeast areas. This was one of the most significant storms to affect northeast Maine in nearly 20 years and the 23.8 inches of snow reported at Caribou represented the second greatest snow event ever. Snow drifts in excess of 8 feet were reported across northeast areas.

MEZ011-015>017-031>032

Central Penobscot - Southern Penobscot - Interior Hancock - Central Washington - Southern Piscataquis - Northern Washington

02	1600EST				0	0			Winter Storm
03	0400EST								

Rapidly intensifying low pressure slowly tracked through the Gulf of Maine to Nova Scotia from Sunday the 2nd through the early morning hours of Monday the 3rd. The storm brought heavy snow...sleet and freezing rain to the region.

Storm total snow accumulations generally ranged from 6 to 12 inches...although localized totals up to 18 inches were reported across northern portions of Washington county. Sleet and freezing rain also accompanied the storm with ice accumulations of generally 1/4 to 3/4 of an inch...although localized ice accumulations of around an inch were reported.

MEZ003>006-010

Northern Somerset - Northern Piscataquis - Northern Penobscot - Southeast Aroostook - Central Piscataquis

02	1800EST				0	0			Blizzard
03	1030EST								

Rapidly intensifying low pressure slowly tracked through the Gulf of Maine to Nova Scotia from Sunday the 2nd through the early morning hours of Monday the 3rd. The storm brought heavy snow and blizzard conditions to the region. Heavy snow developed during the morning of the 2nd and continued into the early morning hours of the 3rd. Localized snowfall rates of 2 to 3 inches per hour were reported at times from the evening of the 2nd through the early morning hours of the 3rd before the snow gradually diminished in intensity before ending. Strong winds developed during the afternoon and evening of the 2nd with sustained winds of 25 to 35 mph and frequent gusts to around 45 mph. Similar wind speeds then persisted through mid morning of the 3rd. Even though the intensity of the snowfall diminished early on the 3rd...the strong winds and remaining snow still produced blizzard conditions and frequent whiteouts through mid morning of the 3rd.

Storm total snow accumulations ranged from 8 to 14 inches across northwest portions of the region to 12 to 18 inches across eastern areas.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MAINE, North</u>									
MEZ001-003			Northwest Aroostook - Northern Somerset						
	04	1800EST			0	0			Heavy Snow
	05	0200EST							
	Low pressure tracking across the state produced 6 to 12 inches of snow across the region.								
MEZ001>002-005>006			Northwest Aroostook - Northeast Aroostook - Northern Penobscot - Southeast Aroostook						
	05	0300EST			0	0			Winter Weather/Mix
		1500EST							
	Sustained winds of 20 to 30 mph...with gusts to 45 mph...combined with recent snow to produce extensive blowing and drifting snow. The snow blowing from high snow banks along area roads produced extensive drifting across the roads with frequent whiteout conditions. The drifting snow and limited visibility contributed to several multiple vehicle accidents along Route 1 between Caribou and Presque Isle which resulted in the road being closed for nearly an hour during the morning.								
MEZ015>017-029>030			Southern Penobscot - Interior Hancock - Central Washington - Coastal Hancock - Coastal Washington						
	12	1000EST			0	0			Winter Weather/Mix
		1600EST							
	Low pressure tracking along the Downeast coast produced 2 to 4 inches of snow across interior Downeast areas...with generally 3 to 6 inches of snow along the Downeast coast. With cold temperatures...roads quickly became snow covered and slippery. The snow and slippery road conditions contributed to around 50 accidents...mainly in the Bangor vicinity.								
MEZ001>006-010>011-015>017-029>032			Northwest Aroostook - Northeast Aroostook - Northern Somerset - Northern Piscataquis - Northern Penobscot - Southeast Aroostook - Central Piscataquis - Central Penobscot - Southern Penobscot - Interior Hancock - Central Washington - Coastal Hancock - Coastal Washington - Southern Piscataquis - Northern Washington						
	14	1000EST			0	0			Extreme Cold/Wind Chill
	16	1600EST							
	Arctic air was drawn across the region on strong winds during the 14th. Low temperatures across northern Maine on the 15th generally ranged from 20 to 30 below zero...although local readings to around 40 below zero were reported. Low temperatures across Downeast areas on the 15th generally ranged from 15 to 25 below zero...with localized temperatures around 30 below zero. Wind chills of 45 to 55 below zero were common across northern areas...with locally colder readings. Wind chills Downeast generally ranged from 35 to 45 below zero. Temperatures remained below zero across northern areas and struggled to reach the single digits above zero Downeast on both the 14th and 15th. Low temperatures and wind chills across the region on the 16th were similar to those of the 15th. This represented one of the coldest arctic outbreaks to affect the region in several years.								
MEZ001-003			Northwest Aroostook - Northern Somerset						
	23	0700EST			0	0			Heavy Snow
		2100EST							
	Low pressure tracking along the Maine coast to New Brunswick brought heavy snow to extreme northwest Maine. Storm total snow accumulations ranged from 6 to 12 inches.								
MEZ010>011-016>017-031>032			Central Piscataquis - Central Penobscot - Interior Hancock - Central Washington - Southern Piscataquis - Northern Washington						
	23	1200EST			0	0			Winter Storm
		1700EST							
	Low pressure tracking along the Maine coast to New Brunswick brought sleet and freezing rain to the region. Sleet accumulated to depths of 1/2 to 1 1/2 inches with ice accumulations up to around 1/2 inch.								
MEZ002-004>006			Northeast Aroostook - Northern Piscataquis - Northern Penobscot - Southeast Aroostook						
	23	1500EST			0	0			Sleet Storm
		2100EST							
	Low pressure tracking along the Maine coast to New Brunswick brought snow...sleet and freezing rain to the region along with isolated afternoon thunderstorms. Storm total snow accumulations generally ranged from 3 to 6 inches...with sleet accumulations of 1/2 to 1 1/2 inches and freezing rain accumulations of up to a 1/4 inch.								
Aroostook County									
Caribou	23	1545EST			0	4			Lightning
	Lightning struck a hill injuring 4 teenagers who were sledding there. Three of the victims were treated and released at the local hospital. One of the victims was injured critically and had to be transported to a regional medical facility.								
<u>MAINE, South</u>									
MEZ007>009-012>013-019			Northern Oxford - Northern Franklin - Central Somerset - Southern Oxford - Southern Franklin - Interior Cumberland						
	02	0000EST			0	0			Heavy Snow
		2300EST							
MEZ014-018-020>023			Southern Somerset - Interior York - Androscoggin - Kennebec - Interior Waldo - Coastal York						
	02	0000EST			0	0			Winter Weather/Mix
		2300EST							
	An area of low pressure deepened rapidly as it moved slowly northeastward from the Carolina Coast on the morning of the 1st to south of Nova Scotia by the morning of the 2nd. The storm brought 6 to 10 inches of snow to the mountains and foothills. Along the coast and in the interior, the snow mixed with or changed to sleet, freezing rain, or rain which kept the accumulations lower. Interior sections								

Storm Data and Unusual Weather Phenomena

February 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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MAINE, South

generally received 4 to 8 inches while the coast received only 2 to 6 inches.

MEZ007>009

Northern Oxford - Northern Franklin - Central Somerset

04	0900EST				0	0			Winter Weather/Mix
	2100EST								

An intense area of low pressure moving through the Great Lakes brought a moderate snowfall to the mountains of Western Maine where 3 to 7 inches of snow fell.

MEZ012-019>022-025>028

Southern Oxford - Interior Cumberland - Androscoggin - Kennebec - Interior Waldo - Sagadahoc - Lincoln - Knox - Coastal Waldo

17	2000EST				0	0			Winter Weather/Mix
	2000EST								

MEZ018-023>024

Interior York - Coastal York - Coastal Cumberland

17	2000EST				0	0			Heavy Snow
	2000EST								

An area of low pressure developed off the Mid-Atlantic coast on the morning of the 17th and moved slowly northeastward to east of Cape Cod by the morning of the 18th. The storm caused heavy snow to fall across southwestern Maine with 5 to 14 inches of snow reported in York County and 4 to 9 inches reported in Cumberland County. In interior sections of western Maine and along the mid-coast, 3 to 5 inches of snow fell.

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

22	1600EST				0	0			Winter Weather/Mix
	1600EST								

An area of low pressure that moved northeastward from the lower Mississippi Valley on the morning of the 22nd to the Mid-Atlantic Coast by the morning of the 23rd, brought a mixture of precipitation to the state. Most areas saw the precipitation change from snow to a mixture of sleet and freezing rain. Thunderstorms were also reported in scattered locations throughout the state. Some coastal locations saw the precipitation change to rain as temperatures warmed above freezing. Although snowfall amounts generally ranged from 1 to 2 inches, the combination of strong winds on the back side of the storm and ice-coated tree limbs caused branches to fall onto power lines and created scattered power outages. Winds gusted to around 40 mph across the area. More than 12,000 customers lost power across southern and central Maine.

MARYLAND, Central

MDZ002>003

Allegany - Washington

06	1900EST				0	0			Winter Weather/Mix
	1100EST								

Storm Data and Unusual Weather Phenomena

February 2003

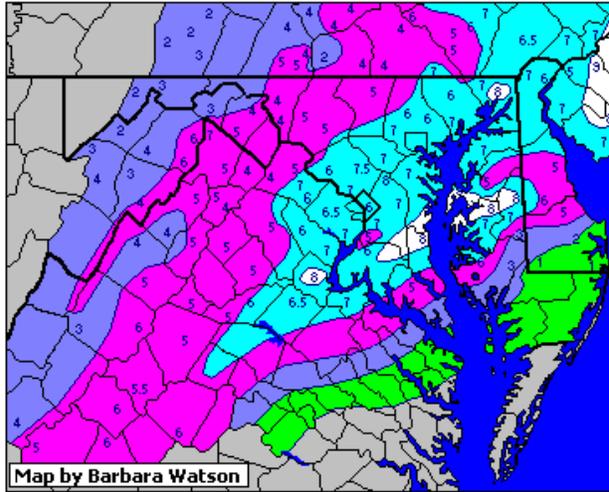
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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MARYLAND, Central

**MDZ004>007-
009>011-013>014-
016>018** **Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince
Georges - Anne Arundel - Charles - St. Mary'S - Calvert**

06	1900EST						
07	1100EST			0	0		Winter Storm

Snowfall Map for Feb. 7, 2003



0 - 1
 1 - 2
 2 - 4
 4 - 6
 6 - 8
 8 - 10 inches

Low pressure tracked from the Gulf Coast to the Carolinas on the 6th then off the Atlantic coast on the 7th. This storm dropped light to moderate snow between the evening of the 6th and Noon on the 7th. Accumulations ranged from 2 to 4 inches across Western Maryland and 5 to 8 inches in Central and Southern Maryland. Several weather related traffic accidents were reported. In College Park (Prince George's County), a passenger in a minivan was killed and a tractor-trailer driver was critically injured when their vehicles collided on southbound Interstate 95.

Storm Data and Unusual Weather Phenomena

February 2003

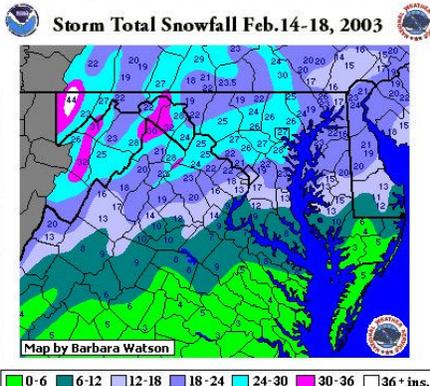
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	

MARYLAND, Central

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

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

14	0800EST				1	10	5.2M		Winter Storm
18	1200EST								



A complex storm system produced copious amounts of wintery precipitation across Maryland west of the Chesapeake Bay between the evening of the 14th and midday on the 18th. The first batch of precipitation fell between the evening of the 14th and the evening of the 15th in the form of light to moderate snow or rain. The second batch of precipitation fell between midnight on the 16th through midday on the 17th in the form of heavy snow or sleet. The third batch of precipitation on the back side of the storm fell between the evening of the 17th and midday on the 18th in the form of scattered snow showers.

After the precipitation came to an end, record breaking snow and sleet accumulations were reported. Across western and north central Maryland, and the Baltimore metropolitan area, accumulations of mainly snow ranged from 20 to 32 inches. The highest amounts occurred across the north and west suburbs of Baltimore where a period of thunder snow produced snowfall rates up to 4 inches per hour on the 16th. Across the east and southeast Maryland suburbs of Washington D.C., accumulations of snow and sleet ranged from 12 to 20 inches. Across extreme Southern Maryland, accumulations of mainly sleet ranged from 7 to 12 inches. As a general rule, 1 inch of sleet accumulation is equivalent to 3 inches of snow. Therefore, areas that received mainly sleet during this massive winter storm received accumulations around two thirds less than areas that had all snow, even though they were impacted by the same storm system. As an example, Hollywood (St. Mary's County) recorded 7.5 inches of accumulation (almost all sleet) whereas downtown Baltimore recorded 24 inches of accumulation (all snow).

Nicknamed the President's Weekend Snowstorm of 2003, this storm will go down in history as the heaviest snowstorm in the Baltimore region since records began in 1870. A total of 28.2 inches of snow was recorded at Baltimore-Washington International Airport. This massive storm took a heavy toll on residents, structures, transportation systems, emergency responders, businesses, livestock, and travelers. A state of emergency was declared by the governor of Maryland and people across the state were ordered to stay off the roads during the height of the storm between the morning of the 16th and the morning of the 17th. Roads were covered by deep snow and sleet and were nearly impassible. Almost every airport in the region was shut down on the 16th, stranding hundreds of travelers. Emergency personnel and those needing emergency transport had to be taken to their destinations in 4 wheel drives or military vehicles during the storm. Main highways were partially cleared by the 18th but it took up to 5 days to reach some secondary and residential roads. Area schools were closed up to a week after the storm ended. Heavy accumulations weighed down on buildings in the region and several structural collapses occurred. In addition, several injuries and a handful of deaths were attributed to the storm.

The following is a list of damage and casualty reports by county that occurred as a result of this winter storm. In Allegany County, 15 structures fully or partially collapsed including several sheds, a church, and a business building. In Frederick County, 5 sheds or barns caved-in. Portable classrooms at 4 county schools collapsed. A meeting hall and a tennis court bubble were crushed. A 42-year-old man died from a heart attack after shoveling snow in New Market. A 12-year-old boy died from carbon monoxide poisoning in a snowbound car in Mt. Airy. In Carroll County, a barn collapse injured 50 cattle. A gas station canopy in Westminster fell onto 3 vehicles. A shed, greenhouse, and the roof of a car dealership also suffered structural collapses. In Montgomery County, multiple

Storm Data and Unusual Weather Phenomena

February 2003

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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MARYLAND, Central

buildings collapsed including a bakery, grocery store, and a barn. A 4-year-old girl in Aspen Hill died from carbon monoxide poisoning in a snowbound car. A 51-year-old woman with a mental disability was found dead from exposure in the snow in Bethesda. In Baltimore County, a dozen structures including carports, a factory, and an office building collapsed. A man in his 20s died from carbon monoxide poisoning in a snowbound car.

In Baltimore City, bus and commuter train operations were suspended during the storm. The historic B&O Railroad Museum roof collapsed, damaging priceless exhibits. Twenty four homes were condemned and two homes were demolished after suffering structural collapses. A 5-story building downtown had to be evacuated after support beams buckled. Five people (males ages 11, 12, 16, 20, and 55) died in the city from carbon monoxide poisoning in snowbound cars. Another 11-year-old boy was overcome by carbon monoxide but was resuscitated. A 64-year-old man died from a heart attack after shoveling snow. A 65-year-old woman was injured when an awning on her home collapsed. In Harford County, the roof of two homes, a sunroom, and a deck collapsed. A man in the community of Hunter's Chase suffered a heart attack after shoveling snow. A Bel Air man amputated a finger in a snow blower accident. In Howard County, a stable, warehouse, store awning, tennis bubble dome, greenhouse, and a shed collapsed. In Prince George's County, the roof of a toy store in Lanham collapsed and 9 people inside were injured. Three carports collapsed in Bowie, crushing 12 cars. A partial roof collapse was reported at a school in Cheverly. A man in his early 50s died of a heart attack after shoveling snow in Laurel.

In Anne Arundel County, 4 people (including 2 men ages 60 and 64) died of heart attacks after shoveling snow. At county hospitals, eight people were treated for chest pains, 7 people were treated for shoveling injuries, 40 people were treated for slip and fall injuries, 4 people were treated for snow blower amputations, and 3 people were treated for exposure to the cold. A 66-year-old man in Glen Burnie died from carbon monoxide poisoning in his snowbound car. A 7-year-old boy was critically injured after sledding into the path of a car in Glen Burnie. A 60-year-old man in Pasadena was seriously injured when he fell off his roof while shoveling off snow. Two middle schools suffered partial roof collapses. Other buildings that suffered structural damage included a church, warehouse, athletic club, shopping center, mall, grain silo, awning on a house and a restaurant, garage, boat storage structure, and a grocery store. Eleven people were evacuated from weakened structures. In Calvert County, an auto shop roof collapsed in Owings. In Charles County, the roof of an educational building in Doncaster caved in. Other buildings across the county that sustained structural damage include an auto shop, warehouse, garage, and two stores. F51OU

Allegany County Countywide

	22	0800EST							
	23	0600EST			0	0			Heavy Rain

Calvert County Countywide

	22	0800EST							
	23	0600EST			0	0			Heavy Rain

MDZ004>007- 009>011-013>014-016

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

	22	0800EST							
	23	0600EST			0	0			Flood

St. Mary'S County Countywide

	22	0800EST							
	23	0600EST			0	0			Heavy Rain

Washington County Countywide

	22	0800EST							
	23	0600EST			0	0			Heavy Rain

A combination of 1.5 to 3 inches of rain that fell between the evening of the 21st and the morning of the 23rd and snow melt from the massive snowstorm of 14-18 February led to widespread flooding. In Frederick County, Gas House Pike, Glissans Mill Road, and Bretheren Church Road were closed by flood waters. Two people had to be rescued when their pickup became stranded in high water on Gas House Pike. A 35-year-old man was killed after his car hydroplaned and crashed into another car near Green Valley. Linganore Creek and Catocin Creek overflowed their banks. In Carroll County, small streams and creeks overflowed their banks. Keysville Road and Bucher John Road in addition to 10 other roads were closed by flooding. In Baltimore County, about 500 basements were flooded. The Baltimore-Washington Parkway was closed by high water on the afternoon of the 23rd north of the Baltimore Beltway. In Baltimore City, 90 roads and 290 basements were flooded. In Harford County, Route 7 was closed by flooding in several locations. One car became stalled in flood waters on the highway. Flooded basements and backed up sewer drains were reported in Aberdeen, Havre de Grace, and Perryville. Broad Street in Perryville was closed by flooding.

In Howard County, Route 108 was under water east of Route 29. Several county roads were closed by high water, including Race Road, Furnace Avenue, and Triadelphia Mill Road. Officials rescued people trapped in flood waters in an unknown location in the county. A minor mudslide closed Toll House Road in Ellicott City. Thirty county basements were flooded. In Montgomery County, Rock Creek overflowed its banks in Chevy Chase and flooded 9 vehicles at a recreational facility. Officials reported 200 calls for flooded basements or people stranded in high water. Small stream flooding was reported in Silver Spring. Magruder Branch in Damascus flooded over Log House Road. In Anne Arundel County, 142 basements and 2 yards were pumped out by county firefighters. Roads closed by flooding included Old Mill Road, Furnace Avenue, Furnace Branch Road, and Cedar Road. A woman had to be rescued when her car became trapped in flood waters near Woodwardville. Nine of the county's 240 wastewater pumping stations overflowed, sending wastewater into Selby Bay, the South River, Rhode River tributaries, and Church Creek.

In Prince George's County, Route 50 was closed by flooding in Cheverly. Three hundred reports of basement flooding were received by

Storm Data and Unusual Weather Phenomena

February 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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MARYLAND, Central

county officials. The Anacostia River rose 8 feet above low tide, flooding some docks. A wastewater treatment plant overwhelmed by water overflowed sewage into Broad Creek, the Anacostia River, Piscataway Creek, and the western branch of the Patuxent River. In addition, sewage backed up into 200 basements. A total of 29 county schools reported water damage. In Charles County, urban and small stream flooding was reported in La Plata and Bryans Road. Newton Road, Hancock Road, and Bumpy Oak Road were closed by high water.

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

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

23	0600EST 2200EST				0	0	1.4K		Strong Wind
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A strong cold front moved through the region around dawn on the 23rd. This front ushered in winds that gusted between 40 and 55 MPH. Due to the soft saturated soil from heavy rains and snow melt, the gusty winds downed scattered trees and power lines. In Washington County, a wind gust of 43 MPH was reported at the Hagerstown airport. Wind gusts in Frederick County included 49 MPH at the Frederick airport and 48 MPH in Mt. Airy. In Baltimore County, a 48 MPH gust was recorded in Catonsville. In Howard County, a 49 MPH gust was measured in Columbia. In Montgomery County, 5200 customers lost power after winds gusted to 50 MPH in Damascus and 47 MPH in Rockville. In Prince Georges County, a wind gust of 49 MPH was recorded at Andrews Air Force Base. A total of 1400 county customers reported power outages. In Anne Arundel County, 2300 customers lost power as winds gusted to 49 MPH at Baltimore-Washington International Airport. In St. Mary's County, a wind gust of 43 MPH was recorded at Patuxent River Naval Air Station.

MDZ004-009

Frederick - Montgomery

24	1100EST 2200EST				0	0			Flood
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A combination of melting snow from the record snowstorm of February 14-18th and 2 inches of rain that fell on the 21st and 22nd led to high water on regional rivers. The Potomac River and Seneca Creek rose out of their banks. At Point of Rocks (Frederick County), the Potomac River rose above flood stage at 11:00 AM on the 24th. It crested at 16.50 feet at 3:00 PM and dropped below flood stage at 10:15 PM. Low water roads upstream of Brunswick were inundated by water. At Dawsonville (Montgomery County), Seneca Creek rose above its bankful stage of 7.5 feet at 3:15 PM on the 22nd. It crested at 8.10 feet at 11:30 PM on the 22nd and dropped below bankful stage at 5:15 AM on the 23rd.

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

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

26	0600EST				0	0			Winter Weather/Mix
28	1200EST								

A series of low pressure systems that tracked from the Gulf Coast to Cape Hatteras dropped light snow off and on between the morning of the 26th and midday on the 28th. A total of 5 to 8 inches of snow accumulated across Central and Southern Maryland and 2 to 4 inches was reported in Western Maryland. Minor traffic accidents were reported after the fallen snow made roads slippery.

MARYLAND, Northeast

**MDZ008-012-015-
019>020**

Cecil - Kent - Queen Annes - Talbot - Caroline

04	1200EST 1600EST				0	0	1K		Strong Wind
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An intensifying low pressure system moved from the Great Lakes the morning of the fourth into the Canadian Maritimes the morning of the fifth. Its associated cold front passed through the Eastern Shore during the day on the fourth. Strong gusty northwest winds accompanied the front and persisted for several hours behind it. The peak wind gust at the Baltimore-Washington International Airport was 48 mph.

MDZ008-012-015-019

Cecil - Kent - Queen Annes - Talbot

06	2000EST				0	0			Heavy Snow
07	1300EST								

MDZ020

Caroline

06	2000EST				0	0			Winter Storm
07	1300EST								

A winter storm that lasted about eighteen hours dropped about 5 to 8 inches of snow across most of the Eastern Shore. Snow moved into the region during the evening of the 6th and fell at a fairly steady rate throughout the event. Precipitation mixed with sleet across parts of Caroline County. The winter storm ended during the early afternoon of the 7th. Most schools and county offices were closed on the 7th. Many businesses opened late. This event pushed several municipal snow removal budgets above their allotment. No serious traffic accidents were reported. Specific accumulations included 8.5 inches in Stevensville (Queen Anne's County) and Greensboro (Caroline County), 8 inches in Cordova (Talbot County) and North East (Cecil County), 7 inches in Easton (Talbot County), Denton (Caroline County) and Chestertown (Kent County), 6.5 inches in Galena (Kent County), 5.5 inches in Port Deposit (Cecil County) and 4.0 inches in Federalsburg (Caroline County). The low pressure system responsible for the snow formed across the Gulf Coast States during the day on the 6th and moved quickly northeast to near Elizabeth City, North Carolina the morning of the 7th and well offshore by that evening. While the low pressure system itself was relatively weak and a fast mover, precipitation intensity was aided by a strong subtropical jet which brought moisture from the tropical Pacific Ocean into the region.

Storm Data and Unusual Weather Phenomena

February 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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MARYLAND, Northeast

MDZ008-012-015-019>020 Cecil - Kent - Queen Annes - Talbot - Caroline

10	0700EST 1700EST		0	0	0	Winter Weather/Mix
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The combination of a low pressure system that moved off the South Carolina coast and a cold front that moved through from the Great Lakes caused snow to fall during the daylight hours of the 10th across the Eastern Shore. Accumulations were mainly between one and two inches. Since temperatures were either at or slightly above the freezing mark, the snow did not stick to roadways, but just mainly on snow covered surfaces.

MDZ008-012-015-019>020 Cecil - Kent - Queen Annes - Talbot - Caroline

12	0900EST 1400EST		0	0	1K	Strong Wind
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A strong cold front moved through the Eastern Shore during the morning of the 12th. Gusty west winds accompanied the passage and continued for several hours into the early afternoon. Peak wind gusts averaged around 45 mph. The gusty winds caused blowing and drifting snow, especially on roadways with western exposure. The peak wind gust at Tolchester Beach (Kent County) was 46 mph and at the Baltimore-Washington International Airport was 45 mph.

MDZ008-012-015-019>020 Cecil - Kent - Queen Annes - Talbot - Caroline

15	0000EST 1500EST		0	0	0	Winter Weather/Mix
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A weak low pressure system brought some light snow across northern parts of the Eastern Shore and a mix of light snow, rain and freezing rain to southern parts of the Eastern Shore. Precipitation began as light snow in the north and light rain in the south around midnight EST on the 15th. As colder air moved south, precipitation changed over to freezing rain and then light snow during the morning. Intermittent light snow continued into the afternoon in Caroline and Talbot Counties. The highest accumulations were in the northern part of the Eastern Shore, but due to the freezing rain some of the most treacherous driving conditions were in the southern half of the Eastern Shore. Minor accidents were reported along U.S. Route 301 in Queen Anne's and Kent Counties. Specific accumulation included 3.0 inches in Colora (Cecil County), 2.8 inches in Galena (Kent County), 2.0 inches in Elkton (Cecil County) and Henderson (Caroline County), 0.3 inches in Stevensville (Queen Anne's County) and only trace amounts in Talbot County. The low pressure system responsible for the light precipitation scooted from west to east across Kentucky and Virginia during the first half of the day on the 15th before heading offshore. In its wake a large high pressure system started to build southeast from nearby Canada and helped set the stage for the most significant snowstorm in seven years.

MDZ008-012-015-019>020 Cecil - Kent - Queen Annes - Talbot - Caroline

16	0300EST		0	0	1.4M	Winter Storm
17	1400EST					

The most powerful storm to affect the Eastern Shore since the Blizzard of 1996 struck during the President's Day Weekend. Snow began falling before dawn on Sunday the 16th and fell heavy at times through that evening. Precipitation began mixing with sleet from the evening of the 16th into the morning of the 17th. Sleet was the predominant precipitation type overnight in southern sections of the Eastern Shore. Precipitation changed to all snow again during the morning of the 17th before ending during the afternoon. Governor Robert Ehrlich declared a state of emergency on the 16th and also issued an executive order banning travel. The state of emergency made state resources available to local officials. The state of emergency was not lifted until February 23rd. The state also asked volunteers with four wheel drive vehicles to help hospital and other essential personnel get to and from work. County emergency management and sheriffs assisted. The National Guard also provided the counties with several Humvees. The heavy snow led to numerous barn and several business roof collapses. Many schools were closed the whole week. Many had already used their allotment of snow days. It cost the state about 55 million dollars for snow removal. President Bush declared 17 counties in Maryland (all of the Eastern Shore) a disaster area because of the heavy snow and sleet. This made federal money available to the state and counties to help with recovery operations. Even before this storm, many municipalities were above their snow removal budgets. Businesses and government offices were closed on both Sunday the 16th and Monday the 17th. Some opened on Tuesday the 18th. The timing of the storm (holiday weekend) kept the number of accidents and rescues down.

Roof collapses caused most of the property damage across the Eastern Shore. In Cecil County, there were scattered incidents of roof collapses throughout the county. Drifts reached four feet. A mobile home in Elkton was condemned because of its roof collapse. A church's roof buckled in Port Deposit. Schools were closed all week. In Kent County, in Worton one barn collapse killed one cow and injured others. In Rock Hall, a florist lost two greenhouses. Elsewhere, a section of a roof of a furniture store collapsed. Canopies that covered the slips at the Yacht Basin collapsed and damaged two boats. County offices were closed through the 18th and schools did not reopen until Friday the 21st. In Queen Anne's County, in Matapeake, a section of the old Chesapeake Bay Model building fell. About 20 percent (20,000 square feet) of the roof collapsed in the southeast corner. On Kent Island, a roof collapse at a boating store damaged three boats. In Wye Mills, the roofs of two cannery buildings collapsed. Stores in the Kent Island Shopping center were closed because of sagging roofs. In Millington, a barn roof collapse necessitated the rescue of about a dozen cows. The Bay Bridge Airport reopened on the 20th and schools reopened on the 21st. In Caroline County, problems with snow drifts kept many back roads blocked through the 18th. Government offices did not reopen until the 19th and schools were closed all week. In Talbot County, schools reopened on the 19th. Easton Airport reopened on the 18th after being closed since the 15th.

Specific accumulations included 26.0 inches in Colora (Cecil County), 25.0 inches in Centreville (Queen Anne's County), 23.0 inches

Storm Data and Unusual Weather Phenomena

February 2003

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

MARYLAND, Northeast

in Port Deposit (Cecil County), 22.5 inches in Chestertown (Kent County), 22.0 inches in Galena (Kent County), 20.0 inches in Denton (Caroline County), 19.0 inches in Saint Michaels (Talbot County) and 15.0 inches in Royal Oak (Talbot County). The low pressure system which helped cause the heavy snow formed to the lee of the southern Rockies on the 14th. It moved to southern Missouri by the morning of the 15th, the lower Tennessee Valley the morning of the 16th, reformed off the Virginia coast the morning of the 17th and was southeast of Cape Cod on the 18th. Of equal or greater importance was a large high pressure system that moved over nearby Canada and northern New England throughout this event. This locked very cold air in place, slowed the low pressure system down and prevented it from going farther north thus leaving the Eastern Shore on the snowier side of the system. Warm air did move aloft between 5,000 and 10,000 feet and was the reason the snow changed to sleet during the evening and overnight on the 16th.

Caroline County

Countywide	22	0700EST 1500EST			0	0			Heavy Rain
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Kent County

Countywide	22	0700EST 1500EST			0	0			Heavy Rain
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Queen Anne'S County

Countywide	22	0700EST 1500EST			0	0			Heavy Rain
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Talbot County

Countywide	22	0700EST 1500EST			0	0			Heavy Rain
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A large swath of moderate to heavy rain with embedded thunderstorms moved across the Delmarva Peninsula during the day on the 22nd. Rainfall totals averaged around half an inch per hour during the thunderstorms and storm totals across the Eastern Shore averaged between one and three inches. The combination of the heavy rain and melting snow produced roadway flooding and ponding of water in poor drainage areas. Several homes in Talbot County suffered basement flooding. Storm totals included 2.03 inches in Stevensville (Queen Anne's County), 2.00 inches in Royal Oak (Talbot County), 1.77 inches in Sassafras (Kent County) and 1.50 inches in Federalsburg (Caroline County). The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Cecil County

Central Portion	22	1235EST 1700EST			0	0			Flash Flood
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MDZ008

Cecil	22	1700EST			0	0			Flood
	24	0700EST							

A large swath of moderate to heavy rain with embedded thunderstorms moved across the Delmarva Peninsula during the day on the 22nd. Doppler Radar storm total estimates in Cecil County averaged between two and three inches. Rainfall totals averaged around half an inch per hour during the thunderstorms. The combination of the heavy rain and melting snow produced roadway flooding and ponding of water in poor drainage areas as well as flooding along the Big Elk Creek. The Delaware Avenue Bridge (Maryland State Route 7) was closed through the 24th. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

22	2000EST			0	0			0	Dense Fog
23	1000EST								

The combination of heavy rain, humid air moving over the snow pack and relatively light winds produced widespread dense fog across the Eastern Shore from the evening of the 22nd into the morning of the 23rd. Widespread visibilities were under one quarter of a mile. Visibilities improved late in the morning on the 23rd once a strong low pressure system exited the region and winds increased from the west and northwest.

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

23	1100EST 2000EST			0	0	1K			Strong Wind
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As an intense low pressure system lifted northeast away from the region, strong gusty west to northwest winds moved into the area during the afternoon and early evening of the 23rd. Peak wind gusts averaged 45 to 50 mph. The peak wind gust at the Baltimore-Washington International Airport was 57 mph.

MDZ019>020

Talbot - Caroline

26	0500EST			0	0			0	Winter Weather/Mix
27	0200EST								

A weak low pressure system developed along a stationary front across the southeastern United States during the evening of the 25th. It moved off the South Carolina coast during the day on the 26th and farther offshore that evening. Southern parts of the Maryland Eastern Shore were close enough to this low pressure system to receive a steady light snow from the early morning of the 26th until just past midnight on the 27th. There were numerous minor accidents in Talbot and Caroline Counties. Schools were closed for the 11th time this

Storm Data and Unusual Weather Phenomena

February 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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MARYLAND, Northeast

school year in Talbot County. All after school activities were cancelled in Caroline County. Accumulations included 2.5 inches in Saint Michaels (Talbot County), 2.0 inches in American Corner (Caroline County) and 1.4 inches in Stevensville (Queen Anne's County).

MDZ008-012

Cecil - Kent

27	1500EST	0	0		Winter Weather/Mix
28	1300EST				

MDZ015-019>020

Queen Annes - Talbot - Caroline

27	1500EST	0	0		Heavy Snow
28	1300EST				

Another winter storm affected the Maryland Eastern Shore and dropped heavy snow across southern parts of the Eastern Shore. Snow began during the afternoon of the 27th and continued into the early afternoon of the 28th. The heaviest snow fell during the night of the 27th. Accumulations ranged from two to seven inches with the highest amounts in Talbot County. Schools were closed and after school activities were cancelled. Specific accumulations included 7.0 inches in Easton (Talbot County), 6.5 inches in Stevensville (Queen Anne's County), 5.5 inches in Denton (Caroline County), 4.0 inches in Rock Hall (Kent County) and 2.5 inches in Elkton and Port Deposit (Cecil County). The low pressure system developed in the western Gulf of Mexico during the day on the 26th and moved northeast into Alabama the morning of the 27th and then well east of Cape Hatteras, North Carolina by the morning of the 28th.

MARYLAND, South

MDZ021

Dorchester

06	2300EST	0	0		Winter Storm
07	1000EST				

A winter storm produced 3 to 7 inches of snow across Dorchester county. Cambridge reported 6.5" and Vienna reported 3". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Friday, February 7th due to very slippery road conditions.

MDZ022-024

Wicomico - Inland Worcester

06	2300EST	0	0		Winter Storm
07	1000EST				

A winter storm produced 1 to 2 inches of snow across portions of Wicomico and Worcester counties. Local law enforcement agencies reported several accidents. Many schools in the area were closed Friday, February 7th due to very slippery road conditions.

MDZ021>022

Dorchester - Wicomico

10	0700EST	0	0		Winter Weather/Mix
	1600EST				

A weak winter storm produced 0.5 inch to 2 inches of snow across portions of the Lower Maryland Eastern Shore. Salisbury (SBY) reported 2 inches of snow. Accumulations from this storm were mostly on cars and grassy areas, with roadways remaining generally wet although some slush was reported.

MDZ021>025

Dorchester - Wicomico - Somerset - Inland Worcester - Maryland Beaches

15	1600EST	0	0		Winter Storm
17	1600EST				

A winter storm produced 4 to as much as 15 inches of snow, along with some ice, across the Lower Maryland Eastern Shore. Some specific higher snow totals included: Far north portion of Dorchester county 15", Cambridge in Dorchester county 13", Southern portion of Dorchester county 10", Delmar in Wicomico county 6", Ocean City in Worcester county 5-6", and Salisbury in Wicomico county 4". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Monday, February 17th due to very slippery road conditions.

MDZ021>025

Dorchester - Wicomico - Somerset - Inland Worcester - Maryland Beaches

26	1200EST	0	0		Winter Storm
28	0900EST				

A winter storm produced 1 to as much as 7 inches of snow, along with some sleet and freezing rain, across the Lower Maryland Eastern Shore. Some specific higher snow totals included: Cambridge in Dorchester county 7", Hurlock in Dorchester county 3", Salisbury in Wicomico county 2-2.5", and Ocean City in Worcester county 1". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Thursday, February 27th due to very slippery road conditions.

MARYLAND, West

MDZ001

Garrett

04	0915EST	0	0		High Wind (G55)
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Trees and power lines down in Grantsville.

MDZ001

Garrett

11	0300EST	0	0		Heavy Snow
	0900EST				

6 to 7 inches of snow fell.

MDZ001

Garrett

15	1500EST	0	0		Heavy Snow
	2200EST				

6 to 10 inches of snow fell.

Storm Data and Unusual Weather Phenomena

February 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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MASSACHUSETTS, Central and East

fluffy, light nature of the snow.

Officially, the storm total at Logan International Airport in Boston was 27.5 inches, which set a record for the greatest snowstorm in Boston. The total eclipsed the previous record of 27.1 inches set during the Blizzard of 1978 on February 6th and 7th, though it should be noted that this storm had much less of an impact on the region and pales in overall comparison to the Blizzard of 1978. That storm produced high winds, significant coastal flooding, and more than 3 feet of snow in some areas, crippling the state for several days. The 27.5 inches of snow in Boston also set a record for the greatest 24 hour snowfall total, breaking the previous record of 25.4 inches set during the April Fools Blizzard on March 31st and April 1st 1997. The snowstorm also helped set the February snowfall record in Boston, which reached 41.6 inches and broke the previous record of 41.3 inches set in 1969.

Other official snowfall totals included 24.7 inches at Blue Hill Observatory in Milton, 20.8 inches at Worcester Airport, and 17.8 inches at the National Weather Service office in Taunton.

Some specific snowfall totals, as reported by trained spotters, included 28 inches in Rockport; 27 inches in Winthrop and Brookline; 26 inches in South Weymouth; 25 inches in Montgomery, Milton, and Hanson; 24 inches in Townsend and Topsfield, 23 inches in Ashfield, Leverett, Petersham, Norwood, and Hingham; 20 inches in Sunderland, Easthampton, Shrewsbury, Boxboro, Framingham, Manchester, West Medway, and Mansfield, 18 inches in Deerfield, Hampden, Worthington, Westborough, Hudson, Hopkinton, Acushnet, and Marshfield; 16 inches in Springfield, Westhampton, downtown Worcester, Sterling, Pepperell, Amesbury, Newburyport, Pocasset, and Chatham; 15 inches in Holyoke, Wilbraham, Leominster, Natick, North Andover, Hyannis, and Nantucket; 13 inches in Edgartown; and 12 inches in Stoneham.

MASSACHUSETTS, West

MAZ001

Northern Berkshire

17 1300EST

0 0

Winter Storm

18 0300EST

On February 17, a low pressure area developed in the Tennessee Valley and tapped into copious Gulf of Mexico moisture. At the same time, a strong arctic high built southward from eastern Canada, then drifted east into the Gulf of Maine. The low pressure area rapidly redeveloped off the North Carolina coast, then tracked northeast, and was east of Cape Cod by early February 18. This storm delivered another major snowstorm to Berkshire County. One to two feet of snow blanketed the county. Some specific amounts included 13.1 inches at Dalton, 24.0 inches at Florida, and 18.0 inches at Savoy.

MICHIGAN, East

MIZ075

Washtenaw

11 2300EST

0 0 0

High Wind (G52)

12 0200EST

A short wave trough, associated with an arctic frontal boundary, moved through southern Lower Michigan during the late evening of the 11th. As this system moved across the region, it brought one to three inches of snowfall to eastern Michigan, with the exception of 4 to 5 inches along the Interstate 69 corridor from Owosso to Port Huron. High winds followed in the wake of the snowfall and even led to a brief period (one to two hours) of blizzard conditions. The poor driving conditions resulted in dozens of automobile accidents across the region, including a six-car pileup on Interstate 94 in Macomb County. Ten injuries (indirect) were reported as a result of the traffic accidents.

MIZ055-063-069>070-075>076-082>083

Sanilac - St. Clair - Oakland - Macomb - Washtenaw - Wayne - Lenawee - Monroe

22 1200EST

0 0

Winter Storm

23 0500EST

A strong low pressure system moved from the Gulf of Mexico to eastern Ohio and western Pennsylvania by early morning on the 23rd. A mix of snow, sleet and rain affected locations along and south of I-94 during the afternoon of the 22nd. The precipitation then turned over to all snow by evening. Snowfall continued through much of the night across eastern Michigan and came to an end early in the morning on the 23rd. Winds gusting as high as 40 MPH created considerable blowing and drifting snow with this storm. The highest snowfall totals were located near the border with Ontario and along the shores of Lake Erie. Some snowfall amounts include: 12 inches in Port Huron (St Clair County); 11.5 inches in Wyandotte (Wayne County); 10 inches in Monroe (Monroe County); 9.5 inches in Warren (Macomb County); 9 inches in Mt Clemens (Macomb County); and 9 inches in Royal Oak (Oakland County). The rest of this area generally received anywhere from 6 to 8 inches. Due to the winds, drifts as high as 2 to 3 feet were reported. Snowfall amounts around Howell, Flint, Lapeer and much of the thumb were generally 2 to 4 inches, with drifts as high as a foot still reported. Locations around Owosso and the tri cities generally received under one inch.

Dozens of traffic accidents were reported during the storm, with no major injury reports received. Several tree limbs and power lines were blown down in the wind. This led to an estimated 9,000 homes and businesses without power. Many communities in the metro Detroit area declared snow emergencies as a result of the deep snow drifts.

MICHIGAN, Extreme Southwest

MIZ077

Berrien

07 0900EST

0 0

Heavy Snow

1500EST

A heavy band of lake effect snow fell over Berrien county from late morning to early afternoon with accumulations of up to a foot around Benton Harbor. A multiple car accident occurred around 1:30 PM EST on I-94 just northeast of Benton Harbor. Approximately 60 vehicles were involved with 1 fatality and over 25 injuries.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	
<u>MICHIGAN, Extreme Southwest</u>									
MIZ081		Hillsdale							
	22	1600EST			0	0			Heavy Snow
	23	0200EST							
	Rain changed to snow in the late afternoon and quickly accumulated 6 to 7 inches mainly in the southern half of the county. The snow ended after midnight.								
<u>MICHIGAN, North</u>									
MIZ008-015		Chippewa - Mackinac							
	03	1500EST			0	0			Heavy Snow
	04	1500EST							
MIZ016-019-021>022-025>028-031>033		Emmet - Charlevoix - Antrim - Otsego - Benzie - Grand Traverse - Kalkaska - Crawford - Manistee - Wexford - Missaukee							
	04	0900EST			0	0			Winter Storm
		1500EST							
	A strong area of low pressure moved through the Great Lakes region during the 3rd and 4th. On the front side of the storm, heavy snow developed across eastern upper Michigan, while a mixture of snow and freezing rain fell across northern lower Michigan. On the back side of the storm, snow continued across eastern upper Michigan, while the mixed precipitation changed to snow across northern lower Michigan. In addition, strong winds on the back side of the storm produced near blizzard conditions across the region. Total snowfall accumulations ranged from 2 to 4 inches across northern lower Michigan to 6 to 12 inches across eastern upper Michigan. The freezing rain across northern lower Michigan produced around a tenth of an inch of ice on exposed surfaces.								
MIZ019>022-026>027		Charlevoix - Leelanau - Antrim - Otsego - Grand Traverse - Kalkaska							
	08	1400EST			0	0			Heavy Snow
		2359EST							
	An area of low pressure moved through Michigan on the 8th. A combination of lake enhanced snow in advance of the storm and lake effect snow in its wake brought 6 to 10 inches of snow to extreme northwest lower Michigan.								
MIZ019>021-026		Charlevoix - Leelanau - Antrim - Grand Traverse							
	10	0800EST			0	0			Heavy Snow
		1700EST							
	A band of lake enhanced snow brought 4 to 6 inches of snow to a portion of northwest lower Michigan, with isolated reports of 8 to 10 inches of snow received around East Jordan and Boyne City. In addition, gusty west winds produced blowing and drifting snow across the area.								
MIZ008-015>016-019>020-022-025>026-028-031		Chippewa - Mackinac - Emmet - Charlevoix - Leelanau - Otsego - Benzie - Grand Traverse - Crawford - Manistee							
	11	1500EST			0	0			Winter Storm
	12	0800EST							
	A cold front swept through northern Michigan late on the 11th. Lake enhanced snows fell across much of northwest lower Michigan and east upper Michigan in advance of the cold front, while pure lake effect snows fell behind the front. Snowfall totals of 5 to 7 inches were common, while strong winds caused considerable blowing and drifting snow. US-2 in Mackinac county was closed for a time due to the difficult driving conditions.								
MIZ008-015		Chippewa - Mackinac							
	21	1430EST			0	0			Heavy Snow
		2100EST							
	An intense narrow band of heavy snow set up from west to east across east upper Michigan. Snowfall totals of up to 10 inches fell within this band. Little or no measurable snow was reported just outside of the band of heavy snow.								
<u>MICHIGAN, Upper</u>									
MIZ001>007-009>014		Keweenaw - Ontonagon - Houghton - Baraga - Marquette - Alger - Luce - Gogebic - Iron - Dickinson - Menominee - Delta - Schoolcraft							
	03	2100EST			0	0			Heavy Snow
	04	2345EST							
	A gathering low pressure system in the Central Plains pushed northeast toward the southern Great Lakes on February 3rd. Snow developed over southern Upper Michigan during the early morning hours and spread north to encompass almost the entire Upper Peninsula by daybreak on the 4th. The passage of an arctic cold front during the early morning hours exacerbated the hazardous weather conditions as north winds gusting as high as 56 mph at Stannard Rock lighthouse, 52 mph at Bark River in Delta County, and 49 mph at Copper Harbor caused near blizzard conditions at times. Michigan State Police closed highway M-28 between Harvey and Munising for a time on the 4th due to poor visibility and drifting snow. Temperatures nosedived from the 20s into the single numbers above zero. The gusty winds and falling temperatures produced wind chill reading of 10 to 20 below zero. Snowfall totals on the morning of the 4th include 22 inches at Wetmore in Alger County, 18 inches at Gladstone, Munising and Ironwood, 17 inches at Rockland, Sands township in Marquette County, and in McMillan in Luce County, 12 inches at Crystal Falls, 11 inches at Channing in Dickinson County, and 10 inches at Watton in Baraga County. Snowfall over the Keweenaw Peninsula and in Menominee County was a bit lighter, generally in the 6 to 10 inch range. Even after the snow associated with the main low pressure system exited during the morning of the 4th, lake effect snows continued near Lake Superior, especially in the snow belts east of Marquette. Close to another 10 inches fell from Munising to Newberry from sunrise on the 4th into the early morning hours on the 5th. Fortunately, winds decreased later in								

Storm Data and Unusual Weather Phenomena

February 2003

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

MICHIGAN, Upper

the day on the 4th, reducing the blowing snow hazard. The lake effect snow diminished overnight on the 4th and 5th as a ridge of high pressure crested into the Upper Midwest and the wind shifted southwest.

MIZ001

Keweenaw

09	2300EST	0	0		Heavy Snow
10	1200EST				

An arctic cold front pushed across Upper Michigan during the morning of February 10th. A band of heavy snow showers that developed over western Lake Superior ahead of the cold front dumped up to a foot of snow over the higher terrain on the northern tip of the Keweenaw Peninsula just inland from Eagle Harbor to Copper Harbor.

MIZ001-003

Keweenaw - Houghton

11	2100EST	0	0		Winter Storm
12	1600EST				

Arctic air poured into the northwest Great Lakes as a cold front crossed the region. Lake effect snow showers intensified and northwest winds gusting over 30 mph caused considerable blowing and drifting snow in exposed locations over the Keweenaw Peninsula on February 11th and 12th. While only 4 to 5 inches of snow fell, blowing and drifting snow closed highway M-26 between Eagle River and Copper Harbor, and the Houghton County Airport was closed because of near zero visibility in snow and blowing snow.

MIZ007

Luce

21	2100EST	0	0		Heavy Snow
	2300EST				

A sharp cold front settled south across the Upper Peninsula overnight on February 20th and 21st. As a wave of low pressure moved east along this arctic boundary, snow broke out across mainly the eastern half of Upper Michigan. There was a narrow band of heavy snow from Iron Mountain to Newberry. By the time the snow tapered off during the evening on the 21st, as much as 8 inches of snow had fallen just west of Newberry.

MICHIGAN, West

MIZ037>038-043

Mason - Lake - Oceana

10	0400EST	0	0		Heavy Snow
	1900EST				

A cold front moved through and combined with moisture from Lake Michigan to produce heavy snow across Mason, Lake and Oceana counties. The maximum snowfall report was received from Hart (Oceana county), where 8 inches of snow fell. A swath of 5 to 7 inches of snow fell across most of the remainder of Oceana county as well as the majority of Mason and Lake counties.

MIZ037-043>044-050-056>057-064>065

Mason - Oceana - Newaygo - Muskegon - Ottawa - Kent - Allegan - Barry

11	1000EST	0	0		Heavy Snow
12	0700EST				

An Alberta clipper moved through and produced heavy snow across western lower Michigan. The heaviest snowfall report was received from Walker (Ottawa county), where 14 inches of snow fell. A large swath of anywhere from 6 to 10 inches of snow fell across Mason, Oceana, Newaygo, Muskegon, Ottawa, Kent, Allegan and Barry counties. The heaviest snowfall reports were concentrated across Ottawa, Allegan, western Kent and Newaygo counties, where localized reports of a foot or more of snow were received.

MINNESOTA, Central and South Central

MINZ044-049>068-073

Mille Lacs - Stearns - Benton - Sherburne - Isanti - Chisago - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Meeker - Wright - Hennepin - Anoka - Ramsey - Washington - Yellow Medicine - Renville - Mcleod - Sibley - Carver - Redwood

02	1800CST	0	0		Winter Storm
03	0700CST				

The first significant snowfall of the season arrived very late in the season, waiting until Groundhog Day. An 80 mile wide swath of heavy snow fell from west central Minnesota into west central and northwest Wisconsin (see corresponding entry). Six to eleven inches were common due to low pressure moving from Kansas to northern Illinois. The top snowfall total that was reported was 11 inches at Montevideo and New London. Ten inches were measured at Eden Valley, Forest Lake, Ham Lake, Hutchinson and Litchfield. Some other notable totals include 9 inches at Benson, Buffalo, Fridley and Princeton, and 8 inches at Albany, Belview, Olivia and Watertown. Winds were typically 20 to 25 mph, and though there was some blowing snow, it was not a major problem.

MINZ041-047>048-054>057-064>067-073>076-082>085-091>093

Douglas - Stevens - Pope - Lac Qui Parle - Swift - Chippewa - Kandiyohi - Yellow Medicine - Renville - Mcleod - Sibley - Redwood - Brown - Nicollet - Le Sueur - Watonwan - Blue Earth - Waseca - Steele - Martin - Faribault - Freeborn

11	1100CST	0	0		Blizzard
	2000CST				

A strong and fast moving cold front plowed out of the Canadian Prairies and into Minnesota, bringing a quick snow that totaled two to three inches. The powdery snow was whipped around by winds frequently gusting over 45 mph producing near-zero visibility. Whiteout conditions were prevalent throughout the open terrain of west central and south central Minnesota. Law Enforcement recommended no travel and virtually all schools closed early. The highest wind gust, measured by AWOS, was 60 mph at Fairmont airport. Some other notable wind gust maxima included 51 mph at Faribault, 47 mph at Waseca, Owatonna and St. James, and 46 mph in Redwood Falls.

Storm Data and Unusual Weather Phenomena

February 2003

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									
Rankin County 4 N Puckett to 5 N Puckett	15	1620CST 1622CST	1	50	0	0	10K		Tornado (F0)
A tornado touched down in southeastern Rankin County, just north of the Puckett community. It travelled approximately one mile northeast before lifting. Damage in the area was minor, with the roofs removed from three chicken houses. Several trees and numerous limbs were also blown down.									
Smith County 6 SE Polkville	15	1630CST			0	0	2K		Thunderstorm Wind (G50)
A few trees were blown down in the area by thunderstorm winds.									
Smith County 6 E Polkville to 9.1 NE Polkville	15	1643CST 1648CST	1	50	0	0	7K		Tornado (F0)
A tornado touched down about six miles east of Polkville, in Northwest Smith County. As it travelled northeast, it produced tree damage in the Bienville National Forest. It moved into southern Scott County, about 9.1 miles northeast of Polkville, around 448 PM.									
Scott County 4 SE Pulaski to 4 E Pulaski	15	1648CST 1653CST	2.5	75	0	0	17K		Tornado (F0)
The tornado moved into Scott County, about four miles southeast of Pulaski, from Smith County around 448 PM CST. It then moved northeast for 2.5 miles, lifting back into the clouds approximately four miles east of Pulask around 453 PM CST. In its path, numerous trees were demolished and parts of a few roofs were peeled away.									
Scott County 4 W Forest	15	1653CST			0	0	5K		Thunderstorm Wind (G50)
Thunderstorm winds blew down a few trees near Mile Marker 86 along Interstate 20.									
Newton County 3 NW Lawrence to 3 N Lawrence	15	1725CST 1727CST	2	75	0	0	50K		Tornado (F1)
A tornado touched down 3 miles NW of Lawrence and stayed on the ground for 2 miles. This tornado blew a mobile home off its foundation and destroyed the porch. A hay barn had a piece of its metal roof blown off and carried 1/4 mile away. Four chicken houses sustained minor to major structural damage. This weak tornado also blew down numerous trees along its path.									
Newton County 6 S Decatur	15	1730CST			0	0	3K		Thunderstorm Wind (G55)
Thunderstorm winds blew down numerous trees and flipped over a shed.									
Newton County 4 E Hickory	15	1730CST			0	0	1K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down a few trees in the Hickory area.									
Smith County Raleigh	15	1730CST			0	0	1K		Thunderstorm Wind (G52)
Scott County 6 SE Pulaski	15	1732CST			0	0	5K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down numerous trees and powerlines.									
Newton County Lawrence	15	1745CST			0	0	1K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down a few trees in the Lawrence area.									
Jasper County 1 S Moss	15	1815CST			0	0	1K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down a few trees near the Jasper, Jones county line near Moss.									
Lauderdale County Meridian	15	1850CST			0	0	1K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down a few trees N of I-20 in Meridian.									
Lamar County Sumrall	15	1915CST			0	0	1K		Thunderstorm Wind (G52)
Neshoba County Neshoba	21	0000CST			0	0	1K		Hail (0.75)
Neshoba County Philadelphia	21	0013CST			0	0	1K		Hail (1.00)
Winston County Fearn's Spgs	21	0025CST			0	0	1K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

February 2003

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>									
Yazoo County									
1 W Vaughan	21	0530CST 1200CST			0	0	10K		Flash Flood
Heavy rains caused a section of Bend Road to get washed out. Additional flooding occurred across a portion of Paradise road 10 miles east of Yazoo City.									
Warren County									
Vicksburg	21	0700CST			0	0	7K		Thunderstorm Wind (G50)
Thunderstorm winds toppled a tree and two powerlines in the city of Vicksburg.									
Lincoln County									
2 W Brookhaven	21	0720CST 2300CST			0	0	10K		Flash Flood
Heavy rains caused Fern Lane to be covered with water. A person drove into this flooded street and had to be rescued by the Emergency Response Team. Additional street flooding occurred on a portion of state road 550.									
Lawrence County									
8 SW Sontag	21	0800CST 2300CST			0	0	1K		Flash Flood
Heavy rains caused water to flood a portion of Rabbit road.									
Jefferson Davis County									
4 W Gwinville	21	0930CST 2100CST			0	0	1K		Flash Flood
Heavy rains caused Dodger road to flood.									
Franklin County									
3 S Little Spgs	21	1220CST 2300CST			0	0	5K		Flash Flood
Heavy rains caused portions of River Road to flood. This high water resulted in several cars getting stuck on River Road in Franklin county.									
Covington County									
Mt Olive	21	1330CST 2000CST			0	0	15K		Flash Flood
Heavy rains caused a portion of Calhoun Road to get washed out. Along a portion of Cotton Street water was coming over a bridge.									
Lincoln County									
Brookhaven	21	1400CST 2300CST			0	0	8K		Flash Flood
Continued heavy rainfall caused water to enter a house on Lipsey Street as well as having numerous county roads flooded across the southern portion of Lincoln county.									
Copiah County									
Hazlehurst	21	1600CST 2300CST			0	0	1K		Flash Flood
Heavy rains caused water to cover a portion of Georgetown Street.									
Lawrence County									
3 NE Tilton	21	1633CST 2300CST			0	0	1K		Flash Flood
Heavy rains caused water to cover several roads in Oak Vale.									
Covington County									
Mt Olive	21	1700CST 2000CST			0	0	5K		Flash Flood
Continued heavy rains caused several roads to get closed, generally between Mt. Olive and Collins. Arbo Road, Mooney Road, Station Creek Road, and George Speed Road were all closed.									
Jones County									
Countywide	21 22	1730CST 0100CST			0	0	5K		Flash Flood
Heavy rains caused water to cover several county road overpasses.									
Simpson County									
Mendenhall	21	1730CST 2300CST			0	0	1K		Flash Flood
Heavy rains caused Weathersby Creek to flood over Flint Road and a portion of the road had to be closed.									
Franklin County									
Countywide	21	1900CST 2300CST			0	0	3K		Flash Flood
Continued heavy rain caused widespread Street flooding across Franklin county.									

Storm Data and Unusual Weather Phenomena

February 2003

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 Davis County									
Prentiss	21	1911CST 2300CST			0	0	1K		Flash Flood
			Continued heavy rain causes 1 to 3 feet of water to cover roads in Prentiss.						
Franklin County									
Countywide	21	2000CST			0	0	4K		Thunderstorm Wind (G50)
			Thunderstorm winds knocked down a few trees across Franklin county.						
Lincoln County									
Brookhaven	21	2000CST 2300CST			0	0	10K		Flash Flood
			Continued heavy rains caused Several roads to get flooded in the city and traffic had to be diverted to non flooded streets.						
Copiah County									
Hazlehurst	21	2030CST 2300CST			0	0	2K		Flash Flood
			Continued heavy rains caused Numerous streets to flood.						
Rankin County									
Richland	21 22	2100CST 0100CST			0	0	1K		Flash Flood
			Heavy rains caused several streets to flood in the city of Richland.						
Newton County									
Countywide	21 22	2105CST 0100CST			0	0	1K		Flash Flood
			Heavy rains across the county caused several low-lying roads to flood.						
Claiborne County									
5 E Port Gibson	21	2130CST 2330CST			0	0	50K		Flash Flood
			Heavy rains caused a bridge to be washed out between Hearmanville and Port Gibson on Highway 18.						
Marion County									
Countywide	21 22	2130CST 0200CST			0	0	2K		Flash Flood
			Heavy rains caused several roads to be covered with water across the southern portion of Marion county.						
Lawrence County									
Monticello	21	2150CST			0	0	2K		Thunderstorm Wind (G50)
			Thunderstorm winds knocked down a few trees.						
Lawrence County									
5 NE Monticello	21	2155CST			0	0	1K		Hail (0.75)
Simpson County									
1 NW Magee	21 22	2200CST 0200CST			0	0	50K		Flash Flood
			Continued heavy rain caused a few homes to be flooded.						
Hinds County									
Byram	21 22	2300CST 0200CST			0	0	2K		Flash Flood
			Heavy rains caused numerous streets to flood in the city.						
Lowndes County									
4 S Columbus	21 22	2300CST 0300CST			0	0	1K		Flash Flood
			Heavy rains caused a portion of Old Macon Road to flood.						
Leake County									
Countywide	21 22	2340CST 0200CST			0	0	2K		Flash Flood
			Heavy rains caused a few county roads to flood.						
Clay County									
5 SE West Pt	22	0000CST 0300CST			0	0	1K		Flash Flood
			Heavy rain caused McNutt Bottom Road and part of Tibbee Road to be closed.						
Lowndes County									
Countywide	22	0000CST			0	0	5K		Thunderstorm Wind (G50)
			Thunderstorm winds caused numerous trees to be blown down across the county.						
Neshoba County									
Philadelphia	22	0000CST			0	0	1K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

February 2003

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>									
Claiborne County									
Hermanville	22	0100CST 0300CST			0	0	1K		Flash Flood
Heavy rains caused a portion of state road 491 to flood.									
Madison County									
Canton	22	2345CST			0	0	1K		Flash Flood
	23	0100CST							
Heavy rains caused a road in north Canton to flood.									
MSZ018-034									
Bolivar - Washington									
	25	0240CST 1400CST			0	0	130K		Ice Storm
Freezing rain caused 1/4 to 1/2 inch of ice to cover trees and powerlines. This ice accumulation caused numerous trees and powerlines to be knocked down.									
MSZ018>019									
Bolivar - Sunflower									
	26	0000CST 0500CST			0	0	15K		Ice Storm
Additional light ice accumulation, the 2nd night, caused a few more trees and powerlines to be knocked down.									
Madison County									
Canton	26	0345CST			0	0	1K		Hail (0.75)
<u>MISSISSIPPI, North</u>									
MSZ005									
Alcorn									
	03	2115CST 2130CST			0	0	5K		Strong Wind
Some power lines were blown down due to high winds.									
MSZ003>005									
Benton - Tippah - Alcorn									
	06	0100CST 1100CST			0	0	3K		Heavy Snow
Heavy snow fell across northern sections of Alcorn, Benton and Tippah counties in north Mississippi. Between 2 and 4 inches of snow fell over this area.									
Alcorn County									
Corinth	21	2355CST			0	0	1K		Flash Flood
	22	0130CST							
Several railroad underpasses were flooded.									
<u>MISSISSIPPI, South</u>									
Amite County									
Countywide	21	1800CST 2300CST			0	0			Flash Flood
Heavy rainfall of 3 to 6 inches on saturated soil caused flooding of secondary roadways across the county.									
<u>MISSISSIPPI, Southeast</u>									
Greene County									
Sand Hill	21	0715CST 0717CST			0	0	8K		Thunderstorm Wind (G50)
High winds from a line of thunderstorms blew down several trees just southwest of Sand Hill.									
<u>MISSOURI, East</u>									
MOZ018>019-026>027-034>035									
Knox - Lewis - Shelby - Marion - Monroe - Ralls									
	15	0100CST			0	0			Winter Storm
	16	0100CST							
A winter storm struck Northeast Missouri and West Central Illinois Valentine's Day weekend. A combination of freezing rain, sleet and snow started first and accumulated from 1 - 2 inches by Noon of the 15th. The precipitation became all snow by later that afternoon and accumulated to 4-6 inches across the region.									
MOZ074>075-085									
St. Francois - Ste. Genevieve - Madison									
	15	1300CST			0	0			Winter Storm
	16	2200CST							
A winter storm struck Valentine's Day weekend across parts of Southeast Missouri. About 1 inch of freezing rain and sleet fell initially followed by 4 - 7 inches of snow.									
MOZ072>075-084>085-099									
Crawford - Washington - St. Francois - Ste. Genevieve - Iron - Madison - Reynolds									
	23	1600CST			0	0			Winter Storm
	24	0400CST							
Yet another winter storm struck Southeast Missouri on the 23rd - 24th. Snowfall amounts ranged from 6 - 8 inches across the area.									

Storm Data and Unusual Weather Phenomena

February 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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MISSOURI, East

Virtually all schools were closed on Monday the 24th. Due to all the school closings over the winter, many schools in the area were going to have to remain in session well into June.

MOZ041-047>052-059>065-073			Boone - Moniteau - Cole - Osage - Callaway - Montgomery - Lincoln - Gasconade - Warren - St. Charles - Franklin - St. Louis - St. Louis (C) - Jefferson - Washington		0	0			Winter Storm
	23	1700CST							
	24	0100CST							

Another winter storm brought snow from Central into East Central Missouri. Snowfall ranged from 3 inches across the northern counties in the area to near 6 inches to the south.

MISSOURI, Lower

MOZ113-115			Dunklin - Pemiscot		0	0	2K		Heavy Snow
	06	0100CST							
		1100CST							

Heavy snow fell across the Missouri bootheel. Between 2 and 4 inches of snow fell over the area.

MOZ113-115			Dunklin - Pemiscot		0	0	2K		Heavy Snow
	09	1600CST							
		2000CST							

Heavy snow fell across the Missouri bootheel with most locations reporting between 2 and 3 inches of snow.

MOZ113-115			Dunklin - Pemiscot		0	0	2K		Heavy Snow
	25	0200CST							
		1200CST							

Heavy snow fell across the Missouri bootheel with most locations receiving 2 to 3 inches of snow.

MISSOURI, Northeast

MOZ009>010			Scotland - Clark		0	0			Winter Storm
	14	1600CST							
	15	1200CST							

A low pressure system developed over Southeast Colorado and moved into Southeast Kansas Friday night. Abundant moisture surged north into the Upper Mississippi Valley overrunning cold air at the surface. Initially the precipitation fell as rain in Southeast Iowa, Northeast Missouri and West Central Illinois during the early to middle afternoon. However, by late afternoon and evening, as the precipitation rapidly overspread the area from south to north, evaporational cooling changed any rain over to a wintery mixture of freezing rain, sleet and snow.

By Saturday morning the precipitation had changed over to snow as the surface low moved east toward the Ohio Valley allowing colder air to infiltrate the region on brisk north winds. Total snowfall accumulations by Saturday evening were generally in the range of 4 to 8 inches...while ice accumulations were under one quarter inch.

MISSOURI, Northwest

Jackson County									
Kansas City Downtown	14	1930CST			0	0	100K		Flash Flood
		2100CST							

Numerous cars were flooded and totaled by flood waters, and businesses were damaged along SW Boulevard. A small area of thunderstorms over downtown Kansas City, produced from one to two inches of rain in less than a hour.

Jackson County									
Independence	14	2017CST			0	0			Hail (1.00)

Ray County									
Richmond	14	2055CST			0	0			Hail (0.75)

MOZ005-007>008-016>017			Harrison - Putnam - Schuyler - Sullivan - Adair		0	0			Winter Storm
	15	0630CST							
	16	1000CST							

A winter storm moved along the Iowa Missouri border from February 15th through February 16th. The storm produced snows from 3 to 8 inches, in an area from Bethany to Kirksville. In addition to the snow...there was up to a quarter inch of ice accumulation. Gusty northwest winds produced snow drifts from 2 to 4 feet in depth.

MOZ053>054			Bates - Henry		0	0			Winter Storm
	23	1930CST							
	24	0800CST							

A strong low pressure system affected areas from Butler to Clinton, on February 23rd and February 24th. 7 inches of snow was reported in Butler and 6 inches fell in Clinton.

MISSOURI, Southeast

Stoddard County									
Dexter to 10 ENE Dexter	03	1710CST			0	0	15K		Thunderstorm Wind (G52)
		1715CST							

Shingles were torn off a home near the New Madrid County line. About a half dozen trees were blown down in Dexter.

Storm Data and Unusual Weather Phenomena

February 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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MISSOURI, Southeast

MOZ076-086>087-100-107>112-114 Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott - Mississippi - New Madrid

06 0500CST 2200CST 0 0 Heavy Snow

A two-part winter storm dropped an average of 4 to 6 inches of heavy wet snow across southeast Missouri. The first round of snow occurred during the early morning and dropped 2 to 3 inches. The second round during the evening produced another 1 to 3 inches. Temperatures during the event were very close to freezing, and much of the accumulation was on grassy areas. Slushy roads were a concern, and numerous accidents occurred. No serious injuries were reported. Schools and businesses were closed due to the slippery road conditions. The snow was caused by an upper level disturbance moving east northeast from the Four Corners region. Some of the highest specific snowfall amounts included:

6 inches at Lake Wappapello in Wayne County, 5.5 inches at Clearwater Dam in Wayne County, 5 inches at Marble Hill in Bollinger County, and 4 inches at Perryville in Perry County. The highest amounts were in the hilly terrain north and west of Poplar Bluff.

MOZ076-086>087-111>112 Perry - Bollinger - Cape Girardeau - Scott - Mississippi

16 0300CST 1400CST 0 0 Winter Storm

A winter storm produced mainly sleet over much of southeast Missouri. One to two inches of sleet, mixed with some freezing rain and snow, was common north of the Sikeston area. The most snow was reported north of Cape Girardeau, with up to 4 inches of sleet and snow at Perryville. The most freezing rain was reported south of Cape Girardeau, with up to a quarter inch of ice glazing surfaces in Mississippi County. The storm occurred during the Presidents Day holiday weekend. Icy road conditions contributed to a fatal vehicle accident on Interstate 55 in New Madrid County that killed three people (indirect storm fatalities). A car slid across the median of the highway and slammed into a tractor trailer rig. Minutes later, also on Interstate 55 in New Madrid County, a person walking toward a disabled motorist was killed by a car that slid into him and into the disabled vehicle. The two occupants of the disabled vehicle were seriously injured. The total number of accidents was relatively low during the storm. Police attributed this partly to fewer people commuting to work or school during the holiday weekend. Even after the holiday weekend, some schools delayed or cancelled classes until roads improved. Places from Poplar Bluff to New Madrid recorded less than one half inch of sleet.

MOZ076-086>087-100-107 Perry - Bollinger - Cape Girardeau - Wayne - Carter

23 1500CST 2200CST 0 0 Heavy Snow

This snowstorm was short but intense. Visibility was less than one quarter mile during the heaviest snow bursts. Total snowfall was 4 to 6 inches north of a line from Cape Girardeau to Poplar Bluff, tapering down to a dusting along the Arkansas border and near the Bootheel. The heavy snow was caused by an intense upper level disturbance that moved east-northeast from Oklahoma. The surface low pressure system tracked northeast from Arkansas into south central Kentucky during the night of February 23. Specific snowfall reports included 6 inches at Piedmont and Clearwater Dam (both in Wayne County), 5 inches at Ellsinore (Carter County) and Perryville (Perry County), 4.5 inches at Jackson in Cape Girardeau County, 4 inches at Marble Hill in Bollinger County, and 3.5 inches at Cape Girardeau. Many schools closed.

MOZ111>112-114 Scott - Mississippi - New Madrid

26 0400CST 1100CST 0 0 Winter Weather/Mix

From 1 to 3 inches of snow fell across the extreme southeast part of Missouri, southeast of a line from Poplar Bluff to Cape Girardeau. One fatal motor vehicle accident occurred on Interstate 55. About 6 miles north of Sikeston, a northbound vehicle skidded across the median and into the path of a southbound vehicle. A 40-year-old female was killed (indirect storm fatality). Many other minor accidents were reported on the interstate.

MISSOURI, Southwest

MOZ096-104-106 Douglas - Taney - Oregon

06 2000CST 0 0 Winter Storm

Upper level storm system clipped southern Missouri, and produced a 6 inch snow band to fall over a 20 mile wide line across Douglas, Oregon, and Taney counties. Most areas south of the Interstate 44 corridor received 3 to 5 inches, with 1 to 2 inch amounts north of the corridor.

Newton County									
Seneca	15	0215CST			0	0	0	0	Hail (0.75)
Polk County									
6 N Pleasant Hope	15	0400CST			0	0	0	0	Hail (0.88)
Greene County									
3 SW Fair Grove	15	0405CST			0	0	0	0	Hail (0.75)
Dallas County									
Olive	15	0405CST			0	0	0	0	Hail (0.75)

Storm Data and Unusual Weather Phenomena

February 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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MISSOURI, Southwest

MOZ055>058-067>071-077>083-088>098-101>106	Benton - Morgan - Miller - Maries - St. Clair - Hickory - Camden - Pulaski - Phelps - Barton - Cedar - Polk - Dallas - Laclede - Texas - Dent - Jasper - Dade - Greene - Webster - Wright - Newton - Lawrence - Christian - Douglas - Howell - Shannon - McDonald - Barry - Stone - Taney - Ozark - Oregon								
		23 1330CST			0	0			Winter Storm
		2230CST							

A major winter storm tracked across the region, providing a six to twelve inch snow band along the Interstate 44 corridor. The heaviest amounts were observed in far southwest areas of Missouri where 12 inch amounts were measured near Joplin and Neosho. Springfield recorded 7.6 inches and 6 inch amounts were common up towards Rolla. Other than several vehicle accidents, no major property damage was noted.

MONTANA, Central

MTZ009-014>015-048-055	North Rocky Mountain Front - Southern Lewis And Clark - Madison - Southern Rocky Mountain Front - Gallatin								
		01 0000MST			0	0			Winter Storm
		1500MST							

Heavy snow fell over the Rocky Mountain Front during the early morning hours of the 1st. The snow let up in intensity over the northern portion of the Rocky Mountain Front during the mid morning hours, and then came to an end over Southwest Montana during the late afternoon hours.

Here is a list of some of the snowfall totals received:

12 inches at Choteau 30W; 8 inches at Lincoln 10N; 6 to 8 inches at St. Mary's 10W (SNOTEL); 6 inches at Alder 20SE (SNOTEL) and West Yellowstone 15NW (SNOTEL).

MTZ012-050>051-054

	Cascade - Judith Basin - Fergus - Meagher								
		05 1600MST			0	0			Winter Storm
		1800MST							

A winter storm produced heavy snow in the mountains of Central Montana on the 5th. The heaviest snow fell in the mountain areas above 5000 feet, over the Little and Big Belt Mountains, and the Big Snowy Mountains.

Here is a list of some of the snowfall totals received:

14 inches at Neihart 10S; 10 inches at White Sulphur Springs 32NW; 8 inches at Lewistown 22S; and 6 inches at Utica 20SW.

MTZ008-011-047-055

	Beaverhead - Hill - Blaine - Gallatin								
		24 0800MST			0	0			Extreme Cold/Wind Chill

After 5 days of temperatures near 40 degrees, an arctic cold front pushed south through Montana on the 22nd. Skies were cloudy across the region, along with areas of snow on the 23rd. By late evening on the 23rd, skies cleared, and temperatures began to fall quickly. By the mid morning hours on the 24th the air temperatures over Southwest Montana ranged from -40 F to nearly -50 F, while temperatures ranged from -30 F to nearly -40 F over North Central Montana.

Here is a list of some of the morning low temperatures received:

-49 F at Wisdom; -45 F at West Yellowstone; -38 F at Chinook; -35 F at Belgrade; and -31 F at Havre. All of these temperatures were new daily record lows for each of these cities.

Additionally, the -49 F at Wisdom was the 4th coldest temperature ever for the month of February, and the 12th coldest temperature of all time.

In West Yellowstone, the -45 F was the 15th coldest ever for the month of February.

MONTANA, East

NONE REPORTED.

MONTANA, South

MTZ056	Western Carbon								
		02 1630MST			0	0			Heavy Snow
	14 inches of new snow 2.5 miles north of Red Lodge								
MTZ034	Stillwater								
		02 1630MST			0	0			Heavy Snow
	14 inches of new snow in Nye								
MTZ040	Park								
		02 1630MST			0	0			Heavy Snow
	8 inches of new snow 12 miles south of Livingston								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>MONTANA, South</u>									
MTZ041		Sweet Grass							
		02 1630MST			0	0			Heavy Snow
		8 inches of new snow in Mcleod							
MTZ056		Western Carbon							
		04 0855MST			0	0			Heavy Snow
		6 inches of new snow 6 miles west of Red Lodge							
MTZ041		Sweet Grass							
		04 0900MST			0	0			Heavy Snow
		8 inches of new snow in Mcleod							
MTZ040		Park							
		04 0905MST			0	0			Heavy Snow
		6 inches of new snow in Livingston							
MTZ040		Park							
		04 0915MST			0	0			Heavy Snow
		7 inches of new snow 10 miles east of Livingston							
MTZ056		Western Carbon							
		04 1115MST			0	0			Heavy Snow
		9 inches of new snow at Red Lodge Ski Resort							
MTZ034		Stillwater							
		04 1536MST			0	0			Heavy Snow
		6 inches of new snow 12 miles southwest of Reed Point							
MTZ038		Southern Big Horn							
		04 1543MST			0	0			Heavy Snow
		6 inches of new snow 25 miles south of St. Xavier							
MTZ038		Southern Big Horn							
		05 1415MST			0	0			Heavy Snow
		6 inches of new snow in Pryor							
MTZ056		Western Carbon							
		05 1430MST			0	0			Heavy Snow
		6 inches of new snow 6 miles west of Red Lodge							
MTZ056		Western Carbon							
		06 1034MST			0	0			Heavy Snow
		16 inches of new snow at Red Lodge Ski Area							
MTZ056		Western Carbon							
		06 1034MST			0	0			Heavy Snow
		12 inches of new snow in Red Lodge							
MTZ056		Western Carbon							
		06 1034MST			0	0			Heavy Snow
		8 inches of new snow in Belfry							
MTZ040		Park							
		08 0700MST			0	0			Heavy Snow
		7 inches of new snow 12 miles south of Livingston							
MTZ056		Western Carbon							
		08 1230MST			0	0			Heavy Snow
		25 inches of new snow at the Red Lodge Ski Resort							
MTZ056		Western Carbon							
		08 1230MST			0	0			Heavy Snow
		12 inches of new snow in Red Lodge							
MTZ056		Western Carbon							
		08 1415MST			0	0			Heavy Snow
		8 inches of new snow 6 miles south of Belfry							
MTZ056		Western Carbon							
		08 1415MST			0	0			Heavy Snow
		8 inches of new snow in Belfry							
MTZ038		Southern Big Horn							
		08 1530MST			0	0			Heavy Snow
		6 inches of new snow 1 mile south of Pryor							

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MONTANA, South</u>									
MTZ034		Stillwater							
	23	0958MST			0	0			Heavy Snow
	9 inches of new snow 18 miles northwest of Columbus								
MTZ041		Sweet Grass							
	23	0959MST			0	0			Heavy Snow
	8 inches of new snow in Big Timber								
MTZ056		Western Carbon							
	23	0959MST			0	0			Heavy Snow
	8 inches of new snow in Bridger								
MTZ030		Treasure							
	23	0959MST			0	0			Heavy Snow
	6 inches of new snow 25 miles southeast of Hysham								
MTZ056		Western Carbon							
	23	1000MST			0	0			Heavy Snow
	6 inches of new snow in Red Lodge								
MTZ034		Stillwater							
	23	1002MST			0	0			Heavy Snow
	6 inches of new snow in Fishtail								
MTZ040		Park							
	23	1002MST			0	0			Heavy Snow
	6 inches of new snow in Livingston								
<u>MONTANA, West</u>									
MTZ002-006>007-043		West Glacier Region - Bitterroot / Sapphire Mountains - Butte / Pintlar Region - Blackfoot Region							
	01	0700MST			0	0			Heavy Snow
	02	0700MST							
	Winter storm brought heavy wet snow to the mountains of western Montana. Snowfall amounts ranged from 8 inches at Warm Springs, 9 inches at Stuart Mountain, 11 inches at Lolo Hot Springs and Peterson Meadows, to a foot at Snowbowl and Lost Trail Ski Resorts. Badger Pass in the West Glacier Region received 14 inches of new snow.								
MTZ004-043		Lower Clark Fork Region - Blackfoot Region							
	03	0700MST			0	0			Heavy Snow
	04	0700MST							
	Lookout Pass and Montana Snowbowl Ski Resorts reported 13 to 20 inches of new snow in two days.								
MTZ007		Butte / Pintlar Region							
	05	0700MST			0	0			Heavy Snow
	06	0700MST							
	Discovery Ski Resort in southwest Montana reported a foot of new snow in 24 hours.								
MTZ001-004-006-043		Kootenai/Cabinet Region - Lower Clark Fork Region - Bitterroot / Sapphire Mountains - Blackfoot Region							
	16	0700MST			0	0			Winter Storm
	17	1100MST							
	Winter storm brought heavy snow and gusty southwest winds to the mountains of northwest and west central Montana. Snowfall amounts ranged from 6 inches at Banfield Mountain and Poorman Creek, 8 inches at Bear Mountain, 9 inches at Lookout Pass and Marshall Mountain Ski Resorts, to 19 inches at Lolo Pass. Southwest winds of 20 to 35 mph caused blowing and drifting of snow and reduced visibility.								
MTZ002-004>007		West Glacier Region - Lower Clark Fork Region - Missoula / Bitterroot Valleys - Bitterroot / Sapphire Mountains - Butte / Pintlar Region							
	20	0700MST			0	0			Winter Storm
	23	0730MST							
MTZ043		Blackfoot Region							
	20	0700MST			0	0			Heavy Snow
	21	0700MST							
	Strong winter storm impacted most of western Montana for several days with heavy snow and gusty north to northwest winds. Storm total snowfall ranged from 5 to 7 inches in the west central Montana valleys, to over a foot in the mountains. The Bitterroot Mountains and southwest Montana received the most amount of snow with Anaconda receiving 15 inches, Lolo Pass 19 inches, Twin Lakes 20 inches, and Nez Perce Camp 23 inches. Northerly winds of 15 to 30 mph with localized gusts of 35 to 45 mph, caused areas of blowing and drifting of snow and poor visibility. At the Missoula Airport, strong winds blew over a 50 foot Poplar tree.								
<u>NEBRASKA, Central</u>									
NEZ022-070		Garden - Hayes							
	23	0500MST			0	0			Winter Storm
		0800MST							
	An upper level low pressure system pushed out of central Wyoming and into northeast Colorado during the late evening hours on								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	
<u>NEVADA, West</u>										
NVZ002			Greater Lake Tahoe Area							
	15	1900PST			0	0			Heavy Snow	
	16	0700PST								
	Public report of 12 inches of new snow overnight in Incline Village, NV.									
NVZ003			Greater Reno/Carson City/Minden Area							
	15	2303PST			0	0			High Wind (G55)	
NVZ003			Greater Reno/Carson City/Minden Area							
	15	2303PST			0	0			High Wind (G57)	
	Measured by automated sensor at Galena, 10 miles southwest of Reno.									
NVZ003			Greater Reno/Carson City/Minden Area							
	16	0022PST			0	0			High Wind (G55)	
	Measured by automated sensor at Desert Springs, 10 miles north of Reno.									
NVZ003			Greater Reno/Carson City/Minden Area							
	16	0130PST			0	0			High Wind (G56)	
	Measured by automated wind sensor at Stead, NV.									
<u>NEW HAMPSHIRE, North and Central</u>										
NHZ001>003-009-013			Northern Coos - Southern Coos - Northern Grafton - Belknap - Interior Rockingham							
	01	2100EST			0	0			Heavy Snow	
	02	1800EST								
NHZ004>010-014			Northern Carroll - Southern Grafton - Southern Carroll - Sullivan - Merrimack - Belknap - Strafford - Coastal Rockingham							
	01	2100EST			0	0			Winter Weather/Mix	
	02	1800EST								
	An area of low pressure deepened rapidly as it moved slowly northeastward from the Carolina Coast on the morning of the 1st to south of Nova Scotia by the morning of the 2nd. The storm brought 6 to 10 inches of snow to the mountains and north with 3 to 8 inches across the remainder of the central and southeastern New Hampshire.									
NHZ001>002			Northern Coos - Southern Coos							
	04	0700EST			0	0			Winter Weather/Mix	
		2000EST								
	An intense area of low pressure moving through the Great Lakes brought a moderate snowfall to Coos County where 3 to 7 inches of snow fell.									
NHZ003>004			Northern Grafton - Northern Carroll							
	17	1500EST			0	0			Winter Weather/Mix	
	18	1900EST								
NHZ005>010-013>014			Southern Grafton - Southern Carroll - Sullivan - Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham							
	17	1500EST			0	0			Heavy Snow	
	18	1900EST								
	An area of low pressure developed off the Mid-Atlantic coast on the morning of the 17th and moved slowly northeastward to east of Cape Cod by the morning of the 18th. The storm caused heavy snow to fall across central and southeastern New Hampshire with 8 to 18 inches of snow reported in Merrimack and Rockingham Counties, and about 24 inches in parts of Strafford County. Over the remainder of the central New Hampshire, 4 to 8 inches of snow fell.									
NHZ001>010-013>014			Northern Coos - Southern Coos - Northern Grafton - Northern Carroll - Southern Grafton - Southern Carroll - Sullivan - Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham							
	22	1400EST			0	0			Winter Weather/Mix	
	23	1600EST								
	An area of low pressure that moved northeastward from the lower Mississippi Valley on the morning of the 22nd to the Mid-Atlantic Coast by the morning of the 23rd, brought a mixture of precipitation to the state. Most areas saw the precipitation change from snow to a mixture of sleet and freezing rain. Thunderstorms were also reported in scattered locations throughout the state. Most southern locations saw the precipitation change to rain as temperatures warmed above freezing. Although snowfall amounts generally ranged from 1 to 2 inches, the combination of sleet and freezing rain created hazardous driving conditions.									
<u>NEW HAMPSHIRE, Southern</u>										
NHZ011>012			Cheshire - Hillsborough							
	17	1000EST			0	0			Winter Storm	
	18	2300EST								
	A major winter storm impacted southern New England with heavy snow and strong winds as it tracked southeast of Nantucket. Snowfall totals of 10 to 20 inches were widely observed in Cheshire and Hillsborough counties, though amounts tapered off to as little as 5 to 8 inches in the northwest third of Cheshire County which was farther removed from the storm's influence. No significant damage was reported due to the storm, primarily since the snow was fluffy and light with temperatures in the teens and 20s. Impact on travel was minimal, since the storm affected the region on Presidents Day and most schools were closed that week. However, there were numerous reports of minor accidents as a result of slippery roads. No injuries were reported.									

Storm Data and Unusual Weather Phenomena

February 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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NEW HAMPSHIRE, Southern

Some specific snowfall totals, as reported by trained spotters, included 22 inches in Merrimack; 21 inches in Manchester and Peterborough; 20 inches in Jaffrey and Milford; 18 inches in Nashua; 17 inches in Greenfield; 13 inches in Weare; 8 inches in Swanzy; and 6 inches in Marlow.

NEW JERSEY, Northeast

NJZ002>006-011

Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union

07	0900EST				0	0			Heavy Snow
	1400EST								

As a low pressure system developed off the Mid Atlantic Coast, heavy snow occurred throughout the region.

Snowfall amounts ranged from around 5 to 9 inches. Here are selected specific snowfall amounts for:

Passaic County: from 6.8 inches at Little Falls to 9.0 inches at West Milford.

Bergen County: from 5.0 inches at Cliffside Park to 8.1 inches at Rutherford.

Essex County: from 5.5 inches at Bloomfield to 8.5 inches at Livingston. At Newark Airport, 5.7 inches was measured.

Hudson County: from 4.8 inches at Harrison to 6.0 inches at Jersey City.

Union County: from 4.8 inches at Elizabeth to 6.3 inches at Cranford.

NJZ002>006-011

Western Passaic - Bergen - Eastern Passaic - Essex - Hudson - Union

17	0100EST				0	0			Heavy Snow
	1800EST								

With an exceptionally strong high pressure system over New England, a low pressure system developed off the Mid Atlantic Coast. Periods of light snow developed as northeast winds increased to around 15 mph across Northeast NJ Sunday afternoon, February 16th. Snow became widespread and heavy, falling at rates up to 2 to 3 inches per hour Sunday night and Monday, February 17th. Heavy snow blown by northeast winds 20 to 30 mph caused near blizzard conditions throughout the area. Record heavy snowfalls crippled mass transit. These extremely hazardous weather conditions led to Governor McGreevy's Office declaring a state of emergency. In addition, beach erosion and minor tidal flooding accompanied this system.

Storm Total Snowfall ranged from around 16 to 28 inches.

Here are selected specific snowfall amounts for:

Passaic County: from 18.1 inches at Wayne to 28.0 inches at West Milford.

Bergen County: from 16.0 inches at Bogota to 23.0 inches at Elmwood Park.

Essex County: from 19.5 inches at Bloomfield to 23.2 inches at West Caldwell. At Newark Airport, 22.1 inches was measured.

Hudson County: from 17.5 inches at Jersey City to 20.5 inches at Hoboken.

Union County: from 18.5 inches at Union Township to 23.5 inches at Garwood.

NEW JERSEY, South and Northwest

NJZ001

Sussex

01	0200EST				0	0			0 Winter Weather/Mix
	1300EST								

A high pressure ridge that extended from the Canadian Maritimes into the Middle Atlantic States brought in cold air at the surface. Meanwhile a relatively weak low pressure system formed off the Carolina coast the morning of January 31st. It moved slowly north to near Cape Hatteras, North Carolina the morning of February 1st and then accelerated to a position halfway between Nova Scotia and Cape Cod the morning of the 2nd. Warmer air brought in aloft from this low caused a mixture of light snow and freezing rain to fall across the higher terrain of Sussex County from the early morning into the early afternoon of the first. Enough warm air moved in near the surface by that afternoon to change precipitation over to plain rain. Ice accretions were generally less than one-tenth of an inch. Untreated roadways were hazardous.

NJZ001-007>010-012>027

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

04	1300EST				0	0	10K		Strong Wind
	1900EST								

An intensifying low pressure system moved from the Great Lakes the morning of the fourth into the Canadian Maritimes the morning of the fifth. Its associated cold front passed through New Jersey during the day on the fourth. Strong gusty northwest winds accompanied the front and persisted for several hours behind it during the afternoon and early evening of the 4th. The peak wind gust in Keansburg

Storm Data and Unusual Weather Phenomena

February 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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NEW JERSEY, South and Northwest

(Monmouth County) was 52 mph. Other peak wind gusts included 47 mph in Point Pleasant (Ocean County), 45 mph in Mount Holly (Burlington County), 43 mph in Cape May Harbor (Cape May County), 41 mph at the Atlantic City International Airport, 39 mph in Trenton (Mercer County), 38 mph in Millville (Cumberland County) and 36 mph in Somerville (Somerset County).

NJZ001-007>010-012>023-025>027

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

06	2100EST	0	0				Heavy Snow
07	1400EST						

NJZ024

Eastern Cape May

06	2130EST	0	0				Winter Weather/Mix
07	1400EST						

A winter storm that lasted about eighteen hours dropped about 5 to 8 inches of snow across most of New Jersey. Slightly lesser amounts fell across coastal Cape May County where precipitation mixed with sleet and some rain. Snow moved into the region during the evening of the 6th and fell at a fairly steady rate throughout the event. Snow ended during the first half of the afternoon on the 7th. Numerous accidents were reported, especially on the major interstates in the northern half of the state. Many main roads were snowpacked for the morning commute when most of these minor accidents occurred. In Monmouth county, 90 fender benders were reported between 7 a.m. and 9 a.m. EST. Many schools were closed as were some businesses. All courthouses were closed in the southern half of the state as were courthouses in Mercer and Monmouth Counties. Federal courthouses were closed in Camden and Trenton. Some local government offices were also closed. Several businesses opened late. The racing card was cancelled at Freehold (Monmouth County) Raceway. New Jersey Transit buses ran about 30 minutes late throughout the day. Many after school activities were cancelled. Early during the storm, at 11 p.m. EST on the 6th, a 48-year-old man was killed when he lost control of his vehicle and spun into a pole in Bridgewater (Somerset County). The most serious accident occurred after the snow ended in Ocean County during the afternoon of the 7th. An Atlantic City bound casino bus was allegedly weaving erratically through traffic on the Garden state Parkway in Manahawkin. It careened off the left side of the highway, overturned and slid across the highway. Two people were killed and another twenty-eight were injured (mainly broken bones, head injuries and bruises). A section of the parkway about 100 yards north of the crash was slushy and slippery. The snow made it impossible for helicopters to help transport the injured. In Warren County, the westbound lanes of Interstate 80 were closed for two hours in Allamuchy Township after two tractor-trailers jackknifed at 830 a.m. EST on the 7th. In Hunterdon County, the westbound lanes of Interstate 78 were closed from 830 a.m. until Noon EST on the 7th after another tractor trailer jackknifed. Numerous lesser accidents were also reported on Interstates 287, 95 and 295.

Specific accumulations included 8.5 inches in Mount Holly (Burlington County), Marcella (Morris County) and Sewell (Gloucester County), 8.3 inches in Glendola (Camden County), 8.2 inches in Cream Ridge (Monmouth County), 8.0 inches in Cherry Hill (Camden County), Vineland and Upper Deerfield (Cumberland County), Hamilton Square and Hightstown (Mercer County), Harvey Cedars (Ocean County), and Bordentown (Burlington County), 7.8 inches in Maple Shade (Burlington County) and Raritan (Somerset County), 7.5 inches in West Annandale (Hunterdon County) and Montville (Morris County), 7.4 inches in Somerdale (Camden County) and Estell Manor (Atlantic County), 7.3 inches in Old Bridge (Middlesex County), 7.0 inches in Forked River (Ocean County) and Stewartville (Warren County), 6.8 inches in Hillsborough (Somerset County), 6.7 inches in Clinton (Hunterdon County), 6.5 inches in Hammonton (Atlantic County), 6.4 inches in Neptune (Monmouth County), 6.2 inches in Margate (Atlantic County), Hamburg (Sussex County) and New Brunswick (Middlesex County), 6.0 inches in Avalon (Cape May County), Atlantic City (Atlantic County), Hanover (Morris County), Wantage (Sussex County) and West Deptford (Gloucester County), 5.8 inches in Hope (Warren County), 4.0 inches in Wildwood (Cape May County) and 3.0 inches in Cape May City (Cape May County). The low pressure system responsible for the snow formed across the Gulf Coast States during the day on the 6th and moved quickly northeast to near Elizabeth City, North Carolina the morning of the 7th and well offshore by that evening. While the low pressure system itself was relatively weak and a fast mover, precipitation intensity was aided by a strong subtropical jet which brought moisture from the tropical Pacific Ocean into the region.

NJZ001-007>010-012>027

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

10	0900EST	0	0				Winter Weather/Mix
	2000EST						

The combination of a low pressure system that moved off the South Carolina Coast and a cold front that moved through from the Great Lakes caused snow to fall during the daytime and early evening of the 10th across New Jersey. Accumulations were mainly between one and two inches with the highest amounts across the eastern parts of the state. In the southern half of the state, since temperatures were either at or slightly above the freezing mark, the snow did not stick to most roadways, but mainly accumulated on snow covered surfaces. Elsewhere, the snow did stick to road surfaces, especially during the afternoon and early evening. In Sussex County, several school districts dismissed their children early and many cancelled after school activities.

NJZ012>027

Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

12	0700EST	0	0	2.5K			Strong Wind
	1500EST						

A strong cold front moved through New Jersey during the morning of the 12th. Gusty west winds accompanied the cold frontal passage (as did some showers with briefly heavy snow in the northern part of the state) and continued for several hours into the first half of the

Storm Data and Unusual Weather Phenomena

February 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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NEW JERSEY, South and Northwest

afternoon. Peak wind gusts averaged around 45 mph inland and up to around 55 mph along the shore. The gusty winds caused blowing and drifting snow, especially on roadways with western exposure. The worst reported problems were on New Jersey State Route 49 in Pennsville (Salem County) and U.S. Route 206 in Somerset County. In Matawan, about 500 persons lost power for about five hours after a pine tree was knocked down. Peak wind gusts included 57 mph in Sandy Hook (Monmouth County), 55 mph in Barnegat (Ocean County), 50 mph in Lawrenceville (Mercer County), 48 mph at the Atlantic City International Airport and Cape May Harbor (Cape May County) and 44 mph in Lumberton (Burlington County) and Millville (Cumberland County).

NJZ016>018-021>025 Salem - Gloucester - Camden - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic

15 0200EST 0 0 0 Winter Weather/Mix
1100EST

A weak low pressure system brought between 1.5 and 3.0 inches of light snow across the southern third of New Jersey (mainly to the south of the Atlantic City Expressway) during the first half of the day on the 15th. Precipitation mixed with some light rain across southern Cape May County. Some untreated tertiary roads were slippery. Specific accumulation included 3.0 inches in Newport (Cumberland County), 2.0 inches in Avalon (Cape May County), Millville (Cumberland County), Glassboro and Williamstown (Gloucester County) and Pittsgrove (Salem County), 1.9 inches in Quinton (Salem County) and Estell Manor (Atlantic County), 1.6 inches in Somerdale (Camden County), 1.5 inches in Margate (Atlantic County) and 0.5 inches in Cape May City (Cape May County). The low pressure system responsible for the light precipitation scooted from west to east across Kentucky and Virginia during the first half of the day on the 15th before heading offshore. In its wake a large high pressure system started to build southeast from nearby Canada and helped set the stage for the most significant snowstorm in seven years.

NJZ016>027 Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

16 0500EST 0 2 11.5M Winter Storm
17 1700EST

NJZ001-007>010-012>015 Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer

16 1500EST 1 8 8M Heavy Snow
17 2230EST
M23OU

NJZ013>014-020-022>027 Western Monmouth - Eastern Monmouth - Western Ocean - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

17 0300EST 0 0 800K Strong Wind
0900EST

NJZ013>014-020>026 Western Monmouth - Eastern Monmouth - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean

17 0600EST 0 0 5M Astronomical High Tide
1200EST

The most powerful storm to affect New Jersey since the Blizzard of 1996 struck during the President's Day Weekend. One person in Middlesex County was directly killed after a canopy full of snow collapsed on him. Snow slowly spread from south to north from around sunrise on Sunday the 16th in Cumberland and Cape May Counties to into the evening in Sussex County on the 16th. The heaviest snow fell during the daylight hours of the 16th in the southern half of the state and during the first half of the 17th in the northern half of the state. Heavy snow continued into the afternoon of the 17th in Sussex County. Precipitation started mixing with and changing to sleet across the southern half of the state during the late evening on the 16th and continued into the morning of the 17th. Precipitation changed to freezing rain and some plain rain along the immediate coast in Cape May and Atlantic Counties. Precipitation changed back to snow before it ended during the day on the 17th. In the northern half of the state, snow ended during the afternoon and evening of the 17th. Governor James McGreevey declared a state of emergency at 130 p.m. EST on the 16th. The State of Emergency gave the state police the authority to close highways and redirect traffic. It was cancelled at Noon EST on the 18th. Many municipalities declared their own snow emergencies giving police the authority to tow away vehicles parked on snow emergency routes. Volunteers, police and members of the office of emergency management helped transport medical personnel and dialysis patients to and from hospitals. Plows were dispatched with ambulances. Through the 18th, many elective surgical procedures were cancelled. All South Jersey bus service was suspended after 8 p.m. EST on the 16th. It was suspended statewide on the 17th. Service started again on the 18th with up to 40 minute delays. All South Jersey malls closed early on the 16th. Malls, businesses, universities, schools and shopping centers were closed on the 17th which was a federal holiday - President's Day. Businesses and universities started to reopen on the 18th. Morning traffic on the 16th was heavy in southern New Jersey as many shoppers made last minute preparations for the storm. There were no snow throwers or salt to be found. The plows managed to keep one lane of traffic open throughout the event on the Atlantic City Expressway and New Jersey Turnpike. All major roads were passable on the 17th. It cost state and local officials 14 million dollars to clear roadways. Most businesses reopened on the 18th, but schools and state courthouses remained closed. Organizers had to cancel or postpone meetings and events. Life returned closer to normal on Wednesday the 19th. That was also the first day of regular weekly train service. Strong winds caused about 11,000 homes and businesses to lose power along coastal New Jersey on the 17th. Power was restored by 6 p.m. EST that evening in Atlantic and Cape May Counties, but took until the 19th in Ocean and Monmouth Counties. The worst damage from the storm inland was caused by the weight of the snow and sleet which caused numerous roof collapses and collapses of "Florida rooms". Moderate tidal flooding and moderate to locally severe beach erosion affected coastal communities. Service on the Cape May/Lewes Ferry was suspended from the afternoon of the 16th through the morning of the 18th.

Storm Data and Unusual Weather Phenomena

February 2003

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

NEW JERSEY, South and Northwest

Sussex County, one senior citizen died of a heart attack while shoveling snow. There were several other reported cardiac conditions caused by shoveling the snow. Road crews, which worked up to 36 straight hours had problems with drifts that reached up to five feet. A broken water main in Newton was complicated by the snow on the 18th. In Middlesex County, a 23-year-old man was killed in Edison when a corrugated roof collapsed on him at the Edison Job Corps Academy. Eight of his classmates were injured (broken bones). They were walking into the academy's cafeteria when it collapsed. He died of asphyxiation. A practice field bubble collapsed at Rutgers University. The university did not reopen until the 19th. Schools in the county did not reopen until the 21st. In Metuchen, a large section of a roof of an unoccupied warehouse building collapsed. It took until the 19th for road crews to clear the back streets. In Monmouth County, drifts reached six feet. In Wall Township, a high school roof collapsed on the 18th because of four foot drifts at one corner of the roof. The roof collapse impaired the building's fire alarm system, compromised the old roof above the school's cafeteria and fell onto electrical wires between the roofs. The school was already closed for the week, but was able to reopen the following week. A country store was badly damaged in Freehold. In Ocean County, about 115 Florida rooms collapsed in and around Berkeley and Manchester Townships in three separate developments. One health care worker was injured. Car port roofs were also collapsing. Drifts reached up to 7 feet in the county. It took until the 20th for some side streets to be plowed. Thousands were snowbound for a week. Schools were closed for the week. The heavy snow caved in the roof of a landmark bowling alley in Point Pleasant. The roof of a Wal-Mart in Stafford Township collapsed. A 150 by 100 foot section collapsed. There were no injuries. In Burlington County, hundreds of residents were forced to leave their Tricia Meadows homes in Mount Laurel on the 17th after drifting snow blocked the roof top furnace flue and vent pipes. Carbon monoxide was building within their homes. A shelter was opened at a nearby school. Volunteers helped clear the roofs and residents returned that evening. The roof of an apparel printing business in Lumberton collapsed. Planes were grounded at McGuire Air Force Base through the 18th. In Atlantic County, the roof parapet of the Egg Harbor Township Middle School collapsed. It caused cracks and strain in the supports of the school's gym and auditorium. Flights at the Atlantic City International Airport resumed on the 18th after being halted on the 16th. Bus transportation in and out of Atlantic City was suspended on the 16th and restored on the 18th. Schools did not reopen until the 20th. Many business awnings collapsed because of the weight of the snow and sleet. In Camden County, demolition crews had to raze PJ's Saloon in Gloucester Township after the building sustained structural damage from its snow load. In Collingswood, roof leaks caused a ceiling collapse in one home. In Gloucester County, several barn collapses occurred. Cows and horses were rescued and were unharmed. In Monroe Township, an elderly man was critically injured when his snow covered car port collapsed. He suffered hypothermia. The Philadelphia Flyer wives had to cancel their carnival. In Cumberland County, there were a couple of building collapses in Vineland. A multi-car garage collapsed against an apartment building. Five people were evacuated when the apartment was declared unsafe. The roof of one and the awning of another mobile home collapsed.

The combination of the high pressure system to the north and the low pressure system off the Virginia Coast produced some of the strongest onshore winds and highest tides of the winter season, especially for the southern half of the state. Moderate to severe erosion occurred with cliffs as high as eight feet created. The National Guard was deployed to assist with evacuations. In Cape May County, several causeways were closed during the morning high tide on the 17th. Strathmere became an island. In North Wildwood, waves in Hereford Inlet caused a homeowner's concrete deck to collapse. The wave action washed away bulkheads and fill that supported the decks along the seawall. In Stone Harbor, about two-thirds of the beach replenishment sand (600,000 cubic yards) was lost. Two miles of sand fences were blown away. On Whale Beach between Strathmere and Sea Isle City, miles of sand dunes were washed away and it exposed sand filled geotubes which are used to stabilize the dunes and protect homes. In Atlantic County, causeways into Longport and Margate were closed on the 17th. U.S. Route 40 (The Black Horse Pike) was closed due to flooding throughout the 17th. Severe erosion was reported in Ventnor. The beach dropped seven feet in Atlantic City. In Ocean County, erosion was described as severe on Long Beach Island. Beaches in the Brant Beach and Holgate sections of Long Beach Township, Harvey Cedars and Beach Haven suffered severe erosion. Some dunes were breached in Long Beach Township. In Monmouth County, tidal flooding occurred on a couple of streets in Manasquan. In Cumberland County, the access road to Fortescue was under a foot and a half of water. In Bivalve, tidal flooding spread into parking lots and Miller Avenue. High tides during the morning of the 17th reached 8.69 feet above mean lower low water in north Wildwood (Cape May County), 8.16 feet above mean lower low water at the Cape May Ferry Terminal (Cape May County), 8.06 feet above mean lower low water at Stone Harbor (Cape May County), 7.98 feet above mean lower low water at Sandy Hook (Monmouth County), 7.50 feet above mean lower low water in Margate (Atlantic County), 7.45 feet above mean lower low water in Atlantic City (Atlantic County) and 7.13 feet above mean lower low water in Absecon (Atlantic County).

The strong winds caused about 11,000 homes and businesses to lose power. Wind gusts reached to 57 mph. U.S. Route 30 was closed for three miles between Atlantic City and Absecon on the 17th because 56 light poles were knocked down. The road reopened on the 18th. In Ocean County, the windows of a Point Pleasant liquor store were blown out. In Monmouth County, Monmouth Beach was hit the hardest by power outages. It took two days to restore power. Up and down the coast, the strong winds carried sand into nearby roads, porches and boardwalks. Sand drifts blocked several roadways and were up to three feet high. Peak wind gusts included 57 mph in Cape May and Strathmere (both Cape May County), 53 mph at the Atlantic City International Airport and Barnegat (Ocean County) and 49 mph in Keansburg (Monmouth County).

Specific snow accumulations included 27.0 inches in Green Pond (Morris County), 25.0 inches in Ringoes (Hunterdon County), 24.0 inches in Little Egg Harbor (Ocean County), 23.5 inches in Morristown (Morris County), 23.0 inches in Manchester (Ocean County), 22.8 inches in Cream Ridge (Monmouth County), 22.5 inches in Bridgewater (Somerset County), 22.0 inches in Williamstown (Gloucester County), Chatham (Morris County) and Hazlet (Monmouth County), 21.5 inches in Sparta (Sussex County), 21.0 inches in Butler (Morris County), Hammonton (Atlantic County), Hightstown (Mercer County), Woodbridge (Middlesex County), Manalapan (Monmouth County) and Mount Laurel (Burlington County), 20.5 inches in Wall Township (Monmouth County) and Stewartville (Warren County), 20.0 inches in Bordentown (Burlington County), Belle Mead (Somerset County), Hackettstown (Warren County) and Barnegat (Ocean County), 19.8 inches in Margate (Atlantic County), 19.6 inches in Clinton (Hunterdon County), 19.5 inches in South Toms River (Ocean County), 19.0 inches in Tabernacle (Burlington County), Sewell (Gloucester County), Frenchtown

Storm Data and Unusual Weather Phenomena

February 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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NEW JERSEY, South and Northwest

don County), Ewing (Mercer County) and Gloucester Township (Camden County), 18.5 inches in New Brunswick (Middlesex County), 18.0 inches in Newport (Cumberland County), Vernon and Hamburg (Sussex County) Phillipsburg and Belvidere (Warren County) and Flemington (Hunterdon County), 17.2 inches in Princeton (Mercer County), 17.0 inches in Oaklyn (Camden County) and Cape May Court House (Cape May County), 16.0 inches in Wantage (Sussex County), 15.0 inches in Millville (Cumberland County) and 13.0 inches in Ocean City (Cape May County). The low pressure system which helped cause the heavy snow formed to the lee of the southern Rockies on the 14th. It moved to southern Missouri by the morning of the 15th, the lower Tennessee Valley the morning of the 16th, reformed off the Virginia coast the morning of the 17th and was southeast of Cape Cod on the 18th. Of equal or greater importance was a large high pressure system that moved over nearby Canada and northern New England throughout this event. This locked very cold air in place, slowed the low pressure system down and prevented it from going farther north thus leaving New Jersey on the snowier side of the system. Warm air did move in aloft between 5,000 and 10,000 feet and was the reason the snow changed to sleet during the evening and overnight on the 16th in the southern half of the state.

Atlantic County									
Countywide	22	0900EST 1600EST			0	0	500K		Heavy Rain
Burlington County									
Countywide	22	0900EST 1600EST			0	0	1M		Heavy Rain
Camden County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Cape May County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Cumberland County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Gloucester County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Hunterdon County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Mercer County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Middlesex County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Monmouth County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Morris County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Ocean County									
Countywide	22	0900EST 1600EST			0	0	500K		Heavy Rain
Salem County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Somerset County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain
Warren County									
Countywide	22	0900EST 1600EST			0	0			Heavy Rain

A large swath of moderate to heavy rain with embedded thunderstorms moved across New Jersey during the day on the 22nd. Rainfall totals averaged between one quarter and one half an inch per hour during the thunderstorms and storm totals across the state averaged between 1.5 and 3.0 inches. Less rain fell over Sussex County. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flash flooding along area streams. Please refer to separate Stormdata entries concerning area streams and rivers. The combination of rain and melting snow also led to several roof collapses throughout the state. In Lakewood (Ocean County), a bulb

Storm Data and Unusual Weather Phenomena

February 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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NEW JERSEY, South and Northwest

manufacturing facility was evacuated after water was leaking through the roof. In Stafford Township, on February 24th, the roof of the Ocean Acres Community Center buckled under the weight of the snow and rain. The community center is physically attached to the Ocean Acres Elementary School. The elementary school was evacuated and the students were moved to the Stafford Intermediate School. Several classrooms were soaked. In Burlington Township (Burlington County), the Wal-Mart was closed due to its leaking roof. It was closed the next day because of water damage. Elsewhere in Burlington township, a large section of a roof of a food distribution center collapsed. In Maple Shade (Burlington County), the ceiling of a barber shop collapsed. In Atlantic County, a 70 foot by 40 foot section of a roof of a Buick Dealership collapsed. Three vehicles were totaled. In Monmouth County flooding closed New Jersey State Route 35 in Aberdeen and New Jersey State Route 36 in Hazlet.

Storm totals included 2.86 inches in Somerdale (Camden County), 2.77 inches at McGuire Air Force Base (Burlington County), 2.72 inches in West Deptford (Gloucester County), 2.70 inches in New Lisbon (Burlington County), 2.53 inches in Cream Ridge (Monmouth County), 2.42 inches in Lebanon Borough (Hunterdon County), 2.40 inches in Folsom (Atlantic County), 2.39 inches in Belmar (Monmouth County), 2.35 inches in Washington Crossing (Mercer County), 2.34 inches in Seabrook (Cumberland County), 2.31 inches in Millville (Cumberland County), 2.30 inches in Estell Manor (Atlantic County), 2.20 inches in New Brunswick (Middlesex County) and Point Pleasant (Ocean County), 2.05 inches in Freehold (Monmouth County), 1.95 inches in Flemington (Hunterdon County), 1.85 inches in Chatham (Morris County), 1.82 inches in Somerville (Somerset County) and 1.76 inches in Reigelsville (Warren County). The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

The heavy rain on the 22nd helped make February 2003 one of the wettest Februaries on record in New Jersey. The preliminary statewide monthly average precipitation total was 4.99 inches, the eighth wettest February on record. The February precipitation total of 5.39 inches at the Atlantic City International Airport was the seventh wettest on record.

Camden County

Countywide

22	1355EST 1800EST	0	0		Flash Flood
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Gloucester County

Countywide

22	1355EST 1800EST	0	0		Flash Flood
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NJZ017>018

Gloucester - Camden

22	1800EST	0	0		Flood
23	2000EST				

A large swath of moderate to heavy rain with embedded thunderstorms moved across southwest New Jersey during the mid-day on the 22nd. Rainfall totals averaged around one half an inch per hour during the thunderstorms and storm totals across the region averaged between 2.0 and 3.0 inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flash flooding and flooding along area streams. The flash flooding was exacerbated by the incoming high tide along the Delaware River during the afternoon of the 22nd.

In Camden County, Woodlyne Avenue (Woodlyne Borough) was closed after the North Branch of the Newton Creek overflowed. Along the Cooper River, Admiral Wilson Boulevard was closed. Roadway flooding led to the closure of U.S. Route 130 in Collingswood. In Cherry Hill, overtaxed sewers led to back-ups in several basements. The Cooper River in Haddonfield was above its 2.8 foot flood stage from 155 p.m. EST on the 22nd through 145 a.m. EST on the 3rd. It crested at 3.16 feet at 7 p.m. EST on the 22nd. In Gloucester County, there were over 200 calls of flooding in homes and businesses in the following municipalities: Deptford, East Greenwich, Paulsboro, Washington Township, Westville and Woodbury. The incoming high tide contributed to the problems by preventing faster run-off during the thunderstorms. Melting snow and storm run-off led to flooding along the Raccoon Creek on the 23rd. The Raccoon Creek in Swedesboro was above its 13 foot flood stage from 1230 a.m. EST through 8 p.m. EST on the 23rd. It crested at 13.27 feet at 5 a.m. EST on the 23rd.

Storm totals included 2.86 inches in Somerdale (Camden County), 2.72 inches in West Deptford (Gloucester County) and 2.47 inches in Pennsauken (Camden County). The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Mercer County

Countywide

22	1439EST 1930EST	0	0		Flash Flood
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NJZ015

Mercer

22	1930EST	0	0		Flood
23	0122EST				

A large swath of moderate to heavy rain with embedded thunderstorms moved across central New Jersey during the mid-day on the 22nd. Rainfall totals averaged up to one half an inch per hour during the thunderstorms and storm totals across the county averaged between 2.0 and 2.5 inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flash flooding and flooding along the Assunpink Creek and Stony Brook. In Hamilton Township, vehicles were stuck in underpasses. Poor drainage flooding led to the closure of two roadways in Ewing Township. The Assunpink Creek in Trenton was above its 7 foot flood stage from 239 p.m. EST through 1122 p.m.

Storm Data and Unusual Weather Phenomena

February 2003

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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NEW JERSEY, South and Northwest

EST on the 22nd. It crested at 8.01 feet at 615 p.m. EST on the 22nd. The Stony Brook in Princeton was briefly above its 10 foot flood stage from 1238 a.m. EST through 122 a.m. EST on the 23rd. It crested at 10.07 feet at 1 a.m. EST on the 23rd. Storm totals included 2.42 inches in Hamilton Square, 2.35 inches in Washington Crossing, 2.30 inches in Windsor Township and 2.05 inches in Trenton. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

NJZ010

Somerset

22	1937EST	0	0	Flood
26	0422EST			

A large swath of moderate to heavy rain with embedded thunderstorms moved across central New Jersey during the mid-day on the 22nd. Rainfall totals averaged up to one half an inch per hour during the thunderstorms and storm totals across the county averaged between 1.5 and 2.0 inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced mainly minor flooding throughout the Raritan River Basin. Flooding along the Millstone River closed the Blackwells Mills and Griggstown Causeways. The latter was closed through the 26th. Flooding along the North Branch of the Raritan River closed Old York Road in Bridgewater and Branchburg Townships. Water from the river crept into backyards in Branchburg. Flooding along the South Branch of the Raritan River closed two additional roads in Branchburg Township. Flooding along the Brady Brook closed Lamington Road in Bedminster Township. Dukes Parkway along the Raritan River in Manville was also closed. Most roads were reopened by the 24th with the exception of the Griggstown Causeway.

The Millstone River at Griggstown was above its 9 foot flood stage from 454 p.m. EST on the 22nd through 422 a.m. EST on the 26th. It crested at 13.69 feet at 345 a.m. EST on the 24th. Farther downstream, the Millstone River at Blackwells Mills was above its 9 foot flood stage from 515 p.m. EST on the 23rd through 825 p.m. EST on the 24th. It crested at 9.75 feet at 315 a.m. EST on the 24th. The South Branch of the Raritan River at Stanton was above its 15 foot flood stage from 737 p.m. EST through 1035 p.m. EST on the 22nd. It crested at 15.38 feet at 930 p.m. EST on the 22nd. The main stem of the Raritan River at Manville reached its 14 foot flood stage at 626 a.m. EST on the 23rd, crested at 14.16 feet at 645 a.m. EST on the 23rd and was back within bankfull at 746 a.m. EST on the 23rd.

Storm totals included 1.88 inches in North Plainfield and 1.67 inches in Somerville. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

NJZ001-007>010-012>027

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

22	2000EST	0	0	0 Dense Fog
23	1200EST			

The combination of heavy rain, humid air moving over the snow pack and relatively light winds produced widespread dense fog across New Jersey from the evening of the 22nd through the morning of the 23rd. Widespread visibilities were under one quarter of a mile. Visibilities improved around Noon EST on the 23rd once a strong low pressure system exited the region and winds increased from the west and northwest. The entire length of the New Jersey Turnpike was closed because of the dense fog from 1030 a.m. EST through 1 p.m. EST on the 23rd. It was the first time the Turnpike was closed since the blizzard in 1996 and the first time it was closed because of fog since 1982. In Medford (Burlington County), ten accidents on New Jersey State Route 70 closed the roadways for three and a half hours on the 23rd.

NJZ001-007>010-012>027

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington

23	1200EST	0	0	1.1K Strong Wind
	2200EST			

As an intense low pressure system lifted northeast away from the region, strong gusty west to northwest winds moved into the area during the afternoon and the first half of the evening of the 23rd. Peak wind gusts averaged around 45 mph inland and around 55 mph along the coast and Sussex County New Jersey. The peak wind gusts included 56 mph in Sparta and Mountain Creek (Sussex County) and Cape May Harbor (Cape May County), 53 mph in Keansburg (Monmouth County), 47 mph in Barnegat (Ocean County) and 43 mph at the Atlantic City International Airport and McGuire Air Force Base (Burlington County). At High Point (the highest point in New Jersey located in Sussex County), the peak wind gust was 60 mph.

NJZ020

Western Ocean

23	1300EST	0	0	Flood
	1843EST			

The combination of heavy rain during the day on the 22nd and snow melt run-off led to minor flooding along the North Branch of the Metedeconk River on the 23rd. The North Branch of the Metedeconk River in Lakewood was above its 7 foot flood stage from 1 p.m. EST through 643 p.m. EST on the 23rd. It crested at 7.18 feet at 615 p.m. EST on the 23rd. Storm totals included 2.53 inches in Cream Ridge (Monmouth County) and 2.20 inches in Point Pleasant.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
NEW JERSEY, South and Northwest									
NJZ001-007>010-012>020			Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean						
	23	1900EST			0	0			Winter Weather/Mix
	24	0600EST							
	Runoff from the heavy rain and snow melt began to freeze over on area roadways as temperatures plunged below freezing during the evening of the 23rd. This led to the formation of black ice and caused numerous multi-vehicle accidents and road closures. Vehicles were skidding on frozen roads and struck poles and trees. The road salt that was on roadways was washed away by the heavy rain and snow melt on both the 22nd and earlier on the 23rd.								
NJZ008			Morris						
	23	2000EST			0	0			Flood
	24	1021EST							
	The combination of heavy rain on the 22nd, snow melt and an ice jam caused minor flooding along the Passaic river around Chatham on the 23rd and 24th. The Passaic River at Chatham was above its 6 foot flood stage from 8 p.m. EST on the 23rd through 1021 a.m. EST on the 24th. It crested at 6.36 feet at 8 a.m. EST on the 24th. Storm totals prior to the flooding included 1.85 inches in Chatham and 1.62 inches in Long Valley.								
NJZ019			Northwestern Burlington						
	24	0015EST			0	0			Flood
	25	0344EST							
	The combination of the heavy rain during the day on the 22nd and melting snow led to flooding along the North Branch of the Rancocas Creek on the 24th. The creek flooded the property of about 50 families in Eastampton and Southampton Townships. A few families voluntarily evacuated. The North Branch of the Rancocas Creek at Pemberton was above its 2.7 foot flood stage from 1215 a.m. EST on the 24th through 344 a.m. EST on the 25th. It crested at 2.78 feet at 245 p.m. EST on the 24th. Storm totals included 2.77 inches at the McGuire Air Force Base, 2.70 inches in New Lisbon, 2.43 inches in Mount Laurel, 2.37 inches in Mount Holly and 2.27 inches in Lumberton.								
NJZ020-022>027			Western Ocean - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington						
	26	0600EST			0	0	0		Winter Weather/Mix
	27	0200EST							
	A weak low pressure system developed along a stationary front across the southeastern United States during the evening of the 25th. It moved off the South Carolina coast during the day on the 26th and farther offshore that evening. Southeastern New Jersey was close enough to this low pressure system to receive a steady light snow from the morning of the 26th until just past midnight on the 27th. Untreated roads became slippery, especially during the evening commute on the 26th. In Ocean County, seven traffic accidents on the Garden State Parkway caused huge delays on the roadway. In Atlantic County, an accident on the JFK Bridge in Longport closed it for hours. In Egg Harbor Township (Atlantic County), a nine vehicle chain reaction accident occurred on the Patcong Creek Bridge and caused four injuries. The Dolores Cooper Bridge in the township saw three separate accidents in a ten minute span. Accumulations included 1.0 inch in Margate (Atlantic County) and 0.8 inches in Estell Manor (Atlantic County).								
NJZ016>020-023>027			Salem - Gloucester - Camden - Northwestern Burlington - Western Ocean - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean - Southeastern Burlington						
	27	1800EST			0	0			Winter Weather/Mix
	28	1100EST							
NJZ021>022			Cumberland - Western Atlantic						
	27	1900EST			0	0			Heavy Snow
	28	1100EST							
	Another low pressure system brought snow into the southern half of New Jersey. A stripe of heavy snow fell across Atlantic and Cumberland Counties. Snow began during the evening of the 27th and ended during the morning of the 28th. The heaviest snow fell overnight on the 27th. Accumulations ranged from 1.5 to 5.0 inches with the highest amounts in Atlantic County. Specific accumulations included 4.9 inches in Estell Manor (Atlantic County), 4.0 inches in Woodbine (Cape May County), 3.8 inches in Glassboro (Gloucester County), 3.7 inches in Margate (Atlantic County), 3.5 inches in Seaville (Cape May County), 3.0 inches in Tabernacle (Burlington County), 2.8 inches in Hammonton (Atlantic County), 2.5 inches in Voorhees (Camden County) and Beach Haven (Ocean County), 2.2 inches in Mount Holly (Burlington County) and 1.8 inches in Somerdale (Camden County) and Green Creek (Cape May County). The low pressure system developed in the western Gulf of Mexico during the day on the 26th and moved northeast into Alabama the morning of the 27th and then well east of Cape Hatteras, North Carolina by the morning of the 28th. Its track was too far southeast to bring heavy snow into most of New Jersey. In fact accumulations in the northern half of the state were under 1.5 inches.								

The snow on the 27th helped push the monthly snowfall total to 33.2 inches in Atlantic City, which was the second snowiest February on record. Only February 1967 (35.2 inches) was snowier. Along with the excessive snow, came unseasonably cold weather in Atlantic City during the meteorological winter. The mean temperature of 31.0 degrees during the meteorological winter months of December, January and February tied for the tenth coldest winter on record.

Storm Data and Unusual Weather Phenomena

February 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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NEW MEXICO, Central and North

NMZ001>021-026 Northwest Plateau - Northwest Mountains Including Jemez - Upper Rio Grande Valley - Sangre De Cristo Mountains - Northeast Highlands - Harding - Far Northeast Plains - Westcentral Mountains - Middle Rio Grande Valley - Sandia/Manzano Mountains - Central High Plains/Estancia Valley County - Conchas Lake/Guadalupe - Quay - Southwest Mountains/Upper Gila Region - Lower Rio Grande Valley - Lincoln County High Plains/Hondo Valley - Capitan/Northern Sacramento Mountains - De Baca - Chaves County Plains - Roosevelt - Curry - Guadalupe Mountains Of Chaves County

01	0000MST				0	0			Drought
28	2359MST								

Unlike December and January, February was a fairly wet month from much of north and central New Mexico. Periods of snow and rain increased in frequency and intensity for many areas providing some welcome short term relief to high fire danger and raising hopes of getting at least normal levels of spring runoff from the freshening mountain snow packs. Moisture was delivered as unusual widespread rain instead of snow around the 13th as warm temperatures kept the snow elevation generally above 8500 feet. After suffering one of the driest January's on record, Albuquerque reported it's sixth wettest February. The welcome moisture did not overcome the longer term hydrologic drought conditions that continued to grip the state.

NMZ005-011-017 Northeast Highlands - Central High Plains/Estancia Valley County - Capitan/Northern Sacramento Mountains

02	1000MST				0	0			High Wind (G39)
	1700MST								

Gusty winds developed during the day across most of north and central New Mexico. Sustained high winds above 40 mph and brief gusts of 60-65 mph were reported from Las Vegas south to Clines Corners and also near Ruidoso where radio stations aired reports of light damage to porch coverings and the roof to several homes and businesses.

NMZ002-004-008 Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Westcentral Mountains

13	0800MST				0	0			Winter Storm
23	2000MST								

Heavy high elevation snow started during early morning and continued until early evening from the Zuni Mountains west of Grants then northeastward along the continental divide into Rio Arriba County and finally east into northern Taos County. Snow totals reached near 6 inches near El Morro and Ramah and 6 to 8 inches from Chama into the higher plateau of central Rio Arriba County and in the ski areas of northern Taos County. Many lower elevation stations reported significant rain totals of 0.3 to 0.6 inches which would have been heavy snow had it not been so unusually warm during this event.

NMZ002-004 Northwest Mountains Including Jemez - Sangre De Cristo Mountains

27	2100MST				0	0			Winter Storm
28	1800MST								

Heavy snow fell over night into the next day along the northern New Mexico border between Chama and Red River which both reported 10-13 inches. Snow tapered off quickly towards the south with less than 6 inches at Brazos Lodge and ski areas south of Red River in Taos County. Snow of 3-4 inches reached as far south as the Sandia Mountains just northeast of Albuquerque.

NEW MEXICO, South Central and Southwest

NONE REPORTED.

NEW MEXICO, Southeast

NMZ027 Guadalupe Mountains Of Eddy County

02	0104MST				1	2	15K	0	High Wind (G86)
03	0704MST								

An intense upper level storm system which passed close to West Texas and southeast New Mexico resulted in very strong west winds in the higher elevations of the Guadalupe Mountains. An automated observing site in the Guadalupe recorded a peak wind gust of 99 MPH around 21:00 MST on the 2nd. The high winds blew a vehicle off of the north/south oriented Highway 62/180 near mile marker 6. The accident, occurring at 11:00 MST on the 2nd, resulted in one death and two injuries.

M18VE

NEW YORK, Central

NYZ009 Northern Oneida

05	0500EST				0	0	100K		Heavy Snow
	1000EST								

An arctic front crossed central New York midday on the 4th. This changed the rain to snow. Snow accumulations were an inch or less with the front. This front ushered in much colder air causing lake effect snow to start that evening. An intense band of lake effect snow moved south into northern Oneida County between 9 and 11 PM on the 4th. The band moved slowly south out of northern Oneida County by 10 AM. Widespread snowfall amounts were mostly 6 to 12 inches with a few higher amounts. Snowfall rates were 1 to 2 inches per hour. Strong winds caused blowing and drifting snow with zero visibility. Several accidents with injuries were reported. The weight of the rain and snow, from this and previous storms, combined with the winds to collapse several structures. On the 4th, a barn collapsed in the town of Western trapping 5 Holstein cows. Also on the 4th, a man was killed clearing ice off a building's eaves in Westernville. A chunk of ice from the roof fell 10 feet onto the man, who was standing on the ground.

NYZ009-018-036>037 Northern Oneida - Onondaga - Madison - Southern Oneida

12	0800EST				0	0	250K		Heavy Snow
13	1200EST								

Storm Data and Unusual Weather Phenomena

February 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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NEW YORK, Central

A strong fast moving arctic front went through central New York around 6 AM the morning of the 12th. Snow started early in the morning of the 12th but accumulations were light until just before the front. With and behind the front heavy snow combined with west winds gusting over 40 miles an hour to create white out conditions. Snow accumulations were two inches an hour with the front and for the rest of the morning. The winds subsided during the afternoon of the 12th then became light on the 13th. Lake effect snow bands continued behind the front into the 13th. The intensity of the bands decreased while the bands finally shifted south on the morning of the 13th. Snowfall amounts were highest north of the New York State Thruway in western Oneida, northern Madison, and extreme northern Onondaga counties. In these areas 6 to 14 inches of snow fell. Temperatures dropped into the single digits on the morning of the 13th. Multiple accidents occurred. A woman was hit and injured by a car the afternoon of the 12th during whiteout conditions in the town of Sullivan in Madison County.

NYZ015>018-022>025-036>037-044>046-055>057-062 **Yates - Seneca - Southern Cayuga - Onondaga - Steuben - Schuyler - Chemung - Tompkins - Madison - Southern Oneida - Cortland - Chenango - Otsego - Tioga - Broome - Delaware - Sullivan**

17	1000EST								
18	0200EST			0	0	2.6M			Heavy Snow

A coastal storm moved slowly up the east coast on the 16th and early on the 17th. Late on the 17th the storm picked up speed to be well off the northeast coast. Snow spread into the southern Catskills of New York during the evening of the 16th. The snow moved into the southern tier by 3 AM then to the New York Thruway in Syracuse and Utica around 7 AM. The snow was heavy at times on the 17th. The snow ended around midnight of the 17th. Snowfall rates were several inches an hour. Snowfall amounts were a widespread 10 to 20 inches from the Elmira Corning area east into the western Catskills. Further north snow amounts were mostly 6 to 12 inches. Northern Oneida County had only 3 to 6 inches of snow. The highest amounts of 20 to 30 inches were in the higher elevations of the western Catskills. Accidents were fewer due to the Presidents Day holiday and due to the early start of the snow. In Oneida County, the weight of the accumulated snow and rain caused numerous roof collapses, including a barn, fire station, and mobile home.

NEW YORK, Coastal

NYZ067>071-073-076>081 **Orange - Putnam - Rockland - Northern Westchester - Southern Westchester - Bronx - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southwest Suffolk - Southeast Suffolk**

07	1100EST								
	1630EST			0	0				Heavy Snow

As a low pressure system developed off the Mid Atlantic Coast, heavy snow occurred throughout the region.

Most snowfall amounts ranged from around 5 to 9 inches. Here are selected specific snowfall amounts for:

Orange County: from 5.0 inches at Circleville and Walden to 8.5 inches in Chester.

Putnam County: from 6.0 inches in Patterson and Mahopac to 8.0 inches in Lake Carmel.

Rockland County: from 5.8 inches in Sparkill to 8.0 inches in New City and Spring Valley.

Westchester County: from 6.4 inches in Yonkers to 9.0 inches in Valhalla.

New York City: from 4.8 inches at JFK Airport to 7.5 inches in Riverdale. At both Central Park Zoo and LaGuardia Airport, 5.3 inches was measured.

Nassau County: from 5.0 inches at Baldwin to 7.5 inches at Wantagh.

Suffolk County: from 5.2 inches at Flanders to 8.2 inches at Baiting Hollow. At the National Weather Service Office, 7.4 inches was measured.

NYZ067>081

Orange - Putnam - Rockland - Northern Westchester - Southern Westchester - New York (Manhattan) - Bronx - Richmond (Staten Is.) - Kings (Brooklyn) - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southwest Suffolk - Southeast Suffolk

17	0100EST								
18	0200EST			0	0	20M			Heavy Snow

With an exceptionally strong high pressure system over New England, a low pressure system developed off the Mid Atlantic Coast. Periods of light snow developed as northeast winds increased to around 15 mph across the NYC Metro area Sunday afternoon, February 16th. Snow became widespread and heavy, falling at rates up to 2 to 3 inches per hour Sunday night and Monday, February 17th. Heavy snow blown by northeast winds 20 to 30 mph caused near blizzard conditions throughout the area. Record heavy snowfalls crippled mass transit. These extremely hazardous weather conditions led to local emergency declarations throughout the region. In New York City, the cost estimate for total snowfall operations was around 20 million dollars. In addition, widespread moderate beach erosion and minor tidal flooding accompanied this system.

Storm Total Snowfall ranged from around 14 to 28 inches.

Here are selected specific snowfall amounts for:

Storm Data and Unusual Weather Phenomena

February 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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NEW YORK, North

NYZ026>027-031

ended during the early morning of the 18th. Snow accumulations in this area were generally 3 to 4 inches, with lesser amounts across the remainder of northern New York. Ticonderoga reported 3 1/2 inches of snow.

Northern St. Lawrence - Northern Franklin - Western Clinton

22	2300EST				0	0	30K		Winter Storm
23	1400EST								

An area of low pressure over the Tennessee Valley Saturday morning, February 22nd, moved northeast. The primary storm center of this complex low pressure system moved across central New York on Sunday, February 23rd and then into the Canadian Maritimes. Across this portion of northern New York, snow Saturday (Feb 22nd) afternoon and evening, mixed with and changed to freezing rain by Sunday, Feb 23rd. Snow accumulations were 3 to 6 inches, with Ice accumulations of 1/4 to 1/2 inch after the changeover. Difficult travel conditions resulted, and a few small tree limbs were reported down. A few snowfall reports were: 6 inches in Ellenburg Depot (Clinton county) and 4 inches in Malone (Franklin county).

NEW YORK, West

NYZ001>003-010>012-019

Niagara - Orleans - Monroe - Erie - Genesee - Wyoming - Chautauqua

04	1100EST				0	0	950K		High Wind (G68)
	1536EST								

Strong low pressure brought high winds to the region during the late morning and early afternoon hours. Trees and power lines were downed by the strong winds. Scattered power outages were reported with those affected totaling several thousand customers. In Buffalo, a tractor trailer was blown over as it crossed an overpass on Ohio Street. The driver was not injured. The high winds caused ice pressure to damage several sections of the ice boom in the Buffalo Harbor at the mouth of the Niagara River.

NYZ005>006-006-006-008

Northern Cayuga - Oswego - Lewis

05	0440EST				0	0	36K		Heavy Snow
06	1000EST								

Lake effect snow squalls began late on the fourth following a frontal passage. The activity was focused on northern Oswego and Lewis counties initially and included thunder and lightning. The band drifted south during the fifth reaching the south shore of Lake Ontario during the morning then weakened as the flow became more northwesterly. The band redeveloped overnight and then lifted north as it weakened. Reported snowfall amounts included: Scriba 15"; Oswego 14"; Fulton 12"; and West Monroe and West Leyden 9".

NYZ007>008

Jefferson - Lewis

09	1200EST				0	0	16K		Heavy Snow
	1415EST								

A weakening front dropped southeast to the north shore of Lake Ontario just after midnight on the ninth and gradually dissipated. A west to southwest flow ahead of this feature was still cold enough to allow lake effect to develop over the St. Lawrence Valley. The band intensified as it drifted south across northern Jefferson and Lewis counties around daybreak. Watertown received eleven inches of snow and Harrisville reported nine inches.

NYZ003-005>006

Monroe - Northern Cayuga - Oswego

12	0100EST				0	0	60K		Heavy Snow
	1115EST								

Lake effect snows developed in a westerly flow during the early morning hours of the twelfth. The band was very steady state except for a brief time late on the thirteenth when a ripple developed moving the snows onshore over Monroe county where seven inches fell. Snowfalls over Oswego county were extreme with over four feet near Hannibal and three feet across the central part of the county. This was primarily due to its longevity rather than the rate.

NYZ007>008

Jefferson - Lewis

23	0820EST				0	0	250K		Ice Storm
	1015EST								

An ice storm deposited one-half- to three-quarter- inch of ice at various locations in the north country. The ice downed tree limbs and power lines. As many as 7000 customers were without power at the peak of the storm. Hardest hit were the communities of Clayton, Cape Vincent, Alexandria Bay, Theresa, LaFargeville and Chaumont. The Red Cross set up an emergency shelter in Theresa and nearly two dozen took refuge there.

NORTH CAROLINA, Central

NCZ007>011-021>027-038>043-073>077-083>084-086

Person - Granville - Vance - Warren - Halifax - Forsyth - Guilford - Alamance - Orange - Durham - Franklin - Nash - Davidson - Randolph - Chatham - Wake - Johnston - Wilson - Stanly - Montgomery - Moore - Lee - Harnett - Anson - Richmond - Hoke

16	1200EST				0	0			Winter Storm
17	0700EST								

Sleet and freezing rain fell across much of central North Carolina. Sleet accumulated between 1 and 3 inches across the Piedmont, mainly west of a line from Southern Pines to Raleigh to Roanoke Rapids. The highest accumulations were near the Virginia border and in the Triad area. Mainly freezing rain fell across the Sandhills and Coastal Plain, with ice accumulations around a quarter inch along a narrow corridor from Wadesboro to Smithfield to Rocky Mount.

**Stanly County
Albemarle**

22	1105EST				0	0			Thunderstorm Wind (G60)
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Numerous trees and power lines were blown down, and a barn was damaged near New London.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Central</u>									
Montgomery County									
Uwharrie	22	1125EST			0	0			Thunderstorm Wind (G60)
			Trees were blown down.						
Randolph County									
Asheboro	22	1132EST			0	0			Thunderstorm Wind (G70)
			Extensive damage was reported near the intersection of U.S. 64 and N.C. 42 in Asheboro. 73 homes and 16 businesses sustained damage. Several buildings had roofs blown back, a steeple was blown off a church, and mobile homes were overturned.						
Davidson County									
Lexington	22	1145EST 1300EST			0	0			Flash Flood
			Highway 64 was flooded near Lexington.						
Forsyth County									
Rural Hall	22	1145EST 1300EST			0	0			Flash Flood
			Residences were flooded.						
Randolph County									
Liberty	22	1148EST			0	0			Thunderstorm Wind (G60)
			Trees were blown down south of highway 49.						
Alamance County									
Saxapahaw	22	1150EST			0	0			Thunderstorm Wind (G60)
			Trees were blown down along highway 87.						
Chatham County									
Siler City	22	1158EST			0	0			Thunderstorm Wind (G60)
			Trees were blown down						
Guilford County									
West Portion	22	1200EST 1300EST			0	0			Flash Flood
			Several roads were flooded in western portions of the county.						
Orange County									
Chapel Hill	22	1210EST			0	0			Thunderstorm Wind (G50)
			Numerous trees were blown down, some blocking roads.						
Durham County									
Durham	22	1215EST			0	0			Thunderstorm Wind (G50)
			Trees were blown down.						
Granville County									
Creedmoor	22	1230EST			0	0			Thunderstorm Wind (G50)
			Trees were blown down.						
Warren County									
Littleton	22	1310EST			0	0			Thunderstorm Wind (G50)
			Trees were blown down.						
Nash County									
Samaria	22	1350EST			0	0			Thunderstorm Wind (G50)
			Large trees were blown down across a road near the Franklin County line.						
Sampson County									
Clinton	22	1515EST			0	0			Thunderstorm Wind (G50)
			Trees were blown down.						
NCZ007>009-021>025- 038>041	27	0000EST 1500EST			0	0			Person - Granville - Vance - Forsyth - Guilford - Alamance - Orange - Durham - Davidson - Randolph - Chatham - Wake Winter Storm
			Freezing rain began in the early morning hours of the 27th, and continued into the afternoon. Ice accumulated to nearly one inch just north of the Triad area. Much of the Piedmont from Raleigh north and west received a quarter to a half inch of ice. Numerous trees were downed and power outages were widespread across the Piedmont.						
<u>NORTH CAROLINA, Central Coastal</u>									
Duplin County									
Albertson	22	1550EST			0	0			Thunderstorm Wind (G52)
			Law enforcement reported trees and power lines down.						
Greene County									
Lizzie	22	1606EST			0	0			Thunderstorm Wind (G52)
			Public reported 60 mph wind gust.						

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Central Coastal</u>									
Lenoir County									
Kinston	22	1608EST			0	0			Thunderstorm Wind (G52)
			Media reported tree limbs snapping.						
Pitt County									
Winterville	22	1621EST			0	0			Thunderstorm Wind (G50)
			Law enforcement reported trees blown down.						
Beaufort County									
Washington	22	1655EST			0	0			Thunderstorm Wind (G55)
			Local paper reported a roof was blown off of a house.						
Jones County									
Trenton	22	1713EST			0	0			Thunderstorm Wind (G52)
			Law enforcement reported a metal shed was blown off the foundation onto a truck.						
Onslow County									
Jacksonville	22	1715EST			0	0			Thunderstorm Wind (G50)
			Local media reported trees down along Highway 17.						
Onslow County									
Jacksonville	22	1755EST	0.1	20	0	0			Tornado (F0)
			Public report of brief tornado touchdown with minor damage reported at Chico's Used Tire Store on highway 24.						
Craven County									
James City	22	1800EST			0	0			Thunderstorm Wind (G52)
			Law enforcement reported numerous trees down along highway 70 in the James City area. One tree fell on a patrol car in James City.						
NCZ103									
Eastern Dare									
	23	0411EST			0	0			High Wind (G54)
		1900EST							
			The Emergency Operations Center reported wind gusts in excess of 60 mph in Manteo.						
<u>NORTH CAROLINA, Extreme Southwest</u>									
NONE REPORTED.									
<u>NORTH CAROLINA, North Coastal</u>									
NCZ012									
Northampton									
	15	1600EST			0	0			Winter Storm
	17	1600EST							
			A winter storm produced around one inch of snow and some ice across portions of Northampton county in northeast North Carolina. Local law enforcement agencies reported several accidents.						
Northampton County									
Margaretsville	22	1355EST			0	0	5K		Thunderstorm Wind (G50)
			Chimney knocked down by thunderstorm winds.						
<u>NORTH CAROLINA, Northwest and North Central</u>									
NCZ018									
Watauga									
	03	0930EST			0	0	0		High Wind (G60)
			Early during the morning of the 3rd, high winds downed trees and power lines across Watauga County.						
NCZ001>003-018>020									
Ashe - Alleghany - Surry - Watauga - Wilkes - Yadkin									
	06	1200EST			0	0	0		Heavy Snow
	07	0900EST							
			Snow during the afternoon of the 6th through the morning of the 7th accumulated 4 to 7 inches.						
NCZ001>006-018>020									
Ashe - Alleghany - Surry - Stokes - Rockingham - Caswell - Watauga - Wilkes - Yadkin									
	15	2100EST			0	0	0		Winter Storm
	17	2100EST							
			Freezing rain and sleet fell across the region from late on the 15th through midday on the 17th. Ice accretions ranged from 1/4 to 1/2 inch in the northwestern mountains and foothills to as much as 1 inch east of the foothills. Sleet accumulated from 1 to 4 inches. Up to 50,000 residences were without power for a brief time.						
NCZ001>003-005									
Ashe - Alleghany - Surry - Rockingham									
	22	1400EST			0	0	0		Flood
		2300EST							
			Heavy rain on the 22nd caused small stream and urban flooding across Ashe, Alleghany, Surry, and Rockingham counties.						
NCZ001-003>006-018>020									
Ashe - Surry - Stokes - Rockingham - Caswell - Watauga - Wilkes - Yadkin									
	22	2200EST			0	0	15K		High Wind (G77)
	23	1500EST							
			High winds during the evening of the 22nd through the 23rd downed numerous trees and power lines. Boone in Watauga County						

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Northwest and North Central</u>									
			measured a wind gust of 77 miles an hour. A tree fell onto two cars near Boone, otherwise no reports of damage to private property were received.						
NCZ003>006-020			Surry - Stokes - Rockingham - Caswell - Yadkin						
		26	2000EST		0	0	0		Winter Storm
		27	2200EST						
			Snow and ice developed during the afternoon of the 26th and became mainly freezing rain later at night and during the 27th. Ice accretions ranged from a 1/4 to 1/2 inch in the foothills to as much as 1 1/2 inches in Caswell County. Numerous trees and power lines were downed with a large percentage of the population without power.						
<u>NORTH CAROLINA, South Coastal</u>									
New Hanover County									
Wrightsville Beach		04	1001EST		0	0			Thunderstorm Wind (G51)
			A measured 59 mph wind gust was recorded at the Oceanic Pier in Wrightsville Beach.						
NCZ087-096			Robeson - Bladen						
		17	0100EST		0	0			Ice Storm
			0600EST						
			Around a tenth of an inch of freezing rain fell over the area. Only minor power outages were reported. Many schools and businesses were either closed or opened late.						
Robeson County									
Barnesville		22	1430EST		0	0			Thunderstorm Wind (G60)
			Sheriff reported trees down across a road in Barnesville.						
Bladen County									
Tar Heel to Dublin		22	1500EST		0	0			Thunderstorm Wind (G60)
			1507EST						
			Bladen county sheriff reported trees down.						
Bladen County									
3 N Elizabethtown		22	1541EST		0	0			Thunderstorm Wind (G55)
			Sheriff reported trees down.						
Columbus County									
Old Dock		22	1610EST		0	0			Thunderstorm Wind (G55)
			Brunswick County Electric reported trees down on power lines.						
Brunswick County									
3 W Winnabow		22	1615EST		0	0			Thunderstorm Wind (G55)
			Trees down on power lines.						
Bladen County									
Clarkton		22	1630EST		0	0			Thunderstorm Wind (G55)
			Trees down.						
Pender County									
3 W Burgaw		22	1700EST		0	0			Thunderstorm Wind (G55)
			Public reported large limbs down and a flag pole snapped.						
<u>NORTH CAROLINA, Southwest</u>									
NCZ033-048>050			Avery - Madison - Yancey - Mitchell						
		01	0000EST		0	0			Winter Weather/Mix
			0600EST						
			Light snow resulted in 1 to 2 inch accumulations, mainly in the highest elevations of the northern mountains.						
NCZ051-058>059- 062>063			Swain - Graham - Northern Jackson - Macon - Southern Jackson						
		04	0400EST		0	0			High Wind (G60)
			0800EST						
			Numerous power poles were blown down, resulting in widespread power outages.						
NCZ049>050			Yancey - Mitchell						
		04	0900EST		0	0			High Wind (G60)
			Some trees and power lines were blown down.						
NCZ036-056>057- 066>067			Iredell - Catawba - Rowan - Polk - Rutherford						
		06	1600EST		0	0			Winter Weather/Mix
			2200EST						
			A light sleet quickly changed over to a mixture of snow and rain during the late afternoon across portions of the piedmont and foothills. Snow accumulations were generally 2 inches or less, but isolated amounts as high as 4 inches were reported.						

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
NCZ033-048>053-058>059-062>065			Avery - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - Graham - Northern Jackson - Macon - Southern Jackson - Transylvania - Henderson						
	06	2000EST			0	0			Heavy Snow
	07	0400EST							
	Light snow began falling across the western mountains of North Carolina during the afternoon of the 6th, and gradually increased in intensity and coverage during the evening and overnight hours. General snowfall amounts of 4 to 5 inches were reported in the major valleys. However, accumulations of up to 8 inches occurred in the highest elevations along the Tennessee border.								
NCZ034>035-037-054>055			Caldwell - Alexander - Davie - McDowell - Burke						
	06	2300EST			0	0			Winter Storm
	07	0600EST							
	A mixture of sleet and snow began at around sunset on the 6th across the northwest piedmont and northern foothills of North Carolina. The precipitation began to intensify during late evening, and by early morning on the 7th, total snow and sleet accumulations of 3 to 4 inches were common across the area.								
NCZ033>034-048>053-058>059-062>065			Avery - Caldwell - Madison - Yancey - Mitchell - Swain - Haywood - Buncombe - Graham - Northern Jackson - Macon - Southern Jackson - Transylvania - Henderson						
	09	2100EST			0	0			Winter Weather/Mix
	10	1800EST							
	An extended period of intermittent light snow produced spotty accumulations of 1 to 2 inches within the major valleys of the North Carolina mountains. The higher elevations received as much as 4 inches, especially the highest peaks along the Tennessee border.								
NCZ033-048>050-053			Avery - Madison - Yancey - Mitchell - Buncombe						
	14	0800EST 2000EST			0	0			Winter Weather/Mix
	Light snow fell for much of the day across the northern mountains, and accumulated mainly in the higher elevations. Some of the highest peaks received as much as 5 inches.								
NCZ033>034-054>055-067			Avery - Caldwell - McDowell - Burke - Rutherford						
	16	1100EST 2100EST			0	0			Sleet Storm
	A light freezing rain developed over the northern mountains and northern foothills of North Carolina during the early morning hours. By mid-morning, the precipitation began to intensify, and a transition to sleet occurred. The sleet accumulated rapidly to a depth of 1 inch in most locations, while periods of afternoon and evening sleet increased total accumulations to around 2 inches in most areas. Numerous traffic accidents and road closures resulted.								
NCZ035>037-056>057-068>072-082			Alexander - Iredell - Davie - Catawba - Rowan - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus - Union						
	16	1100EST			0	0			Sleet Storm
	17	0600EST							
	A light freezing rain developed over the piedmont and foothills of North Carolina during the early morning hours. By mid-morning, the precipitation began to intensify, and a transition to sleet occurred. The sleet accumulated rapidly to a depth of 1 inch in most locations, while periods of afternoon, evening, and overnight sleet increased total accumulations to around 2 inches in most areas. Numerous traffic accidents and road closures resulted.								
NCZ053-065>066			Buncombe - Henderson - Polk						
	16	1400EST 2100EST			0	0			Winter Storm
	A light freezing rain developed along the Blue Ridge during the morning hours, and began to intensify during the afternoon. By mid-afternoon, a quarter of an inch of glaze had accumulated across much of the area. The precipitation transitioned to mainly sleet during the late afternoon, and by mid-evening, around an inch of sleet had accumulated on top of the glaze of ice. Numerous traffic accidents and road closures resulted from the precipitation.								
NCZ033-048-050-058			Avery - Madison - Mitchell - Graham						
	18	0400EST 0800EST			0	0			Winter Weather/Mix
	A brief period of light snow resulted in little more than a dusting of snowfall, which was enough to cause some slick spots on roads.								
Mitchell County									
Spruce Pine	22	0935EST			0	0			Heavy Rain
	Mudslides resulting from heavy rainfall blocked some roads near Spruce Pine.								
Gaston County									
Gastonia	22	1000EST			0	3	10K		Lightning
	Lightning struck a home, causing 3 minor injuries, and significant damage to the home.								
Madison County									
10 NW Marshall	22	1015EST 1200EST			0	0			Flash Flood
	Some roads were flooded in the vicinity of highway 209. Mudslides and downed trees also resulted from heavy rainfall.								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Southwest</u>									
Mecklenburg County									
Charlotte to Matthews	22	1034EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down in Matthews, while scattered tree damage and power outages occurred on the south side of Charlotte.									
Cabarrus County									
Georgeville	22	1040EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down.									
Union County									
Weddington	22	1050EST			0	0			Thunderstorm Wind (G50)
A few trees were blown down.									
Union County									
Monroe	22	1110EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down.									
Buncombe County									
Barnardsville	22	1230EST			0	0			Heavy Rain
Mudslides resulting from heavy rainfall blocked some roads near Barnardsville.									
Graham County									
Fontana Vlg	22	1315EST 1500EST			0	0			Flash Flood
A bridge along a dirt road was washed out by a flooding creek.									
Buncombe County									
Weaverville to Asheville	22 23	1900EST 0000EST			0	0			Flash Flood
Heavy rainfall resulted in flooding along several creeks, as well as mudslides in northern Buncombe County. Some outdoor walls fell due to mudslides. A mobile home park flooded near Weaverville.									
Mitchell County									
5 W Bakersville to 10 W Bakersville	22	2000EST 2300EST			0	0			Flash Flood
The Toe River flooded portions of highway 197. Also, Crabtree Creek flooded some locations near the Yancey County line.									
Yancey County									
7 N Burnsville	22	2000EST 2300EST			0	0			Flash Flood
The Toe River flooded portions of highway 197. Also, some creeks flooded, including Crabtree Creek the Mitchell County line.									
Avery County									
Elk Park	22	2130EST 2300EST			0	0			Flash Flood
Some small creeks and streams flooded in and around Elk Park.									
NCZ065									
Henderson									
	22	2200EST			0	0			Flood
	23	0200EST							
An extended period of rain that resulted in to 2 to 3 inches of rainfall caused portions of the French Broad River to flood from Hendersonville to East Flat Rock. Several roads were flooded near the river.									
NCZ033-048>052-058									
Avery - Madison - Yancey - Mitchell - Swain - Haywood - Graham									
	23	0000EST 0400EST			0	0			Winter Weather/Mix
Light snow resulted in accumulations of an inch or less across the mountains along the Tennessee border. This resulted in some slick spots on area roads.									
NCZ053									
Buncombe									
	23	0300EST 0900EST			0	0			High Wind (G50)
A number of trees were blown down, especially in Asheville.									
NCZ033>037-049>050-053-056>057-065>072									
Avery - Caldwell - Alexander - Iredell - Davie - Yancey - Mitchell - Buncombe - Catawba - Rowan - Henderson - Polk - Rutherford - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus									
	27	0000EST 0600EST			0	0			Winter Weather/Mix
A light freezing rain developed during the overnight hours in areas from the blue ridge eastward to the I-77 corridor. Light ice accumulations were mainly confined trees, bushes, and automobiles. However, some slick spots did develop on bridges and overpasses, especially in the piedmont.									
NCZ037									
Davie									
	27	0600EST 1500EST			0	0			Ice Storm

Storm Data and Unusual Weather Phenomena

February 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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NORTH CAROLINA, Southwest

Freezing rain developed during the early morning hours across Davie County, and by sunrise, ice accumulations began to result in damage to trees and power lines. Total ice accumulations of one quarter to one half inch were observed by afternoon.

Union County

Monroe

27	1400EST 1700EST				0	0			Flash Flood
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After a night of steady rainfall, heavier afternoon showers resulted in flooding along several creeks and streams in and around Monroe. Some overflowing streams flooded adjacent roads.

NCZ035-057

Alexander - Rowan

27	1400EST 1530EST				0	0			Ice Storm
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A light freezing rain developed during the early morning hours across Alexander County, and by early afternoon, ice accumulation of around one quarter inch resulted in some fallen utility poles near Taylorsville. In Rowan County, fallen trees and power lines resulted in numerous power outages.

NORTH DAKOTA, Central and West

NDZ045

Sioux

05	1940CST				1	0			Extreme Cold/Wind Chill
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A woman, age unknown, left her home walking to the grocery store. She took refuge in an abandon house with no electricity or heat. She died of hypothermia. No other information was available.

F?OT

NDZ025-037-048-051

Foster - Stutsman - La Moure - Dickey

11	1324CST 1515CST				0	0			Blizzard
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A ground blizzard existed over parts of east central North Dakota for several hours in the afternoon of February 11th, 2003 reducing visibilities to near zero. The white-out conditions were produced by several factors, the combination of several inches of snow already on the ground and wind gusts to 40 mph, along with scattered snow showers. The cold front responsible for the harsh weather exited the region late in the afternoon bringing a rapid improvement to the weather elements across east central North Dakota.

NDZ045

Sioux

13	1358CST				1	0			Extreme Cold/Wind Chill
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A young woman died of hperthermia approxiately several days before finding her body in a open field near her home. Time of death is unknown. The young woman was intoxicated when she left her home. Nearby weather reporting stations indicated overnight lows between 10 to 20 below zero prior to finding her body.

F16OU

NORTH DAKOTA, East

NDZ006>008-015>016-026>030-038>039-049-052>054 **Towner - Cavalier - Pembina - Ramsey - Eastern Walsh - Nelson - Grand Forks - Griggs - Steele - Traill - Barnes - Cass - Ransom - Sargent - Richland - Western Walsh**

11	0955CST 1800CST				0	0			Blizzard
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A strong arctic front moved through the northern plains, and produced strong northwest winds. The strongest winds occurred across the northern Red River Valley, where a MN DOT RWIS site at St. Vincent, MN, recorded a 56 mph wind gust. Little snow was associated with the frontal passage, but there was about an inch of fluffy snow on the ground at the time. The worst visibilities were found in open areas. With little falling snow and mostly sunny conditions above the blowing snow layer, it was considered a ground blizzard. Slow improvement occurred in the afternoon, with blizzard conditions actually ending in the northern Red River Valley by 3 pm. Quite a bit of dirt mixed in with the snow, creating a dirt/blowing snow mix.

OHIO, East

Belmont County

Neffs

04	0315EST 0515EST				0	0			Flash Flood
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State Rte 149 closed by flooding.

OHZ041

Columbiana

12	0230EST				0	0	1K		High Wind (G55)
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A fast-moving arctic front produced a high wind, which blew off a garage roof, near the intersection of state route 170 and Clarkson-Pancake Rd, 1.5 miles south of Union Ridge.

OHZ039>041-048>050-057>059-068>069 **Tuscarawas - Carroll - Columbiana - Coshocton - Harrison - Jefferson - Muskingum - Guernsey - Belmont - Noble - Monroe**

16	1100EST				0	0	200K		Heavy Snow
18	0700EST								

A massive, slow-moving snow storm began shortly after midnight on the 16th. Counties in the south reached 6 inches of snow by noon on 16th, and 12 inches by 9 PM on 16th. Columbiana and Tuscarawas counties reached 6 inches by 10 PM on 16th. Greatest accumulations, by the morning of the 18th, rounded to the nearest inch for each county are: Monroe 30, Muskingum 25, Belmont 22, Guernsey 20, Harrison 19, Jefferson 18, Noble 17, Coshocton 14, and Tuscarawas 12 inches. In Bellaire (Belmont Co), the roof of a

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>OHIO, East</u>									
OHZ058			business collapsed from the weight of the snow, about 11 pm on 17th, causing \$200,000 in damage to the building and 11 vehicles.						
			Guernsey						
	23	0630EST			0	0	3K		High Wind (G55)
			Trees and power lines down in Byesville.						
Belmont County									
Powhatan Pt	23	0730EST 1100EST			0	0			Flash Flood
			Ice jam caused flooding west of Powhatan Point on Captina Creek.						
<u>OHIO, North</u>									
OHZ012>014			Lake - Geauga - Ashtabula						
	04	0900EST 1300EST			0	0	150K		Strong Wind
			A strong cold front moved across northeastern Ohio early in the day. Gusty westerly winds occurred behind this front and downed trees and power lines throughout Ashtabula, Geauga and Lake Counties during the late morning and early afternoon hours. A peak measured gust of 47 mph was recorded at the Ashtabula County Airport.						
OHZ007-009>012-014			Ottawa - Erie - Lorain - Cuyahoga - Lake - Ashtabula						
	12	0000EST 0500EST			0	0	1.3M		High Wind (G55)
			A strong arctic cold front moved across northern Ohio during the early morning hours. A peak wind gust of 63 mph was measured in Garfield Heights (Cuyahoga County) at 1:29 a.m. Other measured gusts include; 61 mph at Cleveland-Burke Lakefront Airport, 60 mph at North Ridgeville (Lorain County) and 56 mph at the Lorain County Airport. The strong winds downed trees and power lines all along the south shore of Lake Erie. Six train cars were blown off of a bridge over Sandusky Bay (Ottawa County) around 1 a.m. A semi was blown over in Benton Township (Ottawa County) near the intersection of State Routes 2 and 590. In Erie County, a 40 by 60 foot section of metal roofing was torn off of a building located along U.S. Route 6 to the southeast of Sandusky.						
OHZ032>033-038-047			Stark - Mahoning - Holmes - Knox						
	16	0700EST			0	0	2.6M		Heavy Snow
	17	1800EST							
			An intense area of low pressure moved from the Tennessee Valley northeast across eastern Ohio. Snow associated with this low spread northeast into the area on the morning of the 16th. Periods of moderate to heavy snow then continued through the afternoon of the 17th. The most intense snow fell late in the day on the 16th with accumulations reaching six inches by late in the evening. Gusty winds accompanied the snow and caused near whiteout conditions along with considerable blowing and drifting snow. Total accumulations ranged from 9 to 12 inches with the highest amounts in the southern portions of Knox, Holmes, Stark and Mahoning Counties. Drifts several feet deep were also reported and travel was severely hampered by this storm.						
OHZ003-006>009-017>018			Lucas - Wood - Ottawa - Sandusky - Erie - Hancock - Seneca						
	22	1500EST			0	0	5.0M		Heavy Snow
	23	0800EST							
			Low pressure moved across southeastern Ohio spreading precipitation northward across the region. The precipitation initially began as rain but quickly changed to snow during the afternoon hours of the 22nd. Some freezing rain also fell in Seneca and Erie Counties and ice accumulations of up to a quarter of an inch occurred in these counties. Once the snow began, it quickly intensified and whiteout conditions were reported during the evening hours. The snow continued through daybreak on the 23rd and then quickly tapered to flurries. Total snow accumulations ranged from around six inches in southern Hancock and western Erie Counties to nine inches in Lucas County. Strong northerly winds with occasional gusts to 40 mph accompanied the snow and caused considerable blowing and drifting. Drifts as high as 3 to 5 feet were observed in Lucas and Wood Counties.						
<u>OHIO, Northwest</u>									
OHZ016			Putnam						
	17	0600EST 1400EST			0	0			Heavy Snow
			Snow accumulated around 6 inches across the county during the day.						
OHZ001>002-004>005-015>016-024>025			Williams - Fulton - Defiance - Henry - Paulding - Putnam - Van Wert - Allen						
	22	1500EST			0	0			Heavy Snow
	23	0100EST							
			Rain and some freezing rain changed to snow by late afternoon with a general 6 to 8 inch snowfall across the region ending just after midnight. Heavier amounts were in the south with 9 to 10 inches reported in Van Wert and around 9 inches in Ottawa in Putnam county.						
<u>OHIO, Southeast</u>									
OHZ066>067-075>076-084			Perry - Morgan - Athens - Washington - Vinton						
	14	2000EST			0	0			Heavy Snow
	17	1300EST							
			Snow accumulated 8 to 18 inches in several waves of precipitation. One wave was Friday night into early Saturday. A lull occurred						

Storm Data and Unusual Weather Phenomena

February 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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OHIO, Southeast

during the day on Saturday, the 15th. Another shot of snow moved back north during Saturday night into Sunday. Some sleet and freezing rain mixed with the snow on Sunday, the 16th. The last wave of snow was on Monday the 17th. McConnelsville's snow depth went from 2 inches, prior to the storm, to 19 inches. The snow depth at Newport went from a trace to 18 inches. The snow depth at Marietta and Nelsonville's reached 16 inches, after starting with only a trace of old snow. New Lexington saw its snow depth go from an inch to 15 inches. Athens snow depth went from a trace to 12 inches. Finally at McArthur, the snow depth went from zero to 8 inches.

OHZ083-085>087

Jackson - Meigs - Gallia - Lawrence

16	0200EST								
17	1200EST				0	0	6.3M		Ice Storm

A severe ice storm occurred, when 1 to 2 inches of ice from freezing rain accumulated on trees and power lines. The precipitation initially started as snow then changed to rain then freezing rain. The freezing rain was mixed with sleet at times. The storm finally ended as a period of snow on Monday, the 17th.

Roads remained blocked by fallen branches and trees for several days. A Meigs County deputy sheriff said on the 17th, "We've got trees coming down about every 5 minutes". The city of Pomeroy was without electricity for 5 days. No electricity lead to water shortages. Refrigerated frozen foods spoiled.

Governor Taft declared a state of emergency in Lawrence, Gallia, and Meigs Counties for the severe icing. Jackson and Vinton Counties in southeast Ohio were later added for a request of federal assistance. President Bush declared a major disaster that included Jackson, Lawrence, Vinton, Meigs, and Gallia Counties. See FEMA disaster number 1453.

OHIO, Southwest

OHZ078-081>082-088

Clermont - Adams - Pike - Scioto

22	1430EST								
	1650EST				0	0			Flood

Thunderstorms producing heavy rains developed during the afternoon ahead of a strong cold front. The rains combined with snowmelt caused numerous high water problems across southern Ohio. Several creeks went out of their banks, and numerous roads were closed due to high water.

Scioto County

Wheelersburg

22	1600EST								
	1700EST				0	0			Flash Flood

Roads were underwater in town.

OKLAHOMA, Eastern

OKZ060-063>064-066>068-070-072-076

Tulsa - Delaware - Creek - Okmulgee - Wagoner - Cherokee - Muskogee - Sequoyah - Le Flore

09	0400CST								
	1200CST				0	0			Heavy Snow

A narrow band of heavy snow developed during the early morning hours beginning in the Bristow and Beggs areas in Creek and Okmulgee counties and then stretching northeast to the Kansas area in southern Delaware county. The snow continued to fall until 11 am before tapering off to flurries. Some totals in the heavy snow band included 10 inches at Kansas, 10 inches at Peggs, 10 inches at Wagoner, 6 inches in south Tulsa, 6 inches at Glenpool and 6 inches at Beggs. Some significant snowfall amounts occurred outside the main band of heavy snow. These totals included 5 inches at Tahlequah, 4 inches at Bristow, 4 inches at Muskogee, 4 inches at Sallisaw and 4 inches at Poteau.

Creek County

Depew

14	2335CST								
					0	0			Hail (0.75)

Creek County

Bristow

14	2342CST								
					0	0			Hail (0.88)

Tulsa County

2 E Jenks

15	0020CST								
					0	0			Hail (0.75)

Penny size hail was reported near the intersection of Yale and the Creek Turnpike.

Rogers County

Verdigris

15	0035CST								
					0	0			Hail (0.75)

Tulsa County

3 S Glenpool

15	0035CST								
					0	0			Hail (0.75)

Penny size hail was reported near the intersection of Highway 75 and 181st Street South.

Mayes County

Pryor

15	0120CST								
					0	0			Hail (0.88)

OKZ054>063-067

Osage - Washington - Nowata - Craig - Ottawa - Pawnee - Tulsa - Rogers - Mayes - Delaware - Wagoner

23	0730CST								
	1600CST				0	0			Heavy Snow

A powerful upper level system dove southeast out of the central rockies and into Oklahoma on February 23rd. This upper level system produced heavy snow across much of Northeast Oklahoma. The heaviest snow occurred near the Kansas border where near blizzard conditions occurred as north winds averaged 20 to 30 miles an hour. Due to the restricted visibility a major automobile accident

Storm Data and Unusual Weather Phenomena

February 2003

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

OKLAHOMA, Eastern

occurred on Interstate 44 near Miami. A three car accident turned into a 30 car pile up. This accident closed west bound lanes for several hours. East bound lanes were also closed for a time as a semi jackknifed while trying to avoid the pile up and crossed onto the other side of the highway. Despite the magnitude of the event, no serious injuries were reported. Other area roads were also impassable and some schools in the area were closed the next two days. Some snowfall totals included 16 inches at Pawhuska, 15 inches at Hominy, 15 inches at South Coffeyville, 13 inches at Lenapah, 12 inches at Bartlesville, 12 inches at Pawnee, 12 inches at Miami, 11 inches at Nowata, 10 inches at Vinita, 10 inches at Catoosa, 8 inches at Pryor, 8 inches at downtown Tulsa, 8 inches at Claremore and 6 inches at Jay.

OKZ049-075>076

Pushmataha - Latimer - Le Flore

24	1500CST				0	0			Heavy Snow
25	0400CST								

A trailing part of the upper level system which produced heavy snow over northeast Oklahoma the day before produced some heavy snow across southeast Oklahoma from the mid afternoon hours on the 24th to the early morning hours of the 25th. The snow was accompanied the thunder and lightning at times and this made the heaviest snow amounts rather spotty. Where heavy snow did fall it caused roads to be slick and hazardous, especially at the tops of hills and mountains. Some snowfall reports included 10 inches at Clayton, 8 inches at Octavia, 6 inches at Rattan and Antlers, 5 inches at Page and 4 inches at Wister and Yanush.

OKZ049-053-060>068-070>076

Pushmataha - Choctaw - Tulsa - Rogers - Mayes - Delaware - Creek - Okfuskee - Okmulgee - Wagoner - Cherokee - Muskogee - Mcintosh - Sequoyah - Pittsburg - Haskell - Latimer - Le Flore

26	0200CST				0	0			Winter Weather/Mix
	1000CST								

Patchy freezing drizzle began falling across eastern Oklahoma during the early morning hours and continued until about mid morning. Although the impact was spotty, the impact was serious in a few places. Numerous schools were closed due to icy roads. Numerous accidents occurred. Two particularly hard hit counties were Okfuskee and Okmulgee where Interstate 40 and Highway 75 were impacted. Nearly 20 accidents were reported on Interstate 40 between mile marker 218 and 230 in Okfuskee county. Just a little further to the east near Henryetta in southern Okmulgee county a few tractor trailer rigs jackknifed climbing a hill on Interstate 40. This caused the highway to be closed for a few hours until the accidents could be cleaned up and travel was once again possible.

OKLAHOMA, Extreme Southeast

NONE REPORTED.

OKLAHOMA, Panhandle

NONE REPORTED.

OKLAHOMA, Western, Central and Southeast

OKZ004-009>011-015>018-022>024

Harper - Ellis - Woodward - Major - Dewey - Custer - Blaine - Kingfisher - Washita - Caddo - Canadian

06	0930CST				0	0			Heavy Snow
	1130CST								

A quick moving winter storm brought a period of light to moderate snow to the northern half of Oklahoma during the morning of the 6th. Areas north of Interstate 40 received an average of 1 to 2 inches of snow; however, a narrow band of 4 to 6 inches affected portions of northwest and west central Oklahoma. Thomas (Custer County) received 6 inches, while Fargo (Ellis County) received 5.5 inches. Other notable snow amounts included Leedey (Dewey County) 5 inches, Fairview (Major County) 4 inches, and Fort Supply (Woodward County) 4 inches.

Storm Data and Unusual Weather Phenomena

February 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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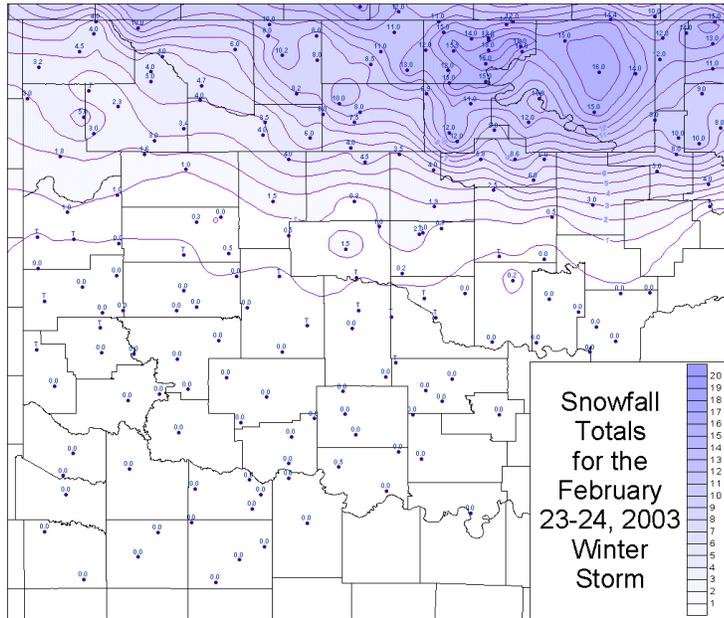
OKLAHOMA, Western, Central and Southeast

OKZ004>013-015-017>020 Harper - Woods - Alfalfa - Grant - Kay - Ellis - Woodward - Major - Garfield - Noble - Dewey - Blaine - Kingfisher - Logan - Payne

**23 0700CST
2100CST**

0 0

Winter Storm



An intense winter storm brought heavy snow and strong winds to portions of northern Oklahoma. The heaviest snow fell between 4 am CST and 1200 CST, with snowfall rates as high as two to three inches per hour. The highest snowfall was reported in Kildare (Kay County), which had 18 inches. Portions of Grant and Kay Counties received a foot or more. Areas that received eight inches included Lookout (Woods County), east southeast across northern Alfalfa County and across northern Garfield and northern Noble Counties. Areas that received four inches or more was along and north of a line from near Buffalo in Harper County, southeastward to near Fairview, Hennessey, Guthrie, and Chandler. Northern portions of the Oklahoma City Metropolitan area received about two inches. Along with the heavy snow, northeast winds between 20 and 30 mph, helped produce near white out conditions, especially near the Kansas border.

Storm Data and Unusual Weather Phenomena

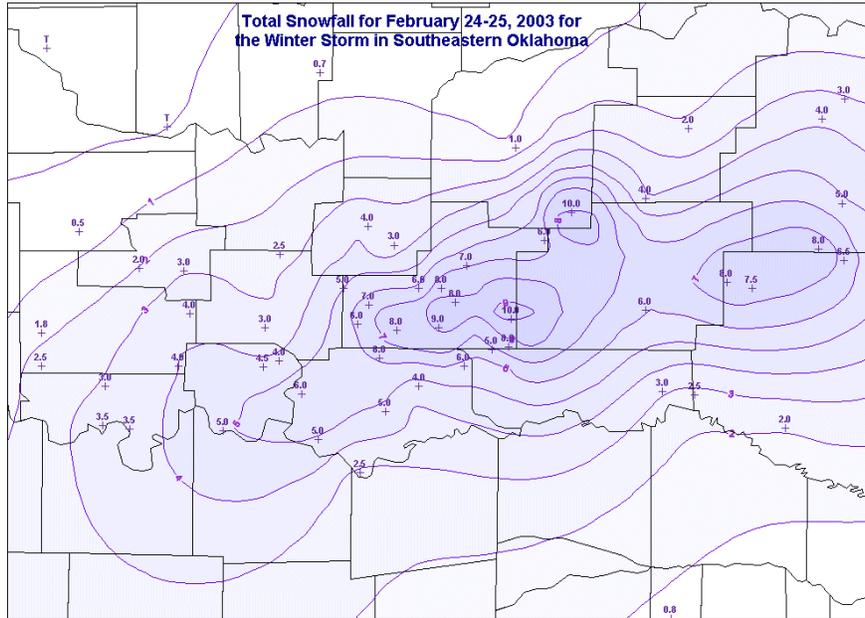
February 2003

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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OKLAHOMA, Western, Central and Southeast

OKZ041-043-046>048-050>052 Murray - Coal - Carter - Johnston - Atoka - Love - Marshall - Bryan

24 1800CST 2200CST 0 0 Winter Storm



Periods of heavy snow and heavy sleet developed over portions of south central and southeast Oklahoma during the afternoon of the 24th, with significant accumulations beginning by 1800 CST. Atoka (Atoka County) reported eight inches of accumulation. Other accumulations included Caney (Atoka County) six inches, Ardmore (Carter County) five inches, Madill (Marshall County) four inches, Coalgate (Coal County) three inches, Marietta (Love County) three inches, and Tishomingo (Johnston County) three inches.

OREGON, Central and East

ORZ046

Blue Mountains

**03 0700PST
04 0300PST**

0 0

Heavy Snow

A foot of snow fell at Meacham Lake and Lehman Hot Springs.

OREGON, Northwest

ORZ011

Northern Oregon Cascades

**16 0300PST
18 0300PST**

0 0

Heavy Snow

A series of Pacific frontal systems moved into the North Oregon Cascades. In the two day period Timberline received 23 inches of snow, Mt Hood Meadows 21 inches, Santiam Pass 20 inches, Willamette and Bennett Pass 15 inches, White River and Government Camp 12 inches each.

ORZ011

Northern Oregon Cascades

**20 0800PST
21 1400PST**

0 0

Heavy Snow

Another strong Pacific storm brought heavy snow to the Mt Hood area before rising freezing levels resulted in the snow turning to rain. Timberline Lodge reported 20 inches of new snow...while Mt Hood Meadows only reported 8 inches.

OREGON, Southeast

NONE REPORTED.

OREGON, Southwest

NONE REPORTED.

PACIFIC

Marshall Islands

Majuro

**21 1700SST
22 1100SST**

0 0

125K

Thunderstorm Wind (G20)

On the night of the 21st heavy showers and thunderstorms developed in the vicinity of Majuro. These owners and thunderstorms were

Storm Data and Unusual Weather Phenomena

February 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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PACIFIC

the result of trade wind convergence. Winds that were originally from the north-northeast at 1600L shifted to the north by 1700L and to the northwest by 1900L. The winds stayed out of the west-northwest through the night and until the afternoon of the 22nd, when they shifted back to northeast by 0200L. It appears that the winds were the result of an outflow boundary formed by the showers and thunderstorms. While the winds were not very strong (peak wind 20 kts observed 0000 and 0100 on the 22nd) the wind shift caught a few unprepared mariners by surprise. The ketch Long Reach II snapped its mooring and the skipper was forced to motor in circles around the lagoon throughout the night. Another yacht, the Raison d'Etire feared it would drag its anchor, so the crew battled to relocate to a spare mooring. Two yachts, the Miss Tamioko and Kylynn, both dragged anchor and ended up on the beach. Neither sustained any major damage. Near dawn on the 22nd the 27 foot sloop "Dhyana" broke its moorings and ended up on the rocks. She began to take on water and partially sank. Later on a crane lifted the ill stricken yacht onto dry land. Apart from the damage to the ships, no one was injured.

The showers were heavy amounting to 2.30 inches of rain falling in the six hour period ending at midnight on the 22nd. No flooding was reported.

PACIFIC OCEAN

**San Mateo Pt To
Mexican Bdr Out
30Nm**

5 W Point La Jolla	25	1436PST			0	0			Waterspout
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**San Mateo Pt To
Mexican Bdr Out
30Nm**

2 W Point La Jolla	25	1443PST			0	0			Waterspout
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PENNSYLVANIA, Central

PAZ036-056>059-063>066 Franklin - Perry - Dauphin - Schuylkill - Lebanon - Cumberland - Adams - York - Lancaster

06	2100EST				0	0			Heavy Snow
07	1200EST								

A low pressure system developed along the central Gulf Coast Thursday afternoon, February 6th, and moved northeast to a position just east of the North Carolina coast by Friday morning, February 7th. A swath of light to moderate snow to the north of the low spread across central Pennsylvania during Thursday evening. The snow continued through Friday morning, and ended around midday. Total snowfall accumulations by midday Friday ranged from 5 to 8 inches across most of the lower Susquehanna Valley. A period of moderate to locally heavy snow occurred around daybreak Friday through the mid-morning hours, adversely impacting the morning commute throughout south central Pennsylvania.

PAZ012-017>019-024>028-033>037-041>042-045>046-049>053-056>059-063>066 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 - Columbia - Perry - Dauphin - Schuylkill - Lebanon - Cumberland - Adams - York - Lancaster

16	0100EST				0	2			Heavy Snow
17	1700EST								

A low pressure system over the lower Mississippi Valley early Sunday morning moved slowly east northeast toward the central Appalachians by Sunday night, February 16th. This low then redeveloped along the North Carolina coast by early Monday morning, February 17th, and then moved slowly northeast as it intensified. This storm system spread light to moderate snow across south central Pennsylvania early Sunday morning, and into much of central and northern Pennsylvania by Sunday evening. The snowfall increased in intensity from late Sunday afternoon into midday Monday, and combined with gusty northeast winds of 15 to 25 mph to create near blizzard conditions at times across south central Pennsylvania. By the time the snow tapered off late Monday night, total snowfall accumulations ranged from 4 to 10 inches across portions of north central Pennsylvania, 12 to 22 inches across the central mountains, and 22 to locally 30 inches across south central Pennsylvania, including much of the lower Susquehanna Valley. This heavy snowfall paralyzed much of central and southern Pennsylvania, closing many schools, businesses, roadways, and airports for at least 1 to 2 days.

There were 2 injuries attributed to the storm, both in the Pine Grove Furnace State Park in Cumberland County. Both were youths, and were part of a larger group that were rescued from the park while camping. One youth suffered minor frostbite, and the other suffered minor hypothermia. The other youths and counselors were unharmed.

PAZ065>066

York - Lancaster

22	1924EST				0	0			Flood
23	0445EST								

Moderate to heavy rain, combined with snowmelt, led to gradual flooding of several roadways and subsequent road closures in York County around 7:24 PM EST on Saturday, February 22nd. In addition, the IFLOWS gages at Paradise and Mount Joy in Lancaster County exceeded Flood Stage around 8:24 PM EST on Saturday. The flooding subsided by early Sunday morning, February 23rd.

PAZ027-056-065

Mifflin - Perry - York

23	1200EST				0	0			High Wind (G60)
	1530EST								

Storm Data and Unusual Weather Phenomena

February 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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PENNSYLVANIA, East

PAZ054>055-060>062-067>071 Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

12	0600EST 1500EST		0	0	1K	Strong Wind
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A strong cold front moved through Pennsylvania during the morning of the 12th. Gusty west winds accompanied the cold frontal passage and continued for several hours into the first half of the afternoon. Peak wind gusts averaged around 45 mph. Scattered snow squalls accompanied the cold frontal passage and caused whiteout conditions with many accidents during the morning commute. Snowfall accumulations were under half an inch. But the combination of poor visibilities, quick icing on roadways as temperatures were below freezing and coinciding with the morning commute, led to many accidents. Throughout the day, there was blowing and drifting snow, especially on roadways with western exposure. In Berks County, in Oley Township two men (76 years old and 74 years old) died in a head-on collision at 11 a.m. EST. The driver of the allegedly speeding pick-up truck lost control of his vehicle when he came upon a snow drift while traveling southbound on County Route 662. His pick-up truck struck a van in the northbound lane. Also in Berks County, a 34-year-old woman was killed at 930 a.m. EST on Pennsylvania State Route 29 in Hereford Township when her vehicle struck a utility pole after spinning out of control. Interstate 176 was snow covered from Morgantown northward. The strong winds knocked down tree limbs in Maiden Creek and Greenwich Townships. About 1,100 homes and businesses lost power in the morning and power was restored by noon EST. In Montgomery County, a section of U.S. Route 422 was closed near Royersford due to many minor accidents, disabled vehicles, snow drifts and vehicles stuck in ditches. Drifts were also reported on Pennsylvania State Route 73. In Bucks County, there were 50 accidents alone along U.S. Route 1. Thirty vehicles within the county were involved in nine accidents within thirty minutes. In Lower Makefield Township, one road was closed due to icy conditions.

Peak wind gusts included 48 mph in Pottstown (Montgomery County), 46 mph at the Northeast Philadelphia Airport, 45 mph at the Lehigh Valley and Philadelphia International Airports, 43 mph in Doylestown (Bucks County) and 41 mph in Reading (Berks County).

PAZ070>071

Delaware - Philadelphia

15	0200EST 1000EST		0	0	0	Winter Weather/Mix
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A weak low pressure system brought light snow to Southeastern Pennsylvania during the first half of the day on the 15th. Accumulations averaged around two inches in Philadelphia and Delaware Counties, around one inch in Chester County and less than an inch elsewhere in Southeastern Pennsylvania. Untreated tertiary roads were slippery. The low pressure system responsible for the light snow scooted from west to east across Kentucky and Virginia during the first half of the day on the 15th before heading offshore. In its wake a large high pressure system started to build southeast from nearby Canada and helped set the stage for the most significant snowstorm in seven years.

PAZ054>055-060>062-067>069 Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks

16	0700EST		0	0	8M	Heavy Snow
17	1600EST					

PAZ070>071

Delaware - Philadelphia

16	0700EST		2	1	5M	Winter Storm
17	1600EST					

M?OU, F79OU

The most powerful storm to affect Eastern Pennsylvania since the Blizzard of 1996 struck during the President's Day Weekend. Snow began falling around daybreak on Sunday the 16th in and around Philadelphia and then spread slowly north. It reached Reading around 9 a.m. EST, the Lehigh Valley during the early afternoon and the Poconos toward sunset. The heaviest snow fell in Philadelphia and its suburbs during the day into the early evening of the 16th. The snow mixed with sleet in Philadelphia and Delaware Counties from the evening of the 16th through the morning of the 17th. The heaviest snow in Berks County and the Lehigh Valley fell during the first half of the day on the 17th and in the Poconos it fell from the morning into the early afternoon of the 17th. Precipitation ended as snow in all areas during the afternoon of the 17th. Governor Ed Rendell declared a state of emergency early on the 17th which made state agencies available for assistance. It also freed counties from spending restrictions and allowed routes to be closed to non-emergency vehicles. The state also issued a travel advisory asking people to stay off the roads. Many municipalities (including Philadelphia) declared their own snow emergencies which banned non-essential travel and parking on snow emergency routes. There were two snow related deaths within Philadelphia. In the southeastern part of the state, area malls closed early on the 16th and churches cancelled services. The weight of the snow caused several roof and porch collapses throughout the region, particularly around Philadelphia where the snow mixed with sleet. Most malls and shopping centers were closed on the 17th as many employees could not get to work. Funerals and elective surgical procedures were cancelled. Businesses, universities and government offices started to reopen on Tuesday the 18th, but most schools remained closed. Organizers had to postpone scheduled events. Even the girl scouts could not deliver their cookies. Life returned closer to normal as the week continued. Volunteers helped hospital personnel get to and from work. Blood supplies though were down to about one day. Numerous accidents occurred in the southeast part of the state during the morning of the 16th. After that, the timing of the storm (during the holiday weekend) kept the number of accidents and rescues down. The fluffy nature of the snow led to few power outages. Most were caused by vehicles crashing into utility poles.

In Philadelphia, a partially buried man was found in a snow pile on the 17th. On the 21st, a 79-year-old woman was killed after a snow packed aluminum patio roof collapsed on her. On the 19th, a 24-year-old man was injured when his leg was trapped under the debris of a porch collapse. The worst building collapse occurred to a warehouse near the old Navy Yard. Damage to the roof and goods was 3.5 million dollars. Philadelphia International Airport remained open on the 16th, but closed on the 17th and stranded about 600 passengers at the airport. The Greyhound bus terminal closed on the 17th. SEPTA regional rail lines ran on weekend schedules through Tuesday

Storm Data and Unusual Weather Phenomena

February 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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PENNSYLVANIA, East

the 18th. About 400,000 tons of snow was dumped into the Schuylkill River. The city estimated snow removal cost about 8 million dollars. It took until the 18th to plow side streets. The worst accident of the storm occurred early on the 16th as six vehicles collided near Academy Drive on Interstate 95. In Delaware County, all trolley and bus routes were closed through the 18th as were schools and county offices. Snowmobiles were used to rescue trapped motorists. In Chester County, a major accident during the early afternoon of the 16th closed the eastbound lanes of the Pennsylvania Turnpike between Morgantown and Downingtown for three hours. In Montgomery County, in Conshohocken, two people were killed in an early morning fire on the 17th. Firefighters were hampered by the ongoing storm. Lengthy delays occurred on the 16th on U.S. Route 422, the Pennsylvania Turnpike and the Northeast Extension to the Pennsylvania Turnpike. A string of porch collapses occurred on the 19th in Norristown. In Bucks County, a woman died of a heart attack. Emergency personnel could not reach her. The eastbound lanes of the Pennsylvania Turnpike near the Philadelphia Interchange was shut down during the afternoon of the 16th because of a multi-vehicle accident that set a couple of them ablaze. In Nockamixon and Bridgeton Townships, an avalanche closed a mile of River Road. Several drivers were stranded and had to be rescued. The snow was 10 feet high on the roadway. In the Lehigh Valley, even police cruisers were getting stuck in the snow. Non-four wheel drive vehicles could not move. The Lehigh Valley International Airport remained opened, but most flights were canceled. There was no public transportation on the 17th.

Specific accumulations included 26.0 inches in Saylorsburg (Monroe County), 25.5 inches in Williams Township (Northampton County), 24.5 inches in Byberry (Philadelphia County), 24.1 inches in East Stroudsburg (Monroe County), 24.0 inches in Hamburg (Berks County), Worcester Township (Montgomery County), 22.5 inches in Wynnewood (Montgomery County), 22.5 inches in Vinemont (Berks County), 22.0 inches in Easton, (Northampton County), Reading (Berks County) and Allentown (Lehigh County), 21.5 inches in Thorndale (Chester County), 21.0 inches in Manayunk (Philadelphia County), Downingtown (Chester County) and Collingdale (Delaware County), 20.0 inches at the Lehigh Valley International Airport, in Haverford (Delaware County), Morgantown (Berks County), Albrightsville and Lehighon (Carbon County) and Chalfont (Bucks County), 19.0 inches in Perkasio (Bucks County), 18.7 inches at the Philadelphia International Airport, 18.0 inches in Pottstown (Montgomery County), 17.0 inches in Exton (Chester County) and Crum Creek (Delaware County) and 16.3 inches in Bensalem (Bucks County). The low pressure system which helped cause the heavy snow formed to the lee of the southern Rockies on the 14th. It moved to southern Missouri by the morning of the 15th, the lower Tennessee Valley the morning of the 16th, reformed off the Virginia coast the morning of the 17th and was southeast of Cape Cod on the 18th. Of equal or greater importance was a large high pressure system that moved over nearby Canada and northern New England throughout this event. This locked very cold air in place, slowed the low pressure system down and prevented it from going farther north thus leaving Eastern Pennsylvania on the snowier side of the system. Warm air did move in aloft between 5,000 and 10,000 feet and was the reason the snow changed to sleet during the evening and overnight on the 16th as far north as Philadelphia.

Chester County Countywide

22	1335EST		0	0		Flash Flood
	1745EST					

PAZ067

Chester

22	1745EST		0	0		Flood
23	0933EST					

A large swath of moderate to heavy rain with embedded thunderstorms moved across Southeast Pennsylvania during the mid-day on the 22nd. Rainfall totals averaged around half of an inch per hour during the thunderstorms and storm totals across Chester County averaged between two and two and a half inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flooding along sections of the Brandywine Creek and flash flooding of smaller streams which feed into the Brandywine Creek. A SKYWARN Spotter reported flooding of the tributaries of the Brandywine Creek began around 130 p.m. EST on the 22nd. It took until the following morning for the flooding to run its course along the main stem of the creek. A section of Pennsylvania State Route 926 near Pennsylvania State Route 100 in Pocopson and Birmingham Townships was closed due to flooding along the Brandywine Creek. Flooding was also reported along the Chester Creek. The Chester Creek at Valley Forge was above its 7 foot flood stage from 249 p.m. EST through 713 p.m. EST on the 22nd. It crested at 7.56 feet at 430 p.m. EST. The East Branch of the Brandywine Creek in Downingtown was above its 7 foot flood stage from 546 p.m. EST through 1028 p.m. EST on the 22nd. It crested at 7.42 feet at 730 p.m. EST on the 22nd. The Brandywine Creek at Chadds Ford was above its 9 foot flood stage from 740 p.m. EST on the 22nd through 933 a.m. EST on the 23rd. It crested at 9.97 feet at 227 a.m. EST on the 23rd.

Storm totals included 2.50 inches in West Chester, 2.00 inches in Glenmoore, 1.95 inches in Downingtown and 1.71 inches in Honey Brook. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Philadelphia County Countywide

22	1451EST		0	0		Flash Flood
23	0027EST					

A large swath of moderate to heavy rain with embedded thunderstorms moved across Southeast Pennsylvania during the mid-day on the 22nd. Rainfall totals averaged around half of an inch per hour during the thunderstorms and storm totals across Philadelphia averaged between two and two and a half inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flooding along the Pennypack and Wissahickon Creeks within Philadelphia. The rain and melting snow led to a few porch collapses and sewer back-ups. The Pennypack Creek at the Lower Rhawn Street Bridge was above its 7 foot flood stage from 251 p.m. EST through 915 p.m. EST on the 22nd. It crested at 7.91 feet at 600 p.m. EST on the 22nd. The Wissahickon Creek at its mouth was above its 5 foot flood stage from 651 p.m.

Storm Data and Unusual Weather Phenomena

February 2003

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PENNSYLVANIA, East

EST on the 22nd through 1227 a.m. EST on the 23rd. It crested at 5.33 feet at 10 p.m. EST on the 22nd. Storm totals included 2.41 inches at the Franklin Institute, 2.27 inches at the Philadelphia International Airport and 2.07 at Northeast Philadelphia Airport. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd. Event precipitation totals included 2.77 inches at the Franklin Institute, 2.27 inches at the Philadelphia International Airport and 2.07 inches at the Philadelphia Northeast Airport. For the month of February, the 5.04 inches of precipitation that fell at the Philadelphia International Airport tied for the tenth wettest February on record.

Montgomery County Countywide

22	1508EST 2024EST		0	0				Flash Flood
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A large swath of moderate to heavy rain with embedded thunderstorms moved across Southeast Pennsylvania during the mid-day on the 22nd. Rainfall totals averaged around half of an inch per hour during the thunderstorms and storm totals across Montgomery County averaged around two inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flooding along the Manatawny Creek and East Branch of the Perkiomen Creek. The heavy rain and melting snow also led to the collapse of several abandoned stores in a strip mall in Abington. No injuries were reported. The Manatawny Creek in Pottstown was briefly above its 6.4 foot flood stage from 308 p.m. EST through 326 p.m. EST. It crested at 6.41 feet. The East Branch of the Perkiomen Creek at Schwenksville was above its 7 foot flood stage from 653 p.m. through 824 p.m. EST on the 22nd. It crested at 7.65 feet at 800 p.m. EST on the 22nd.

Storm totals included 2.08 inches in Wynnewood (Montgomery County), 2.02 inches in Green Lane, 1.84 inches in Norristown and 1.81 inches in Pottstown. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Delaware County Countywide

22	1608EST 1940EST		0	0				Flash Flood
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PAZ070

Delaware									
22	1940EST		0	0					Flood
23	0933EST								

A large swath of moderate to heavy rain with embedded thunderstorms moved across Southeast Pennsylvania during the mid-day on the 22nd. Rainfall totals averaged around half of an inch per hour during the thunderstorms and storm totals across Delaware County averaged around two and a half inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flooding along Chester and Crum Creeks. Upstream heavy rain also pushed the Brandywine Creek above flood stage. The Chester Creek in Chester was above its 8 foot flood stage from 408 p.m. EST through 820 p.m. EST on the 22nd. It crested at 8.41 feet at 545 p.m. EST on the 22nd. The Crum Creek in Newtown Square was above its 6 foot flood stage from 622 p.m. EST through 818 p.m. EST on the 22nd. It crested at 6.29 feet at 745 p.m. EST on the 22nd. The Brandywine Creek at Chadds Ford was above its 9 foot flood stage from 740 p.m. EST on the 22nd through 933 a.m. EST on the 23rd. It crested at 9.97 feet at 227 a.m. EST on the 23rd.

Storm totals included 2.70 inches at Crum Creek, 2.17 inches at Clifton Heights and 2.07 inches at Chadds Ford. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Bucks County South Portion

22	1937EST 2100EST		0	0				Flash Flood
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PAZ069

Bucks									
22	2100EST		0	0					Flood
23	0131EST								

A large swath of moderate to heavy rain with embedded thunderstorms moved across Southeast Pennsylvania during the mid-day and afternoon on the 22nd. Rainfall totals averaged around half of an inch per hour during the thunderstorms and storm totals across Bucks County averaged around two inches. The combination of the heavy rain and melting snow produced widespread roadway flooding and ponding of water in poor drainage areas as well as some basement flooding. It also produced flooding along the Neshaminy Creek. Flooding along the Neshaminy Creek was exacerbated by ice jams. In Middletown Township, flooding along the Neshaminy Creek spread into homes on Bridle Drive. The creek exceeded its banks by as much as 100 feet. In Bristol Township, a bridge deck collapsed over a small creek that joins the Indian Creek and Plumbridge sections of the township. Creek flooding forced the closure Chinquapin Road in Northampton Township. Poor drainage flooding also caused road closures in Bensalem, Lower Makefield and Upper Southampton Townships. The Neshaminy Creek at Langhorne was above its 9 foot flood stage from 737 p.m. EST on the 22nd through 131 a.m. EST on the 23rd. It crested at 11.18 feet at 830 p.m. EST as an ice jam contributed to the flooding.

Storm totals included 2.37 inches in Neshaminy Falls, 2.27 inches in Fricks, 2.16 inches in Perkasio, 2.13 inches in Bristol, 1.71 inches in Springtown and 1.40 inches in New Hope. The low pressure system responsible for the heavy rain developed along the Gulf Coast States on the 21st and moved northeast into the Tennessee Valley the morning of the 22nd and into Pennsylvania the morning of the 23rd. The strongest surge of warm, unstable air preceding its warm front occurred during the day on the 22nd.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>PENNSYLVANIA, Northwest</u>									
PAZ001>002			Northern Erie - Southern Erie						
	12	0100EST 0600EST			0	0	85K		High Wind (G53)
			A strong arctic cold front moved across northwestern Pennsylvania during the early morning hours. A peak wind gust of 61 mph was measured at Franklin Center at 2:17 a.m with a 54 mph gust at Erie International Airport at 3:06 a.m. The strong winds downed trees and power lines throughout Erie County.						
PAZ001>002			Northern Erie - Southern Erie						
	24 25	0900EST 0300EST			0	0	75K		Heavy Snow
			Cold winds blowing across Lake Erie caused lake effect snow showers to develop. The snow began on the morning of the 24th and continued on and off through the early mornings hours of the 25th. The heaviest snow fell around midnight on the 25th when visibilities fell to near zero. Total accumulations ranged from 6 to 7 inches with most of this accumulation falling from the late evening through early morning hours.						
<u>PENNSYLVANIA, West</u>									
PAZ030-032			Westmoreland - Fayette						
	04	0830EST 0845EST			0	0			High Wind (G55)
			Trees and power lines downed county-wide.						
PAZ023			Indiana						
	04	1030EST			0	0			High Wind (G50)
			Trees and power lines down.						
PAZ013>014-020>023-029>032			Lawrence - Butler - Beaver - Allegheny - Armstrong - Indiana - Washington - Westmoreland - Greene - Fayette						
	16 18	1100EST 0700EST			0	0			Heavy Snow
			A massive, slow-moving snow storm began shortly after midnight on the 16th. Counties on the southern border of Pennsylvania reached 6 inches by noon on 16th; 16 inches by 9 PM on 16th. Pittsburgh reached 6 inches by 9 PM on 16th. Totals by the morning of the 18th: In Westmoreland county, Laurel Mountain 20 inches, Champion 40; Waynesburg (Greene Co) 24; Chalkhill (Fayette) 22; Washington 19; Creekside (Indiana) 13; Whitesburg (Armstrong) 10; New Castle (Lawrence) and Cooksburg (Clarion) 9; Butler and Slippery Rock (Butler) 8. This was the tenth heaviest snowstorm for Pittsburgh, which received 15.1 inches of snow from 3 AM on 16th to 7 AM on 18th.						
Fayette County 2 E Uniontown	23	0140EST 0400EST			0	0			Flash Flood
			Victoria Lane flooded in Hopwood.						
Greene County Nineveh	23	0345EST 0445EST			0	0			Flash Flood
			Brown Creek flooded onto Rte 18.						
Washington County California	23	0410EST 0600EST			0	0			Flash Flood
			Pike Run Creek flooded State Rte 2030.						
Greene County Clarksville	23	1330EST 1430EST			0	0			Flash Flood
			Ice jams flooded roads and low lying areas between Dunkirk and Davistown.						
PAZ007>008-020-022-031			Mercer - Venango - Beaver - Armstrong - Greene						
	23	0600EST 1100EST			0	0	17K		High Wind (G55)
			Trees down in Grove City. Trees and/or power lines were blown down by wind at 6:00 AM in Beaver (Beaver Co), 06:15 AM in Kittanning (Armstrong), 08:00 AM in Grove City (Mercer), 10 AM in Sugar Creek (Venango), and 11 AM in Franklin Twp (Greene Co).						
Washington County 2.8 S Deemston	23	1300EST 1500EST			0	0			Flash Flood
			An ice jam at the route 88 bridge caused flooding of roads, yards, low-lying areas.						
PAZ029			Washington						
	24	0000EST 1000EST			0	0			Flood
			Monongahela River crested at Charleroi Lock and Dam 4 at 28.7 feet around 1 AM. Flood stage is 28 ft.						

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, Central</u>									
Aiken County									
Countywide	22	1105EST 1115EST			0	4	1K	0	Thunderstorm Wind (G55)
Sheriff reported trees down around the county, especially in Aiken, Windsor, and Montmorenci where 4 people were injured who were outside doing a civil war re-enactment.									
Lexington County									
Batesburg to Swansea	22	1110EST			0	0	2K	0	Thunderstorm Wind (G55)
Sheriff and SKYWARN spotters AF4VN and KE4LHS reported a shed destroyed in Batesburg and trees down in eastern portions of the county from Swansea to Chapin.									
Saluda County									
Saluda	22	1120EST			0	0	0	0	Thunderstorm Wind (G50)
Sheriff and SKYWARN spotter KE4FDL reported trees down in Saluda.									
Fairfield County									
Ridgeway to 1 E Winnsboro	22	1134EST			0	0	0	0	Thunderstorm Wind (G55)
EOC reported trees down.									
Richland County									
Columbia to Pontiac	22	1145EST 1205EST			0	0	0	0	Thunderstorm Wind (G55)
SKYWARN spotter KF4LPK reported trees down.									
Kershaw County									
2 S Lugoff to 2 S Camden	22	1212EST 1220EST			0	0	0	0	Thunderstorm Wind (G50)
SKYWARN spotter KF4LPK reported trees down along I-20 south of Camden.									
Barnwell County									
2 NE Blackville	22	1215EST			0	0	30K	0	Lightning
A mobile home was destroyed by a fire started by a lightning strike.									
Bamberg County									
Countywide	22	1220EST			0	0	0	0	Thunderstorm Wind (G55)
Highway dept reported scattered trees down around the county.									
Sumter County									
Rembert	22	1236EST			0	0	0	0	Thunderstorm Wind (G50)
SKYWARN spotter KF4LPK reported trees down on hwy 521 near Rembert.									
Orangeburg County									
Orangeburg to Rowesville	22	1240EST 1310EST			0	0	0	0	Thunderstorm Wind (G55)
EOC reported trees down from Orangeburg to Rowesville.									
Calhoun County									
Cameron	22	1336EST			0	0	0	0	Thunderstorm Wind (G50)
EOC reported trees down.									
Richland County									
Columbia	22	1130EST			0	0	70K	0	Lightning
A home was struck by lightning that caused a fire resulting in \$70,000 worth of damage.									
Lancaster County									
Countywide	27	1335EST 1935EST			0	0	40K	0	Flash Flood
Sheriff reported flash flooding along many streams including Run Creek and Hannah Creek. A couple of trailer parks had to be evacuated as water was rising into the mobil homes.									
Chesterfield County									
Countywide	27	1440EST 1700EST			0	0			Flash Flood
Sheriff reported flash flooding along several streams which forced some roadways to be closed.									
<u>SOUTH CAROLINA, North Coastal</u>									
SCZ017-023>024-032	Marlboro - Darlington - Dillon - Florence								
	17	0100EST 0800EST			1	2	30K		Ice Storm
Around a tenth of an inch of freezing rain fell. A three vehicle accident occurred over an icy bridge on Hwy 15. A woman was killed with two other injuries. Many schools and businesses were either closed or opened late. F25VE									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, North Coastal</u>									
Florence County									
Florence	22	1350EST			0	0			Thunderstorm Wind (G60)
			Spotter reported numerous trees down.						
Marlboro County									
Clio	22	1400EST			0	0	10K		Thunderstorm Wind (G52)
			South Carolina highway patrol reported trees down, with a car damaged on Cottingham Rd.						
Dillon County									
Dillon	22	1422EST			0	0			Thunderstorm Wind (G55)
			Dillon 911 reported trees down on power lines.						
Marion County									
Marion	22	1442EST			0	0	15K		Thunderstorm Wind (G61)
			Ham radio operator reported trees down on two vehicles.						
Williamsburg County									
2 S Nesmith	22	1450EST			0	0			Thunderstorm Wind (G55)
			Electric company reported numerous large trees down with downed power lines.						
Georgetown County									
7 N Georgetown	22	1530EST			0	0			Thunderstorm Wind (G55)
			Public reported trees down.						
Horry County									
Conway to 8 E Conway	22	1541EST 1550EST			0	0			Thunderstorm Wind (G60)
			Electric company reported trees down in Conway and 8 miles east of Conway.						
Horry County									
Loris	22	1545EST			0	0			Thunderstorm Wind (G55)
			Utility company reported trees down on power lines.						
Marion County									
2 E Mullins	22	1625EST			0	0			Thunderstorm Wind (G52)
			Power lines down.						
<u>SOUTH CAROLINA, Northwest</u>									
Greenville County									
Greenville	04	0430EST			0	0	1K		Thunderstorm Wind (G50)
			Three lanes of the north end of Interstate 385 were blocked by fallen power lines. Two trees were blown down in the southern part of Greenville, while several large tree limbs were blown down throughout the city.						
SCZ001>003									
Oconee Mountains - Pickens Mountains - Greenville Mountains									
	06	1600EST 2200EST			0	0			Winter Weather/Mix
			Light snow fell during the late afternoon and evening across the mountains, and was mixed at times with sleet and freezing rain. Snow accumulations generally ranged from 1 to 2 inches.						
SCZ008>009									
Cherokee - York									
	16	1100EST			0	0			Sleet Storm
	17	0600EST							
			Sleet developed over portions of the upstate and eastern piedmont of South Carolina during the morning. The sleet accumulated rapidly to a depth of 1 inch in most locations, while periods of afternoon, evening, and overnight sleet increased total accumulations to around 2 inches in most areas. Numerous traffic accidents and road closures resulted, including portions of I-77 in York County.						
SCZ003-005>007-013>014									
Greenville Mountains - Greater Pickens - Greater Greenville - Spartanburg - Union - Chester									
	16	1400EST 2100EST			0	0			Winter Storm
			A light freezing rain developed across portions of upstate South Carolina during the morning hours, and began to intensify during the afternoon. By mid-afternoon, a quarter of an inch of glaze had accumulated across much of the area. The precipitation transitioned to mainly sleet during the late afternoon, and by mid-evening, up to an inch of sleet had accumulated on top of the glaze of ice. Fallen trees and power lines resulted in widespread power outages across northern Greenville and Pickens counties. Numerous traffic accidents and road closures resulted from the precipitation, including portions of I-77 in Chester County.						
Pickens County									
Clemson to Clemson Oconee Arpt	22	0700EST			0	0	1K		Heavy Rain
			Fallen trees and power lines resulting from a combination of heavy rainfall and gusty winds resulted in some power outages.						
Union County									
1 N Union	22	0935EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, Northwest</u>									
Union County									
1 N Union	22	0935EST			0	0			Thunderstorm Wind (G50)
	Two trees were blown down.								
York County									
Rock Hill	22	1005EST 1006EST	0.2	25	0	0			Tornado (F0)
	A weak tornado touched down briefly in a Rock Hill suburb. During its 1800 foot track, the tornado snapped off several pine trees and blew a ridge vent off of a home. Debris carried by the tornado broke windows at another home and broke out a car windshield.								
York County									
6 S Rock Hill	22	1020EST			0	0			Hail (0.88)
Greenville County									
Greenville	22	2130EST			0	0			Thunderstorm Wind (G50)
	Traffic lights were blown down at 2 separate locations on the east side of the city.								
SCZ006									
Greater Greenville									
	23	0300EST 0900EST			0	2	50K		Strong Wind
	Gusty winds caused a tree to fall on a home, ruining the home and much of its contents.								
SCZ012									
Laurens									
	27	1030EST 1530EST			0	0			Flood
	The Little River flooded near the city of Laurens. Poor drainage resulted in street flooding, and several roads and intersections were closed in Laurens. A park also flooded in the city.								
Chester County									
Chester to Ft Lawn	27	1300EST 1700EST			0	0			Flash Flood
	After a night of steady rainfall, heavier early afternoon showers resulted in flooding along several creeks and streams in the eastern half of the county. Some of these overflowing streams flooded adjacent roads.								
<u>SOUTH CAROLINA, South Coastal</u>									
Allendale County									
Fairfax	22	1250EST			0	0			Thunderstorm Wind (G50)
	Several trees were down including one that fell on a car.								
Hampton County									
Nixville	22	1300EST			0	0			Thunderstorm Wind (G50)
	Several trees and power lines were down.								
Colleton County									
1 NE Lodge	22	1315EST			0	0			Thunderstorm Wind (G50)
	A tree, several large limbs, and power lines were down.								
Hampton County									
Varnville	22	1315EST			0	0			Thunderstorm Wind (G50)
	Several trees and power lines were down.								
Colleton County									
Canadys	22	1400EST			0	0			Thunderstorm Wind (G50)
	Several trees and large limbs were down.								
Charleston County									
5 W Charleston	22	1408EST			0	0			Thunderstorm Wind (G50)
	Several trees were down.								
Jasper County									
Pineland	22	1345EST			0	0			Thunderstorm Wind (G50)
	Several trees, large limbs, and power lines were down.								
Beaufort County									
5 E Sheldon	22	1345EST			0	0			Thunderstorm Wind (G50)
	Several trees were down.								
Berkeley County									
Goose Creek	22	1400EST			0	0			Thunderstorm Wind (G50)
	Several trees and large limbs were down.								
Dorchester County									
3 SSW Grover	22	1405EST			0	0			Thunderstorm Wind (G50)
	Several trees and large limbs were down.								

Storm Data and Unusual Weather Phenomena

February 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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SOUTH DAKOTA, Central and North

SDZ017>023-037	Faulk - Spink - Clark - Codington - Grant - Hamlin - Deuel - Hand								
	02 0000CST				0	0			Winter Storm
	2300CST								

Widespread freezing rain developed across parts of central and into northeast South Dakota through the late night hours producing significant icing of a quarter to a half inch by the late morning hours. No significant tree damage or power outages occurred. Although, travel was greatly disrupted with many accidents and vehicles sliding off the road. The freezing rain changed over to snow during the mid morning hours and became heavy with 6 to 9 inches of snow accumulating before it ended in the late evening. Some snowfall amounts included, 6 inches at Ree Heights, Miller, and Faulkton, 7 inches at Clear Lake, 8 inches at Bryant, and 9 inches at Milbank.

SOUTH DAKOTA, Southeast

SDZ038>040-052-057	Beadle - Kingsbury - Brookings - Jerauld - Brule								
	02 1500CST				0	0			Winter Weather/Mix
	03 0200CST								

A snowfall of 2 to 5 inches was accompanied by areas of low visibility in blowing snow from strong winds. The 5 inch accumulation was reported just north of Brookings. Falling temperatures combined with the initially wet snow to cause icing. Travel was slowed over the area.

SDZ038>039-053-059-071	Beadle - Kingsbury - Sanborn - Davison - Union								
	11 1030CST				0	0			High Wind (G54)
	1530CST								

Sustained winds occasionally over 40 mph with gusts as high as 62 mph developed in parts of east central South Dakota during the late morning and spread into far southeast South Dakota in the early afternoon. The high winds persisted in far southeast South Dakota into the middle of the afternoon.

SDZ038-055>056-060>062-066>067	Beadle - Lake - Moody - Hanson - Mccook - Minnehaha - Turner - Lincoln								
	14 0745CST				0	0	10K		Winter Storm
	2100CST								

Freezing rain was followed by snowfall of 3 to 7 inches. The combination caused numerous minor accidents and several event cancellations, as well as early school closings. The ice and snow brought down some power lines, particularly in the Dell Rapids area where power outages were reported. Power outages were also reported in the Huron area, where ice and snow accumulation caused power lines to slap together in the winds, triggering circuit breakers.

SDZ039>040-050-052>054-057>059-063>065-068>071	Kingsbury - Brookings - Gregory - Jerauld - Sanborn - Miner - Brule - Aurora - Davison - Charles Mix - Douglas - Hutchinson - Bon Homme - Yankton - Clay - Union								
	14 1100CST				0	0			Winter Weather/Mix
	2300CST								

Freezing rain causing areas of icy travel conditions was followed by 1 to 4 inches of snow. The combination caused travel delays, minor accidents, and a few event cancellations.

SOUTH DAKOTA, West

SDZ012>013-024>026-028-031>032-072>074	Butte - Northern Meade Co Plains - Northern Black Hills - Northern Foot Hills - Rapid City - Central Black Hills - Pennington Co Plains - Haakon - Sturgis / Piedmont Foothills - Southern Meade Co Plains - Hermosa Foothills								
	02 0100MST				0	0	0	0	Winter Storm
	1800MST								

A strong winter storm moved across the central Rockies and central Plains, bringing snow and gusty winds to much of western South Dakota. Rain began to fall the previous evening, then changed to snow during the early morning hours. Snow increased in intensity and continued through the morning and afternoon hours. Snowfall on the western South Dakota plains ranged from 2 to 5 inches, with local amounts of up to 7 inches across Meade County. Across the Black Hills, snowfall totals of 5 to 10 inches were common, with parts of the northern Black Hills receiving up to 15 inches of snow. Gusty north winds developed during the morning, which caused considerable blowing and drifting of snow and reduced visibilities to less than a quarter of a mile across the Plains.

TENNESSEE, Central

TNZ005>006-008-022-025-027>028-031>032-062-066-077-079>080	Stewart - Montgomery - Sumner - Benton - Dickson - Davidson - Wilson - Jackson - Putnam - Rutherford - Cumberland - Coffee - Grundy - Van Buren								
	09 2100CST				0	0			Heavy Snow
	10 0400CST								

3 to 5 inches of wet snow was common across the area.

Lawrence County Countywide									
	14 1610CST				0	0			Flash Flood
	2330CST								

NWS Co-op observer reported low water bridges covered by water. Some roads had 6-8 inches of water.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TENNESSEE, Central</u>									
Lewis County									
Hohenwald	14	1700CST 2330CST			0	0			Flash Flood
Law enforcement reported water on roads. Some roads were blocked off.									
Marshall County									
Countywide	14	1700CST 2330CST			0	0			Flash Flood
Law enforcement reported 13 county roads were closed due to high water.									
Wayne County									
Waynesboro	14	1700CST 2330CST			0	0	10K		Flash Flood
Law enforcement reported several secondary roads were closed. A bridge was washed out on Old Beech Creek Rd. By around 730 PM CST, a house trailer was under water and 2 bridges were washed out.									
Coffee County									
South Portion	14	1951CST 2330CST			0	0			Flash Flood
Police reported many streets were flooded. Auto wrecks were occurring around Tullahoma and Manchester.									
TNZ011-028-032-032>034-059>062-065-075-078-095	Pickett - Wilson - Putnam - Overton - Fentress - Williamson - Maury - Marshall - Rutherford - White - Bedford - Warren - Giles								
	15 18	1000CST 0800CST			2	0			Flood
Flooding on the Elk River caused many roads to flood due to heavy rains. Two children were killed when a Nissan 300 ZX sedan, which was driven by the aunt, was swept off a bridge going over the Elk River on Veto Rd. or about 6.5 miles southwest of Elkton, in Giles county around 630 PM CST. She had driven around a high water barricade. The aunt was found and rescued 3 hours later, clinging to a tree, but the children did not survive (male 12 years-old and female 7 years-old).									
Spotter reported Stones River was out of its banks and was causing flooding on MTSU campus in Murfreesboro. There was also ponding of water on roadways in Putnam and Overton counties. Small streams and creeks were over their banks near Cookeville. A creek out of its banks and was ready to flood a house on Old Trammell Lane in southeast Wilson county.									
Flooding on the Duck River resulted in many roads being closed in Maury county. There were no evacuations or injuries.									
There was high water on roads in the Livingston area and also across White county. Old Smithville Highway in White county experienced severe flooding problems.									
Minor flooding was reported on roads throughout Bedford county.									
Some flooding was reported in Fentress county. A portion of a golf course near Crooked Creek was completely flooded. Delk Creek road in Pall Mall was closed because of flooding. Wilder Road was closed due to a mud slide, and a portion of U.S. Highway 127 north of Squirrel Flat Road had to be closed due to the road breaking off further at the slide area.									
Many roads were left impassable in Warren county because of high water. F7VE, M12VE									
Rutherford County									
Murfreesboro	22	1120CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees blown down.									
Macon County									
Lafayette	22	1215CST			0	0			Hail (0.75)
Law enforcement reported dime size hail.									
<u>TENNESSEE, East</u>									
TNZ015>018-036>047-067>074-083>087-099>102	Hancock - Hawkins - Sullivan - Johnson - Anderson - Union - Grainger - Hamblen - Northwest Cocks - Cocks/Smoky Mountains - Northwest Greene - Southeast Greene - Washington - Unicoi - Northwest Carter - Southeast Carter - Roane - Loudon - Knox - Jefferson - Northwest Blount - Blount/Smoky Mountains - North Sevier - Sevier/Smoky Mountains - Rhea - Meigs - McMinn - Northwest Monroe - Southeast Monroe - Hamilton - Bradley - West Polk - East Polk								
	03 04	2200EST 0600EST			0	0	33K		Strong Wind
Strong winds (with gusts up to 40 mph) associated with a band of showers caused numerous reports of fallen trees and power outages across east Tennessee.									

Storm Data and Unusual Weather Phenomena

February 2003

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

TENNESSEE, East

TNZ018-041-043-045-047-072-074-083-099 Johnson - Cocke/Smoky Mountains - Southeast Greene - Unicoi - Southeast Carter - Blount/Smoky Mountains - Sevier/Smoky Mountains - Rhea - Hamilton

07 0100EST 0 0 Heavy Snow
0400EST

Four to eight inches of snow was reported across the far eastern Tennessee mountains with four to six inches of snow also reported across the Cumberland plateau in southeast Tennessee.

TNZ012>015-035>036-047-067-069-074-081>083-087-099 Scott - Campbell - Claiborne - Hancock - Morgan - Anderson - Southeast Carter - Roane - Knox - Sevier/Smoky Mountains - Sequatchie - Bledsoe - Rhea - Southeast Monroe - Hamilton

09 1900EST 0 0 Heavy Snow
10 1200EST

Three to six inches of snow was reported across most of the Cumberland Plateau, with up to four inches of snow reported across portions of the far eastern Tennessee mountains.

TNZ012>018-035>047-067>074-081>087-098>102 Scott - Campbell - Claiborne - Hancock - Hawkins - Sullivan - Johnson - Morgan - Anderson - Union - Grainger - Hamblen - Northwest Cocke - Cocke/Smoky Mountains - Northwest Greene - Southeast Greene - Washington - Unicoi - Northwest Carter - Southeast Carter - Roane - Loudon - Knox - Jefferson - Northwest Blount - Blount/Smoky Mountains - North Sevier - Sevier/Smoky Mountains - Sequatchie - Bledsoe - Rhea - Meigs - McMinn - Northwest Monroe - Southeast Monroe - Marion - Hamilton - Bradley - West Polk - East Polk

14 1200EST 0 0 10.9M Flood
17 1800EST

Four day rainfall totals of two to eight inches fell across east Tennessee, with the highest amounts occurring across the Cumberland Plateau and adjacent valleys areas. This rainfall combined with a melting snowpack (reports of up to a foot in the higher elevations) to produce widespread flooding of rivers and streams with numerous mudslides also reported (one notable mudslide pushed an apartment complex off its foundation in Knox County). The Powell, Clinch and Holston rivers measured the most significant rises with Claiborne, Rhea and Knox counties reporting the most significant damage.

Sequatchie County **Countywide**

15 2055CST 0 0 Flash Flood
16 1500CST

Six roads reported closed due to flooding with Valley View Drive completely washed out. A foot of water was also reported in the Dunlap firehall.

Anderson County **Countywide**

15 2230EST 0 0 Flash Flood
16 1600EST

Numerous roads reported closed by law enforcement due to high water with several reports of mud slides. One home had to be evacuated and one business on Clinton Highway was filled with water.

Bledsoe County **Countywide**

15 2330CST 0 0 Flash Flood
16 1500CST

Numerous secondary roads reported under water.

Campbell County **Countywide**

16 0031EST 0 0 Flash Flood
1600EST

Numerous roads reported under water and closed by law enforcement. One bridge was washed out on Hickory Creek Lane.

Claiborne County **Countywide**

16 0033EST 0 0 Flash Flood
1600EST

Thirty-two secondary roads reported destroyed (some with mudslides), fourteen bridges reported damaged or destroyed, and twenty-five homes reported damaged throughout the county.

Grainger County **Countywide**

16 0035EST 0 0 Flash Flood
1600EST

Several secondary roads reported to be flooded with Joppa Mountain road closed.

Blount County **Wildwood**

16 0100EST 0 0 5K Thunderstorm Wind (G60)
0115EST

Numerous trees reported down across the eastern part of the county (on Martin Mill Pike, Hollybrook Road and Jones Bend Road).

Knox County **Countywide**

16 0110EST 0 1 Flash Flood
1600EST

Seventy roads reported to be flooded with some closed. One injury reported in an apartment complex which was destroyed by a mudslide.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TENNESSEE, East</u>									
Marion County Countywide	16	0111CST 1500CST			0	0			Flash Flood
									Major roads reported closed with several homes evacuated. One car was reported to be washed off the road.
Scott County Countywide	16	0117EST 1600EST			0	0			Flash Flood
									Two secondary roads reported closed due to flooding.
Sevier County 5 W Gatlinburg to Gatlinburg	16	0120EST 0130EST			0	0	5K		Thunderstorm Wind (G60)
									Numerous trees reported down in Wears Valley.
Union County Countywide	16	0121EST 1600EST			0	0			Flash Flood
									Ten roads reported closed due to flooding. Also, numerous culverts and secondary roads washed out.
Roane County Countywide	16	0123EST 1600EST			0	0			Flash Flood
									Numerous roads reported by law enforcement to be flooded with seven roads closed due to high water. Also, some homes reported to be flooded with shelters set up.
Rhea County Countywide	16	0145EST 1600EST			0	0			Flash Flood
									Numerous roads reported to be flooded and closed with several bridges washed out. Several families forced to evacuate countywide.
Meigs County Countywide	16	0149EST 1600EST			0	0			Flash Flood
									Thirty roads reported by law enforcement to be flooded.
Morgan County Countywide	16	0151EST 1600EST			0	0			Flash Flood
									Numerous secondary roads reported by law enforcement to be flooded. Also, Peddit Lane closed due to high water.
Jefferson County Countywide	16	0200EST 1600EST			0	0			Flash Flood
									One house evacuated due to flooding.
Loudon County Countywide	16	0216EST 1600EST			0	0			Flash Flood
									Several major roads closed due to high water with three homes evacuated along Huntsville Hollow road.
Hancock County Countywide	16	0308EST 1600EST			0	0			Flash Flood
									Numerous roads reported to be under water with some side roads washed away. Also, numerous rock and mud slides reported across the county.
Monroe County Countywide	16	0319EST 1600EST			0	0			Flash Flood
									Highways 411 and 72 reported to be flooded with three roads closed due to high water.
Hamilton County Countywide	16	0500EST 1600EST			0	0			Flash Flood
									Twenty-two roads closed due to high water with mudslides reported on Signal Mountain.
Hawkins County Countywide	16	0500EST 1600EST			0	0			Flash Flood
									Blevens road reported to be closed due to flooding.
McMinn County Countywide	16	0500EST 1600EST			0	0			Flash Flood
									Ten roads reported to be closed due to flooding with two culverts washed out.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TENNESSEE, East</u>									
Blount County									
Countywide	16	0546EST 1600EST			0	0			Flash Flood
John Helton road was reported closed by law enforcement due to high water. Also, a mudslide was reported across Jones Bend road.									
Sevier County									
Countywide	16	0600EST 1600EST			0	0			Flash Flood
Johnson County									
Countywide	16	0900EST 1600EST			0	0			Flash Flood
TNZ012>018-035>047-067>074-081>087-098>102									
Scott - Campbell - Claiborne - Hancock - Hawkins - Sullivan - Johnson - Morgan - Anderson - Union - Grainger - Hamblen - Northwest Coker - Coker/Smoky Mountains - Northwest Greene - Southeast Greene - Washington - Unicoi - Northwest Carter - Southeast Carter - Roane - Loudon - Knox - Jefferson - Northwest Blount - Blount/Smoky Mountains - North Sevier - Sevier/Smoky Mountains - Sequatchie - Bledsoe - Rhea - Meigs - McMinn - Northwest Monroe - Southeast Monroe - Marion - Hamilton - Bradley - West Polk - East Polk									
	21	1100EST			0	0			Flood
	23	0600EST							
With the ground already saturated from the previous week's rainfall, three day rainfall totals of one to three inches created some flooding of streams and rivers as well as several mudslides across east Tennessee. Rivers which rose above their flood stages included the South Chickamauga, Clinch, Powell, Holston, Pigeon, French Broad and Sequatchie rivers.									
Monroe County									
Sweetwater	22	1000EST			0	0			Hail (0.75)
Dime size hail reported by trained spotter.									
Meigs County									
Decatur	22	1020EST			0	0			Hail (0.75)
Dime size hail reported by trained spotter.									
Scott County									
Oneida	22	1504EST			0	0			Hail (0.75)
Dime size hail reported by 911 dispatch.									
Scott County									
Oneida	22	1504EST			0	0	5K		Thunderstorm Wind (G60)
Numerous trees reported down along Big Springs Road by 911 dispatch.									
Morgan County									
Deer Lodge	22	1525EST			0	0			Hail (0.75)
Dime size hail reported by 911 dispatch.									
Morgan County									
Deer Lodge	22	1525EST			0	0	5K		Thunderstorm Wind (G60)
Numerous trees reported down across county back roads by 911 dispatch.									
Scott County									
Huntsville	22	1545EST			0	0			Hail (0.75)
Dime size hail reported by law enforcement.									
Scott County									
Huntsville	22	1545EST			0	0	5K		Thunderstorm Wind (G60)
Numerous trees reported down near Huntsville plus many other areas countywide.									
Anderson County									
Countywide	22	1615EST			0	0	5K		Thunderstorm Wind (G60)
Numerous trees down and power outages reported by 911 dispatch.									
Roane County									
Kingston	22	1620EST			0	0			Hail (0.75)
Dime size hail reported by 911 dispatch.									
Campbell County									
7 S La Follette	22	1635EST			0	0			Hail (0.88)
Nickel size hail reported by 911 dispatch.									
Union County									
Countywide	22	1705EST			0	0	5K		Thunderstorm Wind (G60)
Numerous trees reported down countywide by law enforcement.									
Knox County									
Knoxville	22	1735EST			0	0			Hail (0.75)
Dime size hail reported along Interstate 640 by trained spotter.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
TENNESSEE, West									
TNZ001>004-019>021-048>055-088>092			Lake - Obion - Weakley - Henry - Dyer - Gibson - Carroll - Lauderdale - Tipton - Haywood - Crockett - Madison - Chester - Henderson - Decatur - Shelby - Fayette - Hardeman - McNairy - Hardin						
	06	0100CST 1100CST			0	0	20K		Heavy Snow
		Heavy snow fell across much of West Tennessee. Most of the region received between 3 and 5 inches of snow with some isolated location reporting as much as 6 inches of snow.							
TNZ001>004-019-021			Lake - Obion - Weakley - Henry - Dyer - Carroll						
	09	1600CST 2000CST			0	0	6K		Heavy Snow
		Heavy snow fell on northern sections of West Tennessee where between 2 and 3 inches of snow was reported.							
Hardin County									
Countywide	14	1800CST 2030CST			0	0	1K		Flash Flood
		Several roads were flooded across the county.							
McNairy County									
Selmer	22	0815CST 0845CST			0	0	1K		Flash Flood
		Flood waters reached up to some homes. A few streets were flooded.							
TNZ001>004-019>021-048>054-088>090			Lake - Obion - Weakley - Henry - Dyer - Gibson - Carroll - Lauderdale - Tipton - Haywood - Crockett - Madison - Chester - Henderson - Shelby - Fayette - Hardeman						
	25	0200CST 1200CST			0	0	17K		Heavy Snow
		Heavy snow fell across much of west Tennessee with most locations receiving 2 to 4 inches of snow.							
TEXAS, Central									
TXZ054-098>099-113>114-127>128-139>140-154>155			Nolan - Haskell - Throckmorton - Jones - Shackelford - Taylor - Callahan - Coleman - Brown - McCulloch - San Saba						
	24	1400CST 2359CST			0	5	283K		Winter Storm



Photo was taken Tuesday, February 25, 2003 at 10:49 AM. Photo is of Ambler Ave. in North Abilene facing West. Photo used courtesy of Richard Foreman.

An arctic cold front barreled through West Central Texas on the 23rd, dropping temperatures into the teens and 20s across all of the area. Strong overrunning began during the morning of the 24th, producing thunderstorms that dropped large amounts of sleet and even hail to one half inch in diameter. The Big Country saw 1 to 3 inches of sleet during the afternoon and early evening of the 24th, with the activity slipping to the southeast into the Heartland during the evening of the 24th. One-half to 1 inch of sleet was reported across the Heartland. With temperatures remaining below freezing until the morning of the 26th, the accumulated ice remained on area roadways,

Storm Data and Unusual Weather Phenomena

February 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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TEXAS, Central

with numerous accidents reported. There were also some minor injuries reported in the Abilene area, due to people slipping and falling down on the ice.

TEXAS, Central Southeast

Harris County									
Houston	14	1600CST			0	0	1K		Hail (0.75)
Nickel sized hail South Post Oak near Beltway 8									
Harris County									
Huffman	14	1605CST			0	0	5K		Hail (1.75)
Golfball sized hail.									
Harris County									
Channelview	14	1610CST			0	0	3K		Hail (1.00)
Quarter sized hail.									
Liberty County									
Dayton	14	1630CST			0	0	1K		Hail (0.75)
Nickel sized hail									
Liberty County									
Hardin	14	1640CST			0	0	1K		Hail (0.75)
Nickel sized hail									
Grimes County									
Countywide	20	1315CST 2210CST			0	0	8K		Flash Flood
Flooding at FM 244 and CR 166.									
Brazos County									
Countywide	20	1320CST 2200CST			0	0	8K		Flash Flood
Extensive flooding.									
Burleson County									
Countywide	20	1320CST 2155CST			0	0	8K		Flash Flood
Extensive flooding.									
Madison County									
Countywide	20	1324CST 2210CST			0	0	8K		Flash Flood
Highways 39 and 75 flooded.									
Walker County									
Countywide	20	1815CST 2210CST			0	0	8K		Flash Flood
Extensive flooding; I-45 feeder road northwest of Huntsville closed.									
Houston County									
Countywide	20	2200CST 2215CST			0	0	8K		Flash Flood
Up to four feet of water covering some roads.									
Jackson County									
Lolita	21	0525CST			0	0	5K		Hail (0.75)
3/4 inch hail.									
Polk County									
Livingston	21	0655CST			0	0	5K		Hail (0.75)
3/4 inch hail.									
Fort Bend County									
Katy	21	1340CST			0	0	5K		Hail (0.75)
3/4 inch hail.									
Fort Bend County									
Fulshear	21	1345CST			0	0	5K		Hail (0.75)
3/4 inch hail.									
Harris County									
Katy	21	1347CST			0	0	5K		Hail (0.75)
3/4 inch hail.									
Harris County									
Houston	21	1414CST			0	0	5K		Hail (0.75)
3/4 inch hail.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TEXAS, Central Southeast</u>									
Harris County									
Spring	21	1420CST 1440CST			0	0	7K		Hail (0.75)
			3/4 inch hail lasted twenty minutes.						
Montgomery County									
New Caney	21	1443CST			0	0	9K		Hail (1.75)
			Golfball sized hail.						
Liberty County									
5 S Cleveland	21	1500CST			0	0	5K		Hail (0.75)
			3/4 inch hail.						
Liberty County									
Cleveland	21	1513CST			0	0	5K		Hail (0.75)
			3/4 inch hail.						
Liberty County									
2 E Cleveland	21	1515CST			0	0	8K		Hail (1.25)
			Just larger than quarter sized hail.						
Polk County									
Moscow	21	1520CST			0	0	5K		Hail (0.75)
			3/4 inch hail.						
Polk County									
Livingston	21	1553CST			0	0	5K		Hail (0.75)
			3/4 inch hail.						
Polk County									
Onalaska	23	1758CST			0	0	5K		Hail (0.75)
			3/4 inch hail.						
Polk County									
2 ENE Corrigan	23	1840CST			0	0	8K		Hail (1.00)
			Quarter sized hail.						
Waller County									
Monaville	25	0404CST			0	0	5K		Hail (0.75)
			Nickel sized hail.						
<u>TEXAS, Extreme West</u>									
			NONE REPORTED.						
<u>TEXAS, Mid - South</u>									
Jim Wells County									
5 NE Alice	15	0540CST			0	0			Thunderstorm Wind (G50)
			Power lines blown down on Highway 359 just north of FM 3376.						
Nueces County									
Corpus Christi	15	0635CST			0	0			Thunderstorm Wind (G50)
			Power lines reported blown down by utility company along FM 624 and County Road 73.						
Kleberg County									
Kingsville	15	0700CST			0	0			Thunderstorm Wind (G50)
			Tree limbs blown down along State Highway 141.						
Nueces County									
Corpus Christi	15	0700CST			0	0			Thunderstorm Wind (G50)
			Canopies from a business were blown down on Morgan and Brownley Streets.						
San Patricio County									
Portland	15	0700CST			0	0			Thunderstorm Wind (G50)
			Power lines reported down in Portland.						
Jim Wells County									
Ben Bolt	15	1945CST			0	0			Hail (0.75)
<u>TEXAS, North</u>									
Milam County									
Countywide	20	2315CST			0	0			Flash Flood
	21	1400CST							
			Numerous farm to market roads flooded, mainly near creeks and streams.						

Storm Data and Unusual Weather Phenomena

February 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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TEXAS, North

Freestone County

Countywide	21	0030CST 1400CST			0	0	25K		Flash Flood
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Numerous county roads and farm to market roads closed due to high water or bridges washed out.

Limestone County

Countywide	21	0030CST 1400CST			0	0	25K		Flash Flood
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Several bridges on county roads washed out or flooded. High water was reported on Highway 84 east, and on FM 937.

Robertson County

Countywide	21	0030CST 1510CST			0	0			Flash Flood
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Numerous farm to market roads and county roads closed due to high water, mainly near creeks and streams.

Leon County

Countywide	21	0400CST 1600CST			0	0			Heavy Rain
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Water was over FM 1119 just south of FM 811, and water across service roads of Interstate 45 south of Centerville and west service road north of Centerville.

Mclennan County

Waco	21	0850CST 0950CST			0	0			Heavy Rain
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Streets on the east side of town were flooded, and just north of town some streets were flooded.

Bell County

Countywide	21	0856CST 0956CST			0	0			Heavy Rain
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Low water crossings were closed in Harker Heights, Salado, Belton, and Killeen.

Dallas County

Grand Prairie	21	1100CST			0	0	5K		Lightning
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A lightning bolt made an 8 by 10 foot hole in the roof of a house.

Bosque County

Clifton	21	1340CST			0	0			Hail (0.88)
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TXZ091>095-100>107-115>123-129>135-141>148-156>162-174>175

Montague - Cooke - Grayson - Fannin - Lamar - Young - Jack - Wise - Denton - Collin - Hunt - Delta - Hopkins - Stephens - Palo Pinto - Parker - Tarrant - Dallas - Rockwall - Kaufman - Van Zandt - Rains - Eastland - Erath - Hood - Somervell - Johnson - Ellis - Henderson - Comanche - Mills - Hamilton - Bosque - Hill - Navarro - Freestone - Anderson - Lampasas - Coryell - Bell - Mclennan - Falls - Limestone - Leon - Milam - Robertson

24	1120CST			0	0	15M		Winter Storm
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27	1800CST			0	0			
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Freezing rain and sleet began falling across western parts of North Texas late Monday morning the 24th and spread eastward during the afternoon and night, before ending the morning of the 25th. South of a Lampasas to Gatesville to Mexia to Athens line the precipitation was predominantly freezing rain, with ice accumulations of 1/4 to 1/2 inch. North of this line the precipitation was mostly sleet and snow, with most of the snow falling north of interstate 20. Sleet and snow accumulations were generally 1 to 3 inches, with 3 to 5 inches of snow north of a Breckenridge to Decatur to Dallas to Paris line. Schools and businesses closed early on the 24th, many not reopening until the afternoon of the 26th. Thousands of motorists, particularly truckers, were stranded for over 24 hours. Hundreds of flights at DFW International Airport and Love Field were cancelled, thousands delayed, and 2,500 people were stranded at the DFW Airport Monday night. There were hundreds of automobile accidents. The estimated 200 sand trucks across Dallas and Tarrant Counties worked 24 hours a day but could not keep up with the freezing rain, sleet, and snow accumulations Monday and Tuesday. Emergency rooms at area hospitals estimated 20-40 percent of their patient's injuries were snow or ice related from Monday through Wednesday. Conditions did not improve significantly until Thursday afternoon the 27th, when significant melting occurred. Most of the damage was lost revenue due to truckers stranded, airline flights cancelled, businesses and schools closed, and emergency expenditures due to the weather.

TEXAS, North Panhandle

TXZ013>015

Carson - Gray - Wheeler

09	0310CST 0900CST			0	0			Heavy Snow
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A storm system in the upper atmosphere passing over the Texas panhandle produced areas of heavy snow across the central and eastern Texas panhandle during the early morning hours. Mobeetie received four inches of snow...White Deer received five inches of snow...and Pampa received six to eight inches of snow.

TEXAS, Northeast

Angelina County

6 SW Lufkin	21	1530CST 1915CST			0	0			Flash Flood
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Flood waters closed County Roads 94, 706, and 2497.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, South									
TXZ248>255									
Zapata - Jim Hogg - Brooks - Kenedy - Starr - Hidalgo - Willacy - Cameron									
	01	0000CST			0	0			Drought
	28	2359CST							
Soil moisture values remain above normal. However, the region still remains in a long-term drought, with local reservoirs at well-below-normal levels.									
TEXAS, South Central									
Gillespie County									
Southwest Portion	07	2230CST 2330CST			0	0	3K		Flash Flood
Rainfall of up to 3 inches across the southwest portion of Gillespie County caused flash flooding to develop very quickly over the area. The flooding was brief, ending just before midnight.									
Bexar County									
5 NE San Antonio	15	1415CST 1425CST			0	0			Hail (0.75)
Bexar County									
Elmendorf	20	0710CST 0715CST			0	0			Hail (1.25)
Wilson County									
Floresville	20	0720CST 0725CST			0	0			Hail (0.75)
Blanco County									
Countywide	20	0800CST 1800CST			0	0	5K		Flash Flood
Flash flooding began in the mid morning and continued into the afternoon as general 1 to 2 inch rainfall was indicated across the county. The flash flooding was made worse by the saturated soils across the county.									
Kendall County									
Countywide	20	0800CST 1600CST			0	0	5K		Flash Flood
General 1 inch rainfall with isolated totals to 2 inches, combined with area soils that were already saturated, caused countywide flash flooding from the mid morning into the mid afternoon.									
Comal County									
Countywide	20	0815CST 1800CST			0	0	10K		Flash Flood
Numerous city and county roads were closed as a general 1 to 2 inch rain fell across the county. The saturated soils contributed to the rapid development of the flash flooding and the rather long duration of the flooding, closing up to a dozen roads.									
Guadalupe County									
Countywide	20	0815CST 1800CST			0	0	10K		Flash Flood
Numerous roads closed as up to 3 inches fell over the area. Due to the soaked soils over the area, flash flooding was more widespread and long-lasting than it normally would have been. Students in the Navarro District were unable to get home by bus that afternoon as roads were closed due to flooding. Several school programs were cancelled that evening. Around a dozen roads were closed due to flooding.									
Hays County									
Countywide	20	0815CST 1830CST			0	0	10K		Flash Flood
A general 1 to 2 inch rainfall with up to 3 inches maximum fell over already saturated soils by early morning. It produced widespread flash flooding across the county from the mid morning into the late afternoon. The Emergency Manager reported that at least a score of county and city roads were closed by 11 am that morning and most remained closed through the afternoon. Several schools released students early in the afternoon.									
Travis County									
Countywide	20	0830CST 1830CST			0	0	15K		Flash Flood
The combination of soils that were already saturated with an additional 2 to 3 inches of rainfall developed flash flooding across the county from the mid morning into the afternoon period. Dozens of city and county roads were flooded and closed. Two individuals were very fortunate as their car was stuck in a low-water crossing near Spicewood Springs Road. One person tried to exit the car and was washed downstream. The second attempted to rescue the first. Both escaped unharmed.									
Williamson County									
Countywide	20	0830CST 1830CST			0	0	10K		Flash Flood
General 1 inch rainfall, with isolated totals to near 3 inches, when combined with soils that were already saturated, caused widespread flash flooding over the county.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TEXAS, South Central</u>									
Bastrop County									
Countywide	20	1000CST 1830CST			0	0	10K		Flash Flood
The combination of a general 1 to 2 inch rainfall and soils that had remained soaked for several weeks caused rapid flash flooding to develop in the late morning and continue into the afternoon. One high water rescue was required. A man drove some 30 feet into deep water before his vehicle stalled. He climbed out of the flooding car and was forced to cling to its top for over an hour while rescue personnel were alerted and removed him.									
Caldwell County									
Countywide	20	1000CST 1900CST			0	0	5K		Flash Flood
Rainfall across the county averaged between 1 and 2 inches, with up to 4 inches in the south and east sections. As a result of the rain and the soils that had remained soaked for weeks, widespread flash flooding developed in the late morning and continued into the afternoon.									
Lee County									
Countywide	20	1000CST 1900CST			0	0	10K		Flash Flood
General 2 inch rainfall over the county, with isolated totals to 8 inches brought very rapid flash flooding across the county from the late morning into the early evening. Many of the county roads were closed. Schools in the area were dismissed early.									
Lavaca County									
Hallettsville	20	1130CST 1140CST			0	0			Hail (0.88)
TXZ208									
	20	1532CST			0	0			Flood
	21	2343CST							
The San Marcos River at Luling crested on February 21 at 28.74 feet at 0100CST, where 20.0 feet is flood stage.									
Fayette County									
Countywide	20	1700CST 2200CST			0	0	15K		Flash Flood
Numerous roads closed as a general 2 inch rain fell over the county, with up to 5 inches in some parts of the county. County soils had remained very saturated through the past several weeks and that contributed significantly to the flooding.									
Gonzales County									
Countywide	20	1700CST 1930CST			0	0	5K		Flash Flood
General 1 to 2 inch rainfall, with isolated totals to 3 inches, combined with soils that were already saturated, resulted in brief flash flooding from the late afternoon into the early evening.									
De Witt County									
Countywide	20	1800CST 2000CST			0	0	3K		Flash Flood
Brief flash flooding was reported over the county as a result of 1 to 2 inch rainfall over soils that were already soaked. The flooding ended in the early evening.									
Lavaca County									
Countywide	20	1800CST 2000CST			0	0	3K		Flash Flood
Several county roads were closed briefly due to flash flooding that resulted from a general 1 to 2 inch rainfall over the already saturated soils.									
TXZ209									
	21	0329CST			0	0			Flood
	22	2338CST							
The Colorado River at LaGrange crested at 32.29 feet on February 21 at 1830CST, where 26.0 feet is flood stage.									
Bandera County									
Countywide	21	0415CST 0630CST			0	0	10K		Flash Flood
General 1 to 2 inch rainfall with isolated totals to 3 inches fell shortly after midnight in the county. Flash flooding developed very quickly, as area soils were already saturated from previous rainfall.									
Gillespie County									
Countywide	21	0415CST 0730CST			0	0	10K		Flash Flood
Numerous roads across the county were closed through the early morning hours as a result of general 1 to 2 inch rainfall over already saturated soils.									

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TEXAS, South Central</u>									
<u>Kendall County</u>									
Countywide	21	0415CST 0700CST			0	0	10K		Flash Flood
General 1 to 2 inch rains, with isolated totals to 4 inches, fell in the early morning hours over already saturated soils in the county, causing flash flooding. Dozens of county roads were closed.									
<u>Kerr County</u>									
Countywide	21	0415CST 0700CST			0	0	10K		Flash Flood
County roads were closed through the early morning hours as scattered showers and thunderstorms brought general 1 to 2 inch rainfall to the county. Isolated totals to 4 inches were reported. The rains fell on already saturated soils, increasing the flash flooding.									
<u>Blanco County</u>									
Countywide	21	0500CST 0800CST			0	0	5K		Flash Flood
Flash flooding developed in the early morning hours over most county low water crossings as a result of general 1 to 2 inch rainfall. Isolated totals to near 3 inches were reported. The flash flooding was more severe than usual due to the very saturated nature of county soils.									
<u>Burnet County</u>									
Countywide	21	0500CST 0800CST			0	0	5K		Flash Flood
Most low water crossings were closed across the county as a general 1 to 2 inch rain fell over soils that were already saturated from previous rainfall. The flooding threatened several homes, but no evacuations were required.									
<u>TXZ223</u>									
Gonzales									
	21	1119CST			0	0			Flood
	23	1358CST							
The Guadalupe River at Gonzales crested at 39.25 feet on February 22 at 0330CST, where 31.0 feet is flood stage.									
<u>TXZ224</u>									
De Witt									
	23	0712CST			0	0			Flood
	25	2212CST							
The Guadalupe River at Cuero crested at 26.10 feet on February 24 at 1415CST, where 20.0 feet is flood stage.									
<u>TXZ171>173-184>194-204>209</u>									
Llano - Burnet - Williamson - Edwards - Real - Kerr - Bandera - Gillespie - Kendall - Blanco - Hays - Travis - Bastrop - Lee - Medina - Bexar - Comal - Guadalupe - Caldwell - Fayette									
	24	1900CST			0	0			Winter Storm
	26	1200CST							
Authorities reported that roads and bridges began to ice over Monday night, forcing the closing of many county roads. City and county offices, as well as most businesses and all area schools remained closed on Tuesday, and reopened near noon on Wednesday. No power outages were indicated.									
SYNOPSIS: An arctic blast brought a combination of freezing rain, sleet and snow into the northern portion of South Central Texas beginning Monday afternoon, February 24. The wintery mixture began over the Hill Country and spread east and south to the Austin and San Antonio areas by Monday evening. From Monday night into early Tuesday morning, the wintery mixture was accompanied by thunder. The icy conditions continued through Tuesday, virtually bringing businesses and governmental offices to a halt. Most area schools were forced to remain closed on Tuesday, in spite of the fact that required statewide skills assessment tests were scheduled that day. Most schools were able to resume classes on a delayed basis on Wednesday, as the precipitation ended in the morning and temperatures were able to recover slowly above the freezing mark.									
<u>TEXAS, South Panhandle</u>									
NONE REPORTED.									
<u>TEXAS, Southeast</u>									
<u>Jefferson County</u>									
Beaumont	21	0134CST 0400CST			0	0	25K		Flash Flood
Around seven inches of rain fell in less than 6 hours, resulting in flash flooding across sections of Beaumont. Several homes near Roy Guess Elementary School had water enter them.									
<u>Tyler County</u>									
Chester	21	0959CST			0	0			Hail (0.75)
<u>TEXAS, West</u>									
<u>Brewster County</u>									
7 SW Panther Junction	20	1400CST 1420CST			1	0	0	0	Lightning
A thunderstorm which moved across the Chisos Basin of the Texas Big Bend resulted in a lightning fatality. A man who was hiking in the Chisos Mountains died when he was struck by lightning. The man was reported missing by his wife two days later, and National Park rangers located his body within a few hours of the report. An autopsy confirmed a lightning strike was the cause of death. The time of the event is estimated based on archived satellite and lightning data.									

Storm Data and Unusual Weather Phenomena

February 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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VERMONT, North and Central

The remainder of Vermont generally received less than 2 inches.

VTZ003>004-006>008	Orleans - Essex - Lamoille - Caledonia - Washington				0	0	5K		Winter Weather/Mix
	04	0300EST							
		1300EST							

A storm system moved from Lake Huron early Tuesday morning, February 4th and across southern Canada during the day. Mixed precipitation fell across the north country but generally changed to rain during the morning. However in the northeast Vermont counties of Caledonia, Essex, Orleans, Lamoille and Washington, the mixed precipitation did not change to rain until the afternoon. Light icing was reported in northeast Vermont.

VTZ001>002-005>012	Grand Isle - Western Franklin - Western Chittenden - Lamoille - Caledonia - Washington - Western Addison - Orange - Western Rutland - Windsor				0	0	10K		Strong Wind
	04	1800EST							
	05	0300EST							

A large low pressure system moved across the province of Quebec late Tuesday and Tuesday night, February 4th into the early morning hours of February 5th. Winds were gusty during the day ahead of the low pressure system. However, following the associated cold front, winds were gusting to between 35 and 50 mph (30 and 43 knots) during the night of February 4th into the early morning of February 5th. A few reports in Vermont included: 46 mph (40 knots) at Burlington (Chittenden county), 43 mph (37 knots) at Morrisville (Lamoille county), 40 mph (35 knots) at both Montpelier (Washington county) as well as Walden (Caledonia county), and finally 38 mph (33 knots) at Springfield (Windsor county).

VTZ003-007>009	Orleans - Caledonia - Washington - Western Addison				0	0	20K		Winter Weather/Mix
	17	2200EST							
	18	0500EST							

An area of low pressure off the mid Atlantic coast early Monday afternoon (2/17/03), moved northeast and passed south of Cape Cod early Tuesday morning (2/18/03) before it moved out to sea. This resulted in a tight gradient of snowfall across central and northern Vermont. Light snow overspread central and northern Vermont during the night of February 17th and ended during the early morning of the 18th. Snow accumulations across central Vermont were generally 2 to 5 inches, with generally less than 2 inches across northern Vermont.

VTZ010>012	Orange - Western Rutland - Windsor				0	0	45K		Winter Storm
	18	0200EST							
		0500EST							

An area of low pressure off the mid Atlantic coast early Monday afternoon (2/17/03), moved northeast and passed south of Cape Cod early Tuesday morning (2/18/03) before it moved out to sea. Snow overspread portions of southern and eastern Vermont during the evening of the 17th and became heavy overnight. It tapered off to light snow and flurries during the early morning of the 18th. Snow accumulations across this area were generally 6 to 12 inches, with somewhat lighter amounts (3 to 6 inches) in the western third of Rutland county and the northern third of Orange county. A few reports included: In Windsor county 12.4 inches in Ludlow and 12 inches at Sharon, while in Orange county Thetford received 7 inches. In Rutland county, the city of Rutland reported 8 inches.

VTZ003-006-008	Orleans - Lamoille - Washington				0	0	15K		Winter Weather/Mix
	22	1600EST							
	23	1300EST							

An area of low pressure over the Tennessee Valley Saturday morning, February 22nd, moved northeast. The primary storm center of this complex low pressure system moved across central New York on Sunday, February 23rd and then into the Canadian Maritimes. Across this portion of Vermont, snow Saturday (Feb 22nd) afternoon and evening, mixed with and changed to freezing rain and or rain by Sunday, Feb 23rd. Snow accumulations were generally around 3 inches with some difficult travel reported.

VTZ005	Western Chittenden				1	0	15K		Winter Weather/Mix
	22	1600EST							
	23	1200EST							

An area of low pressure over the Tennessee Valley Saturday morning, February 22nd, moved northeast. The primary storm center of this complex low pressure system moved across central New York on Sunday, February 23rd and then into the Canadian Maritimes. Across Chittenden county, snow mixed with freezing rain Saturday (Feb 22nd) afternoon and evening resulted in very slippery roads. Numerous accidents were reported. One accident resulted in a death on Route 7 in the town of Shelburne. The precipitation changed to freezing rain and or rain by Sunday, Feb 23rd. Snow accumulations were generally around 4 inches with difficult travel reported. F18VE

VTZ002	Western Franklin				0	0	5K		Winter Storm
	22	2100EST							
	23	1200EST							

An area of low pressure over the Tennessee Valley Saturday morning, February 22nd, moved northeast. The primary storm center of this complex low pressure system moved across central New York on Sunday, February 23rd and then into the Canadian Maritimes. Across this portion of Vermont, snow Saturday (Feb 22nd) afternoon and evening, mixed with and changed to freezing rain by Sunday, Feb 23rd. Snow accumulations were 3 to 6 inches, with some Ice accumulations after the changeover. Difficult travel conditions resulted. Specifically, 6 inches of snow was reported in Enosburg Falls (Franklin county).

Storm Data and Unusual Weather Phenomena

February 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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VERMONT, South
VTZ014

Western Windham

17	2100EST				0	0			Winter Storm
18	0400EST								

On February 17, a low pressure area developed in the Tennessee Valley and tapped into copious Gulf of Mexico moisture. At the same time, a strong arctic high built southward from eastern Canada, then drifted east into the Gulf of Maine. The low pressure area rapidly redeveloped off the North Carolina coast, then tracked northeast, and was east of Cape Cod by early February 18. This storm produced a significant snowstorm over Windham County. A 7 to 14 inch swath of snow blanketed the county. Some specific amounts included 9.0 inches at Ball Mountain Lake, 14.0 inches at Marlboro, and 10.5 inches at West Wardsboro.

VIRGIN ISLANDS

NONE REPORTED.

VIRGINIA, East

VAZ048>049-060>064-069-071>075 **Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Hanover - Caroline - Powhatan - Henrico - King William - King And Queen - Essex - Westmoreland**

06	1900EST				0	0			Winter Storm
07	1000EST								

A winter storm produced 4 to 7 inches of snow across the piedmont of central Virginia and the Virginia northern neck. The higher snow amounts occurred in Caroline, Cumberland, Essex, Fluvanna, Goochland, Hanover, and Louisa counties. Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Friday, February 7th due to very slippery road conditions.

VAZ066>068-070-076>078-080 **Lunenburg - Nottoway - Amelia - Chesterfield - Richmond - Northumberland - Lancaster - Dinwiddie**

06	1900EST				0	0			Winter Storm
07	1000EST								

A winter storm produced 1 to 3 inches of snow across the piedmont of central Virginia and the Virginia northern neck. The higher snow amounts occurred in Chesterfield, Nottoway, Amelia, and Northumberland. Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Friday, February 7th due to very slippery road conditions.

VAZ048>049-060>064-068>071-074>076 **Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Hanover - Caroline - Amelia - Powhatan - Chesterfield - Henrico - Essex - Westmoreland - Richmond**

10	0700EST				0	0			Winter Weather/Mix
	1300EST								

A weak winter storm produced 0.5 to 1 inch of snow across portions of the piedmont of central Virginia and the Virginia northern neck. Although, Louisa county reported 2 to 3 inches of snow. Accumulations from this storm were mostly on cars and grassy areas, with roadways remaining generally wet although some slush was reported.

VAZ048>049-060>064-067>078-099 **Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Hanover - Caroline - Nottoway - Amelia - Powhatan - Chesterfield - Henrico - King William - King And Queen - Essex - Westmoreland - Richmond - Northumberland - Lancaster - Accomack**

15	1600EST				0	0			Winter Storm
17	1600EST								

A winter storm produced 4 to 9 inches of snow, along with sleet and freezing rain, across central and eastern Virginia. Some specific higher snow totals included: Ruther Glen in Caroline county 9", Dunnsville in Essex county 8", Louisa in Louisa county 8", Newland in Richmond county 8", Heathsville in Northumberland county 7.5", Amelia in Amelia county 6.5", King William in King William county 6.5", Palmyra in Fluvanna county 6", Montross in Westmoreland county 6", Lancaster in Lancaster county 5.5", Northern Accomack county 5", Midlothian in Chesterfield county 5", Goochland in Goochland county 5", and Doswell in Hanover county 5". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Monday, February 17th due to very slippery road conditions.

VAZ065>066-079>090-093>094-100 **Mecklenburg - Lunenburg - Brunswick - Dinwiddie - Prince George - Charles City - New Kent - Gloucester - Middlesex - Mathews - Greensville - Sussex - Surry - James City - Isle Of Wight - Newport News - Northampton**

15	1600EST				0	0			Winter Storm
17	1600EST								

A winter storm produced 1 to 3 inches of snow, along with sleet and 1/4 to 1/2 inch of ice accumulation, across central and eastern Virginia. Some specific higher snow totals included: Charles City in Charles City county 3", Dinwiddie in Dinwiddie county 3", Toano in James City county 3", and Prince George in Prince George county 3". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Monday, February 17th due to very slippery road conditions.

Southampton County

Courtland	22	1405EST			0	0	2K		Thunderstorm Wind (G50)
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Few trees down.

Southampton County

Courtland	22	1420EST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm	
					Killed	Injured	Property	Crops		
<u>VIRGINIA, East</u>										
Franklin (C)										
Franklin	22	1430EST			0	0	2K		Thunderstorm Wind (G50)	
									Trees down.	
Suffolk (C)										
Kings Fork	22	1441EST	1	50	0	0	25K		Tornado (F0)	
									Several 50-60 foot trees pushed over into houses. Numerous tree trunks twisted and tops sheared off.	
Hampton (C)										
Hampton	22	1445EST			0	0			Thunderstorm Wind (G50)	
Chesapeake (C)										
Chesapeake	22	1500EST			0	0	2K		Thunderstorm Wind (G50)	
									Large branches down at Interstate 64 and Dominion Boulevard.	
Norfolk (C)										
Norfolk	22	1500EST			0	0	5K		Thunderstorm Wind (G50)	
									Numerous trees and power lines down. Also, some minor damage to houses.	
Portsmouth (C)										
Portsmouth	22	1500EST			0	0	2K		Thunderstorm Wind (G50)	
									Trees down.	
Virginia Beach (C)										
Virginia Beach	22	1505EST			0	0	2K		Thunderstorm Wind (G50)	
									Trees and power lines down.	
Virginia Beach (C)										
Virginia Beach	22	1530EST			0	0	2K		Thunderstorm Wind (G50)	
									Trees and power lines down.	
Hampton (C)										
Hampton	22	1650EST			0	0	5K		Thunderstorm Wind (G50)	
									A two foot diameter oak tree approximately 50 feet tall fell on a house. Other smaller trees down.	
VAZ048>049-060>077-080-099										
			Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Hanover - Caroline - Mecklenburg - Lunenburg - Nottoway - Amelia - Powhatan - Chesterfield - Henrico - King William - King And Queen - Essex - Westmoreland - Richmond - Northumberland - Dinwiddie - Accomack							
	26	1200EST			0	0			Winter Storm	
	28	0900EST								
									A winter storm produced 1 to 4 inches of snow, along with sleet and 1/8 to 1/2 inch of ice accumulation, across central and eastern Virginia. Some specific higher snow totals included: Ruther Glen in Caroline county 4.5", Bowling Green in Caroline county 3", West Point in King William county 3", Reedville in Northumberland county 3", Beaverdam in Hanover county 2.5", Louisa in Louisa county 2-3", and Montross in Westmoreland county 2-3". Local law enforcement agencies reported numerous accidents. Most, if not all schools in the area, were closed Thursday, February 27th due to very slippery road conditions.	
<u>VIRGINIA, Extreme Southwest</u>										
VAZ001>002-005>006-008										
	07	0100EST 0400EST			0	0			Heavy Snow	
									Two to six inches of snow was reported across southwest Virginia with four to eight inches reported across the higher elevations.	
VAZ001>002-005										
			Lee - Wise - Scott							
	09	2000EST			0	0			Heavy Snow	
	10	1200EST								
									Three to five inches of snow was reported across portions of southwest Virginia.	
VAZ001>002-005>006-008										
			Lee - Wise - Scott - Russell - Washington							
	14	1200EST			0	0	450K		Flood	
	17	1800EST								
									Four day rainfall totals of two to six inches were reported across southwest Virginia, with the highest amounts occurring in Wise and Lee counties. This rainfall combined with melting snowpack (reports of up to a foot in the higher elevations) to produce widespread flooding of rivers and streams, with evacuations ordered below Big Cherry Dam in Wise county due to water flowing over the spillway. The Clinch and Powell rivers measured significant rises due to the extended rainfall duration and snowmelt in the higher elevations.	
Norton (C)										
Norton	16	0700EST 1600EST			0	0			Flash Flood	
									Numerous roads reported closed by law enforcement with numerous homes and businesses filled with water.	
Scott County										
Countywide	16	0800EST 1600EST			0	0			Flash Flood	

Storm Data and Unusual Weather Phenomena

February 2003

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

VIRGINIA, Extreme Southwest

Thirty roads reported closed by law enforcement due to high water.

Russell County

Countywide

16	0800EST 1600EST				0	0			Flash Flood
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Numerous roads reported closed by law enforcement due to high water.

Lee County

Countywide

16	0800EST 1600EST				0	0			Flash Flood
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Several roads reported closed by law enforcement due to high water.

Wise County

Countywide

16	1000EST 1600EST				0	0			Flash Flood
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Numerous roads reported closed due to high water with numerous homes filled with water. Also, residents near Big Cherry Dam forced to evacuate due to water flowing over the spillway.

VAZ001>002-005>006-008 Lee - Wise - Scott - Russell - Washington

21	1200EST				0	0			Flood
23	0600EST								

With the ground already saturated from the previous week's rainfall, three day rainfall totals of one to two inches created flooding of streams and the Clinch and Powell rivers across southwest Virginia.

Scott County

Countywide

22	1900EST 1930EST				0	0	5K		Thunderstorm Wind (G60)
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Numerous trees and power lines down reported by law enforcement.

VIRGINIA, North

VAZ021-031

Highland - Clarke

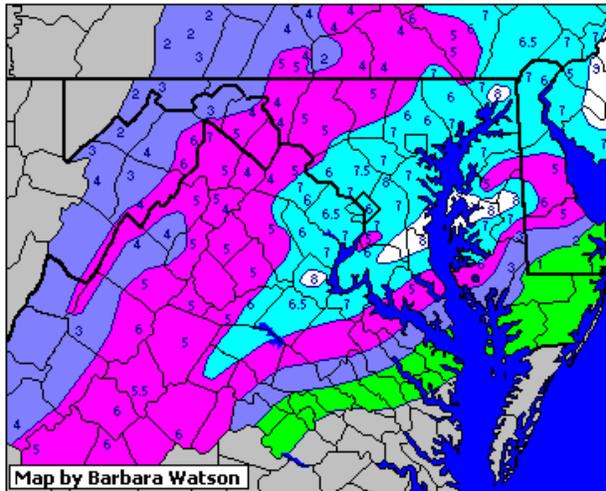
06	1900EST				0	0			Winter Weather/Mix
07	1100EST								

VAZ025>030-036>042-050>057 Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

06	1900EST				0	0			Winter Storm
07	1100EST								



Snowfall Map for Feb. 7, 2003



0 - 1	1 - 2	2 - 4	4 - 6	6 - 8	8 - 10 inches
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Low pressure tracked from the Gulf Coast to the Carolinas on the 6th then off the Atlantic coast on the 7th. This storm dropped light to moderate snow between the evening of the 6th and Noon on the 7th. Accumulations ranged from 3 to 7 inches, with the highest amounts occurring in the Washington D.C. suburbs and along the Interstate 95 corridor. Several weather related traffic accidents were reported.

Storm Data and Unusual Weather Phenomena

February 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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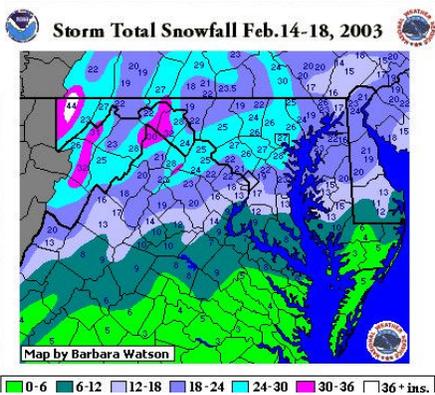
VIRGINIA, North

VAZ021-025>031-036>042-050>057

A 2 mile stretch of Route 50 just east of Fairfax City was closed because of slippery conditions.

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

14 0800EST 1 0 8.9M Winter Storm
18 1200EST



A complex storm system produced copious amounts of wintery precipitation across the northern third of Virginia between the evening of the 14th and midday on the 18th. The first batch of precipitation fell between the evening of the 14th and the evening of the 15th in the form of light to moderate snow or rain. The second batch of precipitation fell between midnight on the 16th through midday on the 17th in the form of heavy snow or sleet. The third batch of precipitation on the back side of the storm fell between the evening of the 17th and midday on the 18th in the form of scattered snow showers.

After the precipitation came to an end, record breaking snow and sleet accumulations were reported. Across the Northern Shenandoah Valley and the northwest Virginia suburbs of Washington D.C., accumulations of mainly snow ranged from 20 to 36 inches. Across the North Central Shenandoah Valley, the North Central Foothills, and the west and southwest Virginia suburbs of Washington D.C., accumulations of snow and sleet ranged from 12 to 20 inches. Across the South Central Shenandoah Valley, the South Central Foothills, and the Northern Piedmont, accumulations of mainly sleet ranged from 7 to 12 inches. As a general rule, 1 inch of sleet accumulation is equivalent to 3 inches of snow. Therefore, areas that received mainly sleet during this massive winter storm received accumulations around two thirds less than areas that had all snow, even though they were impacted by the same storm system. As an example, Charlottesville recorded 9 inches of accumulation (almost all sleet) whereas Leesburg in Loudoun County recorded 25 inches of accumulation (all snow).

Nicknamed the President's Weekend Snowstorm of 2003, this storm will go down in history as the 5th heaviest snowstorm in the Washington D.C. region since records began in 1870. A total of 16.7 inches of snow and sleet was recorded at Ronald Reagan Washington National Airport. This massive storm took a heavy toll on residents, structures, transportation systems, emergency responders, businesses, livestock, and travelers. Local officials urged people to stay off the roads during the height of the storm between the morning of the 16th and the morning of the 17th. Roads were covered by deep snow and sleet and were nearly impassible. Almost every airport in the region was shut down on the 16th, stranding hundreds of travelers. Emergency personnel and those needing emergency transport had to be taken to their destinations in 4 wheel drives or military vehicles during the storm. Main highways were partially cleared by the 18th but it took up to 5 days to reach some secondary and residential roads. Area schools were closed up to a week after the storm ended. Heavy accumulations weighed down on buildings in the region and several structural collapses occurred. In addition, several injuries and a handful of deaths were attributed to the storm.

The following is a list of damage and casualty reports by county that occurred as a result of this winter storm. In Highland County, a turkey house collapsed near McDowell and 500 turkeys were killed. In Augusta County, officials reported \$1.5 million in structural damage. Several agricultural buildings including a barn and a turkey shed collapsed, killing or injuring livestock. Two people died at a Charlottesville hospital from heart attacks brought on by shoveling snow. Several other people were treated across the county for chest pains or snow blower related injuries. A 39-year-old man died after sledding into the path of a car in Craigsville. In Rockingham

Storm Data and Unusual Weather Phenomena

February 2003

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

VIRGINIA, North

County, 7 chicken houses and 5 turkey houses collapsed. At least 37,000 chickens and turkeys were lost. A cow was killed and 17 cows were injured when a dairy barn collapsed in Grottoes. In Orange County, a gas station canopy collapsed on Route 3. A nursery near Rhoadesville lost 22 of 24 plastic greenhouses. In Madison County, a wood flooring factory storage building collapsed in Madison. In Culpeper County, 3 livestock barns collapsed. Three cows were killed, several other animals were injured. Two hay barns, several sheds, and other farm buildings collapsed on three farms near Batna. A gas station canopy on Route 3 near Germanna Bridge collapsed. In addition, a 2.5 acre glass greenhouse in the county valued at \$2 million dollars collapsed.

In Page County, a chicken house collapsed in Dovel Hollow. In Shenandoah County, two homes, one carport, 7 business buildings, 3 public buildings, and 7 agricultural buildings (including 5 animal shelters where a total of 61,000 turkeys and chickens were lost) suffered structural collapses. Twenty people who lost their homes were sheltered by the Red Cross. Near Edinburg, a 38-year-old man who was sitting in a snowbound car died of carbon monoxide poisoning. An 82-year-old man near Conicville died from a heart attack after trying to cross through deep snow to feed livestock. In Frederick County, officials reported \$1.4 million in structural losses. Four mobile homes, a park maintenance building, a commercial storage building, a barn, an industrial building, a church, and two stores suffered collapsed roofs. A nursery north of Winchester suffered the loss of 9 of 21 large greenhouses. A 76-year-old woman from Stephens City suffering from dementia was found dead from exposure a week after the storm ended buried under one foot of snow. In Clarke County, 2 hay barns and a machine shed collapsed. In Warren County, the roof of the North Warren Fire Station collapsed. Many other smaller structures including porches, garages, and carports collapsed across the county. Two men, ages 82 and 57, died of heart attacks while shoveling snow.

In Fauquier County, a gas station canopy in Bealton and a dairy barn in Calverton collapsed. Twelve boy scouts and 6 adults were trapped at Camp Moss Hollow near Markam during the snowstorm. In Loudoun County, a nursing home in Leesburg had to be evacuated after the roof partially collapsed. A county office building and two middle school auditoriums also suffered structural damage. In addition, a 37-year-old man was found dead from carbon monoxide in his snowbound car. In Spotsylvania County, the roof of a home, a gas station canopy, and the roof of a business collapsed. In Fredericksburg, the roof of a shopping center collapsed. A 55-year-old man in the county died from a heart attack while shoveling snow. In Fairfax County, an elementary school and two church buildings in Herndon suffered structural collapses. Three county sports bubble structures also collapsed. Local hospitals treated several people for injuries from sledding and snow blower accidents and for chest pains brought on by shoveling. In Arlington, an athletic bubble structure valued at \$400,000 collapsed. F76OU

Clarke County

Countywide	22	0800EST			0	0			Heavy Rain
	23	0600EST							

King George County

Countywide	22	0800EST			0	0			Heavy Rain
	23	0600EST							

Rappahannock County

Countywide	22	0800EST			0	0			Heavy Rain
	23	0600EST							

VAZ021-025>030-036>039-041>042-050>056
Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Nelson - Albemarle - Greene - Madison - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania

	22	0800EST			0	0	100K		Flood
	23	0600EST							

A combination of 1.5 to 3 inches of rain that fell between the evening of the 21st and the morning of the 23rd and snow melt from the massive snowstorm of 14-18 February led to widespread flooding. In Highland County, small streams and creeks overflowed onto Route 220 and washed out shoulders near Monterey. Routes 640 and 637 near New Hampden, Route 604 near Valley Center, and Route 84 in the southwest corner of the county were also flooded. In Augusta County, 37 roads were flooded and some small bridges were washed out. Officials reported some water rescues. About 25 residents of the Deerfield Valley Camps community west of Churchville were trapped after the Stony Brook Road bridge that connected to their community was washed out by Calf Pasture River. In Waynesboro, some small streams overflowed their banks. Eight basements and some streets were flooded. In Staunton, low lying areas were flooded. In Rockingham County, flooding of basements and urban areas was reported. Ten secondary roads were also flooded.

In Nelson County, urban and small stream flooding occurred. A secondary road was also closed by flood waters. In Albemarle County, 22 secondary roads were flooded. Urban and small stream flooding and water rescues were also reported. In Greene County, urban flooding closed 7 secondary roads. In Orange County, 17 secondary roads flooded. In Madison County, 8 secondary roads were flooded by urban runoff. In Spotsylvania County, 1 primary and 7 secondary roads were flooded. One private road was washed out. Officials rescued 4 people, 2 horses, and 6 dogs from flood waters. Two of the people were rescued from Old Mill Park after falling asleep on dry land near the riverbank and waking up in North Anna River flood waters. The Davenport Bridge across the North Anna River was also flooded. Flooding was also reported in the College Terrace neighborhood in Fredericksburg. In Stafford County, Red Fern Lane which is the entrance to the Stafford Oaks development was flooded. Four other secondary roads were closed by flooding. In Culpeper County, 18 secondary roads were flooded. In Page County, streams reached bankful in the southern part of the county. Urban flooding was also reported. In Shenandoah County, 25 county roads were closed by high water. Stony Creek, Narrow Passage Creek, Passage Creek, and Painter Run overflowed their banks. Numerous basements were also flooded.

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>VIRGINIA, Southwest</u>									
VAZ009-012>013-015>017-022>024-032>035-043>047			Smyth - Wythe - Pulaski - Grayson - Carroll - Floyd - Roanoke - Botetourt - Rockbridge - Patrick - Franklin - Bedford - Amherst - Henry - Pittsylvania - Campbell - Appomattox - Buckingham						
	06	1300EST			0	0	0		Heavy Snow
	07	1000EST							
	Snow during the afternoon of the 6th through the early morning of the 7th accumulated from 5 to 8 inches.								
VAZ034			Bedford						
	13	1930EST			0	0	0		High Wind (G60)
	High winds during the evening of the 13th downed trees and power lines near Moneta.								
VAZ007-009			Tazewell - Smyth						
	15	2100EST			0	0	10K		Flood
	16	0600EST							
	Rain caused small stream and urban flooding across Tazewell and Smyth counties. One home was evacuated in the town of Tazewell.								
VAZ007-011-013>020-022>023-032>034-043>047-058			Tazewell - Giles - Pulaski - Montgomery - Grayson - Carroll - Floyd - Craig - Alleghany - Bath - Roanoke - Botetourt - Patrick - Franklin - Bedford - Henry - Pittsylvania - Campbell - Appomattox - Buckingham - Halifax						
	15	2200EST			0	0	0		Winter Storm
	17	1200EST							
	Snow, sleet, and freezing rain fell from late on the 15th through much of the 17th. Ice accretions ranged from 1/4 to 1/2 of an inch. Snow and sleet accumulations ranged from 1 to 4 inches across the New River Valley, and Southside Virginia to as much as 5 to 8 inches in the Alleghany Highlands and Appomattox and Buckingham Counties in the east.								
VAZ007-009			Tazewell - Smyth						
	15	2216EST			0	0	175K		Flood
	16	1206EST							
	Minor flooding occurred on the Clinch River on the 15th through the 16th. At Richlands, the river crested at 11.6 feet on the 16th. About 35 people had to be evacuated from there homes. Many homes sustained flood damage to ground floors.								
	Minor flooding occurred on the North Fork of the Holston River on the 16th. At Saltville, the river crested at 10.47 feet. An additional 25 homes were evacuated with damage again sustained to the lower floors of many homes.								
Craig County									
Paint Bank	22	0700EST 0800EST			0	0	50K		Flash Flood
VAZ007-009>010-012>014-017>019-022>024-032>033-035-045			Tazewell - Smyth - Bland - Wythe - Pulaski - Montgomery - Floyd - Craig - Alleghany - Roanoke - Botetourt - Rockbridge - Patrick - Franklin - Amherst - Campbell						
	22	0900EST			2	1	3.0M		Flood
	23	1500EST							
	M35IW, M47IW Heavy rain over a long period of time caused small stream and urban flooding. A man who had been rescued once from the North Fork of the Roanoke River, returned to his truck with his father, and attempted to recover items from the truck. They remained trapped in the flood waters for several hours. The son died later that night in the hospital from hypothermia. Small stream and urban flooding was also reported across Botetourt, Pulaski, Patrick, Smyth, Rockbridge, Tazewell, Campbell, Franklin, Alleghany, Craig, Bland, Floyd, Amherst, and Roanoke counties. One man was killed when he tried to cross a low water bridge over Tinker Creek in Vinton. He was swept about 200 feet downstream and died. In addition nearly 3 million dollars in damage was reported to homes and business due to the flooding in Roanoke County, including Salem and the city of Roanoke. In Wythe County, flood waters caused damage to several homes. Across all the counties listed above numerous roads were closed by slowly rising flood waters.								
	Flash flooding early on the morning of the 22nd in Paint Bank washed out Peters Mountain Road.								
VAZ022-045-045-045-058>059			Roanoke - Campbell - Halifax - Charlotte						
	22	1245EST			0	0	0		Flood
	26	2015EST							
	Minor to moderate flooding occurred on the Roanoke River from the 22nd through the 26th. The river crested at 15.6 feet in Roanoke on the 23rd. At Altavista, the river crested at 20.03 feet on the 22nd, fell below flood stage then crested again at 18.6 feet on the 23rd. At Brookneal the river crested at 28.62 feet on the 23rd and at Randolph the river crested at 26.99 feet on the 24th.								
VAZ023-023-035-035-045>047-047			Botetourt - Amherst - Campbell - Appomattox - Buckingham						
	22	1500EST			0	0	0		Flood
	24	2030EST							
	Minor to moderate flooding occurred on the James River from the 22nd through the 24th. The river crested on the 22nd at 19.86 feet at Lick Run. The following crests occurred on the 23rd. Buchanan at 24.04 feet, Holcomb Rock estimated at 26.9, Lynchburg at 19.5,								

Storm Data and Unusual Weather Phenomena

February 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>VIRGINIA, Southwest</u>									
			and Bent Creek at 17.97. On the 24th the river crested at 22.62 feet at Scottsville and 29.2 feet at Bremono Bluff.						
VAZ007			Tazewell						
	22	1700EST			0	0	0		Flood
		2145EST							
			Minor flooding occurred on the Clinch River on the 22nd. The river crested at 10.23 feet at Richlands.						
VAZ009			Smyth						
	22	1730EST			0	0	0		Flood
	23	0130EST							
			Minor to moderate flooding occurred on the North Fork of the Holston River on the 22nd and into the 23rd. The river crested at 11.12 feet at Saltville on the 22nd.						
VAZ007-009>016-018-020-022>024-032>033-035-043>045-047-058>059			Tazewell - Smyth - Bland - Giles - Wythe - Pulaski - Montgomery - Grayson - Carroll - Craig - Bath - Roanoke - Botetourt - Rockbridge - Patrick - Franklin - Amherst - Henry - Pittsylvania - Campbell - Buckingham - Halifax - Charlotte						
	22	2000EST			0	0	3K		High Wind (G80)
	23	1530EST							
			High winds during the evening of the 22nd through the 23rd downed numerous trees and power lines. Many people were reported without power across the region. In Tazewell County a roof was blown off of an outbuilding, otherwise no reports of damage to private property were received.						
VAZ044-058			Pittsylvania - Halifax						
	22	2000EST			0	0	0		Flood
	25	1730EST							
			Minor flooding occurred on the Dan River from the 22nd through the 25th. The river crested at 19.93 feet in Danville on the 23rd, 22.47 feet at Paces on the 24th, and 24.74 feet at South Boston on the 24th.						
VAZ011-013>014			Giles - Pulaski - Montgomery						
	22	2300EST			0	0	0		Flood
	23	2200EST							
			Minor flooding occurred on the New River from the 22nd through the 23rd. On the 23rd the New River crested at 15.1 feet at Radford and 15.71 feet at Glen Lyn.						
VAZ009-012-014>017-022>024-032>035-043>047-058>059			Smyth - Wythe - Montgomery - Grayson - Carroll - Floyd - Roanoke - Botetourt - Rockbridge - Patrick - Franklin - Bedford - Amherst - Henry - Pittsylvania - Campbell - Appomattox - Buckingham - Halifax - Charlotte						
	26	2200EST			0	0	0		Winter Storm
	27	2300EST							
			Snow and ice developed during the late afternoon of the 26th and continued through the evening of the 27th. Ice accretion ranged from 1/4 of an inch to as much as an inch in southern Pittsylvania and Halifax counties downing numerous trees and power lines. In addition, snow fall amounts across Bedford, Campbell, and Appomattox Counties ranged from 4 to 6 inches.						
<u>WASHINGTON, Northeast</u>									
WAZ033			Washington Palouse						
	01	0000PST			0	0	10K		Flood
		1500PST							
			Periods of heavy rain and snowmelt led to flooding across much of Whitman county. The Palouse River at Potlatch reported higher levels and minor flooding was found around Palouse Park in the city of Palouse.						
WAZ037			Northeast Mountains						
	16	0500PST			0	0			Heavy Snow
	17	1500PST							
			A cold Pacific trough preceded by a subtropical plume of moisture produced heavy snow in the mountains of northeast Washington. The heaviest snow fell at elevations above 4000 feet from the morning of the 16th through the afternoon of the 17th. Some snow totals included: Bunchgrass Meadows SNOTEL...18" and 49 Degrees North Ski Resort..10".						
WAZ037			Northeast Mountains						
	19	1500PST			0	0			Heavy Snow
	21	0600PST							
			A persistent moist westerly flow led to heavy mountain snow in northeast Washington above 3000 feet. Some snow totals included: Bunchgrass Meadows SNOTEL...10", Quartz Peak SNOTEL...12".						
WAZ034			Moses Lake Area						
	23	0400PST			0	0	20K		Frost/Freeze
		0800PST							
			Early morning low temperatures in the teens led to spotty freeze conditions in some Mattawa orchards where the peach and apple trees were coming out of dormancy.						

Storm Data and Unusual Weather Phenomena

February 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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WASHINGTON, Northwest

NONE REPORTED.

WASHINGTON, Southeast

WAZ025			East Slopes Southern Cascades						
	01	0000PST			0	0			Flood
		0715PST							
			The Naches River near Naches, with a flood stage of 17.0 feet, began flooding at 9:15 AM on January 31st. The river peaked at 17.6 feet on January 31st, before receding below flood stage at 7:15 AM on February 1st. Minor flooding occurred along the river.						
WAZ025>026			East Slopes Southern Cascades - Kittitas Valley						
	01	0000PST			0	0	3K		Flood
		0315PST							
			The Yakima River at Easton, with a flood stage of 51.1 feet, began flooding at 1:45 PM on January 31st. The river peaked at 51.7 feet on January 31st, and receded to below flood stage at 3:15 AM on February 1st. Minor flooding occurred in West Ellensburg and the Elk Meadows development west of Cle Elum. Water went under a few homes, and also into a bedroom which was located in a garage. Erosion to roads, shoulders, and driveways occurred in the Elk Meadows area.						
WAZ025			East Slopes Southern Cascades						
	01	0000PST			0	0			Flood
	02	0315PST							
			The Klickitat River near Pitt, with a flood stage of 9.0 feet, began flooding at 1:45 PM on January 31st. The river peaked at 10.8 feet at 3:00 AM on February 1st, and receded to below flood stage at 3:15 AM on February 2nd. There were no reports of damage associated with this flood.						
WAZ027			Yakima Valley						
	01	0000PST			0	0			Flood
		2100PST							
			The Yakima River near Parker, with a flood stage of 10.0 feet, began flooding at 10:15 PM on January 31st. The river peaked at 10.8 feet at 7:45 AM on February 1st, and receded to below flood stage at 9:00 PM on February 1st. Minor flooding of orchards and fields occurred near the river.						
WAZ029			Blue Mountain Foothills						
	01	1330PST			0	0			Flood
	02	0200PST							
			The Walla Walla river near Touchet, with a flood stage of 15.0 feet, began flooding at 1:30 PM. The river peaked at 15.9 feet on 7:00 PM, and then receded to below flood stage at 2:00 AM on February 2nd. Minor field flooding occurred near the river, along with a log jam near a railroad bridge.						
Walla Walla County 5 W Walla Walla	01	1500PST			0	0			Funnel Cloud
			A funnel cloud was cited west of Walla Walla, which had sporadic movement. The base of the funnel cloud was at about 1,000 feet, with the length of the funnel around 500 to 600 feet.						
WAZ028			Lower Columbia Basin						
	02	1700PST			0	0			Flood
	03	0230PST							
			The Yakima River at Kiona, with a flood stage of 13.0 feet, began flooding at 5:00 PM. The river peaked at 13.1 feet at 8:15 PM, and receded to below flood stage at 2:30 AM on February 2nd. Flooding occurred across portions of the West Richland Municipal Golf Course.						
Yakima County Sunnyside	27	1045PST			0	0	1K		Dust Devil
			A dust devil led to some damage of a winery. The dust devil lifted a roof off of the walls of the winery, and lifted some of the cinder blocks of the building, sending them to the ground.						

WASHINGTON, Southwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

February 2003

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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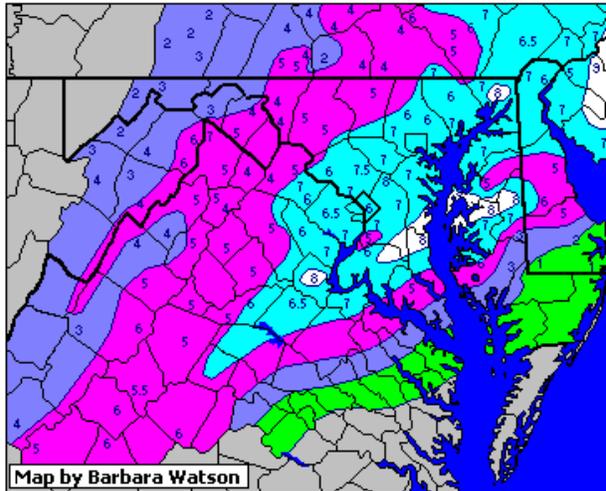
WEST VIRGINIA, East

WVZ048>049-051-053>055 **Grant - Mineral - Morgan - Jefferson - Pendleton - Hardy**

06	1900EST								
07	1100EST				0	0			Winter Weather/Mix



Snowfall Map for Feb. 7, 2003



0 - 1
 1 - 2
 2 - 4
 4 - 6
 6 - 8
 8 - 10 inches

WVZ050-052

Hampshire - Berkeley

06	1900EST								
07	1100EST				0	0			Winter Storm

Low pressure tracked from the Gulf Coast to the Carolinas on the 6th then off the Atlantic coast on the 7th. This storm dropped light to moderate snow between the evening of the 6th and Noon on the 7th. Accumulations ranged from 2 to 5 inches across the Eastern Panhandle. A handful of weather related traffic accidents were reported. In Berkeley County, a tractor trailer southbound on Interstate 81 jackknifed and spilled 100 gallons of diesel fuel, shutting down the highway for 3 hours.

Storm Data and Unusual Weather Phenomena

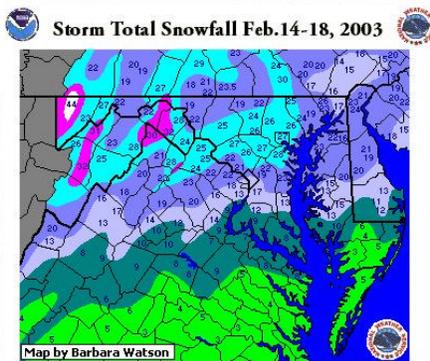
February 2003

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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WEST VIRGINIA, East

WVZ048>055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy									
14		0800EST			0	1	7.6M		Winter Storm
18		1200EST							



0-6 6-12 12-18 18-24 24-30 30-36 36+ ins.

A complex storm system produced copious amounts of wintery precipitation across the Eastern Panhandle of West Virginia between the evening of the 14th and midday on the 18th. The first batch of precipitation fell between the evening of the 14th and the evening of the 15th in the form of light to moderate snow or rain. The second batch of precipitation fell between midnight on the 16th through midday on the 17th in the form of heavy snow or sleet. The third batch of precipitation on the back side of the storm fell between the evening of the 17th and midday on the 18th in the form of scattered snow showers. After the precipitation came to an end, record breaking snow and sleet accumulations of 20 to 37 inches were reported, with the highest amounts falling above 2500 feet. Nicknamed the President's Weekend Snowstorm of 2003, this storm will go down in history as one of the top five regional snowstorms since records began in the late 1800s.

This massive storm took a heavy toll on residents, structures, transportation systems, emergency responders, businesses, livestock, and travelers. Officials asked people to stay off the roads during the height of the storm between the morning of the 16th and the morning of the 17th because they were covered by deep snow and sleet and were nearly impassible. Airports in the region was shut down on the 16th, stranding travelers. Emergency personnel and those needing emergency transport had to be taken to their destinations in 4 wheel drives or military vehicles during the storm. Main highways were partially cleared by the 18th but it took up to 5 days to reach some secondary and residential roads. Area schools were closed up to a week after the storm ended. Heavy accumulations weighed down on buildings in the region and several structural collapses occurred. The agricultural community was hardest hit.

The following is a list of damage and casualty reports by county that occurred as a result of this winter storm. In Pendleton County, 9 poultry houses collapsed and 175,000 chickens were killed. Five other barns and sheds also caved in. In Grant County, one person was injured when a carport collapsed on them. Several buildings across the county also collapsed including 8 barns, 5 sheds, 2 house roofs, 5 carports, 4 business buildings, 2 porches, 1 trailer roof, and 1 gas canopy. In Hardy County, four poultry houses (2 containing chickens) collapsed. A snow slide at Durgon and near the Petersburg Gap bridge partially blocked roads. In Mineral County, a church and a storage building in Keyser collapsed. A barn built in the 1780s collapsed near Bedington. In Morgan County, a greenhouse in Berkeley Springs suffered structural damage. In Jefferson County, the roofs of 4 trailers and one house collapsed. A barn in Shenandoah Junction also caved in.

Mineral County

Countywide	22	0800EST			0	0			Heavy Rain
	23	0600EST							

Pendleton County

Countywide	22	0800EST			0	0			Heavy Rain
	23	0600EST							

WVZ048-050>053-055

Grant - Hampshire - Morgan - Berkeley - Jefferson - Hardy									
22		0800EST			0	0			Flood
23		0600EST							

Storm Data and Unusual Weather Phenomena

February 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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WEST VIRGINIA, East

A combination of 1.5 to 3 inches of rain that fell between the evening of the 21st and the morning of the 23rd and snow melt from the massive snowstorm of 14-18 February led to widespread flooding. In Berkeley County, Tuscarora Creek was swollen in Martinsburg. In Hampshire County, flooding was reported on roads near Springfield. In Grant County, 2 basements were flooded in Petersburg. A mobile home in Hinkle Hollow was damaged by flood waters. Minor flood damage was reported on a road in Sites Hollow. Along Route 220 North, a chain link fence was moved 20 feet by a mud slide. In Hardy County, urban road flooding occurred. Small creek flooding was reported due to ice jams in the eastern side of the county. In Morgan County, the Cacapon River deposited large ice chunks at Kilgore Road in Largent which caused the road to be flooded by 3 feet of water. The Rock Ford Road bridge over the Cacapon River was flooded out, trapping 15 families. Ice piled up on the bridge and it took road crews over a day to clear the jam to make the bridge passable. In Jefferson County, drivers had to be rescued when their vehicles stalled in high water on Bloomery Road. Avon Bend Road was flooded by the Shenandoah River and a motorist had to be rescued when his car became stalled in flood waters.

WVZ050-052

Hampshire - Berkeley

23	0300EST				0	0			Flood
24	0400EST								

A combination of melting snow from the record snowstorm of February 14-18th and 2 inches of rain that fell on the 21st and 22nd led to high water on regional rivers. The South Branch Potomac River and Opequon Creek rose out of their banks. At Springfield (Hampshire County), the South Branch Potomac River rose above its flood stage of 15 feet at 1:45 AM on the 24th. It crested at 15.07 feet at 3:30 AM and dropped below flood stage at 4:00 AM. Water inundated Milleston Mills and Maple Landing roads. At Martinsburg (Berkeley County), Opequon Creek rose above its bankful stage of 10 feet at 3:00 AM on the 23rd. It crested at 10.50 feet at 9:30 AM and dropped below bankful stage at 1:45 PM. Water overflowed onto portions of Sultry Spring Road, Douglas Grove Road, and fields along the creek. In Jefferson County, River Road was flooded by the Potomac River.

WVZ048>055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy

23	0600EST				0	0	0.80K		Strong Wind
	2200EST								

A strong cold front moved through the region around dawn on the 23rd. This front ushered in winds that gusted between 40 and 55 MPH. Due to the soft saturated soil from heavy rains and snow melt, the gusty winds downed scattered trees and power lines. In Berkeley County, a wind gust of 41 MPH was recorded at the Martinsburg airport.

WVZ048>055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy

26	0600EST				0	0			Winter Weather/Mix
	28 1200EST								

A series of low pressure systems that tracked from the Gulf Coast to Cape Hatteras dropped light snow off and on between the morning of the 26th and midday on the 28th. A total of 3 to 7 inches of snow accumulated across the Eastern Panhandle. Minor traffic accidents were reported after the fallen snow made roads slippery.

WEST VIRGINIA, North

Marshall County

Graysville	04	1225EST			0	0			Flash Flood
		1325EST							

Fish Creek Rd closed by flooding.

WVZ023

Preston

04	1330EST				0	0			High Wind (G55)
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Trees down in Terra Alta.

Marshall County

Graysville	04	1630EST			0	0			Flash Flood
		1830EST							

Fish Creek Rd closed by flooding.

WVZ041

Tucker

11	0000EST				0	0			Heavy Snow
	1200EST								

8 to 12 inches of snow fell.

WVZ023-041

Preston - Tucker

15	1500EST				0	0			Heavy Snow
	2200EST								

6 to 8 inches of snow fell.

WVZ023-041

Preston - Tucker

16	0700EST				0	0	10K		Heavy Snow
	18 1000EST								

A massive, slow-moving snow storm began shortly after midnight on the 16th. Snow accumulated to a depth of 6 inches by 7 AM on 16th; 15 to 30 inches by 9 PM on 16th. By 10 AM on 18th, Terra Alta received 40 inches; Davis 25. In Tucker Co, Parsons reported 21 inches, Canaan Valley 28. On 17th, a roof collapsed from heavy snow at a business on First St in Parsons.

WVZ001>004-012-021>022

Hancock - Brooke - Ohio - Marshall - Wetzel - Marion - Monongalia

16	1000EST				0	1	38K		Heavy Snow
	18 0700EST								

Storm Data and Unusual Weather Phenomena

February 2003

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

WEST VIRGINIA, North

A massive, slow-moving snow storm began just after midnight on the 16th. Counties in the south reached the 6 inch point by noon on 16th. Hancock county in the north accumulated 6 inches of snow by 5 PM on 16th. By 9 PM, southern counties had accumulated as much as 18 inches. By the morning of the 18th, total accumulations ranged from 20 to 28 inches (Mannington) and 30 inches (Hundred). In the north end of Wheeling, a roof collapsed on a building because of the weight of snow approximately 7 PM on 18th. In Glen Easton (Marshall Co) on 18th, roof of mobile home collapsed from heavy snow, trapping a 77-year old woman for a time. And a barn roof collapsed in same town, temporarily trapping cattle. In Marion Co on 19th, the roof of a business collapsed because of heavy snow.

Marshall County Mc Mechen	23	0120EST 0400EST			0	0			Flash Flood
Jims Run flooded.									
Marshall County Moundsville	23	0120EST 0400EST			0	0			Flash Flood
Middle Grave Creek and Big Grave Creek flooded.									
Marshall County Graysville	23	0200EST 0400EST			0	0			Flash Flood
Fish Creek flooded.									
Ohio County Wheeling	23	0600EST 0900EST			0	0			Flash Flood
Ice jams on Wheeling Creek flooded roads in Wheeling.									
WVZ021		Marion							
	23	0700EST			0	0	3K		High Wind (G55)
Power lines downed by wind in Fairmont.									
Marion County Worthington	23	1100EST 1300EST			0	0			Flash Flood

Small streams and creeks flooded, covering unspecified roads. Some people had to be evacuated.

WEST VIRGINIA, Southeast

WVZ042-044		Mercer - Monroe							
	15	2130EST			0	0	0		Flood
	16	0500EST							
Rain, over a long period of time, caused small stream and urban flooding across Mercer and Monroe counties during the late evening of the 15th and early morning of the 16th. Several private roads and bridges were closed due to high water. In Mercer County Route 112 was closed for a brief time due to high water.									
WVZ042>045		Mercer - Summers - Monroe - Greenbrier							
	15	2200EST			0	0	0		Winter Storm
	17	2100EST							
Snow, sleet and freezing rain fell from late on the 15th through much of the 17th. Ice accretion of a 1/2 inch occurred in Mercer county. Snow and sleet accumulations ranged from 2 to 3 inches in Mercer County, 3 to 6 inches in Monroe County and 5 to 10 inches across Summers and Greenbrier counties.									
WVZ042-045		Mercer - Greenbrier							
	20	1100EST			0	0	0		Flood
	23	1500EST							
Heavy rain caused small stream and urban flooding across Mercer and Greenbrier counties on the 22nd and 23rd.									
WVZ045		Greenbrier							
	22	1900EST			0	0	0		Flood
	23	2200EST							
Minor to moderate flooding occurred on the Greenbrier River on the 23rd. The river crested at 17.03 feet at Alderson.									
WVZ042		Mercer							
	22	2020EST			0	0	0		High Wind (G60)
	23	1400EST							
High winds during the evening of the 22nd through the afternoon of the 23rd downed trees and power lines across Mercer County.									

WEST VIRGINIA, West

WVZ009>011-019>020-030>032-040-046>047		Wood - Pleasants - Tyler - Ritchie - Doddridge - Lewis - Harrison - Taylor - Barbour - Pocahontas - Randolph							
	14	1900EST			0	0	750K		Heavy Snow
	17	1700EST							

Storm Data and Unusual Weather Phenomena

February 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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WEST VIRGINIA, West

A 1 to 2 foot snow fall occurred after several waves or intervals of snow. Even heavier snow fell across portions of the eastern panhandle of the state. It was the deepest snow storm since January 1996 for the north central lowlands. The first interval of snow was from Friday night the 14th, into early Saturday, the 15th. A lull took place during the day on the 15th, only to be followed by more snow Saturday night into Sunday. Some freezing rain and sleet mixed with the snow late Sunday and Sunday evening. The last band of significant snow passed late Monday afternoon, the 17th.

The snow depth at Clarksburg went from 2 inches prior to the storm, to 21 inches at the end. Middlebourne went from an inch to 18 inches on the ground. Bartow of Pocahontas County saw their snow depth increase from 8 inches to 24 inches. The snow depth at Snowshoe went from 18 inches to 30 inches. Grafton's snow depth went from 3 inches to 18 inches. Elkins measured 16 inches on the ground, after starting with a 5 inch snow cover. The snow depth at Belington of Barbour County went from 4 to 5 inches before the storm, to 16 inches. West Union had no old snow, and ended up with 15 inches on the ground. After starting the storm with bare ground, both Parkersburg and Cairo measured 14 inches of snow on the ground. A spotter from Saint Marys reported their total snow depth as 17 inches.

At least 10 porch roofs or awnings collapsed in Harrison County from the weight of the snow. Nutter Fort Fire Department checked out mobile homes that were leaking inside. The volunteers then removed the snow from their roofs.

As a result of this storm, plus other lighter events, the preliminary monthly snowfall total at Clarksburg was 37.9 inches. This was their snowiest February on record. It was also their 2nd snowiest month, only exceeded by November of 1950. The monthly snowfall total at Elkins was 29.5 inches, their 2nd snowiest February since 1899. The 19.4 inches of snow at Parkersburg during the month of February was their 3rd snowiest February.

Wayne - Cabell - Lincoln - Putnam - Kanawha - Mingo - Logan - Boone - McDowell - Wyoming - Raleigh

**WVZ005>006-
013>015-024>026-
033>035**

15	1900EST		2	0	8.6M	Flood
17	1200EST					

Rains from Friday afternoon, the 14th, into Sunday the 16th were on the order of 3.5 to 4.9 inches, with the maximum over Wayne and Lincoln Counties. Small streams flooded onto roads Saturday evening, the 15th, into early Sunday, the 16th. Major flooding occurred along the Twelvepole Creek in Wayne County including Dunlow, Wayne, and Lavalette. Evacuations occurred along Falls Creek near West Hamlin.

The larger rivers, including the Guyandotte, the Mud, the Coal, the Tug Fork, and the lower Elk flooded. Major flooding occurred along the lower portion of the Guyandotte Basin, including the Mud River in Lincoln and Cabell Counties. Communities such as Branchland, West Hamlin, Hamlin and Milton were flooded. The crest at Branchland was 36.7 feet on the Guyandotte River around 0400E on the 17th. Flood stage is 30 feet. Water levels have not been higher at Branchland since a 38 foot crest back in June of 1979. The Tug Fork crested at Kermit around 0400E on the 17th at 46.3 feet. Flood stage is 38 feet. The last time the Tug Fork was higher at Kermit was May of 1984, when 49 feet was reached. The Coal and lower Elk River saw only minor flooding.

Preliminary damage assessments indicated on the order of 20 to 30 single family homes and 7 businesses with major damage. About 15 mobile homes were destroyed. On the order of 30 vehicles were flooded in Lincoln County. In Hamlin, one husband and wife were all set to move to a new home. Their possessions were packed and stacked in the yard awaiting a moving van. Then the flood hit. The wife said, "It went down the river, I guess". One business owner in Hamlin commented about the high water, "If you live by it, you got to live with it".

A 45 year old woman drowned in her vehicle, after driving into high water from the Mud River in Lincoln County near the Cabell County line. Her vehicle was swept into the river, overturned and sank. That incident took place around 1000E on the 16th. A 19 year old man drowned in the Coal River near Tornado, during the late night hours, early on Monday the 17th. M190U, F45VE

Wayne - Cabell - Putnam - Kanawha - Boone - Clay - McDowell - Wyoming - Raleigh - Fayette

**WVZ005>006-
014>015-026>027-
033>036**

16	0400EST		0	0	1.9M	Winter Storm
17	1400EST					

Heavy rains of the 14th into the 15th changed to sleet and freezing rain, then ended as snow. Accumulations of freezing rain were at least a quarter of an inch, but sleet and snow resulted in the final accumulation of 1 to 4 inches. Sleet accumulated about 3 inches in the city of Charleston during Sunday afternoon, the 16th. A canopy, over the gasoline pumps at a Charleston convenience store, collapsed during Sunday night. The WVAH TV tower on Coal Mountain in western Kanawha County came crashing down on the 19th, still caked in ice. The building housing the transmitter was also destroyed by the collapse. The station estimated 1.5 million dollars in damage. A communication town for Wayne County on German Ridge near Lavalette also fell as a result of the ice.

Mason - Jackson - Roane - Wirt - Calhoun - Braxton - Gilmer - Nicholas - Webster - Upshur

**WVZ007>008-
016>018-028>029-
037>039**

16	0415EST		0	0	9.5M	Ice Storm
17	1400EST					

A severe ice storm occurred across a narrow east to west band of counties. The severe ice continued west, into southeast Ohio and

Storm Data and Unusual Weather Phenomena

February 2003

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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WEST VIRGINIA, West

northeast Kentucky. Ice from freezing rain accumulated 1 to 3 inches on power lines and trees. The precipitation then ended as snow on the 17th. The added weight from the ice, broke limbs and snapped the tops off thousands of trees. Other trees were uprooted or left leaning at precarious angles. The fallen trees blocked many roads. Power outages were widespread, and lasted for more than 3 days. Refrigerated frozen foods thawed and spoiled. Phone and water services were also interrupted. The Red Cross opened shelters. One gas station in Ravenswood wired up a borrowed generator and pumped over 600 gallons of kerosene in less than 24 hours. Nearly 25,000 gallons of bottled water were distributed.

A state forester said, "the severity of damage varied a lot, with some hillsides escaping major damage, while neighboring slopes had nearly all the tree tops snapped off by the ice". A Jackson County commissioner said, " This is really the worst I've ever seen here".

The diverse and complex storm, that brought this severe ice, also caused the flooding rains in the southwestern part of the state, the heavy snow in the north, and even a prolong period of sleet to some counties. A state of emergency was declared by Governor Wise on the 16th. Wise requested federal monetary assistance due to the flooding, severe ice, and snow removal. A major disaster declaration was granted by President Bush. See FEMA disaster number 1455 for details on county assistance.

WVZ008>011-013-015>020-024>031-033-033>034-034>035-035>036-039-046

Jackson - Wood - Pleasants - Tyler - Lincoln - Kanawha - Roane - Wirt - Calhoun - Ritchie - Doddridge - Mingo - Logan - Boone - Clay - Braxton - Gilmer - Lewis - Harrison - McDowell - Wyoming - Raleigh - Fayette - Upshur - Pocahontas

22	1200EST								
23	2000EST				0	0	325K		Flood

Morning rains deposited a half inch to over an inch, before ending by midday. Some minor flooding occurred in southern West Virginia, plus combined with snow melt in Pocahontas County. Warmer air surged into the state during the afternoon. A strong low pressure storm system lifted northeast through the upper Ohio River Valley. A round of showers and thunderstorms formed ahead of its cold front during this evening. These showers slowed their eastward movement and redeveloped over central West Virginia during the 2000 to 2300E time frame. This round of showers deposited another half inch to an inch of rain.

Widespread small stream flooding occurred. River flooding followed on the 23rd as temperatures dropped into the 20s and lower 30s, and light snow fell. The Little Kanawha River crested at 28.3 feet at Glenville around 1200E on the 23rd. Flood stage is 23 feet. Water got into some basements in Glenville. Also in Gilmer County, roads were flooded around Sand Fork. Local runoff helped the Kanawha River rise rapidly around Charleston. A crest of 28.5 feet occurred near dawn on the 23rd. This was the highest level on the Kanawha River at Charleston since the 29.6 feet back in February of 1972. Backwater of Davis Creek flooded portions of the South Charleston Recreation Center. The lower reaches of Kanawha Two Mile surrounded several homes in Charleston. Around 17 houses were flooded in the vicinity of Iowa Street. Twenty houses around 22nd Street in Kanawha City section of Charleston had flooded basements. The lower Coal River in Kanawha County crested at 25.6 feet, just slightly higher than the crest a week earlier. The total monthly precipitation at Charleston was 7.4 inches. It was second wettest February on record at Charleston.

Snow melt and the rain brought the West Fork River over flood stage at Clarksburg. A crest of 17.5 feet occurred at the gauge near Clarksburg on the 23rd. Yet, only minor road flooding and road closures were seen. Finally, the Ohio River crested slightly over flood stage at Letart and New Haven through Point Pleasant. Only minor backwater flooding occurred along this stretch of the Ohio River.

**Wayne County
Prichard to
Wayne**

22	1740EST								
					0	0			Thunderstorm Wind (G50)

Trees were blown down along Routes 19 and 20.

**Wayne County
Crum**

22	1750EST								
					0	0			Hail (0.75)

**Wayne County
Wayne**

22	1755EST								
					0	0			Hail (0.75)

**Cabell County
Yates Crossing**

22	1810EST								
					0	0			Thunderstorm Wind (G50)

Power lines and large branches were blown down.

**Putnam County
Hurricane**

22	1830EST								
					0	0			Thunderstorm Wind (G50)

A couple large trees were blown down.

**Lincoln County
Spurlockville**

22	1840EST								
					0	0			Hail (0.75)

**Kanawha County
Charleston**

22	1845EST								
					0	0			Thunderstorm Wind (G50)

Trees were knocked down along Greenbrier Street.

**Boone County
Morrisvale**

22	1850EST								
					0	0			Thunderstorm Wind (G50)

Several trees were knocked down.

Storm Data and Unusual Weather Phenomena

February 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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WEST VIRGINIA, West

Mingo County

Williamson	22	1920EST			0	0			Thunderstorm Wind (G50)
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Telephone lines and large branches were blown down.

WISCONSIN, Northeast

WIZ005-010>013-018>019-021 Vilas - Oneida - Forest - Florence - Northern Marinette - Lincoln - Langlade - Northern Oconto

02	1800CST				0	0			Winter Storm
03	2300CST								

Low pressure brought two "waves" of snow to northern Wisconsin as it moved from northern Oklahoma to southern Lake Michigan. Strong northwest winds behind the low caused some blowing and drifting of the snow. The highest snowfall totals were in Vilas county where Presque Isle had 16.5 inches, Phelps had 12.0 inches and St. Germain had 10.0 inches. Other significant snowfall totals included 9.5 inches 3 miles northeast of Lakewood (Marinette co.), 9.0 inches at Hiles (Forest co.), Three Lakes (Oneida co.) and Wausaukee (Marinette co.) and 8.0 inches at Florence.

WISCONSIN, Northwest

WIZ006>009 Burnett - Washburn - Sawyer - Price

02	1900CST				0	0			Heavy Snow
03	1100CST								

Heavy snow amounts ranged from 6 to 10 inches. The highest reported snowfall was 12 inches 20 miles northeast of Park Falls. Ten inches was reported south of Hayward, while 8 inches of snow fell from Trade Lake, through Winter to Park Falls.

WIZ004

Iron

03	0600CST				0	0			Heavy Snow
	1555CST								

Heavy lake effect snow fell in northern Iron County where Gurney and Saxon reported 6 inches of new snow.

WIZ002>004

Bayfield - Ashland - Iron

03	1600CST				0	0			Heavy Snow
04	1400CST								

Heavy lake effect snow fell along Lake Superior's south shore. In Iron and Ashland counties, Montreal had 15 inches, Upson reported 13". Hurly and Pence had 9 inches of snow, and Mellen reported 7 inches. Another band of heavy lake effect snow fell over Bayfield County from near Brule to near Cornucopia. Amounts ranged from 7 to 9 inches.

WISCONSIN, Southeast

WIZ046>047-051>052-056>060-062>072 Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha

03	0000CST				0	0			Winter Weather/Mix
	2359CST								

Periodic light freezing drizzle or light freezing rain glazed roads and sidewalks across south-central and southeast Wisconsin, resulting in an estimated 150 to 200 vehicle accidents, ranging from simple collisions to slide-offs into ditches or collisions with large objects. Most accidents occurred during the morning rush hour. Dozens of schools started late or cancelled classes for the day. In addition, some taxi-cab businesses closed due to the icy roads and numerous accidents. During the afternoon hours, the freezing precipitation changed over to snow which accumulated to 1/2 to 2 inches, although isolated 3 to 4 inch amounts were measured around La Valle (northwest corner of Sauk Co.), and in Marquette County.

WIZ063>066

Dane - Jefferson - Waukesha - Milwaukee

11	1500CST				0	0			Winter Storm
	2000CST								

The first winter storm of the 2002-03 season, to affect parts of south-central and southeast Wisconsin, was centered in a 25-mile wide corridor from the Madison (Dane Co.) area east to the Milwaukee (Milwaukee Co.) area. A 2 to 2.5 hour burst of snow accumulating to 4 to 7 inches was followed by west to northwest winds gusting to 30 to 43 kts (35 to 50 mph). These wind gusts resulted in blowing and drifting snow which lowered visibilities down to 1/4 mile or less in open, exposed areas (after the snow had stopped). Outside of the winter storm area, an isolated peak gust of 49 kts (56 mph) occurred at the Monroe Airport (Green Co.). Lightning and thunder were observed during the peak snowfall rates, with snowflakes reported to be at least 1 inch in diameter, and visibilities reduced to 1/4 mile or less. Due to the timing and intensity of this event, the impact on society was significant. Commuting times were doubled or tripled, and numerous vehicles accidents were reported in newspapers, as rush-hour traffic slowed to a crawl. Many evening functions and sporting events were cancelled. Milwaukee's Mitchell Field closed its operations for a 2-hour period during the height of the snowfall, the first time it shut down in two years. Snow accumulations in Milwaukee County included 7.0 inches in Hales Corner, 6.7 inches in Franklin, 6.3 inches in Cudahy, 6.2 inches in Greendale, and 5.0 inches at Mitchell Field. In and around the city of Waukesha (Waukesha Co.) accumulations of 5 to 6 inches were reported. In east-central Jefferson County, 5.2 inches were measured at the NWS Forecast Office southeast of Sullivan. In Dane County, 5.1 inches were reported on the southwest side of Madison (spotter report near the intersection of Raymond Rd and Hwy 18/151), 4.9 inches in Sun Prairie, and 4.0 inches at Madison's Truax Field. Maximum wind gusts were 43 kts (49 mph) at a school in Merton (Waukesha Co.), 38 kts (44 mph) at the Madison West High School, and 37 kts (43 mph) at Milwaukee's Mitchell Field. Synoptically, the surface weather map lacked a well-defined low pressure. However, a strong, vigorous vorticity maximum aloft, and its associated frontogenetic forcing, combined with instability to produce bands of convective snow showers.

Storm Data and Unusual Weather Phenomena

February 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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WISCONSIN, Southwest

WIZ017-029-033>034-041>044-053-055 Taylor - Clark - Trempealeau - Jackson - La Crosse - Monroe - Juneau - Adams - Vernon - Richland

02	0500CST				0	0			Winter Storm
04	0300CST								

The combination of ice, snow and wind caused hazardous traveling conditions. Rain and freezing rain was followed by snow, with amounts ranging from 3 to 7 inches, with the heaviest accumulations across north central Wisconsin. The highest amount was 7.5 inches at Rib Lake (Taylor County). In addition to the ice and snow, north winds of 20 to 30 mph caused some blowing and drifting.

WISCONSIN, West

WIZ014>016-023-025-027 Polk - Barron - Rusk - St. Croix - Dunn - Chippewa

02	2000CST				0	0			Winter Storm
03	1000CST								

The first significant snowfall of the season arrived very late in the season, waiting until late in the day on Groundhog Day. An 80 mile wide swath of heavy snow fell from west central Minnesota (see corresponding entry) into west central and northwest Wisconsin. Six to ten inches were common due to low pressure moving from Kansas to northern Illinois. The top snowfall total that was reported was 10 inches at Rice Lake. Some other notable totals include 9 inches at Osceola and 7 inches in Bloomer. Winds were typically 20 to 25 mph, and though there was some blowing snow, it was not a major problem.

WYOMING, Central and West

WYZ005-010-015-017>020-024>025-027>028-030 Southwest Big Horn Basin - Northeast Johnson County - Wind River Mountains East - Wind River Basin - Lander Foothills - Green Mountains & Rattlesnake Range - Natrona County Lower Elevations - Salt River & Wyoming Ranges - Upper Green River Basin Foothills - South Lincoln County - Rock Springs & Green River - East Sweetwater County

01	2100MST				0	0			Winter Storm
02	1600MST								

A vigorous upper level disturbance moving through the central Rockies coupled with strong, moist upslope flow resulted in a significant winter storm. The snow was heaviest across central and southwest Wyoming. Snowfall amounts ranged from 12 to 20 inches in the mountains to 6 to 14 inches in the lower elevations. The wind and snow produced blizzard conditions across Sweetwater county during the late morning and afternoon of February 2, causing numerous accidents along I-80. Also, I-80 was closed for a period of time, east of Rock Springs. A wind gust of 61 mph was reported at the Rock Springs airport on February 2 at 12:18 PM MST.

WYZ023

Star Valley

03	2000MST				0	0			Heavy Snow
04	1200MST								

Localized heavy snow occurred across the Star Valley. Snowfall ranged from 7 to 14 inches, mainly in Alpine and Thayne.

WYZ001>002-004>006-008>009-012>015-023>025

Yellowstone National Park - Absaroka Mountains - North Big Horn Basin - Southwest Big Horn Basin - Southeast Big Horn Basin - Bighorn Mountains West - Bighorn Mountains Southeast - Teton & Gros Ventre Mountains - Jackson Hole - Wind River Mountains West - Wind River Mountains East - Star Valley - Salt River & Wyoming Ranges - Upper Green River Basin Foothills

21	1800MST				0	0			Winter Storm
23	1600MST								

A winter storm brought heavy snow and strong winds to western Wyoming and the Big Horn Mountains in central Wyoming. Snowfall ranged from 1 to 2 feet in the mountains to 6 to 12 inches in the lower elevations. Also, a wind gust of 73 mph was reported on February 22 at the Pine Creek Ski Resort.

WYOMING, Extreme Southwest

NONE REPORTED.

WYOMING, North Central

WYZ098

Northeast Bighorn Mountains

02	1630MST				0	0			Heavy Snow
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8 inches of new snow in Burgess Junction

WYZ099

Sheridan Foothills

05	2000MST				0	0			Heavy Snow
----	---------	--	--	--	---	---	--	--	------------

6 inches of new snow in Story

WYZ099

Sheridan Foothills

06	1034MST				0	0			Heavy Snow
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10 inches of new snow in Story

WYZ099

Sheridan Foothills

08	1415MST				0	0			Heavy Snow
----	---------	--	--	--	---	---	--	--	------------

6 inches of new snow 18 miles west of Sheridan

Storm Data and Unusual Weather Phenomena

February 2003

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

WYOMING, North Central

WYZ099

Sheridan Foothills

08 1645MST

0 0

Heavy Snow

8 inches of new snow in Story

WYOMING, Northeast

WYZ054>058

Northern Campbell - South Campbell - Western Crook - Wyoming Black Hills - Weston

02 0000MST

0 0

0 0

Winter Storm

1800MST

A strong storm system moved across the central Rockies and the central Plains during the morning and afternoon hours, bringing snow and gusty winds to northeastern Wyoming. Rain began to fall the previous evening and then changed to snow around midnight. Snow increased in intensity during the early morning hours and continued into the afternoon. Snowfall across the area generally ranged from 4 to 8 inches, with up to 10 inches in the Bear Lodge Mountains. Gusty north winds caused considerable blowing and drifting of snow and reduced visibilities to around a quarter of a mile.

WYOMING, Southeast

WYZ061>064-066

Southwest Carbon - North Carbon - Snowy Range - North Laramie Range - Laramie Range

02 1100MST

0 0

Winter Storm

2015MST

Heavy snow fell over the mountains of southeast Wyoming and much of Carbon county. Snowfall amounts of 6 to 8 inches were common over the mountains as well as over an area from Rawlins to Muddy Gap, WY.

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.

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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

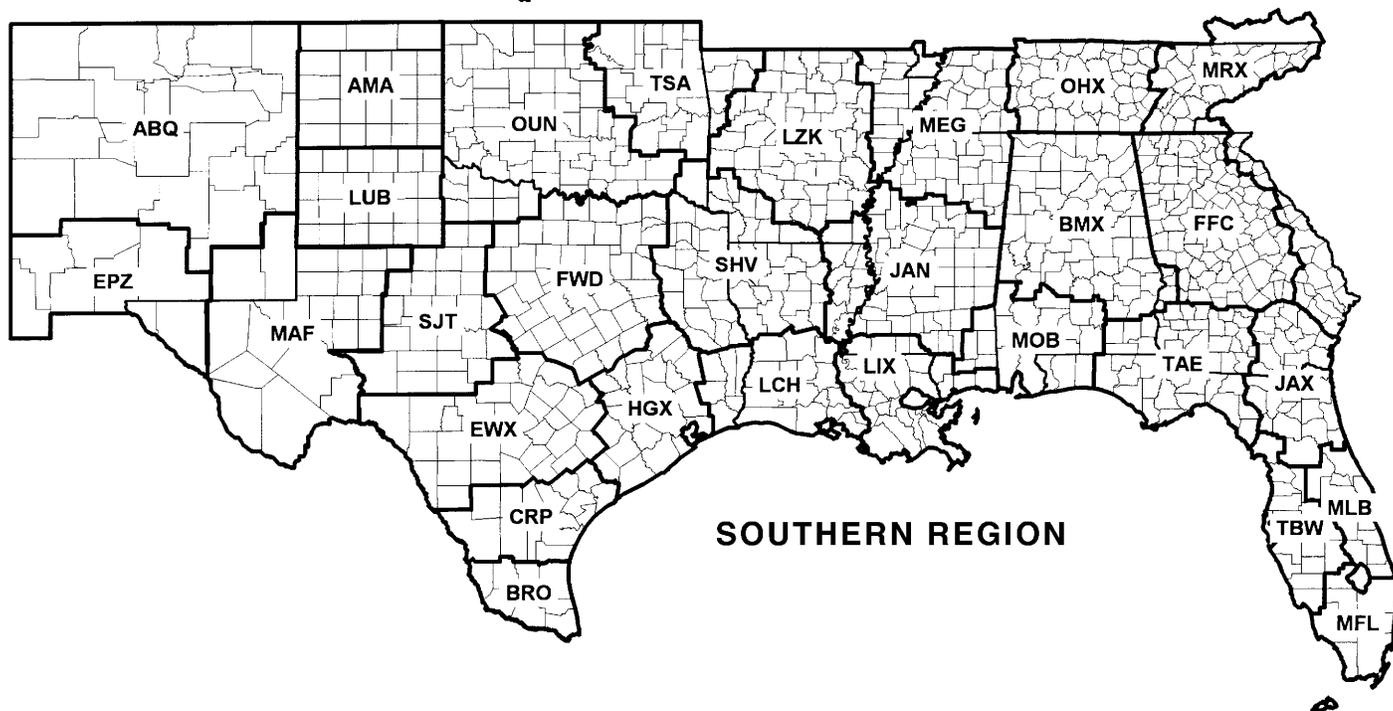
The asphalt surface has been peeled off of this road.

(All photographs courtesy of Brian Smith, Meteorologist, National Weather Service, Valley NE.)

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS

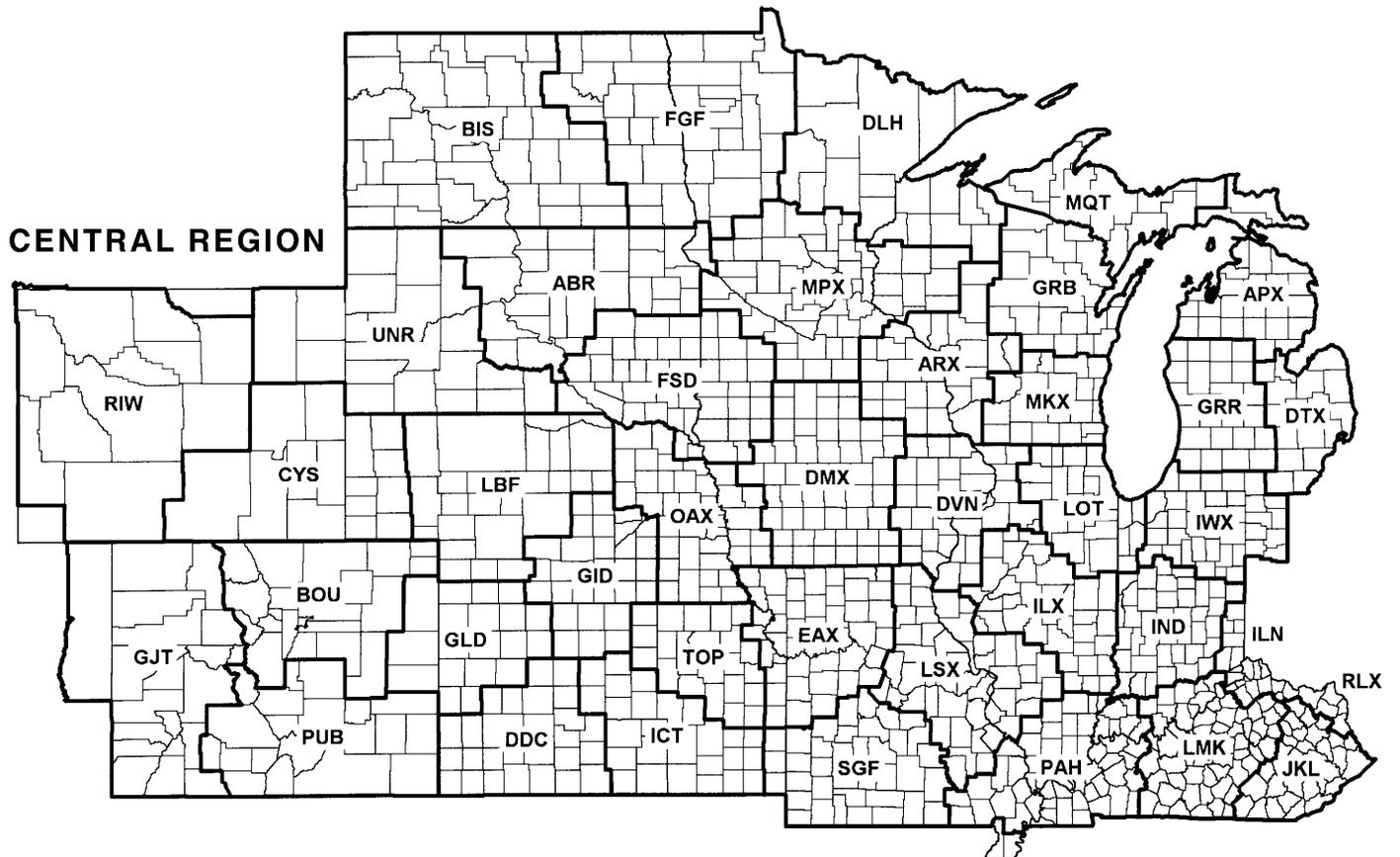
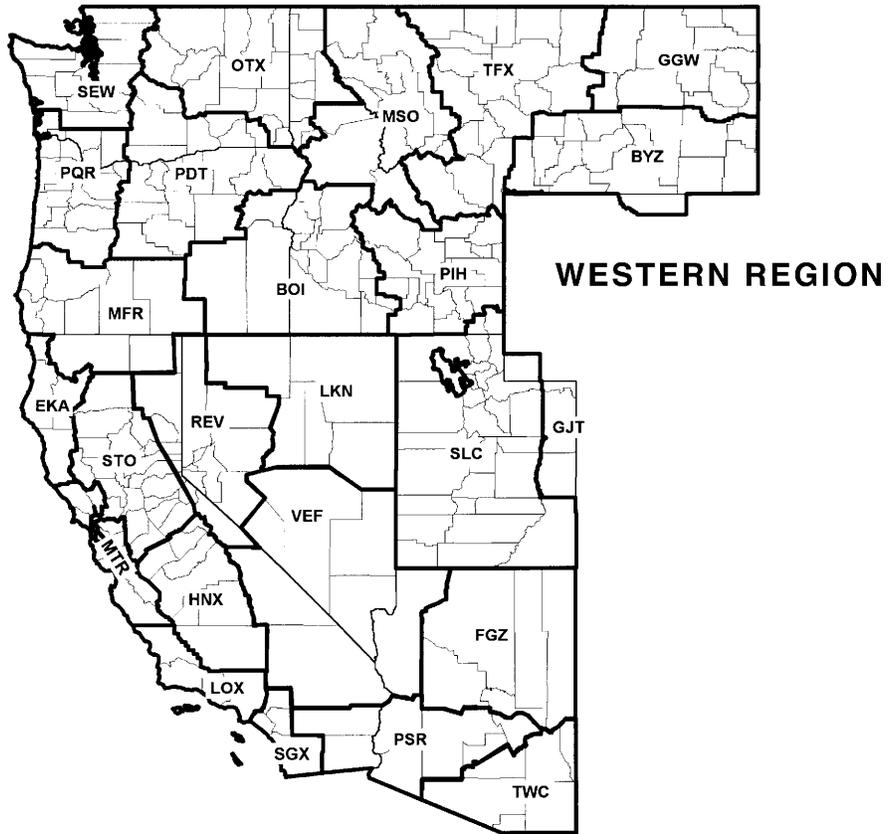


EASTERN REGION

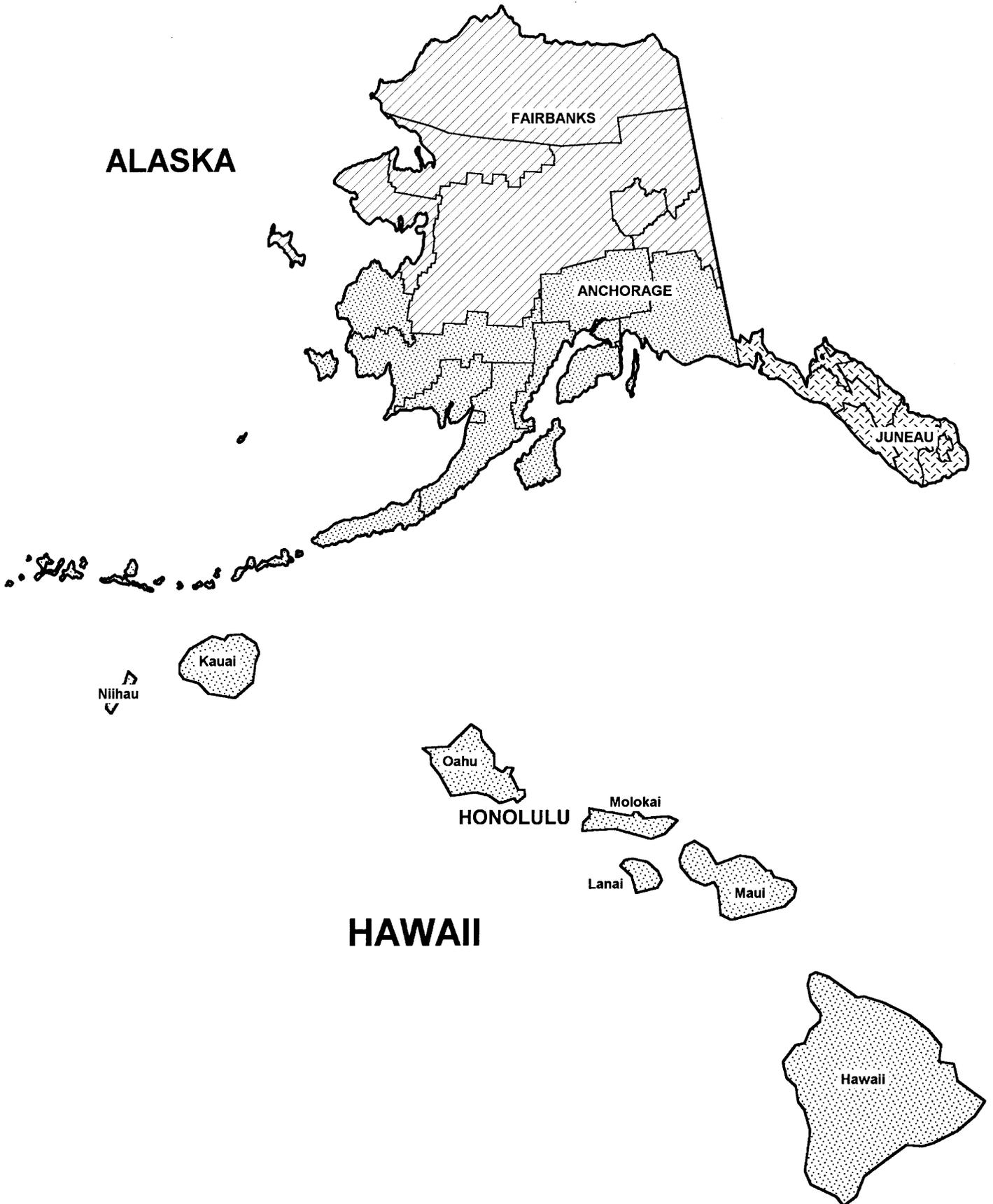


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COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS



MODERNIZED COUNTY WARNING AREAS



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