

MARCH 1997
VOLUME 39
NUMBER 3

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, N.C.

Cover: The remnants of a building which once stood in Arkadelphia, Arkansas. An F4 tornado moved directly through the town about 2:21 PM on March 1, 1997. The tornadoes in Arkansas left 25 people dead and injured another 400. More than 13,000 structures were damaged with more than 1,000 destroyed. (Photo courtesy of Tim Hogan, Arkadelphia, AR)

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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. However, due to difficulties inherent in the collection of this type of data, it is not all-inclusive. Late reports and corrections are printed in each edition.

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

Stuart Hinson
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Asheville, NC 28801-5001

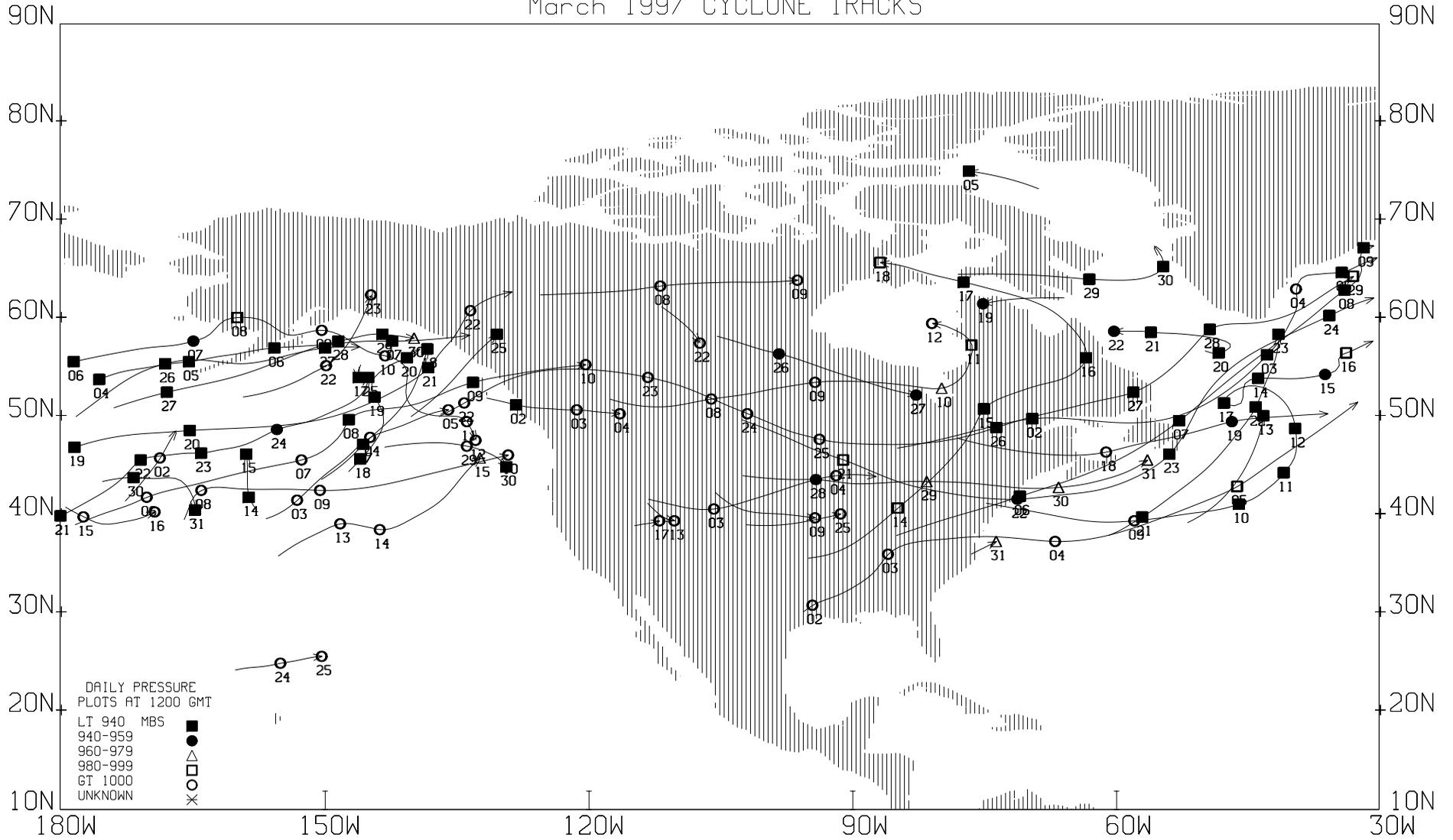
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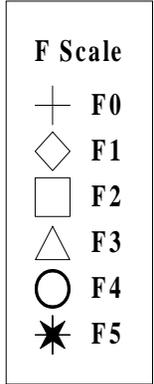
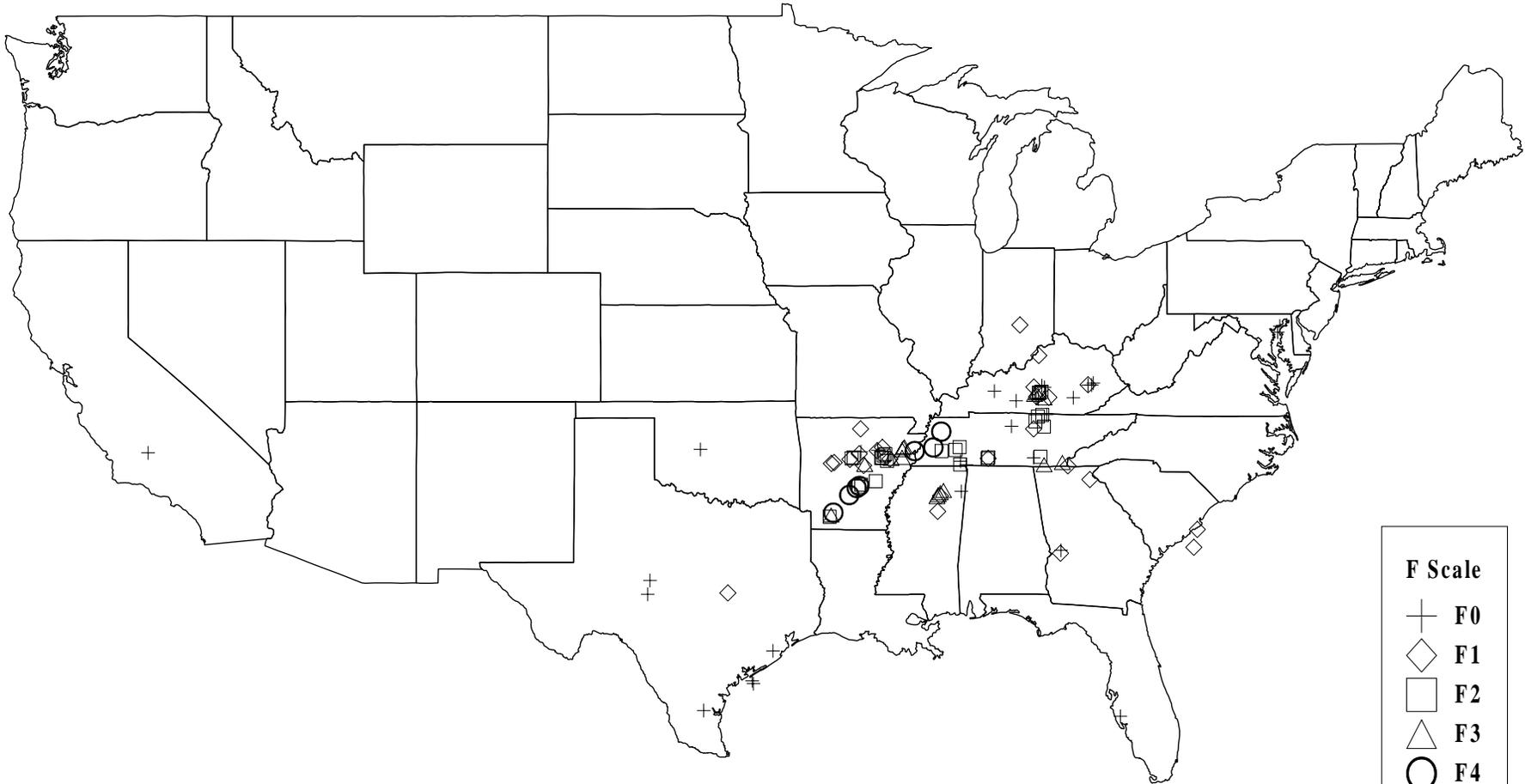


Kenneth D. Davidson
Acting Director,
National Climatic Data Center

March 1997 CYCLONE TRACKS



March 1997 Confirmed Tornadoes



F Scale	F0	F1	F2	F3	F4	F5	Total
Number	30	25	25	16	7	0	103

OUTSTANDING STORMS OF THE MONTH

1. CENTRAL ARKANSAS DAMAGED BY TORNADOES

A severe weather outbreak on March 1 spawned numerous tornadoes in central Arkansas, leaving 25 people dead and another 400 injured. A strong cold front moved southeast from the central plains where it clashed with a warm, moist airmass moving north from the Gulf of Mexico. Surface air temperatures ahead of the front were in the mid 70's while temperatures behind the front were between 30 and 50 degrees. Surface dewpoint temperatures were in the low 70's ahead of the front and in the 40's behind the front. Doppler radar indicated cloud tops as high as 50,000 feet. A tornado warning was issued by the National Weather Service at 1:45 PM LST, 22 minutes before an F4 tornado (wind speed 207 - 260 mph) touched down in Nevada County. This tornado moved into Clark County and continued northeast toward Arkadelphia causing heavy damage and five deaths as it moved through the center of town. Another F4 tornado touched down at 3:25 LST in Saline County and passed just south of Little Rock. The Shannnon Hills and Vimy Ridge sections were heavily damaged with 10 deaths, mostly in mobile homes or prefabricated housing. A total of 13,485 residential and commercial structures were damaged, including much of Arkadelphia.



Left: An aerial view of Arkadelphia indicating the extent of damage incurred by the F4 tornado. More than 1,000 homes and businesses were severely damaged or destroyed.

(Photo courtesy of the City of Arkadelphia Chamber of Commerce, Arkadelphia, AR)

Right: A view of a home in the outskirts of Arkadelphia. This home has only one wall remaining and most of its contents are scattered around the neighborhood. Scenes similar to this were common throughout the Arkadelphia area.

(Photo courtesy of Kenny Barnes, Arkadelphia, AR)



Right: A carport was blown into this tree behind the City of Arkadelphia Chamber of Commerce Building. It will take months for the city of Arkadelphia to complete its cleanup and rebuilding process.

(Photo courtesy of Kenny Barnes, Arkadelphia, AR)



Left: President Bill Clinton visited his home state shortly after the tornado destroyed much of Arkadelphia. The Federal Emergency Management Agency (FEMA) declared many counties in central Arkansas a disaster area. National Guard troops were deployed to provide help in securing the city.

(Photo courtesy of Kenny Barnes, Arkadelphia, AR)

Right: Many mobile homes and frame houses did not survive the tornadic winds. Large trees were snapped off a few feet from the ground as the tornado moved through Arkadelphia

(Photo courtesy of Bob Coats, Arkadelphia, AR)



2. SEVERE FLOODING IN NORTHERN KENTUCKY

The same storm system that spawned the tornadoes in Arkansas moved into the Ohio valley late on March 1 and caused up to 12 inches of rainfall at some locations in the Ohio Valley. There was severe flash flooding along the Ohio River and many of its tributaries in northern Kentucky and southern Ohio. Some selected rainfall totals (March 1-2) for the area include: Lexington, KY - 7.00", Louisville, KY - 7.41", Williamstown, KY - 12.00", Belton, KY - 9.25". The severe flooding event caused 30 deaths including 16 in Kentucky, 5 in Ohio, 3 each in west Virginia and Tennessee, 2 in Missouri and 1 in Indiana. Most of these deaths were caused by drivers attempting to drive across a water covered roadway and being drowned when their vehicle was swept downstream by swift moving water. Thousands of homes were evacuated and property damage was significant. Total damage to commercial and private property has been estimated near \$1 Billion.



Left: This house in Falmouth, KY along the Licking River was pushed from its foundation by the strong force of the moving water.

(Photo courtesy of Stephen Wilkinson and Julie Dian, NWS, Wilmington, OH)

Right: An aerial photograph of the swollen Ohio River at Richmond, OH. Many towns along the Ohio river and its tributaries were heavily damaged.

(Photo courtesy of Stephen Wilkinson and Julie Dian, NWS, Wilmington, OH)



Left: Downtown Sheppardsville, KY (Bullitt County) after the Salt River flood waters had partially receded. The water crested at the Gifts sign in the left-center background of the photograph.

(Photo courtesy of Michael Koch, Meteorologist, NWS, Louisville, KY)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ALABAMA, North Central									
ALZ002-006-019-023>024-044 Colbert - Madison - Calhoun - Tuscaloosa - Jefferson - Montgomery									
	01	1200CST 1800CST			0	0	0	0	Excessive Heat
		Record heat affected much of the northern two-thirds of Alabama. The following record highs were reported: Montgomery 82 Birmingham 82 Anniston 82 Huntsville 80 Muscle Shoals 82 Tuscaloosa 83							
Marion County									
Hamilton	03	0010CST			0	0	5K	0	Thunderstorm Wind (G50)
		A few trees were reported down just west of Hamilton.							
Franklin County									
Hodges	03	0017CST			0	0	3K	0	Hail (0.75)
		Three-quarter inch hail was reported between Hodges and Vina in western Franklin County.							
Marion County									
Winfield	03	0031CST			0	0	3K	0	Hail (0.75)
		Dime size hail was reported in Winfield in southern Marion County.							
Franklin County									
Russellville	03	0039CST			0	0	6K	0	Thunderstorm Wind (G57)
		A wind gust to 65 mph was reported by storm spotters along with trees down in Russellville.							
Winston County									
Haleyville	03	0100CST			0	0	5K	0	Thunderstorm Wind (G50)
		Trees and power lines were downed in Haleyville.							
Lawrence County									
Moulton	03	0132CST			0	0	0	0	Thunderstorm Wind (G52)
		A wind gust to 60 mph was reported by storm spotters.							
Colbert County									
Sheffield	05	1210CST			0	0	10K	0	Thunderstorm Wind (G50)
		Trees fell on a car in Sheffield, totally destroying the car.							
Franklin County									
Phil Campbell	05	1300CST			0	0	5K	0	Thunderstorm Wind (G50)
		Several large trees were blown down in Phil Campbell in the southeast part of the county.							
Franklin County									
Russellville	05	1315CST			0	0	15K	2K	Thunderstorm Wind (G52)
		Several trees were blown onto houses and cars and a garage door was ripped off one house. Roofs were blown off several chicken houses. One chicken house was totally destroyed.							
Lawrence County									
Mt Hope	05	1325CST			0	0	3K	0	Thunderstorm Wind (G52)
		A gust to 60 mph was reported in Mt. Hope in western Lawrence County.							
Marion County									
2 SW Haleyville	05	1325CST			0	0	10K	0	Thunderstorm Wind (G50)
		The EMA reported roofs were blown off two house and that two chicken houses were damaged near the intersection of highway 129 and 76 in the extreme eastern part of the county.							
Limestone County									
3 NE Decatur	05	1330CST			0	0	6K	0	Thunderstorm Wind (G50)
		A tree and a power pole were blown down in Bell Mina causing a transformer to explode.							
Winston County									
Haleyville	05	1330CST			0	0	8K	0	Thunderstorm Wind (G50)
		Structural damage was reported to a house in Haleyville and a couple of trees were blown down.							
Morgan County									
Trinity	05	1340CST			0	0	4K	0	Thunderstorm Wind (G50)
		Trees were blown down in Trinity in the northwest part of the county.							
Madison County									
Huntsville	05	1350CST			0	0	0	0	Funnel Cloud
		A funnel cloud was reported by several sources.							

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ALABAMA, North Central									
Cullman County									
Cullman	05	1405CST 1415CST			0	0	18K	0	Thunderstorm Wind (G55)
									Metal walkway covers were damaged and portable buildings were destroyed in Cullman.
Lamar County									
2 S Vernon	05	1405CST			0	0	7K	0	Thunderstorm Wind (G50)
									The wind blew down part of a barn just south of Vernon.
Morgan County									
18 SE Falkville	05	1421CST			0	0	4K	0	Thunderstorm Wind (G50)
									Avery large tree was blown down in Hulaco in extreme southeastern Morgan County.
Madison County									
Madison	05	1425CST			0	0	5K	0	Thunderstorm Wind
									Several power lines were blown down in Madison.
Marshall County									
Arab	05	1435CST			0	0	20K	0	Thunderstorm Wind (G55)
									Several downtown buildings sustained damage to their roofs and at least one sign was blown over along with several power poles that were snapped. A barn south of town was blown over.
Marshall County									
Guntersville	05	1500CST			0	0	6K	0	Thunderstorm Wind
									Trees and power lines were blown down in Guntersville.
Marshall County									
Albertville	05	1500CST			0	0	10K	0	Thunderstorm Wind (G50)
									Several very large trees were uprooted. The roof of a dugout was blown off and across the playing field.
Bullock County									
Union Spgs	13	1445CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported in Union Springs by the EMA.
Elmore County									
7 N Elmore	13	1535CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported in the eastern part of the county.
Russell County									
4 E Phenix City	13	1535CST			0	0	4K	0	Hail (0.88)
									Nickel size hail was reported in Ladona in norther Russell County.
Tallapoosa County									
6 SW Dadeville	13	1540CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported just east of Stillwater in the western part of the county.
Tallapoosa County									
Camphill	13	1545CST			0	0	5K	0	Hail (1.00)
									Dime to quarter size hail was reported south of Camphill in eastern Tallapoosa County.
Chambers County									
Lanett	13	1715CST			0	0	2K	0	Hail (0.75)
									Dime size hail was reported just south of Lanett near the Interstate 85 and Highway 50 intersection.
Montgomery County									
10 SE Montgomery	13	1755CST			0	0	5K	0	Thunderstorm Wind (G50)
									Trees were reported down in the astern part of the county by state troopers.
Madison County									
Huntsville	18	2315CST			0	0	8K	0	Lightning
									Lightning struck the Royal Gardens Apartments causing slide damage to the attic as well as smoke problems.
Jefferson County									
2 N Ensley	25	1939CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported two miles north of Ensley by a ham radio operator.
Jefferson County									
Roebuck	25	2007CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported in Roebuck Plaza by ham radio storm spotter.
St. Clair County									
Springville	25	2022CST			0	0	3K	0	Hail (0.75)
									Dime size hail was reported in Springville by a ham radio operator. Springville is in the western part of St. Clair County.

Storm Data and Unusual Weather Phenomena

March 1997

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 Central

Franklin County

Phil Campbell 28 0400CST 0 0 3K 0 Hail (0.75)
The Sheriff's Department reported penny size hail.

Lawrence County

Moulton 28 2245CST 0 0 4K 0 Hail (0.88)
A storm spotter reported nickel size hail covering the road near Moulton.

Dekalb County

Ider 29 0055CST 0 0 5K 0 Hail (0.75)
There were numerous reports of marble to dime size hail near Ider and Rainsville in northern Dekalb County.

Blount County

Remlap 29 0059CST 0 0 6K 2K Hail (1.00)
One inch hail was reported on County Road 15 near Remlap.

Dekalb County

Powell 29 0115CST 0 0 15K 0 Thunderstorm Wind (G50)
A furniture store had a large section of its roof torn away, and the front window was blown out by thunderstorm wind.

Cherokee County

Gaylesville 29 0150CST 0 0 8K 2K Hail (1.75)
Golf ball size hail was reported at Gaylesville in easter Cherokee County by the Sheriff's Office.

Calhoun County

Weaver 29 0225CST 0 0 2K 0 Hail (0.75)
Dime size hail was reported at Weaver in central Calhoun County.

Dallas County

Selma 30 1520CST 0 0 6K 2K Tstm Wind/Hail
Nickel size hail feel just north of Selma. Some trees and signs were down in Selma as well.

Montgomery County

Montgomery 30 1657CST 0 0 7K 0 Thunderstorm Wind (G52)
A few trees were reported blown down including a very large tree that fell across US 31 south of Montgomery.

Macon County

Tuskegee 30 1730CST 0 0 5K 0 Thunderstorm Wind (G50)
Trees were blown down in the Tuskegee area causing numerous power outages.

Barbour County

Clayton 30 1730CST 0 0 3K 0 Hail (0.75)
Dime size hail fell at Clayton.

Russell County

Seale 30 1755CST 0 0 5K 0 Thunderstorm Wind (G50)
Several trees were blown down in the central part of the county in the area of Seale.

ALABAMA, Southeast

NONE REPORTED.

ALABAMA, Southwest

Mobile County

(Bfm)Mobile Brookley 13 1445CST 0 5 Lightning
Five people were injured on Brookley Field at Mobile's downtown airport by lightning. An aircraft was attempting to take off between thunderstorms. The ground crew was getting the aircraft ready, when lightning struck the plane and the charge went through the nose gear and injured five ground crew members. All were taken to the hospital and examined. One was kept for two days. A static shock was heard in a headset about thirty seconds prior to the strike. The strike was likely the first strike from this thunderstorm.

Wilcox County

Mc Williams 29 1650CST
1655CST 0 0 Hail (0.75)
Dime size hail was reported in the southeast part of the county near McWilliams.

Monroe County

Midway to Old Texas 29 1700CST
1705CST 0 0 Hail (0.88)
Dime to Quarter size hail was reported near Midway and Old Texas in the northeast part of the county.

Storm Data and Unusual Weather Phenomena

March 1997

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

Butler County

Greenville	29	1755CST 1756CST			0	0			Hail (0.75)
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Dime size hail was reported just north of Greenville.

Butler County

Greenville	29	1905CST 1910CST			0	0			Hail (0.75)
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Dime size hail was reported just west of Greenville.

Clarke County

Grove Hill	29	1925CST 1930CST			0	0			Hail (0.88)
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Quarter size hail was reported around the Grove Hill area.

Crenshaw County

Highland Home	29	2200CST 2205CST			0	0			Hail (0.75)
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Dime size hail was reported near Highland Home.

Monroe County

Claiborne	30	1445CST 1455CST			0	0			Hail (0.75)
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Dime size hail was reported near Claiborne. The hail covered the ground and lasted about five minutes.

Clarke County

Chance	30	1520CST 1522CST			0	0			Hail (0.75)
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Dime size hail was reported just west of Chance.

Monroe County

Hybart	30	1530CST 1535CST			0	0			Hail (0.75)
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Dime size hail was reported in the northwest part of the county near Hybart.

Wilcox County

Camden	30	1615CST 1620CST			0	0			Hail (0.88)
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Quarter size hail was reported near Camden.

ALASKA, Northern

AKZ001

Arctic Slope Coastal

12	1600AST				0	0			Blizzard
14	0200AST								

A fast moving but weak low tracked east across the Arctic Ocean. The low decelerated once abeam of Barter Island, allowing blizzard condition to linger there. Max wind: PABR 36g44kt(13/1557 only); PABA 45g49 kts (13/0300-0515).

AKZ002

North Slopes Of Brooks Range

13	1700AST				0	0			Blizzard
14	1200AST								

A weather front moving south over Northern Alaska brought blizzard conditions and high winds to the passes of the Brooks Range. Chandalar D.O.T. Camp on the Dalton Highway reported sustained winds of 45 kts with gusts to 60 kts.

ALASKA, Southeast

AKZ013

Central Southeast Alaska

01	0100AST				0	0			High Wind
03	1530AST								

Affected downtown Juneau and Douglas. Peak gust at Rock Dump 67 MPH, Mayflower Island (Douglas) 60 MPH, and Juneau Federal Building 47 MPH.

AKZ013

Central Southeast Alaska

10	0200AST 1000AST				0	0			Heavy Snow
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Microscale non-convective event affected only downtown Juneau and Douglas, 6 to 9 inches storm total. Juneau International Airport only trace amount of snow.

ALASKA, Southern

AKZ018>020

Cook Inlet-Susitna Valley - Central Gulf Coast - Kodiak Island-Eastern Alaska Peninsula

01	0300AST				0	0			High Wind (G38)
02	1200AST								

Storm Data and Unusual Weather Phenomena

March 1997

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

Strong high pressure (1047 mbs) combined with a moderate low in the Gulf of Alaska to produce brisk northerly winds all the way from Prince William Sound into Cook Inlet, the Susitna Valley and across Kodiak Island where gusts reached 44 mph at the Kodiak airport.

AKZ021

Western Alaska Peninsula

03	0000AST				0	0			High Wind (G36)
04	2100AST								

Gusty southeast winds were again reported across the Alaska Peninsula ahead of another front. Gusts reached 41 mph at noon Monday at Cold Bay.

AKZ022

Eastern Aleutians

08	0000AST				0	0			High Wind (G52)
10	2359AST								

A series of moderate fronts moved into the western Aleutians, bucking up against strengthening high pressure which built eastward into the state. Southeasterly winds ranged from 40 to 60 mph in advance of the fronts from Friday through Monday. Shemya recorded a gust of 60 mph between 2 and 3 am Monday.

AKZ018>019

Cook Inlet-Susitna Valley - Central Gulf Coast

11	0000AST				0	0			High Wind (G63)
12	1200AST								

Cold arctic air pushed southward across southcentral Alaska Monday and Tuesday...as very strong high pressure built into the northcentral interior. Brisk northeasterly winds were observed across many areas of southcentral Alaska Monday and Tuesday. Wind gusts reached at least 69 mph just west of Kenai in Cook Inlet (reported by the "Northern Lights"...a vessel owned by TOTE shipping). Palmer recorded wind gusts of 60 mph at 6 minutes after midnight early Wednesday...causing the ASOS to report "snow and clear skies" (due to snow blowing over the precipitation sensor). Gusts of 73 mph were recorded at the Valdez airport at 2:38 am Wednesday. At least one tree blew into a house around Anchorage, where gusts reached at least 50 mph (reported at Anchorage International airport) at 5:54 pm Tuesday).

AKZ018>022

Cook Inlet-Susitna Valley - Central Gulf Coast - Kodiak Island-Eastern Alaska Peninsula - Western Alaska Peninsula - Eastern Aleutians

15	2300AST				0	0			High Wind (G59)
18	1500AST								

A deepening low in the northern Gulf of Alaska produced brisk north to northeast winds across much of the southern third of the mainland. On Sunday, gusts reached 68 mph at Dutch Harbor where water and dust devils were reported, 53 mph at the Anchorage International airport, 59 mph at the Valdez city site and 64 mph at the Valdez airport. Winds from 40 to near 55 mph were also reported at Gulkana airport, Palmer, Dillingham, Cold Bay, Sand Point and Sparrevohn AFB on Sunday. Late Saturday...wind gusts reached 46 mph at the Kenai airport.

AKZ017>020

Copper River Basin - Cook Inlet-Susitna Valley - Central Gulf Coast - Kodiak Island-Eastern Alaska Peninsula

23	0000AST				0	0			High Wind (G43)
24	1500AST								

Cold, arctic air blowing seaward from a moderate high in northern Alaska brought gusty northerly winds to several areas of southcentral Alaska. Wind gusts reached 50 mph.

AKZ022

Eastern Aleutians

23	0900AST				0	0			High Wind (G44)
25	0300AST								

A moderate north Pacific front brought brisk southeast winds to the western Aleutians. Gusts of 51 mph were reported at Shemya. Brisk south to southwest winds also reached 51 mph in the extreme western Aleutians around the associated 973mb low Monday and Tuesday.

AKZ021

Western Alaska Peninsula

25	1200AST				0	0			High Wind (G42)
26	0600AST								

A moderate 972mb low moved northeast toward the Alaska Peninsula Tuesday, finally turning east into the Gulf of Alaska Wednesday where it began to weaken. Brisk southeasterly winds preceded the front ahead of the low...producing wind gusts from 40 to near 50 mph across the entire Alaska Peninsula late Tuesday and Wednesday morning.

AKZ022

Eastern Aleutians

31	1200AST				0	0			High Wind (G43)
	2359AST								

A moderate front just east of the Komandorskiye Islands moved slowly east toward the southwest coast of the State late Wednesday and early Thursday. Brisk southerly winds gusted from 40 to 50 mph at many exposed areas in advance of the front. Blizzard conditions were observed along the southwest coast of the mainland. Near Chevak, a group of 24 villagers out on snowmachines were temporarily lost due to "whiteout" conditions.

Storm Data and Unusual Weather Phenomena

March 1997

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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AMERICAN SAMOA

NOT RECEIVED.

ARIZONA, Central and Northeast

NONE REPORTED.

ARIZONA, Northwest

NONE REPORTED.

ARIZONA, South

Cochise County

Huachca Vlg	31	1735MST 1745MST			0	0			Hail (0.75)
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Huachuca City Police report hail throughout the city.

ARIZONA, Southwest

NONE REPORTED.

ARKANSAS, Central and North Central

Newton County

Fallsville	01	1220CST			0	0			Thunderstorm Wind (G50)
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Thunderstorm winds damaged a barn.

Johnson County

Salus	01	1245CST			0	0			Hail (0.75)
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Johnson County

Ozone	01	1245CST			0	0			Hail (0.75)
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Newton County

Deer	01	1255CST			0	0			Thunderstorm Wind (G50)
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A barn sustained some damage.

Newton County

Nail	01	1255CST 1300CST			0	0			Hail (0.75)
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Hail up to dime size covered the ground.

Newton County

Western Grove	01	1305CST			0	0			Hail (0.75)
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Marion County

Yellville	01	1320CST			0	0			Hail (0.75)
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Baxter County

3 N Norfolk to 3 N Jordan	01	1410CST 1413CST	5	200	0	0			Tornado (F1)
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An F1 tornado touched down just to the west of Salesville. The tornado tracked northeastward, crossing State Highway 5 and then passed just to the north of Salesville. From there, the tornado tracked near Norfolk Dam, across Norfolk Lake and then to the Lakeview Estates area, or 3 miles north of Jordan, before lifting. There was mostly tree damage noted along the path of the tornado, but there was some roof and automobile damage noted in and around Salesville. A storage building was destroyed and a mobile home was overturned. It appeared that the tornado was aloft at times, with the tops of some trees removed.

Franklin County

5 SE Ozark	01	1415CST			0	0			Thunderstorm Wind (G50)
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Thunderstorm winds damaged several chicken houses.

Clark County

6.5 S Okolona to 3.5 NE Arkadelphia	01	1420CST 1447CST	27	1056	6	100			Tornado (F4)
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The tornado moved out of Nevada County and into Clark County approximately 6.5 miles south of Okolona at 220 pm CST. The tornado continued moving northeastward, causing considerable tree damage and downing a number of power lines. The first fatality occurred along I-30, several miles southwest of Arkadelphia where a vehicle was blown off the highway and the driver was killed. A truck-stop was also destroyed near this location as well. At 242 pm CST, the tornado moved into the City of Arkadelphia. A number of homes and businesses in Arkadelphia were either damaged or destroyed. 5 people in Arkadelphia were also killed. The tornado continued to move northeastward, knocking down more trees and power lines, as well as damaging more

Storm Data and Unusual Weather Phenomena

March 1997

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

ARKANSAS, Central and North Central

homes. The tornado exited Clark County approximately 3.5 miles northeast of Arkadelphia at 247 pm CST.

Damage along the track of the tornado was mostly F2 to F3. However, some timber and structural damage along the path was consistent with an F4 rating. M45VE, F45BU, M37MH, F45MH, F14PH, F14PH

Fulton County

Elizabeth

01	1425CST				0	0			Thunderstorm Wind (G50)
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Thunderstorm winds blew over a storage shed.

Lonoke County

**5.5 NW Cabot to
6 NW Austin**

01	1437CST	3	50	0	0				Tornado (F1)
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An F1 tornado down about 5.5 miles northwest of Cabot on Highway 5 and traveled northeastward. The tornado was small at first, downing only a few trees. About 2 miles later, along Highway 319, the tornado damaged the roofs of some buildings, knocked down some power poles and snapped some trees. The tornado exited Lonoke County about 6 miles northwest of Austin at 239 pm CST.

White County

**5 SE El Paso to
3 S Center Hill**

01	1439CST	13	100	0	5				Tornado (F3)
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The Lonoke County tornado moved into White County 5 miles southeast of El Paso at 239 pm CST. The tornado continued to track northeastward. Several utility towers were destroyed, as well as a frame house and some trailers. The tornado encountered some rough terrain and weakened somewhat, but still managed to down trees and cause some spotty roof damage. The tornado lifted about 3 miles south of Center Hill.

Hot Spring County

**4.5 S Friendship to
6.5 E Malvern**

01	1447CST	24	528	0	11				Tornado (F4)
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The Clark County tornado moved into Hot Spring County 4.5 miles south of Friendship at 247 pm CST. The tornado damaged or destroyed a number of homes and other buildings in Donaldson as it moved northeastward. The tornado passed just to the south and east of Malvern. However, some damage was noted at the Malvern Airport. The tornado downed many more trees and power lines, as well as a number of buildings before it lifted about 6.5 miles east of Malvern.

Damage along the track of the tornado was mostly F2 and F3. However, some structural damage in the Donaldson area was consistent with an F4 rating.

Yell County

**1 NW Belleville to
1 NNE Belleville**

01	1455CST	1	50	0	0				Tornado (F1)
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A weak F1 tornado touched down briefly about a mile northwest of Belleville. The tornado traveled northeastward for about one mile before lifting. Damage along the path of the tornado consisted of some downed trees.

Yell County

**Chickalah to
1 NE Chickalah**

01	1505CST	1	50	0	0				Tornado (F1)
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The same thunderstorm that produced a tornado earlier near Belleville spawned a new tornado near Chickalah. This F1 tornado was on the ground for about a mile before lifting 1 mile northeast of Chickalah. Several chicken houses were damaged by the tornado.

Logan County

2 N Scranton

01	1515CST			0	0				Thunderstorm Wind (G50)
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Thunderstorm winds damaged the roof of a church.

White County

**3.5 WSW Velvet Ridge
to
2 N Velvet Ridge**

01	1523CST	4	150	0	14				Tornado (F2)
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Another tornado developed about 3.5 miles west-southwest of Velvet Ridge and moved northeastward. Before moving into Jackson County, the tornado destroyed a mobile home. 3 people inside the mobile home ran for cover and were not injured.

Storm Data and Unusual Weather Phenomena

March 1997

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

Saline County

5 SE Benton to
8 ENE Bryant

01	1525CST 1541CST	14	1408	10	40				Tornado (F4)
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The thunderstorm that produced the tornado across Clark and Hot Spring County earlier spawned another tornado in Saline County. The tornado touched down 5 miles southeast of Benton and traveled northeastward, damaging a number of homes and downing numerous trees and power lines. As the tornado approached Shannon Hills, the tornado expanded to 0.8 mile wide. Dozens of homes were either damaged or destroyed in the area around the Shannon Hills, Vimy Ridge and Sardis communities. 10 people were killed, with most victims inside their homes when the storm hit.

The tornado exhibited characteristics of F2 to F3 strength prior to moving into the Shannon Hills area. After that, the tornado reached F4 intensity as it moved across the Shannon Hills area and eventually into Pulaski County.
M64PH, F60PH, F23MH, F55PH, F35PH, M55OU, F52OU, M15MH, M49MH, M72OU

Jackson County

3 S Denmark to
7 NE Denmark

01	1525CST 1531CST	8.5	1056	2	30				Tornado (F2)
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The White County tornado moved into Jackson County 3 miles south of Denmark at 325 pm CST. As the tornado crossed Highway 167, 2 people were killed when a tree fell on them while they were taking shelter from the tornado in a ditch. Several mobile homes and some frame homes suffered partial roof removal as the tornado progressed across the county. The tornado exited Jackson County 7 miles northeast of Denmark at 331 pm CST. Damage along the path of the tornado was consistent with an F2 rating. M21OU, M30OU

Searcy County

Marshall

01	1530CST			0	0				Thunderstorm Wind (G50)
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Thunderstorm winds downed a few trees and tore shingles off several buildings.

Pope County

1 S Oak Grove to
7 NE Oak Grove

01	1530CST 1538CST	7.5	200	0	1				Tornado (F1)
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An F1 tornado touched down approximately 1 mile south of Oak Grove and traveled northeastward. Much of the damage was mostly done to trees. However, a wood pallet plant and a chicken house were destroyed. A couple of homes also sustained roof damage. The tornado exited Pope County around 338 pm CST.

Independence County

7 S Oil Trough to
5.5 ESE Oil Trough

01	1531CST 1542CST	7.5	880	0	0				Tornado (F2)
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The Jackson County tornado moved into Independence County 7 miles south of Oil Trough at 331 pm CST. As the tornado tracked northeastward, it damaged several homes and downed a number of trees and power lines. The tornado exited Independence County 5.5 miles east-southeast of Oil Trough at 342 pm CST.

Saline County

1.5 SE Vimy Ridge to
2.5 ESE Vimy Ridge

01	1535CST 1538CST	2	352	0	0				Tornado (F2)
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Another tornado formed just south of the main tornado track near Shannon Hills. The tornado was on the ground for approximately 2 miles. Several homes sustained damage. A number of trees were also blown down, as well as several high voltage electrical towers. Much of the damage was mostly F1. However, damage to the high voltage transmission towers was consistent with an F2 rating.

Conway County

2 WSW Jerusalem to
6.5 NE Jerusalem

01	1538CST 1548CST	8	880	0	1				Tornado (F2)
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The Pope County tornado moved into Conway County about 2 miles west-southwest of Jerusalem at 338 pm CST and traveled northeastward. The tornado affected the northern and western parts of Jerusalem. West of town, a hog farm and tin shed were destroyed and a number of trees were blown down. As the tornado moved north of Jerusalem, a trailer was overturned and destroyed. One person in the trailer was injured. Thereafter, numerous trees were downed as the tornado moved through the Ozark National Forest. Damage along the tornado path was consistent with an F2 rating.

Pulaski County

2.5 SE Mabelvale to
1 S Protho Jct

01	1541CST 1557CST	11	1408	5	180				Tornado (F4)
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The Saline County tornado moved into Pulaski County about 2.5 miles southeast of Mabelvale at 341 pm CST. The tornado tracked northeastward and damaged or destroyed a number of homes and businesses in the area of Arch Street Pike and Dixon Road in the south part of Little Rock. One person was killed in the same area when the building he was in seeking shelter was destroyed. Numerous trees and power lines were also blown down. The tornado continued to produce damage as it moved northeastward, but weakened and partially lifted as it approached the intersection of Highway 65 and Dixon Road. At this location, a building was destroyed and the tops of some trees were removed.

The tornado reemerged near the College Station area around 349 pm CST, causing widespread damage. Many frame homes were either damaged or destroyed. 4 people were killed in the College Station area. A number of residents noted that there was a

Storm Data and Unusual Weather Phenomena

March 1997

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

ARKANSAS, Central and North Central

tremendous amount of flying debris. The tornado crossed I-440 and passed very close to Little Rock National Airport. The airport was closed for several hours after the storm passed, due to a large amount of debris on the runways. A hotel and a UPS Distribution Center near the airport sustained some damage. The tornado eventually lifted soon after it crossed the Arkansas River.

Much of the damage along the path of the tornado was F2 and F3. However, some structural damage along the path was consistent with an F4 rating. M61BU, M69PH, F74VE, M62PH, F45MH

Jackson County

**4 SW Jacksonport to
5.5 E Swifton**

01	1542CST 1613CST	23	880	1	30				Tornado (F2)
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The tornado in Independence County moved back into Jackson County about 4 miles southwest of Jacksonport at 342 pm CST. The tornado moved northeastward into Jacksonport where there was a considerable loss of trees and damage to homes and businesses. One person was killed in a mobile home that was destroyed. A riverboat also suffered considerable damage when it was blown into a partially flooded area on the shoreline. As the tornado continued to move northeastward, it caused roof and structural damage to a number of buildings. A lot of trees were also blown down as well. The tornado crossed Highway 67 about a mile south of Tuckerman and skirted the southeast part of town. Several miles northeast of Tuckerman, on Highway 224, the tornado caused more damage to several homes. About 7 miles northeast of Tuckerman, there was quite a bit of tree damage. Some tops of trees were also removed, indicating that the tornado was aloft at times. The tornado downed more trees and power lines in the last 3 or 4 miles it was on the ground in Jackson County. The tornado exited Jackson County 5.5 miles east of Swifton at 413 pm CST. Damage along the path of the tornado was consistent with an F2 rating. M79MH

Pope County

Appleton

01	1545CST			0	0				Hail (1.75)
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Pulaski County

**Sweet Home to
2.5 SE Prothro Jct**

01	1547CST 1556CST	5	352	0	0				Tornado (F2)
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Another tornado developed just south of the College Station storm, near the Sweet Home area. The tornado traveled northeastward, damaging several buildings. Some trees and power lines were also blown down. The tornado lifted soon after crossing the Arkansas River near the intersection of I-440 and Highway 165. Damage along the tornado's path was consistent with an F2 rating.

Van Buren County

**8 SW Scotland to
6 SW Scotland**

01	1548CST 1550CST	2	880	0	0				Tornado (F2)
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The Conway County tornado moved into Van Buren County about 8 miles southwest of Scotland at 348 pm CST. The tornado traveled about 2 miles through the Ozark National Forest before lifting. Based on surveys of the timber damage, the tornado remained at F2 strength before it dissipated.

Pulaski County

Gravel Ridge

01	1554CST			0	0				Hail (0.88)
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Lonoke County

**2 N Furlow to
3.5 NNE Furlow**

01	1602CST 1604CST	2.3	100	0	3				Tornado (F2)
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The same thunderstorm that produced the tornadoes in Arkadelphia and in Little Rock spawned another tornado in Lonoke County. The tornado touched down about 2 miles north of Furlow near the intersection of Highways 89 and 236. The tornado traveled northeastward, downing trees and removing sections of roofing from a couple of homes. One frame home was destroyed and a large utility tower was also blown down. Much of the damage along the tornado's path was F0 and F1. However, damage to the utility tower was consistent with an F2 rating.

Van Buren County

**4 SW Shirley to
2 WSW Shirley**

01	1612CST 1614CST	2.5	100	0	0				Tornado (F1)
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An F1 tornado touched down briefly approximately 4 miles southwest of Shirley. The tornado traveled northeastward along and near State Highway 16 for about 2.5 miles before lifting. A few homes sustained roof damage and a couple of sheds were destroyed. Numerous trees were also knocked down along the tornado's track.

Stone County

**.5 E Rushing to
1 NE Rushing**

01	1622CST 1623CST	0.5	20	0	0				Tornado (F0)
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A weak F0 tornado touched down near Rushing. The tornado traveled about a half mile to the northeast before lifting. The only damage noted was a few trees that were blown down.

Stone County

**Marcella to
1 NE Marcella**

01	1650CST 1652CST	0.5	20	0	0				Tornado (F1)
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An F1 tornado touched down just northeast of Marcella. The tornado traveled northeastward towards Independence County. Several trailers sustained damage and some trees were blown down.

Storm Data and Unusual Weather Phenomena

March 1997

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

Independence County

**4 WNW Bethesda to
5 NW Bethesda**

01	1652CST 1655CST	4	25	0	0				Tornado (F0)
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The Stone County tornado crossed the White River and moved into Independence County at 452 pm CST. The tornado traveled northeastward for about 4 miles before lifting, but not before causing some tree damage.

Woodruff County

**1.5 W Patterson to
9.5 NE Mc Crory**

01	1654CST 1711CST	12	880	0	0				Tornado (F2)
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A tornado touched down about 1.5 miles west of Patterson and moved northeastward. The tornado crossed Highway 64 about a mile northwest of Patterson where some trees were snapped off and a roadside park sustained damage. 3 miles north of McCrory on Highway 17, the tornado destroyed a house trailer and damaged some power poles. About a half mile north of the intersection of Highways 37 and 269, the tornado reached F2 strength, heavily damaging some homes and uprooting a number of trees. Near the intersection of Highways 37 and 145, a duck hunting club was destroyed and a farm shop and grain bins were damaged. The last damage noted in Woodruff County was just off Highway 145 where a frame house was destroyed. The tornado exited Woodruff County at 511 pm CST.

Jackson County

**3.5 SSE Mc Fadden to
4 SE Mc Fadden**

01	1711CST 1714CST	3	50	0	0				Tornado (F1)
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The Woodruff County tornado moved into Jackson County about 3.5 miles south-southeast of Mc Fadden at 511 pm CST. The tornado had weakened at this point but still managed to damage a house and knock down some trees. The tornado did some more tree damage before moving into Cross County around 514 pm CST.

Sharp County

**1 NW Cave City to
1.5 N Cave City**

01	1715CST 1716CST	1	40	0	0				Tornado (F1)
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An F1 tornado touched down about 1 mile northwest of Cave City. The tornado moved northeastward and was on the ground for about a mile before lifting. Some downed trees were the only damage noted along the path of the tornado.

Ouachita County

Camden

01	1750CST			0	0				Hail (0.88)
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Cleveland County

5 SE Rison

01	1845CST			0	0				Thunderstorm Wind (G50)
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Thunderstorm winds downed several trees.

Woodruff County

Augusta

01	1850CST			0	0				Thunderstorm Wind (G50)
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Thunderstorm winds damaged the roofs of several buildings.

Cleveland County

Rison

01	2005CST			0	0				Thunderstorm Wind (G50)
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Several buildings sustained roof damage.

Arkansas County

Crocketts Bluff

01	2120CST			0	0				Thunderstorm Wind (G50)
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Thunderstorm winds damaged the roofs of several buildings.

Franklin County

White Rock

02	1540CST			0	0				Hail (0.88)
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Pulaski County

North Little Rock

05	0110CST			0	0				Hail (0.88)
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Pulaski County

Jacksonville

05	0131CST			0	0				Hail (0.88)
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Lonoke County

Cabot

05	0133CST			0	0				Hail (0.88)
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Arkansas County

Gillett

05	0900CST 1100CST			0	0				Flash Flood
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Heavy rains resulted in flash flooding across the southern parts of Arkansas County. Several county roads were washed out in some areas as a result of the heavy rainfall.

Lincoln County

Star City

05	0900CST 1100CST			0	0	100K			Flash Flood
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Heavy rains resulted in flash flooding in and around Star City. A number of streets were covered with water for a period of time. Several bridges and culverts in the western part of the county were also washed out.

Storm Data and Unusual Weather Phenomena

March 1997

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

Calhoun County

Hampton	05	0945CST 1130CST			0	0			Flash Flood
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Heavy rains caused some flash flooding in the Hampton area. A gravel road was washed out in some spots as a result of the heavy rainfall.

Newton County

5 SW Compton	27	2020CST			0	0			Hail (0.75)
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Boone County

Gaither	27	2030CST			0	0			Hail (0.75)
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Pope County

Dover	27	2040CST			0	0			Hail (0.75)
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Sharp County

Evening Shade	27	2335CST			0	0			Hail (0.75)
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Johnson County

Clarksville	30	0100CST			0	0			Thunderstorm Wind (G50)
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Thunderstorm winds downed some large tree limbs.

Hot Spring County

Bismarck	30	0210CST			0	0			Hail (0.88)
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Lincoln County

5 SE Star City	30	0330CST			0	0			Hail (0.88)
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Franklin County

Ozark	30	1245CST			0	0			Hail (0.75)
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ARKANSAS, East

ARZ009-026>028

Clay - Craighead - Poinsett - Mississippi

01	0400CST				0	0	1.8M		Flood
10	1800CST								

Excessive rainfall along with previous high levels on the Mississippi river produced flooding in portions of eastern Arkansas. In Poinsett county, 18 bridges were washed out. Close to 100 homes were flooded in the area.

Craighead County

3 SW Egypt to 2 NE Egypt	01	1619CST 1640CST	5	200	0	2	25K		Tornado (F3)
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Lawrence County

3 SW Sedgwick to Sedgwick	01	1640CST 1645CST	5	200	0	2	500K	1.1M	Tornado (F3)
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Greene County

1 SW Fontaine to 2 NE Marmaduke	01	1645CST 1705CST	15	200	1	5	500K		Tornado (F3)
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M47BU

The tornado moved into extreme northwest Craighead county from Jackson county. While in Craighead county, the tornado damaged a house injuring 2 persons inside the structure. The tornado then moved into the southeast corner of Lawrence county. There it damaged 13 homes and buildings including a grain bin which stored a large supply of rice. One mobile home was rolled over injuring 2 persons. Numerous trees were blown down as well. The tornado moved into Greene county where it occasionally lifted off the ground as the storm moved northeast. The most severe damage occurred near Marmaduke where 20 homes and buildings were damaged or destroyed. One man was killed when his business was damaged by the tornado. Five others were injured.

Cross County

1 SW Hickory Ridge to 2 NE Hickory Ridge	01	1725CST 1740CST	3	200	0	0	750K		Tornado (F3)
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Poinsett County

4 S Fisher to 3 S Fisher	01	1740CST 1745CST	1	200	0	0	5K		Tornado (F3)
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The tornado moved into the northwest corner of Cross county from Woodruff county. Sixty-seven homes and businesses were damaged including an elementary school in the town of Hickory Ridge. A Southwestern Bell main switching station was destroyed. The tornado continued into the southwest corner of Poinsett county where it knocked down a few trees.

Poinsett County

Trumann	01	1800CST 1805CST			0	0	0.50K		Hail (1.00)
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A car was damaged by quarter sized hail.

Storm Data and Unusual Weather Phenomena

March 1997

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

ARKANSAS, East

Mississippi County

Lennie to
Hickman

01	1820CST 1900CST	20	200		0	0	25K		Tornado (F4)
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A tornado developed in Mississippi county near the town of Lennie. Three mobile homes were damaged or destroyed and a cotton trailer was overturned. The tornado touched down again in Dyer county. The most severe damage with the tornado occurred in Dyer county. A thirteen-year-old girl was killed at her home which was destroyed by the tornado in the town of Finley. In all 190 buildings were damaged or destroyed in the county including parts of Dyer County High School. The tornado then continued into Gibson county where eight homes were damaged or destroyed. Numerous trees and power lines were knocked down as well.

Poinsett County

Trumann

02	2043CST 2048CST				0	0	0.01K		Hail (0.75)
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Craighead County

Caraway to
Lake City

02	2047CST 2101CST				0	0	1.8K		Hail (1.75)
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Phillips County

Helena

05	1040CST 1140CST				0	0	1K		Flash Flood
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Several streets were flooded with water as high as car doors.

Randolph County

Ravenden Spgs

28	0010CST 0015CST				0	0	0.05K		Hail (0.88)
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ARKANSAS, Northwest

Madison County

8 W Huntsville

01	1030CST				0	0			Hail (0.75)
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Sebastian County

5 S Greenwood

01	1208CST				0	0			Hail (0.75)
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Sebastian County

Midland

01	1240CST				0	0			Hail (0.75)
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Sebastian County

1 W Jenny Lind

01	1330CST				0	0			Hail (0.75)
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Isolated severe thunderstorms developed in northwest Arkansas during the late morning and early afternoon of March 1st. The storms produced dime size hail 8 miles west of Huntsville, 5 miles south of Greenwood, at Midland, and 1 mile west of Jenny Lind.

Sebastian County

4 E Hackett

02	1504CST				0	0			Hail (0.75)
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Sebastian County

5 S Ft Smith

02	1508CST				0	0			Hail (1.00)
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Crawford County

Mulberry

02	1529CST				0	0			Hail (0.88)
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Madison County

St Paul

02	1556CST				0	0			Hail (0.75)
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Isolated severe thunderstorms developed in northwest Arkansas during the afternoon of March 2nd. The storms produced quarter size hail 5 miles south of Fort Smith, nickel size hail at Mulberry, and dime size hail 4 miles east of Hackett and at St. Paul.

Benton County

Maysville

25	0115CST				0	0	0.10K		Thunderstorm Wind
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A severe thunderstorm produced strong winds which downed a tree and several power lines in Maysville.

Washington County

Brentwood

27	1855CST				0	0			Hail (0.88)
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A severe thunderstorm produced nickel size hail at Brentwood.

Storm Data and Unusual Weather Phenomena

March 1997

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, Northwest

Benton County

Maysville	27	2202CST			0	0			Hail (0.88)
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A severe thunderstorm produced nickel size hail at Maysville.

Washington County

6 SE Strickler	29	2340CST			0	0	8K		Thunderstorm Wind
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Crawford County

Dyer	30	0010CST			0	0			Hail (0.75)
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Severe thunderstorms moved across northwest Arkansas during the late evening of March 29th and very early morning of March 30th. Strong thunderstorm winds caused roof damage to some buildings and downed large tree limbs at Devils Den State Park 6 miles southeast of Strickler. The storms also produced dime size hail at Dyer.

ARKANSAS, Southeast

ARZ075

Chicot

09	1200CST				0	0			Flood
03	1200CST								

Major flooding occurred along the Mississippi river but only farmland was affected.

ARKANSAS, Southwest

Hempstead County

2.1 NE Hope to 10.1 NE Hope	01	1355CST 1407CST	4	100	0	0	1M		Tornado (F2)
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Nevada County

10.1 NE Hope to 8.5 NE Prescott	01	1407CST 1427CST	14	880	0	2	2M		Tornado (F3)
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Damage path began 1.8 miles north of Hope, AR moved northeast along hwy 174, crossed I-30 at exit 36 (Emmet, AR. exit) continued northeast on the west side of I-30 past Emmet then northeast 1/2 to 2 miles west of I-30 and Prescott, AR then crossed the Little Missouri River at the Nevada-Clark county line and continued northeast. Total path length about 18 miles with width average 25 yds to 1/2 mile. Numerous homes, buildings, mobile homes, and vehicles were destroyed or heavily damaged.

Union County

El Dorado	02	1330CST			0	0			Flash Flood
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Several roads in town were closed due to high water.

Columbia County

Emerson	02	1405CST			0	0			Hail (0.75)
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Little River County

5 SE Ashdown to Ashdown	04	2330CST			0	0			Hail (1.00)
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CALIFORNIA, Extreme Southeast

NONE REPORTED.

CALIFORNIA, North Central

NONE REPORTED.

CALIFORNIA, Northeast

CAZ072

Greater Lake Tahoe Area

02	0021PST				0	0			High Wind (G79)
	0022PST								

A weather spotter measured a wind gust of 79 kts at Tahoe Keys.

CAZ071

Lassen/Eastern Plumas/Eastern Sierra

02	0141PST				0	0			High Wind (G56)
	0142PST								

A wind sensor near the town of Doyle measured a wind gust of 56 kts.

CAZ073

Mono

03	0259PST				0	0			High Wind (G51)
	0300PST								

A wind gust of 51 kts was reported at Crowley Lake.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Property Damage	Crops	Character of Storm
CALIFORNIA, Northwest									
Humboldt County									
1 W Trinidad	30	1755PST 1805PST			0	0			Funnel Cloud
Funnel cloud was seen by off-duty National Weather Service employee off the coast near Trinidad.									
CALIFORNIA, South Central									
Fresno County									
17 WSW Mendota	22	1525PST 1540PST			0	0	20K	1.6M	Hail (0.75)
Severe thunderstorms developed over Central California during the afternoon hours. Two distinct bands of thunderstorms moved from the southwest to northeast during this day affecting the Kings/Fresno County area with one band and the Kern County area with the other. Not only did the storms produce numerous incidents of hail and one tornado, but locally heavy rain from one thunderstorm led to local flooding in downtown Bakersfield, Kern County. Hail damage for Fresno and Kings Counties for this day is summarized in this report as ag commissioner figures did not differentiate damage by location within the counties. There were reports that cars were dented by the hail along the west side of the San Joaquin Valley as reported by ag-aviation operators.									
Kern County									
Bakersfield	22	1630PST 1635PST			0	0			Hail (0.75)
Thunderstorm activity in the Bakersfield area brought hail and locally heavy rain during the late afternoon hours of 3/22/97.									
Kern County									
2 SE Bakersfield	22	1630PST			0	0	50K	0	Lightning
Lightning struck the Kern County Ag Commissioner's Office causing extensive damage to sprinkler, power conveyance, and internal office computer equipment.									
Kern County									
10 W Mcfarland to 9.8 W Mcfarland	22	1637PST 1642PST	0.2	10	0	0			Tornado (F0)
Doppler Radar strongly supported meso/tornadic activity west of McFarland and a subsequent report of a tornado was made through the California Highway Patrol Office. However, no damage could be verified in this very rural area of the county.									
Fresno County									
11 N Coalinga	22	1640PST 1650PST			0	0			Hail (0.75)
Spotter report of 3/4 inch hail in western Fresno County.									
Kern County									
Wasco	22	1651PST			0	0			Lightning
During afternoon thunderstorm activity across the South San Joaquin Valley lightning struck quite often...including a house in Wasco. Minimal damage reported by the Sheriff's office.									
Kern County									
Bakersfield	22	1715PST 1745PST			0	0	150K	0	Urban/Sml Stream Fld
Rainfall amounts reported with the afternoon thunderstorms in the Fresno County area indicated 2.2 inches of rain fell inside an hour. Similar heavy rain (0.85 inch in 1/2 hour) in the Bakersfield area of Kern County overcame the storm drain system and street flooding caused several businesses to become inundated. Damage occurred to business inventory and buildings.									
Fresno County									
9 N Avenal	22	1752PST 1800PST			0	0			Hail (1.00)
Spotter report of 1 inch hail...no damage reports directly but again crop damage summarized in earlier report.									
Kings County									
6 W Stratford	22	1804PST 1814PST			0	0	0	20K	Hail (1.50)
Spotter reports of 1.5 inch hail in rural areas of western Kings County. Despite the size of the hail no reports of damage were received. However, it is likely some field crops (grains) did sustain damage but an amount is unable to be assessed.									
CAZ025									
Kern County Desert									
	31	0945PST 1900PST			0	0			High Wind (G75)
Sustained wind speed of 40 Kts / gust to 50 Kts at 0945 PST with the maximum sustained wind of 50 Kts and gusts to 75 Kts at Mojave Airport occurring at 1245 PST. Mountain wave activity affecting the area during the day but no damage sustained.									
CAZ025									
Kern County Desert									
	31	1145PST 1900PST			0	0	0	0	High Wind (G70)
Strong northwest to north wind pushed speeds locally high in the Kern County desert on Monday, March 31. As reported by anemometer readings at Mojave Airport speeds reached 70 knots with sustained wind of 50 knots. No damage reported.									

Storm Data and Unusual Weather Phenomena

March 1997

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

CALIFORNIA, Southeast

NONE REPORTED.

CALIFORNIA, Southwest

NONE REPORTED.

CALIFORNIA, Upper

NONE REPORTED.

CALIFORNIA, West South Central

NONE REPORTED.

CALIFORNIA, Western

NONE REPORTED.

COLORADO, Central and Northeast

COZ033>034-036 Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks - Southern Front Range Foothills/Clear Creek Basin

03	2100MST	0	0	0	Heavy Snow
04	0900MST				

A fast moving Pacific storm system moved across northern Colorado overnight. Conifer, in southern Jefferson County, picked up 9 inches of snow. Other totals included: 8 inches at Breckenridge, 7 inches at Keystone, Loveland Ski Area and Winter Park, with 6 inches at Arapahoe Basin.

COZ038-043>044 Eastern Larimer And Northwestern Weld Counties - Southern Weld County/Greeley And Vicinity - Morgan County/Fort Morgan And Vicinity

04	2100MST	0	0	0	Fog
05	0800MST				

A combination of freshly fallen snow and clear skies overnight allowed for areas of dense fog to develop. Several accidents were reported as visibilities were reduced to near zero at times.

COZ033>036-041 Rabbit Ears & Medicine Bow Ranges/Rocky Mountain National Park - Summit County/Mosquito Range/Indian Peaks - Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Southern Front Range Foothills/Clear Creek Basin - Eastern Douglas And Western Elbert Counties/Castle Rock And Vicinity

24	0430MST	0	0	0	Heavy Snow
	1600MST				

An early spring storm system moving across Wyoming and into northern Colorado brought more snow to portions of the northeast. Several accidents occurred along the I-70 corridor between Frisco and Copper Mountain as roads became snowpacked and slick. The accidents resulted in several injuries and one fatality.

Snowfall totals in the North Central Mountains and Front Range Foothills included: 10 inches at Breckenridge, 9 inches at the Mount Evans Research Station, 7 inches one mile east of Buckhorn Mountain, 5 inches at Evergreen, with 4 inches reported at Keystone and Winter Park.

Heavy snow over the Palmer Divide caused snowpacked and slick road conditions to develop by afternoon. One woman was killed when she lost control of her vehicle along Colorado Highway 82 near Castle Rock. By late afternoon, Larkspur received a total of 5 inches of snow while Elizabeth reported 4 inches.

COZ035-038-042>043-048-050 Northern Front Range Foothills/Upper Laramie And Cache La Poudre River Basins - Eastern Larimer And Northwestern Weld Counties - Northeastern Weld County - Southern Weld County/Greeley And Vicinity - Logan County/Sterling And Vicinity - Sedgwick And Phillips Counties

27	1500MST	0	0	0	High Wind (G70)
	2100MST				

A strong low pressure system moving through North Dakota triggered high winds across portions of northeast Colorado. The strongest winds occurred during the late afternoon and evening behind a fast moving cold front. Peak wind gusts from 60 to 80 mph caused extensive damage.

Storm Data and Unusual Weather Phenomena

March 1997

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

In New Raymer, strong wind gusts blew a metal roof off a barn. In Greeley, several telephone poles and power lines were downed. Scattered outages were reported from Ault to La Salle with a least 20 trees downed around the city including a 100-ft blue spruce. Elsewhere, three semi-trucks were blown over by strong cross winds along I-25 near Wellington, and I-76 between Sterling and Julesburg. No injuries were reported.

Peak wind gusts included: 80 mph (70 kts) 21 miles north of New Raymer, 75 mph (65 kts) 6 miles south of New Raymer and 1 mile east of Buckhorn Mountain, 71 mph (61 kts) 4 miles east of Haxtun, 70 mph (60 kts) 9 miles west-southwest of Rustic and 2 miles east of Greeley, 64 mph (56 kts) 15 miles west-northwest of Sterling and 60 mph (52 kts) at Hereford.

COLORADO, East Central

NONE REPORTED.

COLORADO, South Central and Southeast

COZ070

Wet Mountains

04	1130MST								
	2300MST			0	0				Heavy Snow

A small storm system raced through the area, bringing a quick burst of 4 to 7 inches of heavy snow accumulations to the Wet Mountains. Rye and Beulah had between 6 and 7 inches of snowfall.

COZ062>067-070>073

Northern San Luis Valley/Del Norte And Vicinity - Alamosa County/Alamosa And Vicinity - Southern San Luis Valley - Northern Sangre De Cristo Mountains - Southern Sangre De Cristo Mountains - Teller County/Rampart Range/Pikes Peak - Wet Mountains - Southern El Paso County/Colorado Springs And Vicinity - Northern El Paso County/Monument Ridge - Pueblo And Eastern Fremont Counties/Pueblo And Vicinity

24	1130MST								
	25 0045MST			0	0				Heavy Snow

A disturbance in the upper levels combined with low level upslope winds produced widespread snow across southeast and south central Colorado. The mountainous areas received storm totals between 1 and 2 feet, while the surrounding areas reported snowfall amounts of 3 to 8 inches. Aspen Acres in Custer county had 21 inches of snow, Cuchara picked up 19 inches of new snow, while Rye tallied up to 13 inches. The wintery weather created dangerous travelling conditions for motorists in the area. In eastern Fremont county, a multi-vehicle accident occurred on Highway 50.

COLORADO, West

COZ004-009>010-012-018

Elkhead And Park Mountains/Flat Tops/White River Plateau - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Northwestern San Juan Mountains

01	0000MST								
	0600MST			0	0				Winter Storm

A moist upper trough generally produced 4 to 8 inches of new snow in most mountain areas of western Colorado before exiting to the east. 9 inches was reported above Aspen. Strong winds in exposed areas produced snow drifts up to 4 feet deep.

COZ002-004>005

Central Yampa River Basin/Craig-Hayden And Vicinity - Elkhead And Park Mountains/Flat Tops/White River Plateau - Upper Yampa River Basin/Steamboat Springs And Vicinity

03	0100MST								
	1000MST			0	0				Winter Storm

An embedded disturbance in a brisk northwest flow aloft produced 4 to 8 inches of new snow in many northwest valleys and northern mountains of western Colorado. Wind gusts of 40 to 50 MPH resulted in blowing and drifting snow.

COZ003>004-007-009>011-014-017

Roan And Tavaputs Plateaus - Elkhead And Park Mountains/Flat Tops/White River Plateau - Debeque Rifle Glenwood Springs Corridor - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - Central Gunnison And Uncompahgre River Basin/Montrose And Vicinity - Upper Gunnison River Valley/Gunnison And Vicinity - Uncompahgre Plateau

03	2000MST								
	04 1000MST			0	0				Winter Storm

An embedded upper trough in a northwest flow brought 6 to 12 inches of new snow to the northern and central mountains as well as some valleys of western Colorado. Aspen and Snowmass ski areas both reported accumulations of 15 inches. Strong winds caused extensive blowing and drifting snow.

COZ004-009>010-012-018

Elkhead And Park Mountains/Flat Tops/White River Plateau - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Northwestern San Juan Mountains

24	0400MST								
	25 0300MST			0	0				Winter Storm

A Canadian trough dropped down over the region and produced 5 to 10 inches of new snow over most mountain areas of western Colorado. 30 to 50 MPH winds in exposed areas resulted in blowing and drifting snow.

Storm Data and Unusual Weather Phenomena

March 1997

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

COLORADO, West

COZ002

Central Yampa River Basin/Craig-Hayden And Vicinity

27	1400MST 1415MST				0	0	1K		High Wind
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Strong winds in the vicinity of a cold front blew over a large propane tank and a shed in the town of Craig. The winds also picked up a large trampoline and sent it rolling down a road.

COZ006

Grand Valley/Grand Junction And Vicinity

27	1730MST 1800MST				0	0			High Wind (G55)
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Strong winds associated with a cold front buffeted the Grand Junction area. An anemometer at a local television station recorded a peak gust of 63 MPH (55 knots), while Walker Field Airport had a gust to 49 MPH (43 knots).

COZ004-009>010-012-018

Elkhead And Park Mountains/Flat Tops/White River Plateau - Grand And Battlement Mesas - Gore And Elk Mountains/Central Mountain Valleys/Aspen And Vicinity - West Elk And Sawatch Mountains/Taylor Park - Northwestern San Juan Mountains

28	2000MST				0	0			Heavy Snow
29	0900MST								

A fast moving upper trough from the northwest generally brought 5 to 10 inches of new snow to most mountain areas of western Colorado. The Aspen ski area reported a total accumulation of 11 inches.

Mesa County

2 WNW Fruita

31	1800MST 1805MST				0	0	1K		Thunderstorm Wind (G52)
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A microburst resulted in damage to a pop-up camper. A nearby weather spotter recorded a peak wind of 60 MPH (52 knots) from the thunderstorm.

CONNECTICUT, Northeast

CTZ002>004

Hartford - Tolland - Windham

06	0800EST 1800EST				0	0			Strong Winds
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CTZ002-004

Hartford - Windham

06	1300EST 1700EST				0	0			High Wind (G65)
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High winds with gusts reaching 50 to 76 mph from the west and northwest occurred across the state in the wake of a strong low pressure system that passed through New England and into the Gulf of Maine. Wind speeds increased dramatically around mid-morning and the strongest winds occurred during the afternoon. Buildings and vehicles were damaged by falling trees and tree limbs in many communities throughout the state. Some roads were blocked by fallen trees and limbs. Up to 60,000 electric customers lost power statewide, but most of the power was restored within 12 hours. A peak gust to 76 mph was reported from Plainfield in Windham County at 3:01 PM. Other peak gusts included: 65 mph at Burlington; 53 mph at Bradley International Airport in Windsor Locks in Hartford County; and 48 mph at Willimantic in Windham County.

CTZ002>003

Hartford - Tolland

14	0800EST				0	0			Ice Storm
15	0000EST								

Snow changed to freezing rain and ice accretions of 1/4 to 1/2 inch were reported in parts of northern Connecticut. In the higher elevations outside the Connecticut River Valley, such as Suffield, ice accretion up to 1 inch was reported. Some roads were closed due to fallen tree limbs and scattered power outages were reported.

CTZ002>004

Hartford - Tolland - Windham

31	1400EST 2359EST				0	0			Strong Winds
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CTZ002>004

Hartford - Tolland - Windham

31	1500EST 2359EST				0	0			Heavy Snow
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A low pressure system formed off the New Jersey coast during the early morning hours and intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island by early evening. Pressure falls of 14 millibars occurred during a 12 hour period. The system then retreated to the south during the evening.

Precipitation began mostly as rain during the morning of March 31st. It began mixing with and finally changing to all heavy, wet snow during the afternoon. Snow began accumulating rapidly, especially in the higher elevations. Blizzard conditions developed by late afternoon and evening as northeast winds increased and gusted to 30 to 40 mph.

Numerous power outages began to occur by evening as the weight of the wet snow brought tree limbs and wires crashing down. Snow accumulations of more than one foot were reported by midnight, especially in the higher elevations, with 6 to 12 inches elsewhere.

Storm Data and Unusual Weather Phenomena

March 1997

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

The final report on this storm will be included in April 1997 Storm Data.

CONNECTICUT, Northwest

CTZ001	Litchfield								
	14	0400EST			0	0	8K		Winter Storm
		2300EST							

On March 14, a complex area of low pressure tracked from northern Ohio northeast to southern Ontario Canada. This system produced several hours of heavy snow across Litchfield County. The snow changed to sleet and freezing rain which caused significant icing. Snowfall totals generally ranged from 2 to 4 inches. The icing resulted in treacherous driving conditions along with downed trees and power lines. Scattered power outages occurred across this area.

CTZ001	Litchfield								
	31	0800EST			0	0	1M		Winter Storm
		2359EST							

On March 31 and April 1, a classic late season nor'easter tracked from the Chesapeake Bay area northeast to central coastal New Jersey then slowly out to sea. This system produced rain across Litchfield County during the morning hours of March 31. The rain changed to heavy wet snow by early afternoon. Snowfall amounts were highly elevation dependent, with up to two feet of snow reported in the Litchfield Hills. Some specific snowfall totals included: 21 inches at Norfolk, 19 inches at Bakersville, 15 inches at Winchester and 12 inches at Litchfield. The wet snow brought down many trees and power lines causing widespread power outages and road closures. Approximately 30,000 customers lost power. Some areas remained without power for several days. Power outages were most widespread in the Towns of Cornwall and Goshen. More than 150 residences needed the utility line from the pole to the house replaced. Across the county, 6 utility poles and 16 transformers had to be replaced along with 80,000 feet of primary power line.

CONNECTICUT, Southern

CTZ005>012	Northern Fairfield - Northern New Haven - Northern Middlesex - Northern New London - Southern Fairfield - Southern New Haven - Southern Middlesex - Southern New London								
	06	0905EST			0	1			High Wind (G66)
		1600EST							

As a large and intense low pressure system moved from Kentucky east-northeast just north of New York City and across Eastern Massachusetts, it caused high winds. Winds gusted over 60 MPH at many locations. They knocked down trees and power lines on houses and streets.

In Wilton of Fairfield County, a person was injured when high winds knocked down a tree on a car.

Here are selected highest wind gusts for:

Fairfield County: 61 MPH at both Bridgeport and Danbury.

New Haven County: 76 MPH at Oxford and 60 MPH at Meriden.

CTZ009>010-012	Southern Fairfield - Southern New Haven - Southern New London								
	31	0800EST			1	0			Coastal Storm
		2359EST							

An intense low pressure system developed off the DELMARVA Coast during Monday morning. It moved slowly east-northeast, passing south of Long Island Monday afternoon and southeast of Cape Cod, MA during Tuesday morning, April 1st.

Heavy rain developed by late Monday morning. As winds increased, it became wind-swept. Rain gradually mixed with sleet and snow before it changed to wet snow by Monday evening. Peak wind gusts ranged from 40 to 50 mph.

Here are selected rainfall amounts for:

Southern Fairfield County: from 1.20 inches at Bethel to 1.49 inches at Bridgeport Airport.

Southern New Haven County: from 1.28 inches at North Cheshire to 2.16 inches at East Haven.

Here are selected snowfall amounts for:

Southern Fairfield County: from 2 inches at Greenwich to 5.3 inches at New Canaan.

Storm Data and Unusual Weather Phenomena

March 1997

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

DELAWARE

DEZ001>002	New Castle - Kent								
	31	0800EST 2359EST			0	0			Wind
DEZ003>004	Inland Sussex - Delaware Beaches								
	31	0800EST 2359EST			0	0	0		High Wind (G50)
DEZ001	New Castle								
	31	1300EST 2359EST			0	0			Heavy Snow

A late season snowstorm dropped some of the heaviest snow of all winter in northwestern parts of New Castle County from the afternoon on March 31st into the morning of April 1st. The low pressure system responsible for this looked rather innocuous on March 30th as it moved with its associated cold front through the Midwest. Temperatures that day (Easter Sunday) warmed into the 70s across most of Delaware. But as the low intensified off the New Jersey Coast on March 31st, it pulled down colder air. The heavy precipitation it created also cooled the atmosphere and changed the rain over to snow at times of heavier precipitation bursts in the northern half of the state from the afternoon of March 31st into the early morning of April 1st. These bands of heavier snow moved through the Middle Atlantic States and caused wide variations in accumulations that were both location (underneath these bands) and elevation dependent. One such band affected the northwest part of New Castle County where accumulations exceeded five inches. Less snow (3 to 4 inches on average) accumulated farther southeast including the city of Wilmington.

Strong northwest winds on both March 31st and April 1st caused some blowing and drifting of the snow in northwest New Castle County. In addition, the weight of the heavy, wet snow tore down tree limbs and produced scattered power outages. Very little snow accumulated farther south in Delaware, but gusty northwest winds that circulated around the low pressure system buffeted the state for two days. The peak wind gust at the New Castle County Airport was 43 mph, but stronger gusts occurred farther south. A wind gust of 58 mph was recorded by the Cape May/Lewes Ferry. The strong winds also pulled down power lines and caused scattered outages in Sussex County and isolated outages in Kent County. The very strong winds also forced the Cape May/Lewes Ferry to reduce their number of trips across Delaware Bay.

DISTRICT OF COLUMBIA

DCZ001	District Of Columbia								
	06	0600EST 1600EST			0	0	15K		Gusty Winds

The combination of deep low pressure over the Canadian Maritime region with arctic high pressure over the midwestern U.S. produced northwesterly wind gusts to 50 mph or greater on land and as high as 54 mph on the Chesapeake Bay. Scattered property damage and power outages were reported in the city.

DCZ001	District Of Columbia								
	31	1600EST 2359EST			0	0	30K		Gusty Winds

A nor'easter, languishing off the middle Atlantic coast, produced sustained winds of 25 to 35 mph with gusts to 50 mph in the District of Columbia. Minor damage was reported to buildings, power lines, and trees. The gusty winds forced the closure of the Washington Monument for two days during the peak of the spring tourist season, and also blew away the famed Japanese cherry blossoms a full week before the festival and parade. An airliner on approach to Washington/National Airport was forced to divert to Washington/Dulles after twice aborting a landing.

Along the Anacostia River, a 19th-century barge was uncovered as the northwest winds aided an anomalously low tide. On land, a

Storm Data and Unusual Weather Phenomena

March 1997

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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DISTRICT OF COLUMBIA

portion of brick wall was destroyed at the Capital Children's Museum.

FLORIDA, East Central

Orange County

3 E Orlando	29	1315EST			0	0	5K		Thunderstorm Wind
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Severe thunderstorm winds blew down trees and power lines.

Seminole County

Oviedo	29	1400EST			0	0	5K		Thunderstorm Wind
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Trees were blown down in Oviedo damaging one car.

Brevard County

Titusville	29	1428EST			0	0	10K		Tstm Wind/Hail
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Trees and power lines were blown down and dime size hail was reported in Titusville.

Brevard County

Cape Kennedy Rgnl	29	1433EST			0	26	100K		Thunderstorm Wind (G58)
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Severe thunderstorm winds swept across the Cape Kennedy Space Center producing a wind gust to 58 knots and widespread wind damage. Twenty six people were injured by flying glass when winds blew out windows on three tour busses. Numerous other cars in the areas had damaged windows. Power lines and trees were blown down. Elsewhere at Cape Kennedy roofs, scaffolding, golf carts, out buildings, garage bay doors, antennas and cars were also damaged.

FLORIDA, Northeastern

Flagler County

St Johns Park	21	1605EST			0	0			Hail (0.75)
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Nassau County

Callahan	30	1420EST			0	0	0.50K		Thunderstorm Wind (G60)
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Large trees were blown down.

Duval County

6 N Mayport	30	1515EST			0	0	0.02K		Thunderstorm Wind (G60)
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Large tree limbs were blown down.

Suwannee County

Live Oak	31	1950EST			0	0			Hail (0.75)
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FLORIDA, Northwest

Jackson County

Marianna	28	1230CST			0	0	30K	0	Thunderstorm Wind
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In the Indian Springs area on the east side of Marianna, several homes received damage mainly from fallen trees. Trees were blown down around the clubhouse of a golf course damaging the roof of a large shed. Some hail was reported south of Marianna. In Alford, a shed was destroyed.

Leon County

Tallahassee	30	1235EST 1300EST			0	0			Hail (1.75)
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Hail as large as golf balls fell across northern and eastern parts of Tallahassee.

FLORIDA, Southern

Broward County

3Nm East Of Pmp	04	1036EST			0	0			Waterspout
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OBSERVED BY AIRPORT PERSONNEL.

Monroe County

6Nm Se Of Eyw	05	1349EST 1353EST			0	0			Waterspout
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OBSERVED BY NWS PERSONNEL

Broward County

30Nm E Hallandale	06	0921EST 0925EST			0	0			Funnel Cloud
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PILOT REPORT

Dade County

30Nm E Of Cape Fla.	06	1319EST			0	0			Waterspout
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PILOT REPORT

Storm Data and Unusual Weather Phenomena

March 1997

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

NONE REPORTED.

GEORGIA, Lower

Coffee County

Nicholls

25 1640EST 0 0 Hail (1.00)

Coffee County

Douglas

25 1645EST 0 0 0.05K Thunderstorm Wind (G60)
Large limbs and trees were blown down.

Clinch County

Homerville

28 1828EST 0 0 0.05K Thunderstorm Wind (G60)
Large trees were blown down.

GEORGIA, North and Central

Gordon County

Calhoun

03 0601EST 0 0 1K 0 Thunderstorm Wind
Trees were knocked down on power lines on Joanne Drive in Calhoun, causing a small brush fire.

Floyd County

1 N Rome to
5 E Rome

05 1710EST 0 0 1K 0 Thunderstorm Wind
1715EST

The Floyd county EMA director reported a few trees were knocked down in the Rome area. A spotter reported trees down in Floyd county on highway 293 east of Rome toward the Bartow county line.

Gordon County

Calhoun

05 1726EST 0 0 1K 0 Thunderstorm Wind
Two large tree limbs were knocked down within the city of Calhoun.

Bartow County

Adairsville

05 1730EST 0 0 5K 0 Thunderstorm Wind
Thunderstorm winds blew two vents off the roof of City Hall.

Bartow County

Cartersville

05 1730EST 0 0 1K 0 Thunderstorm Wind
The same line of severe thunderstorms knocked two trees down near Cartersville at highway 113 and Hardy Road.

Bartow County

9 SE Cartersville

05 1745EST 0 1 5K 0 Thunderstorm Wind

In extreme southeast Bartow county just north of Ackworth, thunderstorm winds knocked several trees down in yards. A female was injured when a limb struck her on the head. Phone and cable lines were also snapped.

Cherokee County

Woodstock to
Buffington

05 1800EST 0 0 25K 0 Thunderstorm Wind
1815EST

Twenty-six locations along a line from Woodstock to Hickory Flat to Canton to North Canton to Yellow Creek to Buffington had either trees down or power lines snapped. Several roads were closed in the county due to fallen trees. Gaddis road was not opened back up until early the following morning. There was an unconfirmed report of a tornado, but the damage patterns indicated straight-line winds.

Cobb County

Kennesaw to
Marietta

05 1815EST 0 0 3K 0 Thunderstorm Wind

Cobb county 911 reported thunderstorm winds knocked down several trees on roadways in both Kennesaw and Marietta.

Forsyth County

Cumming to
8 NE Cumming

05 1825EST 0 0 5K 0 Thunderstorm Wind
1830EST

Thunderstorm winds knocked over trees along a path from Cumming to 8 miles northeast of Cumming at Georgia State highway 53.

Fulton County

Sandy Spgs to
6 N Sandy Spgs

05 1830EST 0 0 3K 0 Thunderstorm Wind
1836EST

Thunderstorm winds knocked numerous trees down along Roswell Road from Sandy Springs to Dunwoody Place, and also on the north side of the Chattahoochee River.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Hall County Murrayville	05	1830EST			0	0	10K	0	Thunderstorm Wind Straight-line winds knocked trees over in the Yellow Creek Road and Barkers Bend Drive area. Several power lines were snapped and 5000 customers of Sawnee Electric Management Cooperative were without power for at least 2 hours. The public reported 2 funnels. A mobile home was moved off its foundation.
Dawson County Dawsonville	05	1836EST			0	0	2K	0	Thunderstorm Wind Thunderstorm winds blew down a couple of power lines in Dawsonville.
Gwinnett County Duluth	05	1840EST			0	0	1K	0	Thunderstorm Wind (G60) A CNN meteorologist estimated wind gusts at 60 miles per hour. Several large tree limbs were knocked down near the Gwinnett Place mall.
Gwinnett County Lawrenceville	05	1900EST			0	0	2K		Thunderstorm Wind Thunderstorm winds broke several power lines outside an apartment complex.
Barrow County Bethlehem	05	1925EST			0	0	3K	0	Thunderstorm Wind Thunderstorm winds caused power lines to snap and trees were knocked down on Smith Mill Road in the Bethlehem area.
Walton County Monroe	05	1925EST			0	0	2K	0	Thunderstorm Wind Thunderstorm winds knocked trees down on power lines in and around Monroe.
Clarke County Athens to 5 NE Athens	05	1935EST 1940EST			0	0	1K	0	Thunderstorm Wind A National Weather Service employee reported thunderstorm winds knocked three trees down along highway 29 from Athens toward Danielsville.
Harris County 4 SW Cataula to 3 SW Cataula	13	1730EST 1732EST	1	75	0	0	3K		Tornado (F0) The F0-F1 tornado that moved through Columbus in Muscogee county continued northeastward about a mile inside the Harris county line. Site survey done by the Birmingham NWSFO confirmed this track. Their report indicated damage to trees in Harris county before the tornado dissipated.
Harris County Hamilton	13	1745EST			0	0	2K		Thunderstorm Wind A National Weather Service employee reported 6 trees were blown down.
Talbot County 2 NW Pleasant Hill	13	1750EST			0	0	0		Thunderstorm Wind A site survey by a NWS employee indicated a few trees were knocked down by thunderstorm winds along Taylor Road between Pleasant Hill and the Meriwether county line. The time was estimated.
Meriwether County Manchester to 3 N Gay	13	1805EST 1820EST			0	0	2K		Thunderstorm Wind Meriwether Fire and Rescue reported downed trees and power lines in Manchester and 3 miles north of Gay.
Fayette County Fayetteville	13	1855EST			0	0	2K		Lightning Lightning struck the 911 communications center's tower causing damage to two modems and some circuitry. The county 911 system was off the air for a few minutes before operators switched to a back-up system.
Douglas County Douglasville	13	2205EST			0	0	2K		Thunderstorm Wind A Ham operator reported trees down in many areas. Saturated ground and winds estimated at 35 to 40 mph were responsible. Douglas county sheriff reported a metal tool shed had blown across the road.
Cobb County Mableton	13	2300EST			0	0	1K		Thunderstorm Wind Cobb county fire department reported large tree limbs were blown down.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Wilkes County									
Rayle	25	1710EST			0	0			Hail (1.75)
Wilkes County									
Rayle	25	1710EST			0	0	5K		Thunderstorm Wind
The Wilkes county commisioner reported golfball size hail, trees downed by thunderstorm winds and shingles blown off of a store.									
Walton County									
.5 NW Monroe	25	1910EST			0	0			Hail (0.75)
Dime size hail was reported 1/2 mile northwest of Monroe.									
Oconee County									
Watkinsville	25	1940EST 1945EST			0	0			Hail (0.75)
The Watkinsville police reported dime size hail in the downtown area.									
Coweta County									
Grantville	25	1955EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds knocked down a tree and some power lines.									
Bartow County									
1 N Cassville	29	0030EST			0	1	30K		Thunderstorm Wind
Thunderstorm winds, described as a possible tornado, overturned a mobile home and damaged another home on Cedar Creek Road. A man suffered a slight head injury.									
Chattooga County									
3 W Summerville	29	0230EST			0	0			Hail (0.75)
Chattooga county 911 reported nickel size hail.									
Fannin County									
Epworth	29	0230EST			0	0	0.50K		Thunderstorm Wind
Fannin County 911 reported trees down across Hard Scrabble Road.									
Union County									
10 NW Blairsville to 5 NE Blairsville	29	0230EST 0240EST			0	0	60K		Thunderstorm Wind
Union county 911 reported many trees were downed by thunderstorm winds. The EMA director said the damage was light to moderate across north portions of Union county as trees were blown down across roads and on several houses.									
Towns County									
Hiawassee	29	0300EST	0.1	25	0	0	75K		Tornado (F1)
A brief F1 tornado touchdown knocked trees down. A mobile home was picked up onto another mobile home. The second floor of a house was gone. The length, width and damage were estimated.									
Heard County									
12 NW Franklin	30	1740EST			0	0			Hail (1.00)
Heard county sheriff's office reported quarter size hail in Ephesus.									
Severe thunderstorms developed in eastern Alabama and western Georgia late in the afternoon on Easter Sunday. A severe thunderstorm watch was issued for the area at 432 pm EST. The storms were initially hail producers, but the main threat soon became damaging winds. As the storms became more organized they formed a line that swept across central to southeast Georgia by late that evening. Damaging straight-line winds were common from south of the Atlanta area all the way into southeast sections of the state.									
Heard County									
5 NE Franklin	30	1758EST			0	0			Hail (0.75)
A HAM Spotter reported dime size hail.									
Coweta County									
Welcome to Madras	30	1805EST			0	0	3K		Thunderstorm Wind
Coweta county Fire Department reported a large oak tree fell on the roof of a home on Baxter Beavers Road in the community of Welcome. An NWS employee reported thunderstorm winds knocked down two trees in the Madras area.									

Storm Data and Unusual Weather Phenomena

March 1997

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									
Butts County									
Jackson	30	1900EST			0	0	5K		Thunderstorm Wind
	Georgia Emergency Management and Butts county 911 reported the roof of a storage facility was torn off and strewn along the road and in yards. Power lines were also downed.								
Marion County									
Tazewell	30	1940EST			0	0	0		Thunderstorm Wind
	Marion county sheriff reported thunderstorm winds blew two trees down.								
Crawford County									
7 NE Knoxville	30	1945EST			0	0	0.50K		Thunderstorm Wind
	A spotter reported thunderstorm winds knocked trees down in northern Crawford county.								
Bibb County									
Macon	30	2000EST			0	0	0.50K		Thunderstorm Wind
	Bibb county sheriff's office reported a couple of trees down on Holly Court in Macon.								
Houston County									
Perry to Warner Robins	30	2000EST 2030EST			0	0	2K		Thunderstorm Wind
	Thunderstorm winds knocked trees and power lines down.								
Peach County									
Fort Valley	30	2016EST			0	0	5K		Thunderstorm Wind
	Peach county EMA reported several trees were downed. One fell on a house, causing damage.								
Wilkinson County									
Irwinton to Toombsboro	30	2047EST 2055EST			0	0	3K		Thunderstorm Wind
	The Wilkinson county sheriff's office reported trees down between Irwinton and Toombsboro. Trees were also downed in the Irwinton city limits.								
Laurens County									
Dexter to Cadwell	30	2049EST 2055EST			0	0	1K		Thunderstorm Wind
	Laurens county 911 reported a tree down in Dexter and the public reported trees down in Cadwell.								
Bleckley County									
Cochran	30	2055EST			0	0	5K		Thunderstorm Wind
	Bleckley county sheriff reported numerous trees were downed in and around Cochran. Power lines were also snapped.								
Johnson County									
15 W Wrightsville to Wrightsville	30	2100EST 2145EST			0	0	3K		Thunderstorm Wind
	The Johnson county sheriff's office reported several trees were downed by thunderstorm winds.								
Washington County									
Tennille to Harrison	30	2100EST 2110EST			0	0	3K		Thunderstorm Wind
	Washington county 911 reported trees downed by thunderstorm winds between Tennille and Harrison, and over the general area.								
Emanuel County									
Swainsboro to 6 N Swainsboro	30	2151EST			0	0	1K		Thunderstorm Wind
	Emanuel county 911 reported reported several trees down in the city. Another tree was downed 6 miles north of Swainsboro in Dellwood.								
Montgomery County									
Uvalda	30	2200EST			0	0	5K		Thunderstorm Wind
	The Toombs county EMA director for both Montgomery and Toombs counties reported numerous trees down in Uvlada.								
Toombs County									
Cedar Crossing to 10 ENE Cedar Crossing	30	2215EST 2230EST			0	0	150K		Thunderstorm Wind
	The Toombs county EMA director reported numerous trees down in Cedar Crossing and along highway 56 in the southern part of the county from Cedar Crossing to Johnson Corner. Power lines were blown down, two chimneys were blown off of a house and the roof was blown off of an equipment shed at an onion processing facility. A barn was also demolished. There were two unconfirmed reports of tornadoes.								

Storm Data and Unusual Weather Phenomena

March 1997

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

Emanuel County

1 SW Garfield

30 2230EST

0 0

1K

Thunderstorm Wind

Emanuel county 911 received a report of trees down on highway 23.

GEORGIA, Northeast

Rabun County

Countywide

14 0015EST

0 0

Flood

0400EST

Heavy rain in 6 to 12 hours resulted in some gradual rises on streams. One bridge was washed out and some homes were isolated for several hours 4 W Clayton.

Rabun County

9 W Clayton

29 0300EST

0 0

Thunderstorm Wind (G50)

0305EST

Rabun County

9 W Clayton

29 0300EST

0 0

Hail (0.75)

0310EST

A severe thunderstorm at the Towns county line hit Deep Gap shelter, lifting the shelter and blowing down a number of trees nearby. Large hail also fell. In Franklin county, "large" hail was reported along I-85 near Carnesville but the size was not given.

GEORGIA, Southeast

Screven County

Dover

30 2246EST

0 0

Thunderstorm Wind (G50)

2251EST

TREE LIMBS AND POWER LINES DOWN.

GEORGIA, Southwest

Lee County

Countywide

29 1615EST

0 0

Hail (1.25)

30 1615EST

Quarter sized hail was reported by the county sheriff's office.

Lowndes County

Northern

30 1230EST

0 0

Hail (2.50)

Lowndes County sheriff's office received reports of large hail in the northern part of the county. A windshield was reported to be broken by the hail.

Brooks County

Quitman

30 1245EST

0 0

Hail (0.75)

Brooks county sheriff's office reported hail.

Grady County

Cairo

30 1826EST

0 0

Hail (1.25)

A SKYWARN spotter reported quarter sized hail falling in Cairo.

GEORGIA, West Central

GAZ089

Muscogee

01 0000EST

0 0

0

0

Excessive Heat

31 2359EST

It was the warmest March ever recorded at Columbus with an average temperature of 63.4 degrees. It was also the third driest month in Columbus with only 1.86 inches of rain.

GAZ089

Muscogee

01 1200EST

0 0

0

0

Excessive Heat

1800EST

A new record high of 82 degrees was reported at Columbus.

GAZ089

Muscogee

03 1200EST

0 0

0

0

Excessive Heat

1800EST

A record high of 83 degrees was set at Columbus.

Stewart County

Lumpkin

13 1601EST

0 0

5K

0

Hail (1.00)

Quarter size hail fell at Lumpkin.

Storm Data and Unusual Weather Phenomena

March 1997

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

Muscogee County

**1.5 SSE Columbus to
9.5 NE Columbus**

13	1712EST 1730EST	9.3	150	0	1	750K	25K	Tornado (F1)
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An F1 tornado moved diagonally across the city of Columbus and Muscogee County before ending about one mile into Harris County. The total tornado track was about 10 and a quarter miles long, one mile in Harris County and the rest in Muscogee County.

The tornado began at 5:12 pm EST on the southside of Columbus first touching down on Martin Luther King Boulevard where a business was partially de-roofed. The tornado moved northeastward through primarily residential sections such as Wynnton Grove, Averett Woods and Hilton Heights. Damage in these areas was primarily to trees and power lines.

The tornado crossed Interstate 185 in the vicinity of Columbus College. Hardaway High School suffered roof damage to the gym as well as damage to the athletic field and equipment. A couple of portable classrooms at Columbus College were destroyed, one was thrown across I-185.

The tornado continued northeast across the Peachtree Mall and the Columbus airport terminal. Relatively minor damage was done in these areas. The observation equipment at the Columbus airport recorded a wind gust to 58 knots (67 mph) at 5:23 pm. Damage increased as the tornado moved into the residential areas of Wayne Terrace, Windsor Park, and Lyn Hills located north of the airport. Tornado intensity was stronger in this area though damage continued to be primarily to trees with many falling on house. A number of houses sustained roof damage but few actually lost portions of their roofs.

Continuing northeast, the tornado moved through the North Oaks, Charter Oaks, and Bridlewood residential areas with only minor damage to trees and house tops - generally shingles blown off. The tornado crossed J. R. Allen Parkway just to the south-southwest of Shaw High School. Additional damage in the form of downed trees occurred on Pierce Chapel Road at the Muscogee/Harris county line. Damage to trees continued approximately one mile into Harris County before the tornado dissipated.

There was only one injury - a broken arm - attributed to the tornado. EMA reported 40 houses damaged, three uninhabitable. Immediately following the storm, 20,000 electric customers were without power.

GAZ089

Muscogee

22	1200EST 1800EST			0	0	0	0	Excessive Heat
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A new record high of 84 degrees was set at Columbus.

GAZ089

Muscogee

29	1200EST 1800EST			0	0	0	0	Excessive Heat
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A new record high of 85 degrees was established at Columbus.

Muscogee County

4 S Columbus

30	1800EST			0	0	3K	0	Hail (0.75)
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Dime size hail was reported a few miles south of Columbus.

HAWAII

HIZ001>006

Kauai - Oahu - Maui - Island Of Hawaii - Molokai - Lanai

06	1000HST			0	0	High Surf		
07	1100HST							

A storm low near the Kuril Islands northeast of Japan generated swell that produced surf of 8 to 12 feet along the north and west shores of the Hawaiian Islands. Occasional surf sets to 15 feet were reported along the beaches of Kauai and Oahu.

HIZ004

Island Of Hawaii

06	1000HST			0	0	High Wind (G52)		
07	1400HST							

Strong trade winds accelerating downslope from the Kohala Mountains, the Mauna Kea slopes and the saddle in between, frequently gusted from 50 to 60 mph across the South Kohala District.

HIZ002

Oahu

07	0100HST 1400HST			0	0	High Wind (G35)		
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Strong trade winds with sustained speeds estimated at 40 mph buffeted the Koolau and Waianae Ranges. Higher gusts were reported along the western slopes of the Koolau Range.

Hawaii County

Captain Cook

09	1730HST 1945HST			0	0	Urban/Sml Stream Fld		
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Minor road flooding in the South and North Kona Districts between Keahole Airport and Captain Cook.

Honolulu County

**Waianae to
Waipahu**

11	0745HST 1000HST			0	0	Urban/Sml Stream Fld		
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Minor flooding of streets and low lying areas across western and central Oahu, especially in Waianae and Waipahu.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>HAWAII</u>									
Maui County 2.5 SW Kahului	11	1108HST			0	0			Funnel Cloud
	Two stationary funnel clouds reported by NWS observer at WSO Kahului.								
Kauai County Anahola to Kapaa	11	1435HST 1600HST			0	0			Urban/Sml Stream Fld
	Nearly stationary heavy showers and thunderstorms over the northeast part of the island caused minor flooding of streams from Anahola to Kapaa.								
Honolulu County Wahiawa to Laie	11	1500HST 1630HST			0	0			Urban/Sml Stream Fld
	Heavy showers flooded streets in the Wahiawa and Laie areas. The Molokai WSR-88D estimated rainfall rates of 2 inches per hour from Halemano across the Koolau Range to near Laie.								
HIZ001>006	Kauai - Oahu - Maui - Island Of Hawaii - Molokai - Lanai								
	14	0100HST 1600HST			0	0			High Surf
	A storm low 1100 miles north of the main Hawaii Islands generated swell that produced surf of 8 to 12 feet along the north shores of the islands.								
Hawaii County Kailua Kona	16	0015HST 0400HST			0	0			Urban/Sml Stream Fld
	Nearly 3 inches of rain in 4 hours caused widespread minor flooding of streets and low lying areas in Kailua-Kona Town.								
Honolulu County Kahana to Kaaawa	16	1545HST 1630HST			0	0			Urban/Sml Stream Fld
	The Kahana Stream flooded an area about 75 yards just to the mountain side of the Kamehameha Hwy. Street flooding was reported in Kaaawa and Waikane.								
HIZ004	Island Of Hawaii								
	16	1800HST			0	0			High Wind (G89)
	18	2000HST							
	Westerly winds of 60 to 80 mph with gusts to 102 mph were recorded near the summit of Mauna Kea.								
Honolulu County Honolulu	16	2200HST			0	0			Urban/Sml Stream Fld
	17	0530HST							
	Minor street flooding in many areas throughout Oahu.								
Maui County Maui	16	2300HST			0	0			Urban/Sml Stream Fld
	17	0630HST							
	Heavy showers caused minor street flooding in Kihei and from Lahaina to Napili. The Molokai WSR-88D indicated 3.5 to 4 inches of rainfall in six hours over isolated areas of east Maui along the south slopes of Haleakala.								
Kauai County Lihue	17	0300HST 0700HST			0	0			Urban/Sml Stream Fld
	Heavy showers in the Lihue area caused minor flooding of roads. Additional showers over higher terrain to the northwest brought heavy runoff and minor flooding along the Hanamaulu Stream.								
HIZ003	Maui								
	17	0500HST			0	0			High Wind (G52)
	18	0600HST							
	Westerly winds of 40 to 60 mph occurred near the summit and upper slopes of Haleakala.								
Hawaii County Hawaii	17	0700HST 1400HST			0	0			Urban/Sml Stream Fld
	Heavy showers produced runoff and minor flooding in the North and South Kona Districts.								
Honolulu County Maili to Kailua	17	0845HST 1100HST			0	0			Urban/Sml Stream Fld
	Minor street flooding was reported in Maili, Kaakako, and Kailua.								

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>HAWAII</u>									
Hawaii County									
Naalehu	17	1100HST 1400HST			0	0			Urban/Sml Stream Fld
									Roads near Naalehu were flooded by heavy showers for several hours.
Maui County									
Maui	17	1400HST 1930HST			0	0			Urban/Sml Stream Fld
									Roads were closed by minor flooding in the Kihei, Makena, and Kahului areas, and through parts of central Maui. Heavy rains on the Kaupo Coast caused Nuanualoa Stream to flood, prompting the closure of Piilani Highway between Kaupo and Kipahulu.
Maui County									
10 NW Kaupo	17	1530HST			0	0			Lightning
									Lightning struck a transformer at the Rockwell Power Systems station near the summit of Haleakala, shutting down electrical power at the station for over 16 hours.
Hawaii County									
Hawaii	17 18	2015HST 0200HST			0	0			Urban/Sml Stream Fld
									Persistent heavy showers caused minor flooding of highways in the North and South Kohala and Hamakua Districts.
Honolulu County									
Maili to Honolulu	23	1015HST 1530HST			0	0			Urban/Sml Stream Fld
									Runoff from heavy rains caused minor flooding along the Farrington Highway in Maili. A mudslide closed one lane of the Moanalua Freeway in Honolulu near the Middle Street overpass. Honolulu IAP received 2.18 inches of rain in the 24 hours ending at 8 p.m. on the 23rd. This is one-tenth of the average annual rainfall for Honolulu IAP.
Hawaii County									
Hawaii	23	1630HST 1900HST			0	0			Urban/Sml Stream Fld
									Minor flooding of roads occurred in the Kau District due to heavy showers.
HIZ001>006									
									Kauai - Oahu - Maui - Island Of Hawaii - Molokai - Lanai
	24 25	0800HST 1700HST			0	0			High Surf
									A gale low northwest of the Hawaiian Islands generated swell that produced surf of 8 to 12 feet along the north facing shores of the islands.
Hawaii County									
Hilo	24	1445HST 2200HST			0	0			Urban/Sml Stream Fld
									Heavy showers caused ponding and minor street flooding in the town of Hilo and the Puna District.
Hawaii County									
Pahala	24	1900HST 2215HST			0	0			Urban/Sml Stream Fld
									Minor road flooding in the Kau District, mainly in the vicinity of Pahala.
<u>IDAHO, Extreme Southeast</u>									
									NONE REPORTED.
<u>IDAHO, North</u>									
									NONE REPORTED.
<u>IDAHO, Northwest</u>									
									NONE REPORTED.
<u>IDAHO, Southeast</u>									
									NONE REPORTED.

Storm Data and Unusual Weather Phenomena

March 1997

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

IDZ001>008-011>013-015-019-022>023 Northern Panhandle - Coeur D'Alene Area - Lewiston And The Palouse - Shoshone - Northern Clearwater Mountains - Southern Clearwater Mountains - Orofino/Grangeville Region - Lower Hells Canyon/Salmon River Region - West Central Mountains - Lower Treasure Valley - Boise Mountains/Camas Prairie - Southwest Highlands - Upper Snake Highlands - South Central Highlands - Caribou Highlands

01	0200PST								Heavy Snow
02	0900PST								

A major storm system moved through the state of Idaho beginning early morning on March 1st in the North and West and continuing through March 2nd. Six to twelve inches of new snow fell above 3500 feet in the North Panhandle, Couer d'Alene and Shoshone County zones. More impressively, 10 to 20 inches of new snow fell in the North and South Clearwater Mountains as well as the West Central Locations. Some totals include 17" at Fruitvale, 13" at McCall and 10" at Cambridge. Most other locations reported new snow totals in the six to ten inch range across the state. US Highway 95 between Council and New Meadows was closed during the day due to the heavy snow. In Driggs, schools were closed across the valley due to a foot of new snow.

IDZ002-004 Coeur D'Alene Area - Shoshone

15	0600PST 1400PST								Heavy Snow
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IDZ020 Upper Snake River Plain

16	1100MST 2100MST								High Wind
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High winds and blowing dust cut visibilities to zero closing Interstate 15 for several hours.

IDZ005>006 Northern Clearwater Mountains - Southern Clearwater Mountains

30	1600PST 2000PST					1	20K		High Wind (G70)
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ILLINOIS, Central

ILZ029>031-036>037-040>041-047-049>050 Peoria - Marshall - Woodford - Fulton - Tazewell - Schuyler - Mason - Cass - Scott - Morgan

01	0000CST								Flood
06	1800CST								

Flooding continued along the Illinois River in March with the river cresting at Henry on the 2nd, Peoria on the 3rd, Havana on the 4th, and at Beardstown on the 6th. It took over two weeks to a month for the river to fall below flood stage. It was the 6th worst flood in history for Peoria and the 7th worst flood in history for Henry. A few homes in Henry were inundated by flood waters and a few buildings on the east side of Sparland were damaged. Also, some homes immediately adjacent to the river in Peoria experienced minor property damage and some residences in Liverpool were flooded. No damage estimate was available.

Menard County
Athens

28	1515CST								Hail (1.75)
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Sangamon County
Pleasant Plains

28	1535CST								Hail (1.75)
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Nickel size hail (0.88 inches) was reported in Chatham and golfball sized hail was reported in Pleasant Plains.

Logan County
Lincoln

28	1540CST								Hail (0.75)
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Macon County
Niantic/Forsyth

28	1612CST								Hail (1.75)
----	---------	--	--	--	--	--	--	--	-------------

Shelby County
Stewardson

28	1708CST								Hail (1.75)
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Cumberland County
2 NE Neoga

28	1715CST								Hail (1.75)
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ILLINOIS, Northeast

NONE REPORTED.

ILLINOIS, Northwest

NONE REPORTED.

ILLINOIS, South

ILZ084-088-092 Jackson - Union - Alexander

01	0001CST						20K		Flood
22	0800CST								

The Mississippi River remained above flood stage from late February well into March at Thebes. The river crested about 6 feet

Storm Data and Unusual Weather Phenomena

March 1997

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

ILLINOIS, South

above flood stage at Thebes on March 3, then a couple feet over flood stage on the 17th. Generally minor to moderate flooding of the river caused agricultural fields to flood. Water lapped against some of the levees, including the one near Ware. A half mile stretch of Old Cape Road was closed because of 8 inches of water across it.

ILZ075-081-084

Jefferson - Franklin - Jackson

01	0001CST				0	0	20K		Flood
25	2000CST								

The Big Muddy River crested about 10 feet above flood stage at Murphysboro on March 4. Extensive flooding of low farmland and fields occurred, but few homes were affected.

ILZ087-090>094

Gallatin - Pope - Hardin - Alexander - Pulaski - Massac

01	0800CST				0	0	2.5M		Flood
31	2359CST								

A massive flood crest moved down the Ohio River during the first few weeks of March. Around 10 inches of rain fell in the middle Ohio River Valley from the Louisville area to Cincinnati within a one to three day period. This resulted in the worst river flood in about 30 years along the Illinois shore, and one of the five worst on record. Riverfront neighborhoods in Metropolis were evacuated, and the riverboat casino was briefly shut down. Smaller communities protected by levies or floodwalls, such as Brookport and Old Shawneetown, fared better. A mechanical problem with a valve in Brookport allowed Ohio River water to back into the town, causing tens of thousands of dollars in property damage there. Massive sandbag levees were constructed by volunteers in most unprotected riverfront communities, including Metropolis, Ridgway, Elizabethtown, and Omaha. A towboat struck the Shawneetown bridge, prompting its closure until it could be inspected. A voluntary evacuation of Old Shawneetown was conducted. The levee protecting the town developed a few seeps, but no major leaks were observed. A total of about 50 families were displaced by flooding in Gallatin County, mainly from the towns of Junction, Equality, and New Haven. Numerous county roads were closed near the river, including 52 just in Gallatin County alone. All but one road into the town of Junction was flooded. A few state highways, such as Illinois Route 1 in Gallatin County, were closed by high water. In Pope County, between 30 and 50 families were affected by flooding of the Ohio River or Lusk Creek, which flows into the Ohio at Golconda. About 50 Massac County families were forced out of their homes by the Ohio River or Mud Creek, which runs through the center of Metropolis into the Ohio. In Pulaski County, the flood forced the temporary abandonment of the Olmsted Lock and Dam construction project. Engineers decided to let water flood the project area, which had been protected by a cofferdam. If floodwater had crested over the top of the cofferdam, it could have undermined the structure. About 250 workers were laid off when the project was halted. Water backed up the Saline River from the Ohio River, causing problems as far inland as Harrisburg in Saline County. A mud slide at the old Lock and Dam 51 site demolished the office area and heavily damaged other buildings. In Hardin County, the Saline River flooded about 34 homes and forced workers to rescue two people in Saline Landing. The following are specific river crest heights and the flood stages for various points: Shawneetown crested at 54.40 (flood stage 33 feet), Brookport crested at 53.60 feet (flood stage is 37 feet), and Cairo crested at 56.20 feet (flood stage is 40 feet). The crest occurred on the 11th or 12th at all points.

Hardin County

Elizabethtown

01	1500CST				0	0	30K		Flash Flood
	1700CST								

Road and stream flooding was extensive.

Massac County

Brookport

01	1500CST				0	0			Flash Flood
	1700CST								

A period of thunderstorms during the morning caused flooding of roads and creeks. Water was across U.S. Highway 45 in spots. Massac Creek was out of its banks.

Pope County

Eddyville

01	1500CST				0	2	50K		Flash Flood
	1700CST								

Highways 145 and 146, the two main arteries through Pope County, were closed by high water and debris. A vehicle attempting to cross a flooded highway became submerged in floodwater. A Pope County sheriff's deputy rescued the sole occupant of the vehicle, a female who was hanging from the luggage rack on the vehicle. The sheriff's deputy waded through the water and carried her to safety. Both the officer and the victim were treated for hypothermia at a local hospital. Several roads were washed out by flash flooding, mainly forest service roads or private drives.

Alexander County

Cairo

01	1730CST				0	0	400K		Flash Flood
	2030CST								

A pump operated by the Army Corps of Engineers failed in Cairo, contributing to the flooding of about 160 basements. Rainfall totals in the 3 to 5 inch range over a 48-hour period caused a few road washouts.

Hardin County

Elizabethtown

01	1730CST				0	0			Flash Flood
	2030CST								

Significant flooding of roads and streams occurred. Neighboring counties reported vehicles stranded in deep water. Similar rainfall amounts occurred in Hardin County.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ILLINOIS, South									
Johnson County									
Vienna	01	1730CST 2030CST			0	0	20K		Flash Flood
	Significant flooding of roads and streams was caused by a series of thunderstorms over a 2-day period.								
Massac County									
Metropolis	01	1730CST 2030CST			0	0	50K		Flash Flood
	Around 6 inches of rain in 24 hours caused extensive flooding of streams and roads. A state of emergency was declared by the Illinois governor, which was later upgraded to a federal disaster area. Two county roads were closed in Massac County. One was closed by a bridge washout, and water rushing across the other road created a 15-foot wide gap. So many roads were damaged that the county highway department ran out of barricades.								
Pope County									
Bay City	01	1730CST 2030CST			0	0			Flash Flood
	A vehicle was washed off Highway 145 near Bay City.								
Pulaski County									
Mounds	01	1730CST 2030CST			0	0	20K		Flash Flood
	This final round of thunderstorms caused widespread flooding of roads and streams. No injuries or evacuations were reported.								
Massac County									
1 N Big Bay	01	1805CST			0	0			Thunderstorm Wind (G52)
	Large tree limbs were blown down.								
Johnson County									
2 SE Vienna	01	1805CST			0	0			Thunderstorm Wind (G52)
	Trees were down along Interstate 24.								
ILZ083									
		White							
	03	1200CST			0	0	10K		Flood
	27	0800CST							
	The Little Wabash River crested about 3 feet above flood stage at Carmi during mid month. There was minor flooding of low farmland and fields. Some roads were covered by water. Few if any homes were flooded.								
Perry County									
5 N Pinckneyville	28	1530CST			0	0	10K		Hail (1.75)
	Golf ball size hail was reported throughout northwest Perry County, including Winkle, Rice, and Swanwick. The hail dented cars and broke windows. The siding of a trailer was pulled off.								
Jefferson County									
Scheller	28	1559CST			0	0			Hail (0.75)
Perry County									
Du Quoin	28	1607CST			0	0			Hail (0.75)
Jefferson County									
Mt Vernon	28	1610CST			0	0			Hail (1.75)
Jackson County									
7 S Murphysboro to 3 S Carbondale	28	1638CST 1655CST			0	0	50K		Hail (1.75)
	Large hail ranging from dime to golf ball size caused damage across parts of Jackson County. Wind gusts were clocked to 52 MPH at the Carbondale Airport.								
Wayne County									
Fairfield	28	1658CST			0	0			Hail (0.75)
Pulaski County									
Ullin	28	1711CST			0	0			Hail (1.75)
	State police reported golf ball size hail at the Ullin headquarters.								
White County									
Carmi	28	1724CST			0	0			Thunderstorm Wind (G52)
	A spotter estimated wind gusts around 60 MPH.								
Pulaski County									
3 SW Karnak	28	1732CST			0	0			Funnel Cloud
	A fire chief reported the funnel cloud. The storm producing this funnel cloud tracked across northern Massac and Pope Counties, producing more funnel clouds and large hail.								

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ILLINOIS, South</u>									
Massac County									
New Columbia	28	1752CST			0	0			Funnel Cloud
	A supercell thunderstorm tracked across northern Massac and southern Johnson Counties. A spotter recorded a rotating wall cloud and brief funnel cloud on videotape near the New Columbia exit of Interstate 24.								
Johnson County									
Reevesville	28	1759CST			0	0			Hail (1.75)
	A supercell thunderstorm tracked east along the Massac/Johnson County line. Large hail occurred on the north and northeast side of the storm, including extreme southern Johnson County.								
Pope County									
10 ENE Dixon Spgs	28	1804CST			0	0			Funnel Cloud
	A severe thunderstorm that tracked from Pulaski County east across Pope County produced brief funnel clouds and large hail. A spotter took videotape of a funnel cloud as he drove east along Illinois 146 through Pope County.								
Saline County									
Stonefort	28	1850CST			0	0			Hail (1.00)
<u>ILLINOIS, Southwest</u>									
St. Clair County									
Cahokia	28	1445CST			0	0			Hail (0.75)
	Skywarn spotters reported 3/4 inch hail.								
Randolph County									
Prairie Du Rocher	28	1445CST			0	0			Hail (1.00)
	The County Sheriff reported 3/4 inch hail.								
Madison County									
Troy	28	1455CST			0	0			Hail (0.75)
	Troy police reported 3/4 inch hail.								
Randolph County									
Sparta	28	1505CST			0	0			Hail (1.00)
	Skywarn spotters reported 1 inch hail.								
Randolph County									
Eden	28	1510CST			0	0			Hail (1.00)
	Skywarn spotters and the County Sheriff reported hail up to 1 inch in diameter a couple of inches deep in Eden.								
Washington County									
Okawville	28	1510CST			0	0			Hail (1.00)
	The County Sheriff reported 1 inch hail.								
Randolph County									
Coulterville	28	1510CST			0	0			Thunderstorm Wind (G52)
	Thunderstorm wind gusts caused roof damage at a lumber yard.								
Randolph County									
Coulterville	28	1510CST			0	0			Hail (2.00)
	Hail up to 2 inches in diameter was reported by Skywarn spotters and the County Sheriff.								
Macoupin County									
Staunton	28	1540CST			0	0			Hail (0.75)
	Skywarn spotters reported 3/4 inch hail.								
Washington County									
Dubois	28	1555CST			0	0			Hail (1.25)
	Skywarn spotters reported 1 1/4 inch hail.								
Marion County									
Vernon	28	1610CST			0	0			Hail (1.00)
	The County Sheriff reported 1 inch hail.								
Fayette County									
Shobonier	28	1620CST			0	0			Hail (1.00)
	Illinois State Police reported 1 inch hail.								
Fayette County									
Brownstown	28	1625CST			0	0			Hail (1.00)
	The Illinois State Police reported 1 inch hail.								

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Central									
INZ051-053-060>061-067>068									
Vigo - Owen - Sullivan - Greene - Knox - Daviess									
	01	0000EST			0	0			Flood
	06	1200EST							
	This is a continuation of flooding from late February as a result of heavy rains and thunderstorms that occurred February 20th and 21st as well as the 26th and 27th.								
INZ064-070>072									
Bartholomew - Lawrence - Jackson - Jennings									
	02	0000EST			0	0			Flood
	04	2359EST							
	A strong weather system produced 2 to 4 inches of rain across parts of central and south central Indiana on march 1st and 2nd. This was the north edge of a massive record setting rain over extreme southern Indiana and much of Kentucky which caused the worst flood in 30 years on the Ohio River. The north edge of this rain event brought the East Fork White River and Muskatatuck River 3 to 5 feet above flood stage for several days closing many lowland roads.								
INZ021>023-028>031-035>041-043>047-051>052-054-060>061-067>068									
Carroll - Cass - Miami - Warren - Tippecanoe - Clinton - Howard - Fountain - Montgomery - Boone - Tipton - Hamilton - Madison - Delaware - Vermillion - Parke - Putnam - Hendricks - Marion - Vigo - Clay - Morgan - Sullivan - Greene - Knox - Daviess									
	14	0500EST 2359EST			0	0			Flood
	Heavy rains of 1 to 2 inches on saturated ground resulted in most small streams exceeding bankfull but impacting no more than farm fields. Streams impacted included Big Walnut Creek, the Eel River, Sugar Creek, Big Racoon Creek, and White Lick Creek of west central and north central Indiana. The White and Wabash rivers in central and southwest Indiana also flooded farmland area along the rivers.								
Putnam County									
Greencastle	28	1700EST 1703EST			0	0			Hail (1.75)
Hendricks County									
Avon	28	1740EST 1742EST			0	0			Hail (1.00)
Hendricks County									
Avon	28	1755EST 1757EST			0	0			Hail (1.25)
Marion County									
(Ind)Indnpls Intl Ar	28	1804EST 1806EST			0	0			Hail (1.75)
Vigo County									
Terre Haute	28	1808EST 1810EST			0	0			Hail (0.75)
Marion County									
8 SE Indianapolis Intl Ar	28	1824EST 1827EST			0	0			Hail (1.25)
Marion County									
8 SE Indianapolis Intl Ar to 8.1 SE Indianapolis Intl Ar	28	1824EST 1826EST	0.1	75	0	0	750K		Tornado (F1)
	Small, weak tornado touched down at the Turtle Creek Apartments on the far south side of Indianapolis. Several apartment building roofs were damaged. Adjacent carport roofs were also extensively damaged. No deaths or injuries. Damage estimated at \$750,000.								
Marion County									
15 SE Indianapolis	28	1830EST			0	0			Thunderstorm Wind
	Part of carport blown off by thunderstorm winds at Hermann Funeral Home.								
Monroe County									
Unionville	28	1846EST 1848EST			0	0			Hail (1.75)
Greene County									
1 S Bloomfield	28	1900EST 1903EST			0	0			Thunderstorm Wind
	Several trees blown down by thunderstorm winds south of Bloomfield.								

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Central									
Greene County Bloomfield	28	1900EST 1902EST			0	0			Thunderstorm Wind (G61)
Knox County Vincennes	28	1902EST 1903EST			0	0			Thunderstorm Wind (G51)
Vigo County 3 N Terre Haute	28	1905EST 1907EST			0	0			Thunderstorm Wind
			Large tree blown down by thunderstorm winds on the north side of Terre Haute.						
Brown County Nashville	28	1910EST 1914EST			0	0			Thunderstorm Wind
			Numerous trees and powerlines blown down across parts of county by thunderstorm winds.						
Knox County 2 NW Monroe City	28	1915EST 1916EST			0	0			Thunderstorm Wind
			Large transmitter antenna destroyed by thunderstorm winds near Indiana 61 and Indiana 241 near Monroe City.						
Hancock County 2 SW Greenfield	28	1918EST 1919EST			0	0	50K		Thunderstorm Wind
			Pole barn destroyed by thunderstorm winds.						
Hancock County 4 NE Greenfield	28	1918EST 1919EST			0	0			Hail (1.25)
Sullivan County Sullivan	28	1920EST 1921EST			0	0			Thunderstorm Wind (G56)
Vigo County Terre Haute	28	1930EST			0	0			Thunderstorm Wind
			Thunderstorm winds blew down several trees in Terre Haute area.						
Brown County Bean Blossom	28	1945EST 1946EST			0	0			Thunderstorm Wind
			Trees blown down by thunderstorm winds.						
Daviess County Washington	28	1945EST 1946EST			0	0			Thunderstorm Wind
			Trees blown down by thunderstorm winds across many parts of county.						
Martin County Loogootee	28	1950EST 1952EST			0	0			Thunderstorm Wind
			Numerous trees blown down by thunderstorm winds in vicinity of Loogootee.						
Henry County New Castle	28	1955EST 1956EST			0	0			Hail (1.00)
Hancock County 4 E Greenfield	28	2011EST 2012EST			0	0			Hail (1.25)
Shelby County Shelbyville	28	2015EST 2016EST			0	0			Thunderstorm Wind
			Storage shed blown across road in Shelbyville. Winds estimated near 60 mph.						
Lawrence County Lawrenceport	28	2016EST 2017EST			0	0			Thunderstorm Wind
			Few trees blown down and mobile home overturned near Lawrenceport and Bedford.						

Storm Data and Unusual Weather Phenomena

March 1997

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, Central

Carroll County

Camden	28	2020EST 2022EST			0	0			Thunderstorm Wind
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Numerous trees and powerlines down across parts of county.

Rush County

Manilla	28	2020EST 2021EST			0	0			Hail (1.00)
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Jackson County

Surprise	28	2021EST 2023EST			0	1	100K		Thunderstorm Wind
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Mobile home overturned by thunderstorm winds injuring one. Winds also blew down numerous trees across county and caused minor structural damage in Freetown, Brownstown and Jonesville.

Cass County

Logansport	28	2025EST 2026EST			0	0			Hail (1.25)
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Rush County

Rushville	28	2026EST 2028EST			0	0			Hail (1.25)
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Bartholomew County

Columbus	28	2040EST 2042EST			0	0	50K		Thunderstorm Wind
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Thunderstorm winds damaged several homes in Azalia and blew out some businesses windows in downtown Columbus.

Cass County

Logansport	28	2049EST 2051EST			0	0			Thunderstorm Wind
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Many large trees blown down by thunderstorm winds across parts of the county.

Jennings County

Scipio	28	2050EST 2052EST			0	0			Hail (1.25)
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Jennings County

North Vernon	28	2050EST 2052EST			0	0			Thunderstorm Wind
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Numerous trees blown down across county by thunderstorm winds.

Decatur County

Westport	28	2055EST 2057EST			0	0			Thunderstorm Wind
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Numerous trees blown down by thunderstorm winds near Westport.

INDIANA, Northeast

NONE REPORTED.

INDIANA, Northwest

NONE REPORTED.

INDIANA, South Central

INZ079

Jefferson

01	0400EST	0	0	Flood
03	0700EST			

Minor flooding occurred along the Muscatatuck river at Deputy as the gauge crested at 23.4 feet (15 foot flood stage) at 8 am est March 2.

Harrison County

Countywide	01	0630EST 1000EST			0	0			Flash Flood
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Widespread flash flooding around the county. Numerous roads under water and closed.

Perry County

Countywide	01	1015EST 1415EST			0	0			Flash Flood
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Several roads watered covered as reported by state police.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
INDIANA, South Central							
INZ089		Perry					
	01	1415EST			0	0	Flood
		1800EST					
	Several roads water covered and closed. Rainfall totals were up to 4 to 8 inches for the day.						
Clark County							
Countywide	01	1730EST			1	0	Flash Flood
	02	0200EST					
	Over 2 inches of rain fell on top of 4 to 8 inch totals in 24 hours causing widespread flash flooding with many roads water covered and closed. A 16 month old boy drowned as the car he was in filled with water as it stalled under a viaduct. M11W						
Crawford County							
Countywide	01	1730EST			0	0	Flash Flood
	02	0200EST					
	Over 2 inches of rain fell on top of 24 hour totals from 4 to 8 inches causing widespread flash flooding with many roads water covered and closed.						
Floyd County							
Countywide	01	1730EST			0	0	Flash Flood
	02	0200EST					
	Over 2 inches of rain fell on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.						
Harrison County							
Countywide	01	1730EST			0	0	Flash Flood
	02	0200EST					
	Over 2 inches of rain fell on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.						
Perry County							
Countywide	01	1800EST			0	0	Flash Flood
	02	0200EST					
	Over 2 inches of rain fell on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.						
INZ077		Washington					
	02	0700EST			0	0	Flood
		1800EST					
	The Blue river crested at Fredericksburg at 21.5 feet (flood stage is 20 feet) at 1 pm est March 2. Only minor flooding reported.						
INZ079-084-089>092		Jefferson - Crawford - Perry - Harrison - Floyd - Clark					
	02	2300EST			0	0	60M Flood
	15	1200EST					
	Ohio River flooding. See narrative for north central Kentucky counties.						
Clark County							
Countywide	18	0830EST			0	0	Flash Flood
		1200EST					
	Around 2.5 inches of rain fell in around 6 hours causing numerous creeks to overflow their banks and a few roads water.						
Washington County							
Countywide	18	0830EST			0	0	Flash Flood
		1200EST					
	Around 2.5 inches of rain fell in around 6 hours resulting in several creeks overflowing their banks with a few roads water covered.						
Harrison County							
Countywide	18	0830EST			0	0	Flash Flood
		1200EST					
	Around 2.5 inches of rain fell over about a 6 hour period resulting in several creeks overflowing their banks and a few roads water covered.						
Orange County							
Countywide	18	0830EST			0	0	Flash Flood
		1200EST					
	Around 2.5 inches of rain fell in around 6 hours resulting in several creeks overflowing their banks with many roads water covered.						
INZ079		Jefferson					
	18	1700EST			0	0	Flood
	19	0300EST					
	Around 2.5 inches of rain fell in around 6 hours resulting in minor flooding along the Muscatatuck River in Deputy. The river crested at 17.4 feet (flood stage is 15 feet) at 10 am est March 18.						

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>INDIANA, South Central</u>									
Harrison County									
Sugar Grove	28	1815EST			0	0			Hail (1.75)
									Golf ball size hail reported by spotter.
Floyd County									
New Albany	28	1900EST			0	0			Hail (1.75)
									Golf ball size hail reported by television meteorologist.
Orange County									
3 E West Baden Spgs to West Baden Spgs	28	1925EST			0	0			Thunderstorm Wind (G50)
									Several trees down along state road 150.
Dubois County									
Huntingburg	28	1930EST			0	0			Thunderstorm Wind (G50)
									Many trees down in Huntingburg due to thunderstorm winds.
Clark County									
Jeffersonville	28	1933EST			0	0			Hail (1.75)
									Golf ball size hail reported by DES.
Harrison County									
Countywide	28	2030EST 2050EST			0	0			Thunderstorm Wind (G50)
									Several trees down across the county.
Scott County									
Blocher to 1 E Blocher	28	2045EST 2047EST	1	100	0	0			Tornado (F1)
Jefferson County									
1 E Blocher to Madison	28	2047EST 2106EST	9	100	0	0	200K		Tornado (F1)
									An F1 tornado touched down just east of Blocher in Scott county and traveled around 10 miles to Madison. The tornado apparently skipped across mostly open country across central Jefferson county knocking down numerous trees. As it moved across the northern part of Madison, it heavily damaged 2 homes from Shun Pike to Audobun Pike. The tornado was spotted by state police as it approached Madison.
<u>INDIANA, Southeast</u>									
INZ058 Fayette									
	02	0530EST			0	0			Flood
	03	0000EST							Heavy rainfall occurred on the 1st and 2nd of March causing the Whitewater river at Alpine to overflow it's banks. The crest of 13.4 feet occurred at 400 pm on March 2nd causing low lying agricultural areas to be flooded. Flood stage is 12.0 feet.
INZ074>075-080 Dearborn - Ohio - Switzerland									
	02	2300EST			0	0	6M		Flood
	11	0600EST							Heavy rain fell across the Ohio valley on the 1st and 2nd with some areas upstream over Southern Ohio and Northern Kentucky receiving up to 12 inches. The Ohio river rose rapidly and reached a crest of 60.7 feet at 300 pm on the 6th at Markland Dam, which is just across the river in Kentucky. Many towns were flooded and hundreds of people were evacuated from their homes for several days.
Switzerland County									
Vevay	28	1930EST 1935EST			0	0	50K		Thunderstorm Wind (G50)
									Barn blown down.
Ripley County									
Cross Plains	28	1935EST 1940EST			0	0			Hail (1.75)
Dearborn County									
Aurora	28	2000EST 2005EST			0	0	30K		Thunderstorm Wind (G50)
									A roof was blown off a house and landed on a trailer.
Ripley County									
Versailles	28	2003EST 2010EST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

March 1997

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, Southeast

Ohio County

Rising Sun	28	2035EST 2040EST			0	0	3K		Thunderstorm Wind (G50)
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Numerous trees downed.

Franklin County

Brookville	28	2041EST 2045EST			0	0			Hail (0.75)
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Dearborn County

Lawrenceburg	28	2053EST 2057EST			0	0			Hail (1.00)
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Wayne County

Hagerstown	28	2100EST 2105EST			0	0	3K		Thunderstorm Wind (G50)
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Numerous trees downed.

Ripley County

Lookout to Sunman	28	2100EST 2120EST			0	0	100K		Thunderstorm Wind (G60)
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Shed blown over, trampoline blown into a tree, barn destroyed, greenhouse damaged, roof damage to several homes, and numerous trees downed.

Union County

Liberty	28	2100EST 2105EST			0	0	5K		Hail (0.88)
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Numerous car windows broken by large hail.

Dearborn County

Lawrenceville to Aurora	28	2110EST 2130EST			0	0	100K		Thunderstorm Wind (G60)
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Numerous trees downed, four roofs damaged, barn blown off foundation, and transformer lines pulled out of the ground by winds.

Fayette County

Connersville	28	2115EST 2120EST			0	0	3K		Thunderstorm Wind (G50)
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Numerous power lines downed by high winds.

Franklin County

Countywide	28	2125EST 2135EST			0	0	10K		Thunderstorm Wind (G50)
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Numerous trees and power lines downed.

Switzerland County

Bennington	28	2145EST 2150EST			0	0	10K		Thunderstorm Wind (G50)
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Numerous trees downed and several roofs damaged.

INDIANA, Southwest

INZ085>088

Posey - Vanderburgh - Warrick - Spencer

02	1200CST				0	0	2.5M		Flood
27	1400CST								

Widespread rainfall amounts around 10 inches in the middle Ohio Valley, from around Louisville to Cincinnati, occurred over a one to three day period. This resulted in a massive flood crest that took a few weeks to travel down the Ohio River. The resultant flood was the worst in about 30 years, and one of the five worst on record. Water from the Ohio River backed up into the Pigeon Creek, which flows through Evansville. About 60 homes were evacuated along Pigeon Creek, and two bridges over the creek were closed. In Warrick County, just a few families were forced from their homes. Numerous roads were closed for days at a time, including at least 50 in Spencer County alone. The banks along Newburgh's scenic riverfront were damaged. Indiana Route 662 and Water Street were closed in Newburgh by high water. In eastern Warrick County, backwater from the Ohio flooded Caney and Little Pigeon Creeks, flooding a few houses. In Spencer County, which was declared a disaster area, U.S. Route 231 was closed north of Rockport along with a few state highways. The town of Grandview in Spencer County was hardest hit, where about half of the town's 700 residents evacuated. All barge traffic was halted on the Ohio River upstream from Newburgh. Near Evansville, a few families were evacuated by boat.

INZ081-085

Gibson - Posey

02	1300CST				0	0	10K		Flood
28	2200CST								

The Wabash River flooded mainly agricultural low-lying areas. Some roads and parking lots were also flooded. A few campgrounds were flooded near the confluence of the White and Wabash Rivers. The Wabash crested about 4 feet above flood stage at New Harmony on March 9.

Storm Data and Unusual Weather Phenomena

March 1997

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

Gibson County

1.2 N Princeton	28	1750CST			0	0	20K		Thunderstorm Wind
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A farm building was damaged. Power lines were down.

Vanderburgh County

Mc Cutchanville	28	1755CST			0	0			Thunderstorm Wind (G52)
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Isolated trees were blown down.

Vanderburgh County

Evansville	28	1800CST			0	0	60K		Lightning
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Lightning struck a house, setting it on fire.

Pike County

Petersburg	28	1840CST			0	0	5K		Thunderstorm Wind
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Trees and power lines were blown down in a 5 mile wide area.

Spencer County

Santa Claus	28	1852CST			0	0			Thunderstorm Wind (G52)
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Wind gusts were estimated near 60 MPH. A funnel cloud was reported near Dale.

IOWA, Central

IAZ005>007-016>017-025>028-038>039-049>050 **Kossuth - Winnebago - Worth - Hancock - Cerro Gordo - Wright - Franklin - Butler - Bremer - Grundy - Black Hawk - Marshall - Tama**

09	0600CST				0	0	150K		Flood
13	1800CST								

Temperatures for the month of March were slightly above normal with slightly below normal precipitation. Preliminary information provided by the State Climatologist Harry Hillaker of the Iowa Department of Agriculture and Land Stewardship indicated a statewide average of 1.41 inches of precipitation for the month. This was about 64% of normal. Although the month was rather dry, there was a good deal of snowpack at the start of the month. The snow melted in earnest beginning in the second week of the month. This caused minor to moderate flooding over much of the Iowa and Cedar River basins. Damage was relatively limited as rivers crested only a foot or two above flood stage.

IAZ005>007-016>017-023>028-035>039-049>050 **Kossuth - Winnebago - Worth - Hancock - Cerro Gordo - Pocahontas - Humboldt - Wright - Franklin - Butler - Bremer - Webster - Hamilton - Hardin - Grundy - Black Hawk - Marshall - Tama**

19	1200CST				0	0	50K		Flood
23	1200CST								

Another round of warm weather resulted in another minor to moderate rise in river levels around the state. Flooding took place in many of the same places as during the previous event, however rises were not as strong and no significant damage was reported.

IAZ004>005-015>016-024 **Emmet - Kossuth - Palo Alto - Hancock - Humboldt**

24	0600CST				0	0	50K		Flood
31	2359CST								

As the flooding from earlier in the month receded, rapid snowmelt made its presence known again over the upper portions of the Des Moines River basin in southwest Minnesota. Warm temperatures exacerbated this situation, resulting in flooding in the Estherville and Emmetsburg areas of north central Iowa. The flooding continued through the rest of the month. Damage was relatively minor in spite of the rise of several feet above flood stage. Much of the flooding was confined to agricultural lowlands.

IOWA, East Central and Southeast

NONE REPORTED.

IOWA, Northeast

IAZ008>011 **Mitchell - Howard - Winneshiek - Allamakee**

12	2100CST				0	0			Winter Storm
14	0200CST								

A mix of snow, sleet and freezing rain created havoc causing ice covered roads and nearly impossible traveling conditions. Snow accumulations of 6 to 10 inches combined with strong winds produced 2 to 4 foot drifts.

Storm Data and Unusual Weather Phenomena

March 1997

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

IOWA, Northwest

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

12	0700CST				0	0			Flood
31	2359CST								

Sporadic snowmelt flooding occurred in lowlands including farmland, on small streams, and along the Big Sioux, Floyd, Little Sioux, and Rock Rivers. Aside from some basement flooding, most flooding was to farmland and was not widespread. This damage could not be estimated before spring planting was completed.

IOWA, Southwest

NONE REPORTED.

KANSAS, East

Republic County

2 NW Belleville

09	0135CST				0	0			Hail (0.75)
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Douglas County

8 SE Lawrence

24	0745CST				0	0	6K		Lightning
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Lightning triggered an explosion in an oil tank, setting it and an adjacent tank on fire.

Jefferson County

5 S Oskaloosa

24	1725CST				0	0			Hail (0.75)
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Jefferson County

1 N Midland

24	1734CST				0	0			Hail (1.75)
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Golf ball size hail covered the ground.

Douglas County

Lawrence

24	1735CST				0	0	1M		Hail (1.75)
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Large hail produced widespread damage to cars including more than 600 at automobile dealerships. The hail combined with strong winds to damage a total of 17 windows at two sets of apartments. Most of the damage occurred on the north side of town where the hail reached the size of golf balls.

Douglas County

Lawrence

24	1735CST				0	0			Thunderstorm Wind (G50)
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Strong winds knocked down a few powerlines.

Douglas County

Lawrence

24	1745CST				0	0	13K		Lightning
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Lightning set a house on fire.

Shawnee County

10 SW Topeka

24	1747CST				0	0			Hail (0.75)
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Douglas County

Lawrence

24	1750CST				0	0			Hail (1.25)
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Shawnee County

5 SE Topeka

24	1801CST				0	0			Hail (1.00)
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Osage County

Carbondale

24	1814CST				0	0			Hail (0.75)
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Osage County

Scranton

24	1815CST				0	0			Hail (0.75)
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Shawnee County

10 SE Topeka

24	1820CST				0	0			Hail (0.75)
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Jefferson County

1 SE Williamstown

24	1837CST				0	0			Hail (0.75)
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Douglas County

Lawrence

24	1915CST				0	0			Hail (0.75)
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Lyon County

2 W Emporia

24	1923CST				0	0			Hail (1.75)
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Lyon County

Emporia

24	1923CST				0	0			Hail (1.75)
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Lyon County

Neosho Rapids

24	1942CST				0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, East</u>									
Coffey County									
Sharpe	24	2015CST			0	0			Hail (0.75)
Coffey County									
9 W Burlington	24	2025CST			0	0			Hail (0.75)
Coffey County									
Burlington	24	2030CST			0	0			Hail (0.75)
<u>KANSAS, Extreme Southeast</u>									
Cherokee County									
West Mineral	28	0138CST			0	0			Hail (1.00)
<u>KANSAS, North Central</u>									
NONE REPORTED.									
<u>KANSAS, Northeast</u>									
Leavenworth County									
2 N Ft Leavenworth	24	1714CST			0	0			Hail (0.75)
	Highway patrol reported dime-size hail from a severe thunderstorm 2 miles north of Fort Leavenworth.								
Leavenworth County									
Leavenworth to Tonganoxie	24	1732CST 1741CST			0	0			Hail (1.75)
	Several Leavenworth residents reported one inch hail from severe thunderstorms moving across Leavenworth County. A resident of Tonganoxie reported golfball-size hail from one of the thunderstorms.								
Leavenworth County									
Basehor	24	1819CST			0	0			Hail (0.75)
	A severe weather spotter reported three-quarter inch hail from a severe thunderstorm on the south side of Basehor.								
Wyandotte County									
Edwardsville to Kansas City	24	1829CST 1831CST			0	0			Hail (0.75)
	Residents of Kansas City and Edwardsville reported dime-size hail from severe thunderstorms moving through Wyandotte County.								
Johnson County									
Shawnee	24	1854CST			0	0			Hail (1.00)
	A Johnson County severe weather spotter reported one inch hail in Shawnee.								
Johnson County									
Olathe	24	2023CST			0	0			Hail (1.00)
	The Olathe Police Department reported quarter-size hail in Olathe.								
Johnson County									
Mission Hills	24	2030CST 2200CST			0	0			Flash Flood
	Heavy thunderstorm rains resulted in flash flooding in Mission Hills. Brush Creek went out of its bank near Belinder at State Park. Several auto rescues were reported in flooded intersections.								
<u>KANSAS, Northwest</u>									
KSZ001									
Cheyenne	27	1928CST			0	0			High Wind (G54)
	Spotter reported high winds gusting to 62 mph in Bird City.								
<u>KANSAS, Southeast</u>									
Sedgwick County									
Maize	24	1750CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Southeast</u>									
Harvey County 5 SW Whitewater	24	1810CST			0	0			Hail (0.75)
Butler County Whitewater	24	1820CST			0	0			Hail (0.75)
Butler County Whitewater	24	1835CST			0	0			Hail (1.75)
Butler County Benton	24	1850CST			0	0			Hail (0.75)
Cowley County Dexter	24	1924CST			0	0			Hail (0.75)
Butler County Rosehill	24	1936CST			0	0			Hail (1.00)
Wilson County Coyville	24	2105CST			0	0			Hail (0.75)
Wilson County Fredonia	24	2115CST			0	0			Hail (0.75)
Cowley County Arkansas City	24	2115CST			0	0			Hail (0.75)
Cowley County Atlanta	24	2116CST			0	0			Thunderstorm Wind (G60) THE WIND BLEW A METAL, BIN WHICH IS USED FOR GRAIN STORAGE, OVER ONE HUNDRED FEET.
Butler County 5 N Whitewater	24	2130CST			0	0			Hail (1.00)
Woodson County 5 SE Rose	24	2140CST			0	0			Hail (0.75)
Allen County 2 NE Petrolia	24	2142CST			0	0			Hail (0.75)
Sumner County 4 W Caldwell	27	1825CST			0	0			Thunderstorm Wind (G58)
Cowley County Winfield	27	1912CST			0	0			Thunderstorm Wind (G59)
Cowley County Winfield	27	1924CST			0	0			Hail (0.88)
Cowley County Dexter	27	1955CST			0	0			Hail (0.75)
Chautauqua County 10 N Sedan	27	2010CST			0	0			Thunderstorm Wind (G70)
Elk County Oak Vly	27	2030CST			0	0			Thunderstorm Wind (G52)
Sedgwick County Wichita	27	2152CST			0	0			Hail (0.75)
Greenwood County Eureka	27	2315CST			0	0			Hail (1.00)
Wilson County Buxton	27	2040CST			0	0			Thunderstorm Wind (G62)
Butler County Augusta	27	2220CST			0	0			Hail (0.75)
Allen County 2 S Iola	27	2330CST			0	0			Thunderstorm Wind (G75) ONE STORAGE SHED WAS COMPLETELY DESTROYED AND 2 LARGE BEAMS WERE THROWN INTO THE ROOF OF ANOTHER STORAGE SHED.
Labette County Dennis	28	0055CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

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

KANSAS, Southwest

NONE REPORTED.

KENTUCKY, Central

Butler County Countywide

01	0000EST 0330EST				0	0			Flash Flood
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Several roads water covered as reported by dispatch.

Grayson County Countywide

01	0000EST 0330EST				0	0			Flash Flood
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Several roads water covered as reported by dispatch.

KYZ037-042>043

Harrison - Bourbon - Nicholas

01 07	0500EST 1900EST				1	0	8.4M		Flood
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Record flooding occurred all along the Licking River basin as 24 hour rainfall amounts beginning early March 1 totaled from 6 to 10 inches. Stoner Creek at Paris crested at a record 30.0 feet (flood stage is 18 feet) at 5 am est on March 2. The Licking River at Cynthiana crested at a record 28.0 feet (flood stage is 20 feet) at 530 pm est on March 2. The Licking River at Blue Licks Spring crested at a record 47.6 feet (flood stage is 25 feet) at 7 pm est on March 2. The towns of Blue Licks Spring, Cynthiana and Paris all received major flooding with many homes and businesses under water. All of these counties were declared federal disaster areas and received federal aid. A 66 year old man was found dead in his pickup truck by Hingston Creek in Millersburg. M661W

Warren County 3 N Bowling Green

01	0526EST 0527EST	0.5	50		0	0			Tornado (F0)
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F0 tornado spotted by fire fighters along the Garrett Hollow Road. Tree damage reported.

Allen County Western Part

01	0530EST 0535EST				0	0			Thunderstorm Wind (G50)
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Several trees and power lines down reported by dispatch in the western part of the county.

Monroe County Bugtussle to Gamaliel

01	0536EST 0545EST	4	500		0	0	100K		Tornado (F2)
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An F2 tornado destroyed two homes and damaged several others. A few barns were also destroyed. Many trees and power lines also down. Several residents sighted the tornado that coincided with the doppler radar indicated mesocyclone position.

Butler County Countywide

01	0600EST 0900EST				0	0			Flash Flood
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Rainfall totals of 3 to 5 inches in less than 12 hours caused widespread flash flooding with many roads water covered and some closed. Many mudslides were also observed across the county.

Grayson County Countywide

01	0600EST 0900EST				0	0			Flash Flood
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3 to 5 inches of rain in less than 12 hours caused widespread flash flooding with many roads water covered.

Logan County Countywide

01	0600EST 0900EST				0	0			Flash Flood
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3 to 5 inches of rain in less than 12 hours caused widespread flash flooding across the county with numerous roads water covered.

Edmonson County Countywide

01	0600EST 0900EST				0	0			Flash Flood
----	--------------------	--	--	--	---	---	--	--	--------------------

3 to 5 inches of rain in less than 12 hours caused widespread flash flooding with many roads water covered.

Simpson County Countywide

01	0600EST 0900EST				0	0			Flash Flood
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3 to 5 inches of rain in less than 12 hours has caused widespread flash flooding with many roads water covered.

Warren County Countywide

01	0600EST 0900EST				0	0			Flash Flood
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3 to 5 inches of rain in less than 12 hours caused widespread flash flooding countywide with many streets water covered.

Storm Data and Unusual Weather Phenomena

March 1997

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

KYZ030

Jefferson

01 0630EST
03 1500EST

1 0 85M Flood

Numerous strong thunderstorms training along a stalled out warm front triggered a record 24 hour rainfall for the county. The combination of flooding and/or flash flooding from the record rainfall resulted in an estimated 50,000 homes effected by flooding. Many of these homes had basements entirely flooded with water into the main floor. Damage was estimated at 65 million dollars not including the river flooding on the Ohio River. The Ford factory on Fern Valley Road had damage to up to 1,500 Explorers. 24 hour rainfall totals beginning around 930 pm est February 28 to 930 pm March 1 ranged from around 6 inches along the Ohio River to 11.5 inches across the communities of Okolona and Fairdale in the southern part of the county. The National Weather Service in Highview reported 9.6 inches during this period and 12.06 inches from the onset through 7 am est March 2. The previous record 24 hour total was 6.97 inches. An estimated 2,500 homes in numerous subdivisions in Okolona and Fairdale and across other parts of the county had to be evacuated with hundreds relocated in temporary shelters. Okolona and Fairdale lie in the Pond Creek floodplain which was formerly swamp land. National Guard had to get many of these people out by boat or dumptrucks. Thousands of cars were evacuated or stalled out due to the high waters. Numerous rescues were made with people trapped in cars and in houses. Bloating storm sewers popped off manhole covers that left cars quickly inundated in advancing high water. Several roads were closed around the Jefferson county Forest due to mudslides. A 16 year old boy was killed near Jeffersontown as his van was swept off the road by the swollen Chenoweth Creek. Numerous roads including parts of Interstate 65 and 64 were closed through the morning of March 2. Because of all the damage, the County-Judge Executive declared the county a state of emergency and the county was declared a federal disaster area eligible for federal aid.

M16IW

Jefferson County Countywide

01 0630EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding occurred across the county. See flood entry for Jefferson county.

Breckinridge County Countywide

01 0630EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding countywide with numerous roads water covered including US 60 at Irvington and Highway 992, Heights Run and Corner's Road.

Bullitt County Countywide

01 0630EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding countywide with numerous roads water covered and closed. Muslides occurred across the Jefferson Forest. Knob Creek was out of its banks.

Hardin County Countywide

01 0630EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding countywide with numerous raods water covered. High water covering the streets in Vine Grove and Elizabethtown reported by state police.

Meade County Countywide

01 0630EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding countywide with numerous roads water covered.

Shelby County Countywide

01 0700EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding across the county with numerous roads water covered.

Oldham County Countywide

01 0700EST
1000EST **0 0** **Flash Flood**

Widespread flash flooding was reported across the county with many roads water covered and closed.

Barren County Countywide

01 0745EST
0930EST **0 0** **Flash Flood**

Widespread flash flooding across the county with many roads reported water covered.

Allen County Countywide

01 0745EST
0930EST **0 0** **Flash Flood**

Widespread flash flooding across the county with numerous roads water covered.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
<u>KENTUCKY, Central</u>							
Monroe County							
Countywide	01	0745EST 0930EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads under water including Highways 870 and 668.				
Metcalfe County							
Countywide	01	0745EST 0930EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads under water.				
Cumberland County							
Countywide	01	0745EST 0930EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered including Highway 90 West.				
Adair County							
Countywide	01	0745EST 0930EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads under water including Highways 206 and 704.				
Hancock County							
Countywide	01	0800EST 1000EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered.				
Henry County							
Countywide	01	0800EST 1000EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered.				
Henry County							
Countywide	01	0800EST 1000EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered.				
Anderson County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered. Several county roads were closed.				
Franklin County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads under water. Several roads closed in Frankfort and across the county.				
Mercer County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered. Several county roads were closed.				
Woodford County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads under water and some closed. Some evacuations were made as Clear Creek ran over its banks.				
Nelson County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered. A bridge was washed out just north of the Salt River. Several county roads were closed.				
Spencer County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding across the county with numerous roads water covered.				
Washington County							
Countywide	01	0900EST 1130EST			0	0	Flash Flood
			Widespread flash flooding with numerous roads under water.				

Storm Data and Unusual Weather Phenomena

March 1997

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, Central

KYZ023>026-028>029-031-033>034 Hancock - Breckinridge - Meade - Ohio - Hardin - Bullitt - Oldham - Henry - Shelby

01	1000EST				0	0	2.5M		Flood
03	1500EST								

Record 24 hour rainfall from early March 1 through early March 2 at most spots on the order of 6 to 12 inches caused widespread flooding with numerous roads water covered and closed and hundreds of rescues from cars trapped in water and people trapped in flooded homes. All of these counties were declared federal disaster areas and received federal aid. Damage estimates include flash flooding damage as well. Many homes and businesses were effected.

Edmonson County Countywide

01	1220EST 1240EST				0	0			Thunderstorm Wind (G50)
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Numerous trees down countywide.

Washington County 5 NW Springfield to 5 N Springfield

01	1259EST 1309EST	5	50		0	0	15K		Tornado (F0)
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An F0 tornado knocked down numerous trees mainly along Lincoln Park Road. A car was thrown into a guard rail there. Spotter reports coincided with doppler radar mesocyclone position.

KYZ035>040-042>043-045>048 Franklin - Scott - Harrison - Spencer - Anderson - Woodford - Bourbon - Nicholas - Nelson - Washington - Mercer - Jessamine

01	1400EST 1800EST				0	0			Flood
----	--------------------	--	--	--	---	---	--	--	-------

Widespread flooding and/or flash flooding resulted from 4 to 9 inches of rainfall in less than 24 hours. Numerous roads were water covered and closed across these counties. Many homes and businesses were effected. All of these counties were declared federal disaster areas eligible for financial aid.

KYZ027-061>063-070>072 Grayson - Butler - Edmonson - Hart - Logan - Warren - Simpson

01	1500EST 1800EST				0	0	1.5M		Flood
----	--------------------	--	--	--	---	---	------	--	-------

Widespread flooding and/or flash flooding occurred as a result of 4 to 8 inches of rainfall in less than 24 hours. Numerous roads were water covered and closed across these counties and many homes and businesses were effected. All of these counties were declared federal disaster areas eligible for financial aid. Damage estimates include flash flooding from early March 1 through early March 2.

Madison County Countywide

01	1500EST 1700EST				0	0			Flash Flood
----	--------------------	--	--	--	---	---	--	--	-------------

Street flooding reported in Richmond and Berea.

KYZ053>056-064>067 Larue - Marion - Boyle - Garrard - Green - Taylor - Casey - Lincoln

01	1530EST 2100EST				0	0	1M		Flood
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In between 3 and 8 inches of rain fell in less than 24 hours causing many streets across these counties to be under water. Larue, Casey and Taylor counties were given financial aid as they were declared disaster areas.

Anderson County Countywide

01	1800EST				0	0			Flash Flood
02	0200EST								

1 to 2 inches of additional rainfall on top of the 6 to 10 inch 24 hour totals resulted in widespread flash flooding across the county. Numerous roads were closed and water covered.

Shelby County Countywide

01	1800EST				1	0	1.2M		Flash Flood
02	0200EST								

1 to 2 inches of rain fell on top of 24 hour totals from 6 to 10 inches resulting in widespread flash flooding with many roads water covered and closed and homes damaged. A 13 year old boy was killed as he drowned trying to clean out his culvert. M131W

Trimble County Countywide

01	1800EST				0	0			Flash Flood
02	0200EST								

1 to 2 inches of rain fell on top of 24 hour totals from 6 to 10 inches resulting in widespread flash flooding with many roads water covered and closed.

Henry County Countywide

01	1800EST				0	0			Flash Flood
02	0200EST								

1 to 2 inches of rain fell on top of 6 to 10 inch 24 hour totals resulting in widespread flash flooding with many roads water covered

Storm Data and Unusual Weather Phenomena

March 1997

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

and closed.

**Bourbon County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain falling on top of 3 to 7 inch totals in less than 24 hours caused widespread flash flooding with many streets closed and evacuations.

**Boyle County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain falling on top of 3 to 7 inch totals in less than 24 hours caused widespread flash flooding with many roads closed and evacuations.

**Adair County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain falling on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many streets closed and evacuations.

**Allen County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain on top of 3 to 7 inch less tha 24 hour totals resulted in widespread flash flooding with many roads closed and evacuations.

**Barren County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inch rains on top of 4 to 8 inch less than 24 hour totals resulted in widespread flash flooding with many roads closed, evacuations and rescues.

**Butler County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain fell on top of 3 to 7 inch less than 24 hour totals causing widespread flash flooding with roads closed and evacuations.

**Casey County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain fell on top of 2 to 6 inch less than 24 hour totals causing widespread flash flooding with many roads closed and evacuations.

KYZ027-032-035-037>038-040>041-046-048>049-053>054-056>057-062>065-067-070>071-081>082

Grayson - Trimble - Franklin - Harrison - Spencer - Woodford - Fayette - Washington - Jessamine - Clark - Larue - Marion - Garrard - Madison - Edmonson - Hart - Green - Taylor - Lincoln - Logan - Warren - Cumberland - Clinton

01	1800EST				0	0	5.1M	
02	2100EST							Flood

4 to 9 inches of rain fell in less than 24 hours causing widespread flooding and/or flash flooding resulting in numerous water covered and closed roads, evacuations and rescues. Most of these counties were declared disaster areas and given federal assistance. The exceptions were Clinton, Cumberland, Garrard, Green, Lincoln, Madison and Marion. Many homes and businesses were effected during the flooding and flash flooding. Damage amounts include flooding and flash flooding totals over the 2 day period.

**Mercer County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain falling on top of 3 to 7 inch totals in less than 24 hours caused widespread flash flooding across the county with many roads water covered and closed.

**Nicholas County
Countywide**

01	1800EST				0	0	
02	0200EST						Flash Flood

1 to 2 inches of rain that fell on top of 3 to 7 inches in less than 24 hours resulted in widespread flash flooding with many roads water covered and closed.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KENTUCKY, Central</u>									
Scott County									
Countywide	01	1800EST			0	0	1.8M		Flash Flood
	02	0200EST							
1 to 2 inch rain fell on top of 3 to 7 inch totals in less than 24 hours resulted in widespread flash flooding with many roads water covered and closed. Scott county was declared a disaster area. Damage totals include all the flooding and flash flooding from March 1-March 2.									
Nelson County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of rain fell on top of 6 to 10 inch 24 hour totals resulting in widespread flash flooding causing many roads to be water covered and closed.									
Oldham County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of rain fell on top of 6 to 10 inch totals in less than 24 hours resulting in widespread flash flooding with many roads under water and closed.									
Metcalfe County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of rain fell on top of 3 to 7 inch totals in less than 24 hours resulting in widespread flash flooding with many roads under water and closed.									
Monroe County									
Countywide	01	1800EST			0	0			Flash Flood
		2100EST							
1 to 2 inches of rain fell on top of 3 to 7 inch totals in less than 24 hours resulting in widespread flash flooding with many roads water covered and closed.									
Russell County									
Countywide	01	1800EST			0	0			Flash Flood
		2100EST							
1 to 2 inch rain fell on top of 3 to 7 inch totals in less than 24 hours resulting in widespread flash flooding with many roads water covered and closed.									
Simpson County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inch rain fell on top of 3 to 7 inch totals in less than 24 hours resulting in widespread flash flooding with many roads under water and closed.									
Breckinridge County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
Over 2 inches of rain on top of 24 hour totals from 6 to 10 inches resulted in widespread flash flooding with many roads water covered and closed.									
Ohio County									
Countywide	01	1800EST			0	0			Flash Flood
	02	0200EST							
Over 2 inches of rain fell on top of 24 hour totals from 6 to 10 inches resulting in widespread flash flooding with many roads water covered and closed.									
Franklin County									
Countywide	01	2100EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of additional rainfall on top of 6 to 10 inch 24 hour totals lead to widespread flash flooding with many roads water covered and closed.									
Larue County									
Countywide	01	2100EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of rain fell on top of 24 hour 6 to 10 inch totals resulting in widespread flash flooding across the county with many roads water covered and closed.									
Spencer County									
Countywide	01	2100EST			0	0			Flash Flood
	02	0200EST							
1 to 2 inches of rain fell on top of 24 hour 6 to 10 inch totals resulting in widespread flash flooding with many roads water covered									

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
<u>KENTUCKY, Central</u>							
							and closed.
Meade County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 24 hour totals from 6 to 10 inches resulting in widespread flash flooding with many roads water covered and closed.
Hancock County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 24 hour totals from 6 to 10 inches resulting in widespread flash flooding with many roads water covered and closed.
Hardin County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 24 hour totals of 4 to 8 inches resulting in widespread flash flooding with many roads under water and closed.
Grayson County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 6 to 10 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.
Edmonson County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					1 to 2 inches of rain fell on top of 6 to 10 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.
Green County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.
Hart County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 24 hour totals from 4 to 8 inches which resulted in widespread flash flooding with many roads water covered and closed.
Logan County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.
Warren County							
Countywide	01	2100EST			1	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 4 to 8 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed. A 33 year old woman drowned as her minivan was swept into the Barren River. Several rescues were also made from cars trying to navigate flooded roadways. F33IW
Jessamine County							
Countywide	01	2100EST			0	0	Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.
Fayette County							
Countywide	01	2100EST			0	0	1.1M Flash Flood
	02	0200EST					Over 2 inches of rain fell on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed. Fayette county was declared a disaster area. Damage totals include all flooding and flash flooding from March 1-March 2.

Storm Data and Unusual Weather Phenomena

March 1997

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, Central

Harrison County

Countywide

01	2100EST								
02	0200EST				0	0			Flash Flood

Over 2 inches of rain fell on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.

Woodford County

Countywide

01	2100EST								
02	0200EST				0	0			Flash Flood

Over 2 inches of rain fell on top of 24 hour 3 to 7 inch totals resulting in widespread flash flooding with many roads water covered and closed.

Washington County

Countywide

01	2100EST								
02	0200EST				0	0			Flash Flood

Over 2 inches of rain fell on top of 24 hour 3 to 7 inch totals resulting in widespread flash flooding with many roads water covered and closed.

Marion County

Countywide

01	2100EST								
02	0200EST				0	0			Flash Flood

Over 2 inches of rain fell on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.

Taylor County

Countywide

01	2100EST								
02	0200EST				0	0			Flash Flood

Over 2 inches of rain fell on top of 3 to 7 inch 24 hour totals resulting in widespread flash flooding with many roads water covered and closed.

Hart County

Hardyville

01	2300EST	0.5	50						
	2301EST			0	0	85K			Tornado (F1)

Spotters reported an F1 tornado near Hardyville. \$75,000 of damage were done to a farm. 2 barns and a silo destroyed. 1 house and a mobile home also received minor damage. Tree damage along U.S. 31E.

KYZ028>029-045

Hardin - Bullitt - Nelson

01	2300EST								
11	1900EST				0	0	28.5M		Flood

Record rainfall amounts from late evening Friday February 28 to the morning of Sunday March 2 lead to major flooding along the Salt River basin including the Rolling Fork. The Salt River at Sheperdsville reached the 32 foot flood stage just after 1 am est Sunday March 2 and crested at 40.9 feet at 1 pm est on Monday March 3. This was the worst flooding here since March 1964. The Rolling Fork at Boston reached the 35 foot flood stage at 11 pm est Saturday March 1 and crested at a record level of 53.2 feet at 1 pm est Monday March 3. This major flooding caused the most of the towns of Boston, Lebanon Junction and Sheperdsville to be underwater with water up to the rooftops in spots. Downtown Sheperdsville was 90 percent under water and forced 1,000 people to be evacuated by boat. New Haven was also mostly under water. The town of West Point in northern Hardin county was also buried under water to the roof tops in many spots due to the effects of both the Salt River and the Ohio River as West Point is located at the confluence of the Ohio and Salt Rivers. Damage estimates for Hardin county include flooding attributed to the Ohio River. All these towns were evacuated. All these counties were eligible for federal disaster aid. The damage includes the flooding and flash flooding of March 1 through March 2.

KYZ077

Adair

01	2300EST								
02	0600EST				0	0			Flood

Russell Creek at Columbia in the Green River basin crested at 18.8 feet (flood stage is 16 feet) at 12 am est March 2. This caused minor flooding at Columbia.

KYZ061>063

Butler - Edmonson - Hart

01	2300EST								
16	2300EST				0	0	3M		Flood

The Green River crested at 30.7 feet at Rochester at 1000 am est on March 7 (flood stage is 17 feet). This is the second biggest flood next to January 1950. Many homes were flooded out in Rochester and Woodberry along the river. In Woodberry, the river crested at 48.9 feet (flood stage is 33 feet) at 11 am est March 5. At Brownsville, the river crested at 33.8 feet (flood stage is 18 feet) at 4 pm est on March 5. This caused mainly bottomland flooding. At Munfordville, the river crested at 43.9 feet at 10 pm est March 3 (flood stage is 28 feet). This caused significant bottomland flooding. 25 families were cut off by the water there. These three counties received federal disaster aid.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
<u>KENTUCKY, Central</u>							
Logan County							
Russellville	01	2310EST			0	0	Thunderstorm Wind (G50)
	Trees down at the intersection of Kentucky 431 South and highway 96. Report from state police.						
Bullitt County							
Countywide	01	2355EST			0	0	Flash Flood
	02	0200EST					
	1 to 2 inches of rainfall on top of 6 to 10 inch 24 hour totals lead to widespread flash flooding across the county with many roads water covered and closed.						
Jefferson County							
Countywide	01	2355EST			0	0	Flash Flood
	02	0200EST					
	1 to 2 inches of rain fell on top of 6 to 10 inch 24 hour totals resulting in widespread flash flooding across the county with many roads water covered and closed.						
Oldham County							
Countywide	01	2355EST			0	0	Flash Flood
	02	0200EST					
	1 to 2 inches of rain fell on top of 24 hour 6 to 10 inch totals resulting in widespread flash flooding with many roads water covered and closed.						
Allen County							
Countywide	02	0000EST 0010EST			0	0	Thunderstorm Wind (G50)
	Power lines down relayed by KBKO-TV in Bowling Green.						
Barren County							
Glasgow	02	0000EST			0	0	Thunderstorm Wind (G60)
	Chairs reported flying through the air by state police. Numerous trees down and power lines. 75 percent of the city was left without power.						
Boyle County							
Danville	02	0000EST 0010EST			0	0	Thunderstorm Wind (G60)
	2 businesses and 2 mobile homes had roofs blown off in the southeastern part of Danville. The structures also recieved further minor damage. Many barns were also flattened, and numerous trees were downed. Also, in the western part of the county, a church had eextensive damage estimated at \$20,000, and many trees were down there also. Most of the damage in the western part of the county was along highway 68.						
Green County							
Pierce	02	0010EST			0	0	Hail (0.75)
	Dime size hail reported by dispatch.						
Adair County							
Western Parts	02	0025EST 0035EST			0	0	Thunderstorm Wind (G60)
	Several roofs blown off houses across western parts of the county. Also, numerous downed power lines and trees. Report from county dispatch.						
Metcalf County							
Center	02	0025EST	0.1	50	0	0	Tornado (F0)
	A spotter reported a brief tornado touchdown near Center. Several trees and power lines down.						
Metcalf County							
Edmonton	02	0030EST			0	0	Hail (0.75)
	Dime size hail report relayed from WBKO-TV in Bowling Green.						
Russell County							
Countywide	02	0030EST 0130EST			0	0	Flash Flood
	1 to 2 inches of rain on top off already saturated ground caused widespread flash flooding across the county.						
Clark County							
Countywide	02	0030EST 0200EST			0	0	Flash Flood
	1 to 2 inches of rain falling on already saturated ground caused widespread flash flooding across the county with many roads water covered.						

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
<u>KENTUCKY, Central</u>							
Garrard County Countywide	02	0030EST 0200EST			0 0		Flash Flood
			1 to 2 inches of rain over already saturated ground caused widespread flash flooding across the county with many roads water covered.				
Madison County Countywide	02	0030EST 0200EST			0 0		Flash Flood
			1 to 2 inches of rain fell over already saturated ground causing widespread flash flooding with many roads water covered.				
Casey County Countywide	02	0030EST 0200EST			0 0		Flash Flood
			1 to 2 inches of rain fell on already saturated ground causing widespread flash flooding with many roads water covered.				
Lincoln County Countywide	02	0030EST 0200EST			0 0		Flash Flood
			1 to 2 inches of rain fell on already saturated ground causing widespread flash flooding with many roads water covered.				
Casey County Liberty	02	0039EST 0045EST			0 0	10K	Thunderstorm Wind (G60)
			Roof blown off business in Liberty. Numerous trees down across east and south parts of the county.				
Russell County Russell Spgs	02	0055EST			0 0		Thunderstorm Wind (G50)
			Trees down just north of Russell Springs.				
KYZ033-035-039>040-047>049-056>057	Henry - Franklin - Anderson - Woodford - Mercer - Jessamine - Clark - Garrard - Madison						
	02 09	0200EST 0400EST			1 0	9.8M	Flood
			Record to near record rainfall from early March 1 through March 2 caused the highest flooding on the Kentucky River at Frankfort since 1937 with the river cresting at 45.2 feet at 1 pm est March 3 (flood stage is 31 feet). Meanwhile, further south where rain totals were not as high, the flooding was only minor. The river at Highbridge crested at 37.4 feet at 7 pm est March 2 (flood stage is 30 feet). At Ford, the river only reached 27.1 feet at 8 pm est March 5 (flood stage is 26 feet). Numerous rescues were made during both the flash flooding and the flooding along the Kentucky River. The flooding was particularly bad along Elkhorn Creek in Franklin county where many two-story houses had water up to the second floor and at least 75 rescues were made. A 50 year old man was killed around 9 am est March 2 as he attempted to cross a flooded road. His car was swept into Elkhorn Creek, a tributary of the Kentucky River, and he drowned as he attempted to swim for safety. The town of Burgin in southeastern Mercer county also had many homes with water coming in. Damage amounts also include flooding and flash flooding damage from March 1 through March 2. M50IW				
KYZ026	Ohio						
	02 06	0500EST 1200EST			0 0		Flood
			The Rough River at Dundee crested at 30.2 feet (flood stage is 25 feet) at 7 pm est March 2. This is second only to the flooding of 1937.				
KYZ071	Warren						
	02 04	0500EST 0600EST			0 0		Flood
			The Barren River crested at 34.9 feet (flood stage is 28 feet) at 7 am est March 3. This caused moderate flooding with a few houses seeing basement flooding.				
KYZ071	Warren						
	02 04	0500EST 0400EST			0 0		Flood
			Drake Creek at Alvation in the Green River basin crested at 29.9 feet (flood stage is 22 feet) at 6 pm est on March 2. This caused some minor flooding.				
KYZ023>025-028-030>032	Hancock - Breckinridge - Meade - Hardin - Jefferson - Oldham - Trimble						
	02 15	2300EST 1200EST			1 0	125M	Flood
			Record rainfalls from late Friday evening February 28 through Sunday morning March 2 and additional heavy rainfall on Tuesday March 4 caused the worst flooding on the Ohio River since 1964 and in some spots since 1937. Damage attributed to river flooding alone was at 115 million across Jefferson county Kentucky bringing the total damage across the county to 200 million				

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
1 to 2 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Jessamine County Countywide	05	0900EST 1630EST			0	0			Flash Flood
1 to 2 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Mercer County Countywide	05	0900EST 1630EST			0	0			Flash Flood
1 to 2 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Fayette County Countywide	05	0900EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Lincoln County Countywide	05	0900EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Woodford County Countywide	05	0900EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Bourbon County Countywide	05	1000EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Clark County Countywide	05	1000EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Madison County Countywide	05	1000EST 1200EST			0	0			Flash Flood
Around 1 inch of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Adair County Countywide	05	1000EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Allen County Countywide	05	1000EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Metcalfe County Countywide	05	1000EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Barren County Countywide	05	1000EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Edmonson County Countywide	05	1230EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									
Green County Countywide	05	1230EST 1500EST			0	0			Flash Flood
1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.									

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
<u>KENTUCKY, Central</u>							
Hart County Countywide	05	1230EST 1500EST			0	0	Flash Flood
							1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.
Monroe County Countywide	05	1230EST 1500EST			0	0	Flash Flood
							1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.
Taylor County Countywide	05	1230EST 1500EST			0	0	Flash Flood
							1 to 3 inches of rain fell on top of already saturated grounds leading to widespread flash flooding with many roads water covered.
Jefferson County Countywide	18	0830EST 1200EST			0	0	Flash Flood
							Around 2.5 inches of rain fell over a 6 hour period resulting in several creeks overflowing their banks and a few roads water covered.
Oldham County Countywide	18	0830EST 1200EST			0	0	Flash Flood
							Around 2.5 inches of rain fell in around 6 hours resulting in several creeks overflowing their banks and a few roads water covered.
Logan County Countywide	18	1230EST 1530EST			0	0	Flash Flood
							Around 2.5 inches of rain fell in around 6 hours resulting in several creeks overflowing their banks and several roads water covered. Highway 79 North and the Emerson Bypass in Emerson City were impassable.
Warren County Countywide	18	1230EST 1530EST			0	0	Flash Flood
							Around 2.5 inches of rain fell in around 6 hours causing many creeks to overflow their banks and many roads to become water covered.
KYZ061							Butler
	18	2300EST			0	0	Flood
	29	0700EST					The Green River crested at 37.2 feet (flood stage is 33 feet) at 7 am est on March 21 at Woodberry. It then crested at 23.0 feet (flood stage is 17 feet) at Rochester at 7 am est on March 22. Many county roads were water covered.
KYZ026							Ohio
	19	0700EST 2300EST			0	0	Flood
							The Rough River at Dundee crested at 25.9 feet (flood stage is 25 feet) at 6 pm est on March 19 producing minor flooding.
KYZ063							Hart
	20	0100EST 0700EST			0	0	Flood
							The Green River at Munfordville crested at 28.6 feet (flood stage is 28 feet) at 3 am est on March 20 producing minor flooding.
KYZ071							Warren
	20	0700EST			0	0	Flood
	21	1300EST					The Green River at Brownsville crested at 20.4 feet (flood stage is 18 feet) at 1 am est on March 21 producing minor flooding.
KYZ045							Nelson
	20	2300EST			0	0	Flood
	21	1900EST					The Rolling Fork of the Salt River just exceeded its flood stage cresting at 35.1 feet (flood stage is 35 feet) at 1 pm est on March 21.
Breckinridge County Hardinsburg	28	1745EST 1800EST			0	0	Hail (1.00)
							Law enforcement officials reported quarter size hail.
Logan County Countywide	28	1810EST 1820EST			0	0	Hail (1.00)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
Quarter size hail reported across various parts of the county.									
Grayson County Leitchfield	28	1810EST			0	0			Hail (1.75)
									Golf ball size hail reported by law enforcement.
Hardin County Radcliff	28	1820EST			0	0			Hail (0.75)
									Dime size hail reported by spotters.
Hardin County Rineyville to Colesburg	28	1845EST 1855EST	7	100	0	0	2M		Tornado (F1)
									An F1 tornado swept a 7 mile path from Rineyville to Colesburg damaging 5 homes, 2 mobile homes and 1 apartment complex. In addition, 8 barns were destroyed and 2 horses were killed.
Hardin County Vine Grove	28	1845EST 1945EST			0	0			Flash Flood
									Water was 8 to 10 inches over Highway 60 as reported by spotter.
Logan County Russellville	28	1845EST			0	0			Hail (1.75)
									Golf ball size hail reported by law enforcement.
Hart County Bonnieville to 2 NE Hammonville	28	1904EST 1922EST	9	1200	1	14	1.4M		Tornado (F3)
									M40PH
Larue County 2 SW Magnolia to Magnolia	28	1922EST 1925EST	2	1200	0	1	3M		Tornado (F3)
									A 40 year old man was killed as an F3 tornado with winds estimated at 175 mph touched down near Bonnieville in Hart county and moved northeast 9 miles to the town of Magnolia in Larue county before lifting. The deceased man was killed in his house in Hammonville as the house was blown 50 yards away from its foundation. A few other poorly secured homes were lifted clean off their foundations as well. Most of the injured were hurt when the tornado crossed I-65 at exit 71 causing several accidents. In Hart county, 14 people were injured in addition to the 1 death. 32 houses and 8 mobile homes were heavily damaged or destroyed most in Bonnieville. DES officials estimate total damage at 1.4 million dollars. In Larue county, 22 houses and 20 barns were heavily damaged or destroyed with most of the damage in Magnolia. DES officials estimated total damage around 3 million dollars half of which was damage to a dairy farm. The farmer lost 80 cattle as the barn collapsed on them. One man lost a restored model-T that he was used in car shows and exhibits. The only injury was to a Deputy Sheriff who rode out the storm in his cruiser. He badly bruised his hand and said he witnessed a near-by uninhabited car thrown more than 20 feet overtop of his cruiser.
Nelson County Bardstown to .5 NE Bardstown	28	1915EST 1916EST	0.5	50	0	0	50K		Tornado (F0)
									An F0 tornado ripped a couple of roofs off homes and 1 building was badly damaged as reported by police and a National Weather Service employee.
Jefferson County Shively	28	1920EST			0	0			Hail (1.75)
									Golf ball size hail reported along Cane Run Road.
Jefferson County Valley Station	28	1920EST			0	0			Hail (1.75)
									Golf ball size hail reported along Hunter's Trace.
Green County Creal to 3 NE Creal	28	1925EST 1931EST	3	300	0	0	20K		Tornado (F2)
Larue County 3 NE Creal to 1 E Attila	28	1931EST 1941EST	5	300	0	0	100K		Tornado (F2)
Marion County 1 E Attila to 3 W St Joseph	28	1941EST 1943EST	3	300	0	0			Tornado (F2)
									A second tornado formed on the southern flank of the supercell that produced the tornado from Bonnieville to Magnolia. This second tornado formed as the first one dissipated. This second tornado touched down in Creal and did some damage there including a barn that was thrown across Highway 61. County road 2762 was also blocked by downed trees. Then the tornado proceeded northeastward and crossed Highway 210 into southern Larue county where again several trees and some power lines

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
blocked the road there. There were 5 mobile homes and 4 barns destroyed and a church damaged in Pleasant Ridge. From there, the tornado moved northeastward into Marion county and dissipated 3 miles west of St. Joseph. Numerous trees and power lines were down across western Marion county.									
Taylor County Hibernia to 2 E Badger	28	1930EST 1940EST			0	0			Thunderstorm Wind (G60)
Many trees and power lines were blown down as reported by dispatch.									
Warren County Bowling Green	28	1940EST			0	0	2K		Thunderstorm Wind (G60)
Several trees down, one on a house.									
Marion County New Market	28	1945EST 1950EST			0	0	30K		Thunderstorm Wind (G60)
A mobile home and several barns were destroyed in the New Market area.									
Warren County Alvaton	28	1945EST			0	0			Hail (1.75)
Golf ball size hail covered the ground to 1 1/2 inches in spots.									
Allen County Maynard	28	1950EST			0	0			Hail (1.75)
Golf ball size hail reported.									
Trimble County Bedford	28	1955EST			0	0			Hail (2.00)
2 inch hail reported by a spotter.									
Taylor County Campbellsville	28	2000EST 2005EST			0	0	10K		Thunderstorm Wind (G60)
Many trees and power lines down. Also, a church and a propane tank were damaged.									
Barren County Rocky Hill	28	2010EST			0	0			Hail (2.75)
Baseball size hail was reported by spotters.									
Adair County Cane Vly to Pellyton	28	2015EST 2035EST	10	500	0	7	3M		Tornado (F3)
A strong F3 tornado touched down in the Cane Valley area destroying 15 mobile homes, 14 homes, a business, a church and 12 barns. Also, 26 homes, 2 businesses and 2 churches were heavily damaged. 51 homes were destroyed and 50 damaged across northern Adair county. The tornado moved northeast skipping at times to Pellyton before lifting. Only 7 minor injuries were reported, however. Many people sought refuge in one of the damaged churches.									
Metcalf County 1 W Summer Shade to 9 NE Curtis	28	2015EST 2045EST	15	200	1	6	1M		Tornado (F2)
F28MH									
Adair County 1 NW Breeding to 1 N Breeding	28	2045EST 2047EST	1	200	0	0			Tornado (F2)
An F2 tornado touched down 1 mile west of Summer Shade just inside the Metcalfe-Barren county boarder at the intersection of Highway 90 and the Milam-Clark road killing a 28 year old woman and injuring her husband and two children. The family was thrown from their mobile home which was completely destroyed and blown away. From there, the tornado crossed Highway 90 and Highway 640 with houses damaged and some mobile homes destroyed. Then it crossed Highway 163 just south of Goodluck where one house was completely lifted off its foundation and then set back down again. The tornado proceeded into southwestern Adair county and lifted just north of Breeding. Over 100 barns, 11 mobile homes and 8 houses saw extensive structural damage or were completely destroyed across Metcalfe county with an additional 20 houses with at least moderate damage. Many other residences, barns and outbuildings received minor damage. No major damage or injuries were reported in Adair county.									
Mercer County Kirkwood	28	2025EST			0	0	20K		Thunderstorm Wind (G60)
A roof blew off a building a slammed into a tractor-trailer.									
Taylor County Yuma	28	2025EST			0	0	10K		Thunderstorm Wind (G60)
A few houses had roofs blown off.									

Storm Data and Unusual Weather Phenomena

March 1997

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

Monroe County

Gamaliel	28	2030EST 2035EST			0	0	10K		Thunderstorm Wind (G60)
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A roof was ripped off a house, a barn was blown down and many trees were down.

Casey County

1 NW Dunnville to Gilpin	28	2040EST 2100EST	10	50	0	0	200K		Tornado (F1)
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An F1 tornado destroyed a large part of a farm near Riffe and also damaged a few houses and destroyed several barns on a 10 mile path to Gilpin. Many trees and power lines were also down. Damage to the farm alone was at \$150,100. The tornado appeared to skip in spots across south central Casey county. This tornado was produced by the same supercell that produced the F3 tornado that moved across Cane Valley and Pellyton in northern Adair county.

Russell County

5 W Jamestown to 5 NE Jamestown	28	2050EST 2110EST	10	50	0	0	1M		Tornado (F0)
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An F0 tornado touched down just inside the western part of the county line along Highway 55 and then moved northeast across Middletown and to the Half Acre community about 1 mile south of the Cumberland Parkway. A business was destroyed, two garages were heavily damaged, 10 houses had light to moderate roof damage, one storage building was damaged, three mobile homes were damaged and one destroyed. In addition, several signs, trees, utility poles and fences were down, and a vehicle was overturned.

Ohio County

Dundee	28	2115EST			0	0			Hail (1.00)
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Quarter size hail reported by dispatch.

Trimble County

Milton	28	2130EST			0	0			Hail (0.75)
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Dime size hail reported by a spotter.

Henry County

New Castle	28	2130EST			0	0			Thunderstorm Wind (G50)
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Several barns were blow down.

Hancock County

4 S Hawesville	28	2130EST			0	0			Hail (1.75)
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Golf ball size hail reported by dispatch.

Breckinridge County

Hardinsburg	28	2140EST			0	0			Hail (1.75)
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Golf ball size hail reported by dispatch.

Allen County

Scottsville	28	2140EST			0	0			Hail (1.75)
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Golf ball size hail reported by dispatch.

Lincoln County

Hustonville	28	2145EST			0	0			Hail (1.00)
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Quarter size hail reported by dispatch.

Simpson County

Franklin	28	2145EST			0	0			Hail (1.00)
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Quarter size hail reported.

Fayette County

Lexington	28	2225EST			0	0			Hail (0.75)
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Dime size hail reported by dispatch.

Hart County

Seymour	28	2328EST 2329EST	0.5	50	0	0	5K		Tornado (F0)
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A brief F0 tornado touched down near Seymour damaging 1 mobile home.

KENTUCKY, Eastern

Rowan County

4 NE Morehead	01	0330EST			0	0	0	0	Thunderstorm Wind
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Trees were downed.

Morgan County

West Liberty	01	0330EST			0	0	3K	0	Thunderstorm Wind
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Power lines were downed.

Storm Data and Unusual Weather Phenomena

March 1997

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>									
Elliott County Sandy Hook	01	0330EST			0	0	3K	0	Thunderstorm Wind
		Power lines were downed.							
Powell County Clay City	01	0600EST 1800EST			0	0	200K	0	Flash Flood
		The Mountain Parkway at Clay City had to be closed. Other roads, and some houses were affected by high water. A bridge was washed out.							
Morgan County Crockett	01	0630EST 1200EST			0	0	150K	0	Flash Flood
		Numerous roads were closed across the county. Some people in the Crockett area had to be evacuated.							
Menifee County Frenchburg	01	0630EST 1800EST			0	0	1M	0	Flash Flood
		Parked cars were washed away, numerous roads were flooded, and a bridge was washed out.							
Montgomery County Mt Sterling	01	0630EST 1800EST			0	0	230K	0	Flash Flood
		Numerous roads were flooded and some people had to be evacuated.							
Rowan County Morehead	01	0630EST 1800EST			0	0	350K	0	Flash Flood
		Roads were flooded and some people had to be evacuated.							
Elliott County Sandy Hook	01	0700EST 1800EST			0	0	1.1M	0	Flash Flood
		Numerous bridges were washed out. A nursing home in Sandy Hook had to be evacuated.							
Bath County Salt Lick	01	0800EST 1800EST			0	0	200K	0	Flash Flood
		Several roads were flooded.							
Fleming County Cowan	01	1230EST 1800EST			0	0	10K	0	Flash Flood
		Roads were flooded.							
Estill County Irvine	01	1445EST 2000EST			0	0	30K	0	Flash Flood
		Several businesses and basements were flooded. Numerous roads were flooded.							
Powell County 1.3 N Stanton to 6 NE Stanton	01	1450EST 1456EST	6	70	0	0	500K	0	Tornado (F1)
		At the airport just north of Stanton, a hanger was destroyed, 2 ultralight aircraft were destroyed, and a single engine prop plane was destroyed. The tornado damaged some homes and barns, and downed numerous trees.							
Powell County 4 E Stanton	01	1450EST			0	0	50K	0	Thunderstorm Wind
		Trees were downed, and several outbuildings or barns were damaged or destroyed.							
Menifee County 7 S Frenchburg	01	1515EST			0	0	20K	0	Thunderstorm Wind
		A trailer was destroyed, a house was damaged, and there was some roof damage to a large building. Numerous trees were also downed.							
Menifee County 7 S Frenchburg	01	1515EST	0.1	20	0	0	3K	0	Tornado (F0)
		Most of the damage in the area was caused by straight line winds. However, a small tornado also briefly touched down.							
Morgan County 2 E Ezel	01	1520EST			0	0	50K	0	Thunderstorm Wind
		Several barns were blown down.							

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KENTUCKY, Eastern</u>									
Menifee County									
Pomeroyton	01	1520EST			0	0	20K	0	Thunderstorm Wind
									Trees and power lines were downed, and buildings were damaged.
Johnson County									
Flatgap	01	1607EST			0	0	3K	0	Thunderstorm Wind
									Trees and power lines were downed.
Johnson County									
9 N Paintsville	01	1615EST			0	0	10K	0	Thunderstorm Wind
									Trees and power lines were downed, and the roof was blown off a building.
Martin County									
3 N Inez	01	1630EST			0	0	0	0	Thunderstorm Wind
									Trees were downed.
KYZ044-051>052									
			Fleming - Bath - Rowan						
	01	1800EST			0	0	5.0M	0	Flood
	04	1200EST							Flash flooding that began early in the day developed into widespread small stream and river flooding. The Licking River below Cave Run Lake, and along the Fleming-Bath County line reached its highest level in history. Sherburne was especially hard hit.
Menifee County									
Frenchburg	01	1800EST			0	0	1M	0	Flash Flood
	02	0500EST							Heavy rain fell during the morning of March 1, during the afternoon of March 1, and again on the night of March 1 to 2. This resulted in repeated episodes of flash flooding. Numerous roads were flooded, and damage was widespread. Twenty-four hour rainfall amounts exceeded 10 inches.
Elliott County									
Sandy Hook	01	1800EST			0	0	50K	0	Flash Flood
	02	0300EST							Heavy rain fell during the morning of March 1, the afternoon of March 1, and again during the night of March 1 to 2. This resulted in repeated episodes of flash flooding and numerous road closures. By early on the 2nd most roads which had not been damaged by flooding were again open.
Montgomery County									
Mt Sterling	01	1800EST			0	0	10K	0	Flash Flood
	02	0500EST							Heavy rains during the morning of March 1, in the afternoon of March 2, and again during the overnight of March 1 to 2, caused repeated episodes of flash flooding. Numerous roads were flooded.
Bath County									
Preston	01	1800EST			0	0	100K	0	Flash Flood
	02	0500EST							Heavy rain fell in the morning of March 1, the afternoon of March 1, and again during the overnight of March 1 to 2. This resulted in repeated episodes of flash flooding. Homes were flooded near Preston, Olympia, State Valley, and Wyoming. 24 Hour rainfall amounts in Bath County exceeded 9 inches.
Fleming County									
Ewing	01	1800EST			0	0	10K	0	Flash Flood
	02	0500EST							Heavy rain fell during the morning of March 1, the afternoon of March 1, and again during the overnight of March 1 to 2. This resulted in repeated episodes of flash flooding.
Rowan County									
Morehead	01	1800EST			0	0	10K	0	Flash Flood
	02	0300EST							Heavy rain fell during the morning of March 1, the afternoon of March 1, and again during the overnight of March 1 to 2. This resulted in repeated episodes of flash flooding. Numerous roads were flooded.
Pulaski County									
Somerset	02	0030EST			0	0	0	0	Thunderstorm Wind
									Trees were downed in several locations around the county.
Pulaski County									
Somerset	02	0030EST			0	0	20K	0	Flash Flood
		0500EST							Numerous roads were flooded, and a bridge was damaged.

Storm Data and Unusual Weather Phenomena

March 1997

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>									
Wayne County									
Monticello	02	0030EST 0500EST			0	0	20K	0	Flash Flood
									Some roads and bridges were flooded.
Powell County									
Clay City	02	0110EST			0	0	3K	0	Thunderstorm Wind
									Trees and power lines were downed.
Fleming County									
Flemingsburg	02	0120EST			0	0	5K	0	Thunderstorm Wind
									Trees and power lines were downed across the county.
Powell County									
Stanton	02	0120EST 0121EST	1	30	0	0	1.3M	0	Tornado (F0)
									A small tornado briefly touched down in the northern part of Stanton. Most of the damage occurred between Maple and Church Streets. A few trees were downed, and several houses and business sustained roof damage. Two greenhouses and a barn were heavily damaged or destroyed.
Estill County									
Irvine	02	0120EST			0	0	0	0	Thunderstorm Wind
									Numerous trees were downed across the county.
Menifee County									
Denniston	02	0130EST			0	0	50K	0	Thunderstorm Wind
									Numerous trees and power lines were downed. A trailer was destroyed and the roof of a house was damaged. Two barns were destroyed.
Menifee County									
Big Woods	02	0130EST			0	0	20K	0	Thunderstorm Wind
									A tree fell on a house and car, and a barn was destroyed.
Morgan County									
Ezel	02	0130EST			0	0	50K	0	Thunderstorm Wind
									Power lines and trees were downed. Some falling trees damaged houses and cars. A barn was also blown down.
Menifee County									
5 E Frenchburg	02	0130EST	0.1	20	0	0	0	0	Tornado (F0)
									Trees were downed by a small tornado.
Elliott County									
Sandy Hook	02	0145EST			0	0	5K	0	Thunderstorm Wind
									Trees were downed in several locations around the county.
Magoffin County									
Salyersville	02	0200EST			0	0	0	0	Thunderstorm Wind
									Trees were downed at various locations.
Johnson County									
Paintsville	02	0205EST			0	0	10K	0	Thunderstorm Wind
									The roof was blown from a small building, and it landed on a car.
Martin County									
Inez	02	0220EST			0	0	0	0	Thunderstorm Wind
									Trees were downed at various locations.
Floyd County									
Prestonsburg	02	0230EST			0	0	0	0	Thunderstorm Wind
									Trees were downed at various locations.
KYZ059									
		Powell							
	02	0600EST			0	0	10K	0	Flood
	04	1600EST							
									Minor flooding occurred along the Red River.
KYZ085>088									
		Whitley - Knox - Bell - Harlan							
	03	0700EST			0	0	20K	0	Flood
	05	1200EST							
									Flooding occurred along the Cumberland River.

Storm Data and Unusual Weather Phenomena

March 1997

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>									
Bell County Middlesboro	03	0700EST 1200EST			0	0	10K	0	Flash Flood
			Numerous roads were flooded.						
Jackson County Morrill	03	0800EST 1100EST			0	0	0	0	Urban/Sml Stream Fld
			One foot of water covered Route 421.						
Pike County Robinson Creek	03	0830EST 1200EST			0	0	3K	0	Flash Flood
			Roads were flooded.						
Letcher County Blackey	03	0830EST 1200EST			0	0	3K	0	Flash Flood
			Roads were flooded.						
Breathitt County Wilstacy	03	0900EST 1200EST			0	0	0	0	Urban/Sml Stream Fld
			Route 1098 was flooded.						
Martin County Inez	03	0900EST 1200EST			0	0	10K	0	Urban/Sml Stream Fld
			Water covered numerous roads.						
Magoffin County Salyersville	03	0900EST 1200EST			0	0	0	0	Urban/Sml Stream Fld
			Several roads were flooded.						
Wayne County Oil Vly	03	0900EST 1200EST			0	0	0	0	Urban/Sml Stream Fld
			Water covered parts of Route 92.						
KYZ106-109		Morgan - Magoffin							
	03	1100EST			0	0	15K	0	Flood
	04	1700EST							
			Minor flooding occurred along the upper Licking River.						
KYZ058-111>112-114>115		Estill - Lee - Breathitt - Owsley - Perry							
	03	1300EST			0	0	400K	0	Flood
	04	1700EST							
			Flooding occurred along the Kentucky River, and the South and North Fork of the Kentucky River. Some businesses and homes in Hazard were affected.						
Pulaski County 2 E Somerset	18	2100EST 2200EST			0	0	3K	0	Flash Flood
			A bridge was flooded.						
Pulaski County Faubush	28	2107EST			0	0	3K	0	Thunderstorm Wind
			Trees were downed.						
Pulaski County Eubank	28	2110EST			0	0	3K	0	Thunderstorm Wind
			Trees were downed.						
Jackson County Gray Hawk	28	2230EST			0	0	30K	10K	Hail (2.75)

Storm Data and Unusual Weather Phenomena

March 1997

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>									
									The roof of a greenhouse was shattered.
Laurel County									
1 NW East Bernstadt	28	2230EST	0.1	20	0	0	0	0	Tornado (F0)
									A small tornado briefly touched down, and caused some minor tree damage.
Jackson County									
5 W Mc Kee	28	2230EST			0	0	10K	0	Hail (1.75)
Laurel County									
East Bernstadt	28	2234EST			0	0	0	0	Hail (1.00)
Laurel County									
London	28	2240EST			0	0	0	0	Hail (1.00)
Montgomery County									
Mt Sterling	28	2300EST			0	0	0	0	Hail (1.75)
Laurel County									
Lily	28	2300EST			0	1	1K	0	Lightning
									A man was knocked unconscious by lightning while turning on a radio in his house. He quickly recovered and was OK.
Breathitt County									
Jackson	28	2315EST			0	0	2K	0	Thunderstorm Wind
									The roof of a shed was damaged.
Perry County									
Hazard	28	2342EST			0	0	0	0	Hail (0.75)
Leslie County									
Thousandsticks	28	2356EST			0	0	10K	0	Hail (1.75)
Knott County									
Hindman	29	0010EST			0	0	0	0	Thunderstorm Wind
									Trees were blown down at various locations.
Leslie County									
Hyden	29	0030EST			0	0	0	0	Hail (0.88)
Clay County									
7 N Manchester	29	0045EST			0	0	25K	0	Thunderstorm Wind
									The roof of a nursing home was damaged.
Letcher County									
Whitesburg	29	0115EST			0	0	3K	0	Thunderstorm Wind
									Trees were blown down.
<u>KENTUCKY, Northeast</u>									
Boyd County									
Countywide	01	0600EST 1500EST			0	0	750K		Flash Flood
Carter County									
Countywide	01	0600EST 1600EST			0	0	1M		Flash Flood
Lawrence County									
Countywide	01	0615EST 1230EST			0	0	1M		Flash Flood
KYZ102									
Carter	01	1515EST			0	0	2.5M		Flood
	04	0300EST							
Lawrence County									
Blaine	01	1625EST			0	0	2K		Thunderstorm Wind
									Trees were blown down.
KYZ101									
Greenup	01	2200EST			0	0	3.5M		Flood
	08	0100EST							
Boyd County									
Countywide	02	0100EST 0730EST			0	0	50K		Flash Flood

Storm Data and Unusual Weather Phenomena

March 1997

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, Northeast</u>									
Carter County									
Countywide	02	0100EST 0730EST			0	0	250K		Flash Flood
Greenup County									
Countywide	02	0100EST 0830EST			0	0	1M		Flash Flood
Lawrence County									
Countywide	02	0100EST 0730EST			0	0	50K		Flash Flood
KYZ103									
		Boyd							
	02 07	1600EST 2000EST			0	0	1M		Flood
Boyd County									
Countywide	03	1100EST 1300EST			0	0	10K		Flash Flood
Carter County									
Countywide	03	1100EST 1300EST			0	0	10K		Flash Flood

Showers and thunderstorms hit extreme northeast Kentucky 3 separate times from the predawn hours of Saturday, the 1st, through Monday morning, the 3rd. Rainfall totals of 5 to 9 inches were measured. The heaviest rain rates were on Saturday, the 1st. Parts of Carter County measured 5 to 6 inches of rain in 15 hours on Saturday. The rains on Monday, caused some small streams to rise again, but contributed little to the overall damage. Lulls in the rain occurred late Saturday afternoon and evening and again on Sunday.

The full spectrum of flooding resulted. All 4 counties were declared a federal disaster by President Clinton. Amazingly, no deaths or significant injuries occurred in Carter, Lawrence, Greenup, and Boyd Counties.

Flash flooding on small feeder creeks began before dawn on the 1st. In Lawrence County, the headwaters of Blaine Creek flooded homes and a school in the Martha and Blaine region. Dry Fork flooded Webbville. Just over 100 individuals in Lawrence County received federal assistance. About 10 small bridges were destroyed in Lawrence County. Just to the north, in Carter County, homes in the Hitchins and Willard vicinity were flooded by the Dry Fork and the headwaters of Little Fork. An elementary school in Hitchins was flooded with 8 feet of water from the Little Fork. People were stranded in many areas. One example, was the intersection of 773 and Route 1, where 30 people waited out the high water in a convenience store. Nearby, Straight Creek also caused damage in Carter County. Around Olive Hill, 43 units of a low income housing project were flooded. In Boyd County, homes in the Westwood region of Ashland had a foot of water inside, from Hoods Creek.

Larger streams, such as Tygarts Creek did extensive damage along Route 7 in Greenup County by late Saturday night and Sunday morning. Near the junction of Plum Fork and Tygarts Creek, the 140 year old Bennetts Mill covered bridge met the challenge of the rising water. Local residents heard loud sounds during the night. They assumed the bridge would be gone by morning. Yet, the pre-Civil War bridge withstood 4 feet of water hitting its side. The bridge was reopened after a state inspection. Not far to the northwest, in Brown County Ohio, another historic covered bridge fell victim to the flood of March 1997.

The Corps of Engineers dam at Grayson Lake, in Carter County, was shut down to minimum flow around 0900 EST on the 1st. However, only 8 miles downstream, record flooding still occurred on the Little Sandy River from Grayson to its mouth at Greenup. Eight miles down from the dam, at the town of Grayson, the river rose at a peak rate of 3 feet per hour during midday Saturday. The level went from normal low flow to its 21 foot flood stage in 12 hours. A crest of 30.56 feet was reached around 1000 EST on the 2nd, or 9 to 10 feet above flood stage. The lake elevation at Grayson Lake reached a pool of record at 671.4 feet. Twentyfive businesses sustained damage in Carter County, mostly from the Little Sandy. FEMA reported around 200 Carter County citizens had received individual assistance.

Further down the Little Sandy River, the flooding escalated. Roads and farmland was inundated around Pactolus. In Greenup County, the flood waters reached the second floor and roofs of some homes along Route 2, from Alcorn to the city of Greenup, by early Sunday, the 2nd. Around 100 homes were damaged along this stretch. Water remained high on the lower reaches of the Little Sandy River for several days, as the Ohio River crested.

The rate of rise on the Ohio River was impressive. The core of the highest rains on the 1st, had fallen near the mainstem. The rate of rise was .5 to 1 foot per hour at Ashland, but 1 to 2 feet per hour at Greenup, during Saturday afternoon and evening. At one point, the Ohio River rose 1.3 feet at the Greenup Locks in 30 minutes, with a 15 foot rise from dawn to dark on the 1st. Finally, late on the 4th and early on the 5th, the mighty Ohio River crested. The level was 7 to 9 feet above flood stage from Catlettsburg, through Ashland, to Greenup and South Shore. Low lying areas, not protected by floodwalls, were flooded. The crest did reach up on the floodwall at Catlettsburg, and flooded some homes outside the wall. At Ashland, the crest of 60.79 feet was just short of the floodwall's base. It was the 10th highest crest on record at Ashland. Local police reported crowds of spectators and gawkers lining

Storm Data and Unusual Weather Phenomena

March 1997

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

up, "to see something they haven't seen in years". About 150 people in Boyd County received individual federal assistance from both the flash flooding and river flood. The crest was 62.3 feet at Greenup. Some homes in Greenup had 1 to 3 feet of water inside. A highwater mark was made on the back steps of the Greenup County court house, but county records were not damaged. South Shore Police reported no major damage there, with only a few homes affected. Over 400 residents of Greenup County received individual federal assistance.

Boyd County

Ashland	29	0050EST			0	0	2K		Thunderstorm Wind
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Trees were blown down along Route 168.

KENTUCKY, Northern

Mason County

Countywide	01	0720EST			1	0	500K		Flash Flood
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02 0800EST
Estimated rainfall from 5 to over 12 inches across the county in less than 36 hours caused area creeks and streams to rise out of their banks. Numerous roads were covered by water causing several vehicles to stall in the water. Some people had to be rescued from their vehicles. Three bridges were washed out and water flooded into some homes. An area man drowned when water engulfed his truck along the North Fork of the Licking River. M24VE

Bracken County

Countywide	01	0900EST			0	0	1M		Flash Flood
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02 0800EST
Estimated rainfall from 8 to over 12 inches across the county in less than 36 hours caused numerous creeks and streams to rise out of their banks. Many roads were closed due to high water and two mobile homes were washed away. Much of Milford was under water for several hours.

Pendleton County

Countywide	01	0925EST			0	0	10M		Flash Flood
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02 0800EST
Estimated rainfall of 6 to 12 inches across the county in less than 36 hours caused numerous creeks and streams to rise out of their banks. Many roads across the county were covered and some were even washed out. Several evacuations occurred across the county.

Grant County

Countywide	01	0930EST			0	0	1M		Flash Flood
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02 0800EST
Estimated rainfall from 6 to 12 inches across the county in less than 36 hours caused water to rise across most county roads.

Owen County

Countywide	01	1130EST			2	0	2.1M		Flash Flood
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02 0800EST
Estimated rainfall of 10 to 15 inches across the county in less than 36 hours caused many area creeks and streams to rise out of their banks. Numerous roads were flooded across the entire county. Two people were killed when their car was swept into flooded backwaters of the Kentucky River along State Route 355 near Perry Park. M65VE, F65VE

Robertson County

Countywide	01	1137EST			0	0	500K		Flash Flood
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2330EST
Estimated rainfall of 6 to 8 inches across the county in less than 36 hours caused area creeks and streams to rise out of their banks. Numerous roads were flooded.

KYZ096

Pendleton									
	01	1230EST			5	0	35M		Flood
	06	1500EST							

Persistent heavy rainfall occurred for nearly 36 hours on the 1st and 2nd. Up to 12 inches of rain fell across parts of Northern Kentucky bringing the Licking river at Falmouth out of its banks. On the evening of the 2nd, the river crested at over 50 feet, which is the highest stage on record. The crest is an estimation since the gage was under water. Over 80 percent of Falmouth was inundated with water and almost the entire town of 2400 residents was evacuated. The town of Butler also experienced significant flooding. US 27 and Route 22 were covered by high water. Five people were killed by the river flooding all of which returned to their homes after being evacuated to shelters. M53MH, F54MH, F14MH, F75PH, M27IW

Storm Data and Unusual Weather Phenomena

March 1997

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

KENTUCKY, Northern

Gallatin County

Countywide

01	1312EST 1930EST				1	0	100K		Flash Flood
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Estimated rainfall of 6 to 8 inches across the county in less than 36 hours caused area creeks and streams to overflow their banks. Several roads were closed across the entire county. One death occurred when the car stalled in high water and the driver of the car drowned. F53VE

Carroll County

Countywide

01	1320EST 2000EST				0	0	500K		Flash Flood
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Estimated rainfall of 6 to 10 inches across the county in less than 36 hours caused area creeks and streams to rise out of their banks. Many secondary roads were closed countywide and 8 homes were flooded in Sanders.

Lewis County

Countywide

01	1320EST				0	0	500K		Flash Flood
02	0800EST								

Estimated rainfall of 4 to 8 inches across the county in less than 36 hours caused area creeks and streams to rise out of their banks. Numerous roads were closed due to high water and several evacuations occurred. A few bridges were washed away. The worst property damage occurred along Kinniconick Creek.

Carroll County

Carrollton

28	1915EST 1920EST				0	0			Hail (1.00)
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Carroll County

Carrollton

28	2020EST 2025EST				0	0			Hail (0.75)
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Gallatin County

Warsaw

28	2121EST 2125EST				0	0	3K		Thunderstorm Wind (G50)
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Numerous trees downed.

Boone County

Florence

28	2148EST 2152EST				0	0	3K		Thunderstorm Wind (G50)
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Numerous trees downed.

Kenton County

Ft Mitchell

28	2150EST 2155EST				0	0	3K		Thunderstorm Wind (G50)
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Numerous trees downed.

Campbell County

Alexandria

28	2201EST 2203EST				0	0			Thunderstorm Wind (G52)
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Spotter reported a gust to 60 mph.

KENTUCKY, Southwest

Graves County

6 W Mayfield

01	0730CST				0	1	40K		Thunderstorm Wind
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A mobile home was overturned and demolished. A female sustained minor injuries.

Caldwell County

Princeton

01	0930CST 1400CST				0	0			Flash Flood
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Flooding of streets and low spots occurred during this round of storms. More storms during the evening produced major flash flooding.

Calloway County

Murray

01	0930CST 1400CST				0	0			Flash Flood
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Flooding of streets and low spots was fairly common. Major flooding occurred when another round of storms passed through during the evening.

Carlisle County

Bardwell

01	0930CST 1400CST				0	0			Flash Flood
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Flooding of creeks and roads was fairly common.

Storm Data and Unusual Weather Phenomena

March 1997

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, Southwest</u>									
Christian County									
Hopkinsville	01	0930CST 1400CST			0	0			Flash Flood
			Periods of thunderstorms that began on the 28th and continued through the morning of the 1st produced copious rainfall amounts up to 8 inches. A state of emergency was declared countywide early on March 1. The Little River, which flows through Hopkinsville, reached one of its highest stages in memory. Massive flooding along the Little River prompted the closure of Interstate 24. Extensive flooding resulted in numerous evacuations and road closures. Another round of thunderstorms later in the day caused more flooding.						
Crittenden County									
Marion	01	0930CST 1400CST			0	0			Flash Flood
			Thunderstorms during the day produced very heavy rainfall amounts to around 6 inches. State Route 855 was closed.						
Daviess County									
Owensboro	01	0930CST 1400CST			0	0			Flash Flood
			High water inundated numerous secondary roads.						
Fulton County									
Fulton	01	0930CST			0	0	20K		Flash Flood
			Although not as hard hit as counties to the east, Fulton County experienced significant flooding of creeks and roads. Kentucky Routes 925, 1129, 94, and 1354 were closed in spots for days.						
Graves County									
Mayfield	01	0930CST 1400CST			0	0			Flash Flood
			A slow-moving area of thunderstorms produced very heavy rain. A cooperative observer measured about 4 inches of rain, including 2 inches in 2 hours at Mayfield. Street flooding was fairly common. U.S. 45 was covered by two feet of water.						
Hickman County									
Clinton	01	0930CST 1400CST			0	0	10K		Flash Flood
			Although not as hard hit as counties to the north and east, Hickman County experienced significant stream and road flooding. Kentucky Routes 123, 51, and 924 were closed for days.						
Hopkins County									
Madisonville	01	0930CST 1400CST			0	0	250K		Flash Flood
			This was the second round of intense rainfall across Hopkins County. The first round during the previous evening caused no problems, but these storms brought 24-hour rainfall totals to near 5 inches. More than 40 people were evacuated from their homes. Several Madisonville businesses were closed by flooding. Numerous roads were closed.						
Livingston County									
Smithland	01	0930CST 1400CST			0	0			Flash Flood
			Thunderstorms produced flooding of streets and urban areas. The most serious flooding occurred during the final round of storms in the evening of the 1st.						
Lyon County									
Eddyville	01	0930CST 1400CST			0	0			Flash Flood
			Flooding of streets and creeks was common.						
Marshall County									
Benton	01	0930CST 1400CST			0	0			Flash Flood
			A slow-moving area of thunderstorms produced 2 to 4 inches of rain within a few hours. This resulted in flooding of several roads, along with rapid rises in streams and creeks. A housing complex in Benton was evacuated when a nearby creek flooded.						
Mccracken County									
Paducah	01	0930CST 1400CST			0	0			Flash Flood
			This was the second round of thunderstorms during the past 18 hours. The slow-moving storms raised 18-hour rainfall amounts to near 4 inches. Two feet of water was reported over U.S. 45. Flooding of low spots and streets was especially common in the Reidland and Farley areas.						
Mclean County									
Calhoun	01	0930CST 1400CST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

March 1997

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

KENTUCKY, Southwest

Flooding of streets and creeks was common. Thunderstorms later in the day produced more severe flooding.

Muhlenberg County Central City

01	0930CST 1400CST				0	0			Flash Flood
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This second round of flash flooding was somewhat more serious than the flooding the previous evening. Thunderstorms during the morning produced another 2 to 4 inches of rain, which boosted rainfall totals to near 6 inches locally. The third and most serious round of flooding occurred later in the day, when another 1 or 3 inches of rain fell in a short period of time.

Todd County Elkton

01	0930CST 1400CST				0	0			Flash Flood
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A prolonged period of thunderstorms lasting from the evening of the 28th through the morning of the 1st dropped copious amounts of rainfall, up to 6 inches. The town of Elkton was virtually isolated when all roads leading to Elkton became flooded.

Trigg County Cadiz

01	0930CST 1400CST				0	0			Flash Flood
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Thunderstorms produced flooding of streams and roads.

Union County Morganfield

01	0930CST 1400CST				0	0			Flash Flood
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Numerous thunderstorms produced flooding of roads and creeks. These storms saturated the ground with 2 to 4 inches of rain, setting the stage for storms later in the day that produced 3 to 5 inches in a short time.

Webster County Providence

01	0930CST 1400CST				0	0			Flash Flood
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These storms produced flooding of streets and creeks. The ground became saturated, setting the stage for more storms later in the day.

KYZ018>020

Henderson - Daviess - Mclean

01	1300CST				0	0	19.5M		Flood
31	2359CST								

Historic flooding occurred along the Green River as a result of widespread rainfall between 5 and 10 inches across central and western Kentucky. Virtually the entire town of Rumsey was evacuated before it was inundated by the Green River. About 20 percent of Calhoun was underwater, and small parts of Livermore were affected.

In Daviess County, backwater from the Green River slowed drainage of Panther Creek, causing parts of Owensboro to flood. Many schools were out for one to two weeks. The National Guard was mobilized to help with looting prevention, rescue efforts, and sandbagging. Daviess County was especially hard hit due to the combined effects of major flooding along the Green River, Ohio River, and Panther Creek. U.S. 431 was closed at the Panther Creek, where numerous buildings were flooded.

Ballard County Blandville

01	1700CST 2100CST				0	0	10K		Flash Flood
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Road and creek flooding was common, but the most severe flash flooding occurred in counties to the east.

Ballard County Wickliffe

01	1715CST 2045CST				0	0			Flash Flood
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A severe thunderstorm passing through the county produced more very heavy rain on top of saturated ground. Roads and streams experienced moderate to major flooding. The worst flooding was due to the Ohio River during mid-month.

Caldwell County Princeton

01	1715CST 2045CST				0	0	100K		Flash Flood
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Eight to 9 inches of rainfall within a 3-day period caused extensive flooding of creeks and roads. Roads were closed at some point during the flooding to the north, south, and east of Princeton. U.S. 62 was closed near Princeton. Several Princeton businesses were flooded. Some houses were evacuated.

Calloway County Murray

01	1715CST 2045CST				0	0	100K		Flash Flood
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Numerous thunderstorms during a 24 hour period produced cumulative rainfall totals near 5 inches. Water was 5 to 6 feet over roadways near the Clarks River. A few mobile homes and a couple of vehicles were flooded. A parking lot at Murray-Calloway County Hospital was flooded with 1 to 3 feet of water. About an inch of water entered the medical labs. Emergency personnel used jet skis to rescue an elderly woman and her son from their home. High water closed numerous roads, including Highways 121 and 464. Flooded and washed out roads made it impossible for utility crews to reach some power lines downed by wind or lightning.

Storm Data and Unusual Weather Phenomena

March 1997

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, Southwest</u>									
Carlisle County									
Bardwell	01	1715CST 2045CST			0	0			Flash Flood
									This round of thunderstorms was the final in a series of storms. It resulted in considerable flooding of streams and low lying areas.
Christian County									
Hopkinsville	01	1715CST 2045CST			0	0	40M		Flash Flood
									One of the worst flash floods in Christian County history damaged or destroyed 596 homes. A total of 15 dams received some degree of damage. At the height of the flood, travel was virtually halted countywide, including Interstate 24. Severe flooding of the Little River caused much of the damage, which was nearly 40 million dollars in Christian County alone. Christian County was declared a federal and state disaster area. About 8 inches of rain fell in a 30-hour period. Parts of downtown Hopkinsville were flooded by the Little River for the first time since 1957. Roads and bridges were washed out.
Crittenden County									
Marion	01	1715CST 2045CST			0	0	10K		Flash Flood
									This was the final round in a series of storms that produced up to 8 inches of rain in 2 days. Kentucky Highway 1917 was closed in spots for days.
Daviess County									
Owensboro	01	1715CST 2045CST			0	0	40K		Flash Flood
									Flash flooding destroyed a bridge. Eight mobile homes were evacuated. About a dozen vehicles were stalled. About 85 residents of a nursing home in Owensboro were evacuated as water crept inside. The flash flooding later contributed to rapid rises on Panther Creek, which flows through the south side of Owensboro. About a dozen homes along U.S. 431 flooded quickly.
Fulton County									
Fulton	01	1715CST 2045CST			0	0	300K		Flash Flood
									Most of the flood damage was to roads and public property. Only two privately-owned buildings were damaged.
Graves County									
Mayfield	01	1715CST 2045CST			0	0	70K		Flash Flood
									About 6 inches of rain within 48 hours caused flash flooding of roads and streams. Minor flooding of a nursing home was reported. Only a few evacuations were necessary. U.S. 45 was closed by high water between Water Valley and Wingo. Extensive flooding of streets and creeks occurred in Mayfield, but few if any buildings were affected.
Henderson County									
Henderson	01	1715CST 2045CST			0	1	40K		Flash Flood
									Torrential downpours falling on saturated ground resulted in widespread road and creek flooding. Numerous motorists were stranded in high water. High water swept one car from Kentucky 351 near Zion. Divers located the female occupant of the vehicle. She was taken to a local hospital.
Hickman County									
Clinton	01	1715CST 2045CST			0	0	10K		Flash Flood
									This was the final round of storms over a 48-hour period. It dumped very heavy rain on saturated ground, causing moderate to major flooding of roads and streams.
Hopkins County									
Madisonville	01	1715CST 2045CST			0	0			Flash Flood
									This was the third round of thunderstorms within a 36-hour period. It brought the rainfall total at Dawson Springs to 6.65 inches since the night of February 28. Most of the damage to roads and private property was already done during the second event in the morning hours. A crack in a dam holding back a 24-acre lake was later found to be insignificant. About 220 homes in the county received water damage. Major flooding of the Tradewater River inundated rural land around Dawson Springs.
Livingston County									
Smithland	01	1715CST 2045CST			0	0	100K		Flash Flood
									Most of the flood damage was caused by the Ohio River and its backwater. However, significant flash flooding of roads and low-lying areas occurred on the 1st. In Smithland and Salem, there were numerous reports of homes and businesses with flooded basements.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
<u>KENTUCKY, Southwest</u>							
Lyon County Eddyville	01	1715CST 2045CST			0 0		Flash Flood
Flash flooding caused some roads to cover with water, including one that nearly collapsed.							
Marshall County Benton	01	1715CST 2045CST			0 0		Flash Flood
Flash flooding resulted in some damage to roads, especially gravel county roads. Highway 80 was partially closed by flooding.							
Mccracken County Paducah	01	1715CST 2045CST			0 0	70K	Flash Flood
A violent thunderstorm moved across the county, dumping torrential downpours on ground that was already soaked by heavy rain earlier in the day. Over five inches of rain fell at Paducah for the day. Heavy rains caused part of the roof at Paducah Middle School to cave in. Some homes were flooded. Widespread flooding of streets and highways stranded many motorists.							
Mclean County Calhoun	01	1715CST 2045CST			0 0	800K	Flash Flood
Routes 231, 81, and 136 were under water in places.							
Muhlenberg County Central City	01	1715CST 2045CST			1 0	300K	Flash Flood
A 41-year-old male drowned in Cypress Creek near Central City around 5 P.M. The man was attempting to ride in a rubber inner-tube on a swollen portion of the creek. Witnesses report the current forced him under a concrete bridge. The body was located a few days later. This was the third and most significant round of thunderstorms, bringing 3-day rainfall totals to near 8 inches in spots. The result was widespread flash flooding of roads and small rivers. About a dozen roads were damaged, including State Route 973 near U.S. 431, which was closed by a mud slide. U.S. 62 was closed at the Hopkins County line. A total of about 30 roads were damaged or covered by water for days. M41IW							
Todd County Elkton	01	1715CST 2045CST			0 0	200K	Flash Flood
U.S. Highway 68 and Kentucky Route 181 were closed out of Elkton.							
Trigg County Cadiz	01	1715CST 2045CST			0 0	70K	Flash Flood
This was the final round in a series of storms that dropped nearly 8 inches of rain in 48 hours. Kentucky Highways 139, 1253, 272, and 1507 were closed in spots for days.							
Union County Morganfield	01	1715CST 2045CST			0 0	100K	Flash Flood
The Union County Shopping Center parking lot rapidly filled with five to six feet of water. Several vehicles were partially or totally covered with water. Many employees were trapped in the stores and had to be rescued by large trucks. Most cities in the county were cut off from outside traffic for at least two to three hours. Up to four inches of rain fell within four hours.							
Webster County Dixon	01	1715CST 2045CST			0 0	70K	Flash Flood
Highway 41A was closed between Providence and Madisonville. One woman was evacuated from the northwestern part of the county as backwater from the Tradewater River rose. A cooperative observer in Sebree measured 7.57 inches of rain in three days. A woman was forced to swim out of rising waters when her van was swept off Highway 138 in Slaughters. In another case, a man and woman were rescued from the roof of their pick-up truck when they attempted to drive through high water near Deer Creek on Highway 132. Some residents in low areas in Slaughters and Sebree were forced from their homes.							
Mclean County 3 N Livermore to 3.3 N Livermore	01	1801CST 1804CST	0.3	50	0 0		Tornado (F0)
A state trooper witnessed a brief tornado touchdown in open country moving east near Highway 431. No damage could be found.							
Marshall County Calvert City to Palma	01	1915CST 1925CST			0 0		Thunderstorm Wind (G52)
A wind gust to 63 MPH was measured near Calvert City. At least two people reported hearing a roaring noise as a possible funnel							

Storm Data and Unusual Weather Phenomena

March 1997

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

KENTUCKY, Southwest

cloud passed over northern Marshall County.

McCracken County

Lone Oak

01	1923CST				0	0			Thunderstorm Wind (G52)
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Some tree damage was reported near the Lone Oak and Hendron areas.

Livingston County

Iuka

01	1935CST				0	0			Thunderstorm Wind (G52)
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Isolated small to medium size trees were blown down.

KYZ004>005-007-010-014-018>019 **Ballard - McCracken - Livingston - Crittenden - Union - Henderson - Daviess**

02	1000CST				0	0	25M		Flood
31	1900CST								

Major flooding of the lower Ohio River occurred in mid March. The crest near 52 feet at Paducah was the highest since about 1950, and one of the worst floods on record. It was still well below the record 60-foot crest in the Flood of 1937. The President declared most western Kentucky counties along the river to be disaster areas. Widespread rainfall amounts between 8 and 13 inches upriver from Evansville to Cincinnati occurred within a three day period. This resulted in a major flood crest that took a few weeks to travel down the Ohio River. Hundreds of homes were evacuated along the western Kentucky side of the Ohio River. A county by county list of evacuations includes 200 homes in McCracken County, 20 homes in Ballard County, 10 homes in Livingston County, and 200 homes in Henderson County. Daviess County experienced severe problems as a result of the combined effects of major flooding along the Ohio and Green Rivers. Tributaries that flow into the Ohio River backed up, causing serious flooding many miles away from the Ohio. For example, the Tradewater River flooded back into Webster County, causing evacuations at Blackford. At least 60 families were forced from their homes in Webster County, partly due to flash flooding. The Clarks River, which flows into the Ohio River near Paducah, also flooded houses in McCracken County. Most major cities along the Ohio River in west Kentucky were spared from major damage by floodwalls and levees. First Street in downtown Owensboro was flooded. The Executive Inn, a major hotel and retail complex in Paducah, was closed for the first time in its 15-year history. Smaller communities not protected by flood control structures were endangered. The town of Smithland, about 20 miles east of Paducah, was saved by a massive sandbagging effort that lasted over two weeks. Numerous roads were closed across the lower Ohio Valley, including sections of U.S. 60 near Smithland, Henderson, and Owensboro. The bridge connecting Wickliffe, Ky and Cairo, Il was closed for about a week. The National Guard was called in to patrol for looters, control access to restricted areas, and pump out water. TVA dams on the Tennessee and Cumberland Rivers mitigated the flooding from Smithland downstream, but were still releasing huge volumes of water due to flooding in the Tennessee Valley. Flooding downstream from Kentucky Dam affected Calvert City. Agricultural damage was very limited because most crops were not yet planted. The hardest hit crop was the winter wheat crop. An estimated total of 130,000 acres of cropland was submerged in the six westernmost Kentucky counties. Some Ohio River crests include: 53.8 feet at Uniontown (flood stage 37 feet), 51.4 feet at Smithland (flood stage 40 feet), and 51.8 feet at Paducah (flood stage 39 feet).

Daviess County

Moseleyville

03	0330CST				0	0			Flash Flood
	0630CST								

Around an inch of rain fell within a couple of hours. This rain aggravated flooding of low lying areas that was already in progress. Panther Creek reportedly rose out of its banks.

Muhlenberg County

Greenville

28	1635CST				0	0			Hail (0.88)
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Todd County

Trenton

28	1704CST				0	0			Hail (1.00)
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Marshall County

1 W Benton

28	1905CST				0	0			Hail (1.00)
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Webster County

3 N Dixon

28	1910CST				0	0			Hail (1.75)
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Daviess County

St Joseph to

2 E Owensboro

28	1930CST				0	0			Hail (1.00)
	1949CST								

A thunderstorm produced hail ranging from dime to quarter size. The large hail occurred in a narrow swath from St. Joseph, near the Mclean County line, directly across the city of Owensboro.

Mclean County

Beech Grove

28	1945CST				0	0			Hail (0.75)
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LOUISIANA, Northeast

LAZ009-016-025>026 **East Carroll - Madison - Tensas - Concordia**

09	1200CST				0	0			Flood
26	1200CST								

Storm Data and Unusual Weather Phenomena

March 1997

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, Northeast

While flooding occurred in all these Parishes no damage was done to structures. The flooding was confined to farmland.

LOUISIANA, Northwest

LAZ006

Union

02	0100CST				0	0	2M	Flood
04	2300CST							

Heavy rain led to major flooding along Lake D'Arbonne in north central Louisiana. Three hundred homes were flooded in Farmerville prompting a state of emergency to be issued by the governor.

Claiborne Parish

Homer

02	0100CST				0	0		Urban/Sml Stream Fld
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Several cars stalled in high water in town.

Claiborne Parish

13 S Homer

02	0115CST				0	0		Flash Flood
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Two feet of water reported across Hwy 519.

Bienville Parish

Ringgold

02	0130CST				0	0		Urban/Sml Stream Fld
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Flooding across several roads in town.

Union Parish

Bernice

02	0155CST				0	0		Flash Flood
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Flooding across U.S. Hwy 167.

Caddo Parish

Keithville

02	0800CST				0	0		Urban/Sml Stream Fld
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Two feet of water was reported over several roads.

Bossier Parish

Haughton

02	0800CST				0	0		Urban/Sml Stream Fld
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Water across road at Winnfield road in several locations as well as Tall Timbers Blvd near Fifi Bayou.

Webster Parish

5 SE Minden

02	0800CST				0	0		Urban/Sml Stream Fld
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Water over Hwy 80 at the intersection of I-20.

Claiborne Parish

Homer

02	0800CST				0	0		Flash Flood
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Louisiana Hwy 239 was washed out while Louisiana Hwy 9 was closed with 2 feet of water from Walter Farm Rd to Bella Vista.

Webster Parish

Dixie Inn

02	1000CST				0	0		Flash Flood
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U.S. Hwy 80 was closed from four feet of water.

Webster Parish

Minden

02	1000CST				0	0		Flash Flood
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Three feet of water across Lewisville and Old Arcadia Roads.

De Soto Parish

Mansfield

02	1155CST				0	0		Flash Flood
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Bridge on Cotton Belt Road was washed out due to heavy rains.

De Soto Parish

Keatchie

02	1155CST				0	0		Flash Flood
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Bridge on Jessie Latin Road washed out from heavy rains.

LAZ001

Caddo

05	1645CST				0	0		Flood
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Severe bank erosion occurred along Louisiana Hwy 3049 closing the road just north of the I-220 Loop north of Shreveport.

LAZ002>003-012

Bossier - Webster - Bienville

15	2300CST				0	0		Flood
24	1800CST							

Excessive rises on Bayou Dorcheat flooded near 100 homes. The lake crested at 145.1 feet on the 15th and slowly fell though the month.

LOUISIANA, Southeast

LAZ034>035-046>049-057>058-060 **Pointe Coupee - West Feliciana - Iberville - West Baton Rouge - East Baton Rouge - Ascension - St. James - St. John The Baptist - St. Charles**

05	0600CST				0	0		Flood
31	2300CST							

The Mississippi River exceeded flood stage during the first half of the month from Red River Landing to just west of New

Storm Data and Unusual Weather Phenomena

March 1997

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

LOUISIANA, Southeast

Orleans. The river crested at most locations between the 20th and 27th. The crest at Red River Landing, 61.3 feet, on March 26 was a flood of record. However, the flow of 1.48 million cfs was considerably below the record flow of 1.779 million cfs established during the 1927 flood. The river crested at Baton Rouge at 43.7 ft on March 27 and Donaldsonville at 32.2 ft on March 27. The Bonnet Carre Spillway, just upstream from New Orleans, was opened on March 17 for the first time since 1983. The opening of the spillway diverted a considerable flow from the Mississippi River into Lake Pontchartrain, holding river stages below floodstage in New Orleans. While the river was above flood stage through much of south Louisiana, it remained within the flood control levees. At the Louisiana State Penitentiary at Angola, an outer levee was overtopped, however, the main levee contained the flood crest. A low area in the levee structure in Baton Rouge was raised with sandbags. The high stages on the river, greatly impacted barge and ship traffic with restrictions in place through most of the month. The high stages and high flow also contributed to several barge and ship accidents. The Mississippi River remained above flood stage through the middle of April in many locations.

Jefferson Parish

Lafitte	29	1345CST			0	0	Hail (1.00)
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Plaquemines Parish

Jesuit Bend	29	1425CST			0	0	Hail (1.75)
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Orleans Parish

New Orleans to (New)Lkfrnt Arprt New	29	1555CST 1605CST			0	0	Hail (1.50)
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Hail, ranging in size from 3/4 inch to 1.5 inches in diameter, fell from the lakefront area around Lake Vista to Lakefront Airport.

Washington Parish

Bogalusa	29	2020CST 2035CST			0	0	Hail (0.75)
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LOUISIANA, Southwest

Beauregard Parish

Fields	18	1632CST			0	0	Hail (0.75)
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Dime sized hail was reported along Highway 109 between Fields and Singer.

St. Mary Parish

Charenton	30	0920CST			0	0	Hail (0.75)
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Dime-sized hail was reported by the Charenton Police Department.

MAINE

MEZ001>017-020>022-030

Northwest Aroostook - Northeast Aroostook - Northern Somerset - Northern Piscataquis - Northern Penobscot - Southeast Aroostook - Northern Oxford - Northern Franklin - Central Somerset - Southern Piscataquis - Central Penobscot - Southern Oxford - Southern Franklin - Southern Somerset - Southern Penobscot - Interior Hancock - Interior Washington - Androscoggin - Kennebec - Interior Waldo - Coastal Washington

06	0300EST 2200EST				0	0	Winter Storm
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A low pressure system moving east from the Ohio River Valley and a secondary low that developed off the New England Coast combined to bring heavy snow and high winds to most of Maine. Snowfall ranged from about a foot in most of the mountains where blizzard conditions occurred to as much as 18 inches in parts of northern Maine, to 6 to 12 inches in the foothills and downeast Maine. Snowfall along coastal sections was generally in the 2 to 7 inch range with the exception of Washington County where 10 inches fell in Eastport.

MEZ012-018>021-023>024-030

Southern Oxford - Interior York - Interior Cumberland - Androscoggin - Kennebec - Coastal York - Coastal Cumberland - Coastal Washington

06	0700EST 1900EST				0	0	High Wind (G60)
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Strong winds associated with a low pressure center that developed off the New England coast caused damage throughout parts of southwestern Maine. Statewide, about 15,000 customers lost electrical service during the event as trees and tree limbs fell onto power lines. In parts of coastal Washington County, the winds also snapped utility poles.

Cumberland County

Pine Pt to Cundys Harbor	06	0730EST 0900EST			0	0	5K Storm Surge
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York County

Kittery to Old Orchard Beach	06	0730EST 0900EST			0	0	5K Storm Surge
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Northeasterly winds combined with an astronomically high tide to cause minor flooding throughout coastal sections of York and Cumberland Counties. In Portland the tide reached 12.6 feet which was 0.6 feet above the flood stage. The wind and seas were

Storm Data and Unusual Weather Phenomena

March 1997

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

MAINE

calm during the peak of the tidal surge, preventing significant damage from occurring.

Cumberland County
Pine Pt to
Cundys Harbor

10	1100EST 1300EST				0	0			Storm Surge
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Southeast winds associated with a low pressure area that moved through southern Quebec caused minor coastal flooding in the Portland area. Tides were about 6 inches above the 12 ft flood stage and about 1 ft above the astronomical tide.

MEZ017

Interior Washington

14	1900EST				0	0			Winter Storm
15	0700EST								

Low pressure moving through the Great Lakes region in combination with a low pressure center that developed off the New England coast caused 3 to 6 inches of snow across most of Maine with up to 8 inches in parts of interior Washington County.

MEZ013

Southern Franklin

25	1900EST				0	0			Winter Storm
26	0400EST								

Low pressure moving through the Great Lakes and a secondary low pressure center that developed off the coast of Maine caused mixed precipitation through the state. Snow developed from southwest to northeast. The snow gradually changed to rain in central and southern areas with up to 7 inches of snowfall in the western foothills.

Cumberland County
Countywide

29	1700EST 1900EST				0	0	225K		Lightning
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A cluster of early spring thunderstorms with powerful lightning damaged a church, three homes, and the State Police barracks in Gray. One of the homes sustained more than \$200,000 in damages from a fire which was caused by the lightning stroke. At the State Police barracks, a nearby stroke of lightning knocked out communications for about 4 hours.

MEZ012-023

Southern Oxford - Coastal York

31	1000EST 2359EST				0	0			Winter Storm
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A deep low pressure system moving slowly eastward from New Jersey brought high winds and snow to southern and central sections of the state. Snowfall accumulations in southern Maine generally ranged from 3 to 7 inches with lesser amounts in central sections of the state. In northern Maine, less than 2 inches of snow fell. The storm, which started on the March 31, continued into the morning hours of April 1.

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

06	0300EST 1500EST				0	0	150K		Gusty Winds
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The combination of deep low pressure over the Canadian Maritime region with arctic high pressure over the midwestern U.S. produced northwesterly wind gusts to 50 mph or greater on land and as high as 54 mph on the Chesapeake Bay. Scattered property damage and power outages were reported, especially across northern Maryland.

In downtown Baltimore City (MDZ011), a condemned building (under renovation) along Martin Luther King Blvd. sustained a partial wall failure. The wall failure resulted when the roof caved in. The cave in occurred when gusty winds blew through open windows on the top floor. Nearby downtown roads were closed for several hours as clean-up crews tore down the damaged portion of the building. Several trees/large limbs and wires were downed as well. In Carroll Co (MDZ005), two-thirds of a tin roof was blown off an apartment building in Westminster, forcing residents out until repairs were made; a few trees/large limbs and wires were also down in the county.

Other scattered damage included downed wires and large limbs in Howard Co (MDZ010), a roof blown off the kitchen of a home in Woodlawn (MDZ006), and a smashed chimney on a home in Annapolis (MDZ014).

Baltimore Gas and Electric reported 16,000 customers were without power during the morning; Potomac Electric Power Co. reported 8000 customers were without power in Montgomery and Prince Georges Counties (MDZ009-013).

Some damage was noted to boats at a marina in Annapolis.

Washington County
Hagerstown

29	1155EST				0	0			Hail (0.88)
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Frederick County
2 N Frederick

29	1215EST				0	0			Hail (1.50)
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Storm Data and Unusual Weather Phenomena

March 1997

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

MARYLAND, Central

Baltimore County

Hereford	29	1325EST			0	1			Lightning
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Prince George'S

County

Lanham	29	1325EST			0	0	10K		Gusty Winds
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Calvert County

2 S Prince Frederick	29	1330EST			0	0	1K		Hail (1.75)
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Harford County

Forest Hill	29	1335EST 1336EST	0.5	50	0	0	10K		Tornado (F0)
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Baltimore County

Dundalk	29	1342EST 1343EST	0.5	25	0	0	20K		Tornado (F0)
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Charles County

2 S Dentsville	29	1355EST 1358EST			0	0	1K		Hail (1.75)
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St. Mary'S County

Patuxent River Nas	29	1355EST			0	0			Thunderstorm Wind (G50)
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A line of strong to severe thunderstorms, associated with a vigorous upper-level disturbance acting on relatively unstable air, produced several instances of large hail, wind gusts to 58 mph, and two gustnadoes. Soft hail fell across most of Maryland east of the Blue Ridge mountains, generally ranging in size from 1/4 to 1/2 inch. One cell produced nickel sized hail near Hagerstown (Washington Co). A television meteorologist staffer drove through soft hail estimated to be between ping-pong and golf ball size just north of Frederick. Later, a well-developed cell in southern Maryland dropped golf ball-sized hail at two locations. The hail fell for several minutes near Dentsville (Charles Co), covering the ground to a depth of 3 inches. Penny-sized hail fell in Dublin (Harford Co), coating the ground.

A non-severe wind gust snapped five power poles in Lanham (Prince Georges Co), causing brief power outages to several hundred Potomac Electric Power customers. No trees or other structures were reported damaged.

A gustnado lifted a woman and her pet pony 5 feet in the air, and tossed the woman 35 feet away from her original location, at a farm in Forest Hill (Harford Co). The woman had a few bruises but was uninjured. The brief twister uprooted at least 6 large cedar trees, a 320-foot section of range fence, and a rabbit hutch. Between one and two dozen mixed soft and hard wood trees were snapped on the resident's and her neighbor's property. Structural damage was estimated at \$1300.

Twin gustnadoes, occurring no more than 3 miles from each other, touched down in Dundalk (SE Baltimore Co). Several witnesses observed funnel clouds, and one provided videotaped evidence of a lowered rotating cloud base combined with twin debris circulations, at the turbulent leading edge of the storm. Damage occurred within the debris clouds at two fast food establishments. At one of the restaurants, a traffic signal and some utility poles were blown down. At the other restaurant, a large plate glass window was blown out, some utility poles and large limbs were snapped, and a dumpster was tossed. One person sustained a few cuts. Over 7500 customers were without power for a brief time during the storm.

Lightning struck and injured a 51-year old man in Hereford (Baltimore Co), who later recovered at the Greater Baltimore Medical Center.

Harford County

Dublin	29	1355EST 1357EST			0	0			Hail (0.75)
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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**

	31	1600EST 2359EST			0	0	100K		Gusty Winds
--	----	--------------------	--	--	---	---	------	--	--------------------

A nor'easter, languishing off the middle Atlantic coast, produced sustained winds between 25 and 40 mph with gusts to 50 mph or higher over all of northern and central Maryland. The winds caused scattered damage to buildings under construction, minor roof damage, and tree and power line damage. In Montgomery Co (MDZ009), fallen tree limbs blocked roads in Bethesda. Several fires broke out in the county; one was aided by the strong winds. A roofer's blowtorch ignited an attic at a Darnestown home, which eventually caused over \$100 thousand in damage.

In Frederick Co (MDZ004), there were at least 10 instances of trees and wires down, but no major structural damage. A wind gust was clocked at 75 mph in Clear Spring (MDZ003), and some trees and lines were downed elsewhere in the county as well. The

Storm Data and Unusual Weather Phenomena

March 1997

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

winds, which continued through April 1, caused the postponement of the Baltimore Orioles baseball club's home opener.

Scattered power outages were reported in the Baltimore Gas and Electric and Potomac Electric Power (PEPCO) service areas. PEPCO reported 3000 outages, most in Prince Georges County (MDZ013).

MDZ007

Harford

31	2200EST 2359EST				0	0			Heavy Snow
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The same nor'easter that produced gusty and sometimes damaging wind gusts also included a swath of wrap-around snow which moved through northeastern Maryland during the evening of the 31st and early morning of April 1st. Harford Co received between 4 and 8 inches of heavy wet snow, with up to 10 inches in some spots, most of it accumulating on grassy surfaces but with some roads reported hazardous across the northern section of the county.

Throughout the remainder of the Baltimore metropolitan region, accumulations ranged from 1 inch in the southwest suburbs to 5 inches in the northeast suburbs, again mainly on grassy surfaces. Accumulations ranged from 1/2 to 1 inch in the Maryland suburbs of Washington, DC.

MARYLAND, Northeast

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

01	0001EST				0	0			Unseasonably Warm
02	1700EST								

A persistent west to southwest flow of air throughout the Eastern United States brought unseasonably warm air into the Maryland Eastern Shore from the afternoon of February 26th through March 2nd. The warmest day through this spring preview was February 27th as many new record high temperatures were set. A series of cold fronts, one early on the 28th and a stronger second one on March 2nd brought temperatures closer to seasonal levels. Warmest readings from around Maryland included 78 degrees in Salisbury and 76 degrees at the Baltimore-Washington International Airport.

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

06	0500EST 1700EST				0	0			Wind
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A rapidly intensifying low pressure system and the pressure difference between it and a high pressure system over the Upper Plains caused very strong winds across the Maryland Eastern Shore from the early morning until sunset on the 6th. The strongest wind gusts reached around 50 mph and pulled down some weak tree limbs and wires. Delmarva Power and Light reported about 3,000 customers lost power across the peninsula with the most reports in Maryland in Cecil County.

Queen Anne'S County 2 NW Church Hill to Church Hill

29	1415EST				0	0			Thunderstorm Wind (G69)
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A severe thunderstorm caused wind damage around Church Hill in Queen Anne's County. The damage path extended for about two miles, although most of it was an open farm field. Several trees were downed and two small farm buildings were destroyed. The debris from one of the buildings was blown down wind for about a quarter of a mile. Maximum wind gusts were estimated at around 80 mph.

Caroline County Whiteleysburg

29	1445EST				0	0			Thunderstorm Wind (G61)
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A severe thunderstorm damaged one and destroyed another building at the Shortall Farm in Whiteleysburg. A 40-foot section of a chicken house was knocked about half a foot off its foundation. The southern end of the structure was displaced. A nearby 75 foot by 25 foot farm shed with three enclosed sides was destroyed. Much of this building was lifted into the air, with debris scattered up to a mile away. The blades of a nearby windmill were bent. The maximum wind gusts were estimated at 70 mph.

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

31	0800EST 2359EST				0	0			Wind
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MDZ008

Cecil

31	1300EST 2359EST				0	0			Heavy Snow
----	--------------------	--	--	--	---	---	--	--	-------------------

A late season snowstorm dropped some of the heaviest snow of all winter in northwestern parts of Cecil County from the afternoon on March 31st into the morning of April 1st. The low pressure system responsible for this looked rather innocuous on March 30th as it moved with its associated cold front through the Midwest. Temperatures that day (Easter Sunday) warmed into the 70s across most of the Maryland Eastern Shore. But as the low intensified off the New Jersey Coast on the 31st, it pulled down colder air.

Storm Data and Unusual Weather Phenomena

March 1997

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

The heavy precipitation it created also cooled the atmosphere and changed the rain over to snow during heavier bursts of precipitation from the afternoon of March 31st into the early morning of April 1st. Bands of heavier snow moved through the Middle Atlantic States and caused wide variations in accumulations that were both location (underneath these bands) and elevation dependent. One such band affected the northwest part of Cecil County where accumulations exceeded six inches. Less snow accumulated farther southeast. Strong northwest winds on both March 31st and April 1st caused some blowing and drifting of the snow. In addition, the weight of the heavy, wet snow tore down tree limbs and produced scattered power outages. Very little snow accumulated farther south along the Maryland Eastern Shore, but gusty northwest winds circulated around the low pressure system and buffeted the Eastern Shore with peak wind gusts of around 45 mph from March 31st through April 1st.

MARYLAND, South

Dorchester County Cambridge	29	1425EST			0	0			Hail (0.75)
Dorchester County Cambridge	29	1430EST			0	0	2K		Thunderstorm Wind
Telephone pole/wires blown down.									
Wicomico County (Sby)Wicomico Co Arp	29	1454EST			0	0			Thunderstorm Wind (G56)
Wicomico County Fruitland	29	1456EST			0	0			Hail (1.00)
Worcester County Snow Hill	29	1520EST			0	0			Hail (1.00)

MARYLAND, West

NONE REPORTED.

MASSACHUSETTS, Central and East

MAZ002>024	Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket								
06	0800EST				0	0			Strong Winds
	1800EST								

MAZ012-015>016-020-020-022-024	Southern Worcester - Suffolk - Eastern Norfolk - Southern Bristol - Barnstable - Nantucket								
--	---	--	--	--	--	--	--	--	--

06	1300EST				0	0	80.0K		High Wind (G67)
	1800EST								

Worcester, MA
High winds with gusts reaching 50 to 77 mph from the west and northwest occurred across Massachusetts in the wake of a strong low pressure system that passed through New England and into the Gulf of Maine. Wind speeds increased dramatically around mid-morning. Part of a roof was blown off a building in the Dorchester section of Boston. A windmill used to generate electricity at Hull High School in Hull was seriously damaged when all three arms crashed to the ground at 2:25 PM. Luckily, school had been dismissed. Numerous trees, tree limbs, and power lines were blown down, resulting in power outages affecting up to 25,000 electric customers, but most had power restored within 12 hours. An empty tractor-trailer truck was blown over while traveling on a road in Westfield. A number of houses and autos sustained damage from falling trees and tree limbs. No injuries were reported.

Storm Data and Unusual Weather Phenomena

March 1997

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

MASSACHUSETTS, Central and East

A peak wind gust to 77 mph at Blue Hill Observatory in Milton was the highest wind gust recorded there since January, 1996, when a peak gust of 91 mph was recorded. That gust was erroneously reported as a much lower value in the Storm Data publication for that month.

Other peak wind gusts included: Worcester, 72 mph; Nantucket, 69 mph; Hyannis, 64 mph; New Bedford, 63 mph; Falmouth, 61 mph; Brewster, 60 mph; Winthrop, 58 mph; and Boston Logan International Airport, 55 mph. Peak wind gusts of 45 to 55 mph generally were reported throughout the rest of the state, including 50 mph in downtown Springfield.

Hampden County

Agawam

10	0500EST				0	0	5K		Lightning
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A bolt of lightning struck a house in Agawam during a snowstorm and resulted in an estimated \$5,000 damage.

MAZ022

Barnstable

12	1600EST				0	0			High Wind (G50)
----	---------	--	--	--	---	---	--	--	-----------------

A period of high winds affected southeastern Massachusetts, including Cape Cod and the Islands during the late afternoon and early evening. A peak gust to 58 mph was reported from Falmouth.

MAZ021

Southern Plymouth

14	0200EST				0	0			High Wind (G58)
----	---------	--	--	--	---	---	--	--	-----------------

A weather spotter reported a peak wind gust to 67 mph during the early morning hours.

MAZ002>012

Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester

14	0800EST				0	0			Snow/Ice
----	---------	--	--	--	---	---	--	--	----------

Several inches of snow accumulated before precipitation changed to light freezing rain. The maximum snowfall reported was 5 inches in Greenfield. Glaze accretion was generally minor with thicknesses of a few tenths of an inch. There were a few reports of scattered, brief power outages.

MAZ020>024

Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket

26	0000EST				0	0			Strong Winds
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MAZ022

Barnstable

26	0500EST				0	0			High Wind (G54)
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A strong south to southwest wind flow ahead of an approaching cold front brought sustained winds of 30 to 40 mph with gusts to 50 to 55 mph along coastal sections of Cape Cod and the Islands to the Rhode Island border. The peak high wind gusts were 63 mph, reported from both Falmouth and Chatham between 5 AM and 6 AM. A few claps of thunder were heard and scattered power outages were reported.

Barnstable County

Dennis

29	1400EST				0	0			Heavy Rain
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Bristol County

**Fairhaven to
Southern Half**

29	1400EST				0	0			Heavy Rain
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Plymouth County

Wareham

29	1400EST				0	0			Heavy Rain
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Heavy rain accompanied thunderstorms which produced vivid lightning over southeastern Massachusetts, including Cape Cod. Rainfall totals ranged from 1 to 3 inches, with a maximum of 3.5 inches in East Dennis and Onset. Fairhaven reported a total of 2.58 inches. All of the rain occurred within a 12 hour period.

MAZ002>021

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

31	1400EST				0	0			Heavy Snow
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Storm Data and Unusual Weather Phenomena

March 1997

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

MAZ002>024	Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket								
	31	1500EST 2359EST			0	0			Strong Winds

MAZ016>017-019-021	Eastern Norfolk - Northern Bristol - Eastern Plymouth - Southern Plymouth								
	31	1700EST 2200EST			0	0			High Wind (G63)

Blue Hill Observatory, Milton, MA

A low pressure system formed off the New Jersey coast during the early morning hours and intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island by early evening. Pressure falls of 14 millibars occurred during a 12 hour period. The system then retreated to the south during the evening. This storm went on to produce one of the greatest snowfalls ever recorded in central and eastern Massachusetts and was termed the "Blizzard of '97." The storm was made even more unusual by its late-season occurrence. The final snowfall totals will be included in April 1997 Storm Data, as will the final assessment of damages caused by the heavy wet snow and strong winds.

Precipitation started in the form of rain and began spreading across the state from south to north during the morning hours, but soon mixed with heavy, wet snow. Rain changed to all snow rather quickly by late morning across western and central Massachusetts and soon changed to all snow in the eastern part of the state, except right along the coast, during the afternoon. During the evening hours, moderate to heavy rain soon changed to heavy, wet snow even along the coast. Blizzard conditions, which began during the afternoon across western and central Massachusetts, spread southeast covering most of the state by midnight, except over Cape Cod and the Islands and along the immediate south coastal areas and islands where snow was still mixed with some rain. Thunder and lightning began during the late afternoon and continued intermittently throughout the night.

Northeast winds increased to strong to gale force throughout the eastern part of the state by late afternoon and high winds occurred during the evening, especially along coastal sections. The strong winds with this storm occurred during the late afternoon and evening hours. A peak gust to 73 mph from the northeast was recorded at Blue Hill in Milton at 6:43 PM. At Easton, in Bristol County, a gust to 60 mph was recorded at 9:30 PM. Along the coast south of Boston, Hull had a gust to 64 mph. Along Buzzards Bay, Onset recorded a peak gust to 64 mph. All of the wind gusts were from the northeast and occurred in the late afternoon and early evening, when the lowest barometric pressure was recorded.

Heavy, wet snow accumulated rapidly on all surfaces, including trees and power lines, during the late afternoon. The evening commute became a nightmare as thousands of cars backed up on unplowed roads. The situation was further aggravated by falling trees and power lines, which closed some roads. Power failures began occurring by late afternoon and during the evening, the total number of outages soared rapidly into the hundreds of thousands. Immediate coastal areas had the least losses of power. In the City of Boston, 50 to 60 percent of the snowplows which were on the streets by 11 PM were later rendered useless because of the heavy, wet snow as the storm raged into April 1st.

Some snowfall accumulations as of midnight on April 1st were as follows: Ashfield, 25 inches; Worcester Airport, 21.7 inches; West Townsend, 15.9 inches; Blue Hill, Milton, 15 inches; Woburn, 12 inches; and Hingham, 6 inches. Again, refer to April 1997 Storm Data for further details.

MASSACHUSETTS, West

MAZ001	Berkshire								
	14	0400EST 2300EST			0	0	15K		Winter Storm

On March 14, a complex area of low pressure tracked from northern Ohio northeast to southern Ontario Canada. This system produced several hours of heavy snow across Berkshire County. The snow changed to sleet and eventually to freezing rain which caused significant icing. Snowfall totals generally ranged from 2 to 5 inches. The icing resulted in treacherous driving conditions along with downed trees and power lines. Scattered power outages occurred across this area.

MAZ001	Berkshire								
	31	0800EST 2359EST			0	0	1M		Winter Storm

On March 31 and April 1, a classic late season nor'easter tracked from the Chesapeake Bay area northeast to central coastal New Jersey then slowly out to sea. This system produced rain across Berkshire County during the morning hours of March 31. The rain changed to heavy wet snow by early afternoon. Snowfall amounts were highly elevation dependent with up to 30 inches in the highest peaks of the Berkshires. Some specific snowfall totals included: 8 inches at Great Barrington, 12 inches at North Adams, 23 inches at Dalton, 21 inches at Monterey and 20 inches at Lenoxdale. The wet snow brought down many trees and power lines causing widespread power outages and road closures. Some areas remained without power for several days.

Storm Data and Unusual Weather Phenomena

March 1997

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

MICHIGAN, East

MIZ047>049-053>055-060>063-068>070-075>076-082>083 - **Midland - Bay - Huron - Saginaw - Tuscola - Sanilac - Shiawassee - Genesee - Lapeer - St. Clair - Livingston - Oakland - Macomb - Washtenaw - Wayne - Lenawee - Monroe**

13	2100EST			0	0	19M		Ice Storm
14	1200EST							

Low pressure tracked from the central Plains northeast across southeast lower Michigan late on the 13th through the 14th. The storm brought widespread precipitation to southeast Michigan from late on the 13th through midday on the 14th. North of Detroit, nearly all of the precipitation fell in the form of freezing rain, with small amounts of snow and sleet noted in a few spots. From Detroit and Ann Arbor south to the state-line, the freezing rain changed to rain, but not before heavy ice accumulations occurred. Total precipitation amounts ranged from 1.5 to nearly 2.5 inches from Detroit and Ann Arbor south to the Ohio state-line. From the northern suburbs of Detroit north to Flint and Port Huron, amounts ranged from 0.8 to 1.5 inches. North of that area, amounts ranged from 0.40 to 0.80 inches.

In the Detroit Metropolitan area, the ice storm resulted in power outages to over 425,000 homes and businesses; the 3rd largest outage in history, and the worst ever for an ice storm. Several thousand residents were without power for as long as 4 days. In addition to powerlines, falling trees damaged dozens of cars and houses throughout the area. Most schools were closed, and there were numerous auto accidents.

MIZ069>070-076-082>083 - **Oakland - Macomb - Wayne - Lenawee - Monroe**

14	0400EST			0	0	50K		Flood
	1400EST							

The same storm that brought heavy ice accumulations to southeast Michigan also brought flooding to many areas from Detroit south to the Ohio state-line. Total precipitation amounts ranged from 1.5 to nearly 2.5 inches across that area. Some of the higher totals included 2.27 inches at Tecumseh, 2.24 inches at Dundee and 2.18 inches at Morenci. I-94 was flooded in southern Macomb county between 9 and 12 Mile roads during the morning of the 14th. The Lodge freeway was also flooded in southern Oakland county during that time. Lakeshore flooding along the west shore of Lake Erie was most severe at Estral Beach, where strong easterly winds associated with the storm pushed 2 feet of water onto the shore. In addition, there was some minor river flooding throughout far southeast lower Michigan (details next section).

MIZ076 - **Wayne**

14	0500EST			0	0			Flood
15	2000EST							

The Middle Rouge River at Garden City went above its 7.0 foot flood stage at 5 am on the 14th. The river crested at 8.4 feet at 7 pm on the 14th, and fell back below flood stage at 8 pm on the 15th.

MIZ076 - **Wayne**

14	1200EST			0	0			Flood
15	1000EST							

The Lower Rouge River from Inkster to Dearborn went above its 10.0 foot flood stage at noon on the 14th. The river crested at 11.0 feet at 8 pm on the 14th, and fell back below flood stage at 10 am on the 15th.

MIZ075 - **Washtenaw**

14	1200EST			0	0			Flood
15	1500EST							

The Saline River at Saline went above its 10.0 foot flood stage at noon on the 14th. The river crested at 10.7 feet at 8 pm on the 14th, then fell back below flood stage at 3 pm on the 15th.

MIZ082 - **Lenawee**

14	1500EST			0	0			Flood
17	1600EST							

The Raisin River at Tecumseh went above its 9.0 foot flood stage at 3 pm on the 14th. The river crested at 10.5 feet at 11 am on the 15th, and fell back below flood stage at 4 pm on the 17th.

MIZ082 - **Lenawee**

14	2100EST			0	0			Flood
17	1600EST							

The Raisin River at Adrian went above its 11.0 foot flood stage at 9 pm on the 14th. The river crested at 12.1 feet at 9 am on the 17th, and fell back below flood stage at 4 pm on the 17th.

MICHIGAN, Extreme Southwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MICHIGAN, North									
MIZ008			Chippewa						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO EASTERN UPPER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 14 INCHES.								
MIZ015			Mackinac						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO EASTERN UPPER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 12 INCHES.								
MIZ016			Emmet						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 12 INCHES.								
MIZ017			Cheboygan						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 6 TO 10 INCHES.								
MIZ018			Presque Isle						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 10 INCHES.								
MIZ019			Charlevoix						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 10 INCHES.								
MIZ021			Antrim						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 6 TO 10 INCHES.								
MIZ022			Otsego						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 10 INCHES.								
MIZ023			Montmorency						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 6 TO 8 INCHES.								
MIZ024			Alpena						
	13	1700EST			0	0			Winter Storm
	15	0800EST							
	LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 12 INCHES.								

Storm Data and Unusual Weather Phenomena

March 1997

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

MIZ027

Kalkaska

13 1700EST
15 0800EST

0 0

Winter Storm

LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 12 INCHES.

MIZ028

Crawford

13 1700EST
15 0800EST

0 0

Winter Storm

LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. COLD AIR BEHIND THE LOW TRIGGERED LAKE EFFECT SNOW SHOWERS WHICH ADDED TO THE ACCUMULATION. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 8 TO 12 INCHES.

MIZ029

Oscoda

13 1700EST
15 0800EST

0 0

Winter Storm

LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 6 TO 8 INCHES.

MIZ030

Alcona

13 1700EST
15 0800EST

0 0

Winter Storm

LOW PRESSURE TRACKING ACROSS THE LOWER GREAT LAKES SPREAD LOCALLY HEAVY SNOWS INTO NORTHERN LOWER MICHIGAN. TOTAL SNOWFALL ACROSS THE COUNTY RANGED FROM 6 TO 10 INCHES.

MICHIGAN, Upper

MIZ001>007-009>014

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

13 1800EST
16 0700EST

0 0

Winter Storm

A strong low pressure system moved northeast through Iowa, southeast Wisconsin and northern Lower Michigan on the 14th and 15th. Heavy snow began on the afternoon of the 13th across south central Upper Michigan and overspread the entire region overnight. The snow continued until the morning of the 15th. Lake enhancement with northeast winds across Lake Superior, greatly increased snow totals over parts of northern Upper Michigan. The result was 32.4 inches of new snow at the Marquette County Airport. In a 24 hour period between 7 pm on the 13th and 7 pm on the 14th, the airport received 28 inches of snow, which broke the 24 hour snowfall record of 25.4 inches set on March 18-19, 1986. The storm also produced a record snow depth of 63 inches at the Marquette County Airport which exceeded the previous record depth of 59 inches recorded on March 13, 1976. Other locations that exceeded 20 inches included Phoenix in Keweenaw County with 29 inches, Herman in Baraga County with 25 inches and Shingleton in Alger County with 21 inches.

Other snow totals included...

Alger County

Munising.... 19.5 inches

Baraga County

Lanse.....16 inches

Pelkie.....14 inches

Watton.....12 inches

Delta County

Bark River...13 inches

Gogebic County

Ironwood....18 inches

Watersmeet...18 inches

Houghton County

Calumet.....10 inches

Iron County

Paint Lake...14 inches

Luce County

Storm Data and Unusual Weather Phenomena

March 1997

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

Two Heart....18 inches

Marquette County
Champion.....18 inches
Gwinn.....15 inches

Ontonagon County
Bruce Crossing.. 16 inches

MICHIGAN, West

MIZ057-077-079

Kent - Berrien - St. Joseph

01	0000EST	0	0	Flood
05	1300EST			

A spring like storm system developed over Western Texas on the 20th of February and tracked into Southern Michigan on Friday, the 21st. A warm moist flow of air from the Gulf of Mexico fed the storm and produced a few thunderstorms with moderate to heavy amounts of rain across Southwest Lower Michigan. The rain began on the afternoon of the 20th and continued through the 21st before changing to snow later that evening. Widespread flooding occurred and water covered roads in 14 counties. Comstock Park, located along the Grand River was hardest hit with a crest 3 feet above flood stage, and the river remaining above flood stage for 12 days.

Rivers equaled or exceeded flood stage at the following locations:

Grand River Comstock Park
St Joseph River Three Rivers
St Joseph River Niles

No significant flood damages were reported during these events and no lives were lost. Most of the river flooding resulted in flooding of low lands, some secondary roads, and backup to some sewer and septic systems.

MIZ050>051-056>059-064>067-071>074-077>081

Muskegon - Montcalm - Ottawa - Kent - Ionia - Clinton - Allegan - Barry - Eaton - Ingham - Van Buren - Kalamazoo - Calhoun - Jackson - Berrien - Cass - St. Joseph - Branch - Hillsdale

14	0130EST	0	0	Ice Storm
	1400EST			

An Ice Storm lasting slightly more than 12 hours blanketed much of West Central Lower Michigan and all of Southwest Lower Michigan. The northern edge of accumulated ice included the south half of Muskegon County, the northern border of Kent County, the southern third of Montcalm County, and the northern border of Clinton County. The storm covered all of the County Warning Area south of that line. The worst hit areas included the counties of Jackson, Kalamazoo, Calhoun, Branch, and Hillsdale. Ice accumulations in these areas were near 1 inch. Power was out, up to 24 hours, in Kalamazoo County (29,000 customers) and Jackson County (38,000 customers). Statewide, over 250,000 customers were without power at the height of the storm. Trees and power lines were downed throughout the County Warning Area. Automobile accidents occurred almost continuously throughout the storm. Two multi-car accidents occurred along I-94; one 10 car mishap near Benton Harbor, and a 15 car pileup between Kalamazoo and Battle Creek. In some areas it took 15 days to complete the cleanup with County Emergency Manager and Highway Department budgets being destroyed in the process.

MINNESOTA, Central and South Central

MNZ041>045-048>053-059>063-068>070-076>078-084>085-093

Douglas - Todd - Morrison - Mille Lacs - Kanabec - Pope - Stearns - Benton - Sherburne - Isanti - Chisago - Wright - Hennepin - Anoka - Ramsey - Washington - Carver - Scott - Dakota - Le Sueur - Rice - Goodhue - Waseca - Steele - Freeborn

13	0000CST	0	0	Winter Storm
14	0400CST			

Some snowfall totals included 10 inches at Onamia, 9 inches at Isle, Waseca and Albert Lea, 8 inches at Stillwater and Red Wing, 7 inches at Little Falls and Princeton, 6.5 inches in the Twin Cities, and 6 inches at St. Cloud, Cambridge, Northfield and Glenwood. The snow changed to freezing rain and sleet at times.

MNZ054>056-060-064>065-067>070-073>076-083

Lac Qui Parle - Swift - Chippewa - Hennepin - Yellow Medicine - Renville - Sibley - Carver - Scott - Dakota - Redwood - Brown - Nicollet - Le Sueur - Blue Earth

15	0600CST	0	0	Flood
31	2359CST			

The Minnesota River reached flood stage at Henderson on 3/15/97 and continued to slowly flood through the last half of March and continued through April into the first half of May. The combination of above normal temperatures during the last two weeks of March along with a deep snowcover and additional rainfall resulted in near record or record crests at many locations along the Minnesota River in April.

Storm Data and Unusual Weather Phenomena

March 1997

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

MINNESOTA, Southeast

MNZ079-086>088-094>096 **Wabasha - Dodge - Olmsted - Winona - Mower - Fillmore - Houston**

12	2200CST				0	0			Winter Storm
14	0200CST								

10 to 20 inches of snow was accompanied by strong winds, creating drifts as high as 6 feet. Considerable blowing and drifting caused whiteouts in open country and blocked many rural roads.

MINNESOTA, Southwest

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

13	0100CST				0	0	40K		Ice Storm
	1800CST								

Freezing rain caused ice accumulations which disrupted travel and caused numerous accidents.

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

25	0700CST				0	0			Flood
31	2359CST								

Snowmelt flooding began in late March and continued through the end of the month. River flooding occurred on the Redwood, Rock, and on the upper West Fork Des Moines Rivers. Lowlands including farmland, roads, basements, and a few homes were flooded. The worst flooding occurred along the Rock River in Luverne and elsewhere in Rock County with many roads flooded, and considerable park and tree damage. Flood damage was roughly estimated to be in the hundreds of thousands of dollars at the end of March, and this did not include damage from farmland flooding which could not even be estimated until later in the year. Also, any damage estimates could not be complete because the flooding was continuing into the next month.

MINNESOTA, West

NONE REPORTED.

MINNESOTA, West Central

MNZ039-046 **Traverse - Big Stone**

03	1400CST				0	0			Winter Storm
04	1600CST								

Four to 6 inches of snow fell across Big Stone and Traverse counties adding to the already expansive and deep snowpack. Winds of 20 to 40 mph brought widespread blowing and drifting snow. Visibilities were reduced to near zero at times making travel treacherous and many roads were blocked by snowdrifts with several roads closed. Many area schools were closed once again accumulating to the number of days missed for the winter season. Snowfall amounts included, 4 inches at Browns Valley, 6 inches at Artichoke Lake, and 7 inches at Wheaton.

MNZ039-046 **Traverse - Big Stone**

12	2200CST				0	0			Winter Storm
14	1200CST								

A winter storm began with widespread freezing drizzle creating icy roadways and walkways before changing over to snow. Before the snow was over, 4 to 6 inches of snow had fallen across Big Stone and Traverse counties on top of an already deep and expansive snowpack. The winds came up to 20 to 40 mph resulting in widespread blowing and drifting snow. Many roads again became blocked by snowdrifts and several were closed. Many schools were again closed accumulating to the large number of days already missed for the winter season. The icy roads and low visibilities resulted in some vehicle mishaps. Some snowfall amounts included, 4 inches at Artichoke Lake, 5 inches at Browns Valley, and 6 inches at Wheaton.

MNZ039-046 **Traverse - Big Stone**

27	0000CST				0	0			Flood
31	2359CST								

As temperatures began to warm up towards the end of March, the near record to record snowpack across Big Stone and Traverse counties began to melt and runoff, filling up ditches, lakes, creeks, streams, and low-lying areas. The extensive amount of water, inundated many county and township roads as well as some highways. Many sections on the roads were broken up or washed out. Some culverts were damaged or blown out and some bridges were damaged or washed out by ice chunks and highwater flows. Thus, road closures occurred with rerouting taking place for school buses, mail carriers, farmers, ranchers, etc.. Many acres of farmland and pastureland were underwater. Due to the high groundwater level, some homes received water in their basements. Also, some farms were surrounded by water and were inaccessible, leaving some people and livestock stranded. The flooding continued into April.

MNZ039 **Traverse**

27	0700CST				0	0			Flood
30	1200CST								

Storm Data and Unusual Weather Phenomena

March 1997

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

Snowmelt runoff and ice jamming caused the Little Minnesota River to flood several homes, yards, streets and basements in west Browns Valley.

MISSISSIPPI, Central

Grenada County

Grenada **02** **1600CST** **0** **0** **2K** **Thunderstorm Wind**
Several trees and powerlines were blown down.

Carroll County

Vaiden **02** **1640CST** **0** **0** **1K** **Thunderstorm Wind**
Several trees were blown down.

Carroll County

Coila **02** **1740CST** **0** **0** **1K** **Thunderstorm Wind**
Several trees were blown down.

Yazoo County

Yazoo City **02** **1740CST** **0** **0** **1K** **Thunderstorm Wind**
Several trees were blown down.

Yazoo County

Yazoo City **02** **1816CST** **0** **0** **Flash Flood**
1930CST
Several roads were flooded and several small creeks rose to near houses.

Washington County

Greenville **05** **1130CST** **0** **0** **5K** **Thunderstorm Wind**
Strong wind blew down a large tent being used for a store sale.

**MSZ018-034-040-047-
053-059>060** **Bolivar - Washington - Issaquena - Warren - Claiborne - Jefferson - Adams**

09 **1200CST** **0** **0** **7.3M** **Flood**
26 **1200CST**

The Mississippi River when above flood stage around the 9th of March and crested between the 21st and 26th. Considerable damage occurred on the Mississippi side of the river. The following is a summary of property damage for each county. Bolivar County - at total of 68 homes and mobile homes were damaged. Claiborne county a total of 5 homes and mobile homes were damaged. Issaquena county a total of 23 homes and mobile homes were damaged. Jefferson county at total of 9 home and mobile homes were damaged. Warren county a total of 177 homes and mobile homes were damaged. Washington county a total of 68 homes and mobile homes were damaged. Adams county had no damage to dwellings. Thousands of acres of farmland were flooded.

Marion County

3 SE Columbia **29** **1610CST** **0** **0** **Hail (1.00)**

Marion County

5 SE Columbia **29** **1620CST** **0** **0** **Hail (1.75)**
Golfball size hail covered the ground.

Lamar County

1 SW Purvis **29** **1700CST** **0** **0** **4K** **Hail (1.75)**
Hail broke out a window of a patrol car and damaged several other cars.

Marion County

7 SW Sandy Hook **29** **1731CST** **0** **0** **Hail (0.75)**

Forrest County

8 S Hattiesburg **29** **1815CST** **0** **0** **Hail (0.75)**

Jones County

5 W Moselle **29** **1830CST** **0** **0** **Hail (0.88)**

Forrest County

Brooklyn **29** **1840CST** **0** **0** **Hail (0.75)**

Jones County

Ovett **29** **1905CST** **0** **0** **Hail (0.75)**

Marion County

Goss **30** **1405CST** **0** **0** **1K** **Thunderstorm Wind**
Several trees were blown down.

Marion County

4 N Columbia **30** **1415CST** **0** **0** **Hail (1.75)**

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MISSISSIPPI, Central</u>									
Marion County 7 E Goss	30	1425CST			0	0			Hail (1.75)
Jefferson Davis County 3 SW Bassfield	30	1430CST			0	0	1K		Thunderstorm Wind
Several trees were blown down.									
Jefferson Davis County Bassfield	30	1435CST			0	0			Hail (1.75)
<u>MISSISSIPPI, North</u>									
Calhoun County Shepherd to 5 SE Sarepta	01	0047CST 0100CST	10	400	0	0	5K		Tornado (F1)
Pontotoc County 2 SW Robbs to 2 W Sherman	01	0100CST 0125CST	15	400	1	4	100K		Tornado (F1)
M50MH A tornado touched down in the western part of Calhoun county and tracked northeast into Pontotoc county. The most significant damage occurred in the Randolph area of Pontotoc county. One man was killed when his mobile home was destroyed. Four other persons were also injured in Randolph. In all 2 houses and 2 mobile homes were destroyed. Nine other homes were damaged. Twenty-five barns were destroyed. Two horses were killed.									
Pontotoc County 2 W Pontotoc	01	0052CST 0057CST			0	0	0.01K		Hail (0.75)
Pontotoc County Pontotoc	01	0100CST 0105CST			0	0	1K		Thunderstorm Wind
A few power lines were blown down.									
Calhoun County 3 SW Banner to 4 NW Sarepta	01	0235CST 0245CST	5	400	0	1	10K		Tornado (F3)
Lafayette County 5 S Tula to 1 E Dogtown	01	0245CST 0300CST	5	400	0	0	10K		Tornado (F3)
Pontotoc County Toccopola to 3 NW Ecrú	01	0300CST 0315CST	10	400	0	0	650K		Tornado (F3)
Union County 2 S Ingomar to 3 NW Graham	01	0315CST 0345CST	30	400	0	16	250K		Tornado (F3)
A second tornado developed in Calhoun county near Banner. This tornado also tracked northeast through extreme southeast Lafayette county, through the northwest part of Pontotoc county and through the middle of Union county. While damage occurred in all four counties, the most damage took place in Union county near the town of Martintown. All told 17 persons were injured. Ninety-one homes were damaged with forty-nine of these homes deemed uninhabitable.									
Lee County Tupelo	02	1900CST 2000CST			0	0	1K		Flash Flood
Several roads were closed due to flash flooding. Several softball fields were flooded as well.									
Prentiss County Booneville	02	1915CST 2015CST			0	0	1K		Flash Flood
Some roads were closed due to flash flooding.									
Itawamba County Ratliff	02	1915CST 2015CST			0	0	1K		Flash Flood
A bridge was covered by flood waters. Several roads were also closed.									
Coahoma County Jonestown	02	2055CST 2100CST			0	0	10K		Lightning
A house was badly damaged by a fire started by lightning. Four children ranging in age from 18 months to 4 years old were killed in the fire.									

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
<u>MISSISSIPPI, North</u>								
De Soto County Southaven to Hernando	05	0930CST 1030CST			0	0	2K	Flash Flood
								Several roads were flooded by water as high as 2 feet in some spots.
Tunica County Tunica	05	1035CST 1135CST			0	0	1K	Flash Flood
								Several roads had a foot of water covering them.
Tate County Senatobia	05	1045CST 1145CST			0	0	1K	Flash Flood
								A few roads were flooded.
Marshall County Mt Pleasant	05	1100CST 1200CST			0	0	5K	Flash Flood
								A few roads were washed out. Several other roads were under water.
Coahoma County Clarksdale	05	1100CST 1200CST			0	0	1K	Flash Flood
								Several streets and viaducts were flooded.
Pontotoc County Sherman	05	1150CST 1155CST			0	0	1K	Thunderstorm Wind
								Some trees were blown down across Highway 9.
Lee County Plantersville	05	1204CST 1209CST			0	0	1K	Thunderstorm Wind
								A few trees were knocked down.
Lee County Mooreville to Verona	05	1215CST 1225CST			0	0	7K	Thunderstorm Wind
								A shop building suffered some structural damage in Tupelo. Several trees and power lines were blown down as well.
Lee County Eggville	05	1218CST 1220CST	0.1	10	0	0	1K	Tornado (F0)
								A garage was unroofed by a tornado which briefly touched down.
Tishomingo County Belmont	05	1235CST 1240CST			0	0	1K	Thunderstorm Wind
								A few trees were knocked down.
Itawamba County Dorsey	05	1235CST 1240CST			0	0	1K	Thunderstorm Wind
								Several trees were blown down.
Alcorn County Corinth	05	1255CST 1355CST			0	0	1K	Flash Flood
								A few roads were flooded.
Lowndes County Caledonia	25	1825CST 1830CST			0	0	0.10K	Hail
<u>MISSISSIPPI, South</u>								
MSZ068 Wilkinson	05 31	0000CST 2359CST			0	0		Flood
								Significant flooding occurred along the Mississippi River, the worst in many years according to local residents. Several camps and secondary dwellings and mobile homes were flooded in low areas near the river.
Pearl River County Picayune	29	1245CST			0	0		Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MISSISSIPPI, South</u>									
Pearl River County									
Crossroads	29	2035CST			0	0			Hail (1.75)
<u>MISSISSIPPI, Southeast</u>									
Greene County									
Leakesville	30	1440CST 1445CST			0	0			Hail (0.75)
Dime size hail was reported just northwest of Leakesville.									
<u>MISSOURI, East</u>									
St. Charles County									
St Peters	28	1440CST			0	0			Hail (0.75)
Amateur radio spotters reported 3/4 inch hail.									
<u>MISSOURI, Lower</u>									
Pemiscot County									
Cooter	01	1845CST 1855CST			0	0	1K		Thunderstorm Wind (G60)
Several large tree limbs were blown down.									
Dunklin County									
Campbell	01	1900CST 2000CST			0	0	1K		Flash Flood
Several roads were closed due to flash flooding.									
<u>MISSOURI, Northwest</u>									
MOZ032-039-054 Chariton - Saline - Henry									
	01	0000CST			0	0			Flood
	02	2359CST							
The Grand, South Grand and Blackwater rivers were still in flood at the beginning of March from heavy rain the last week of February.									
South Grand River Urich, MO									
Flood Stage 24 ft Above Flood Stage 3/1 to 3/2 Crest 26.1 ft on 2/27									
Blackwater River Blue Lick, MO									
Flood Stage 24 ft Above Flood Stage 3/1 to 3/2 Crest 33.35 ft on 2/24									
Grand River Sumner, MO									
Flood Stage 26 ft Above Flood Stage 3/1 to 3/2 Crest 30.28 ft on 2/28									
De Kalb County									
Amity	24	1805CST			0	0			Hail (0.75)
A Cooperative observer reported dime-size hail from a severe thunderstorm in Amity.									
Platte County									
Platte City	24	1806CST			0	0			Hail (0.75)
A severe weather spotter in Platte City reported dime-size hail from a severe thunderstorm.									
Grundy County									
Spickard	24	1820CST			0	0			Hail (1.00)
A ham radio operator reported one-inch hail on the east side of Spickard.									

Storm Data and Unusual Weather Phenomena

March 1997

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, Northwest

Platte County

Ridgely

24 1822CST 0 0 Hail (1.00)

A severe weather spotter reported one inch-hail from a severe thunderstorm at Ridgely.

Harrison County

Bethany

24 1841CST 0 0 Hail (1.75)

The Harrison County sheriff's office reported golfball-size hail during a severe thunderstorm at Bethany.

Clay County

Kearney

24 1858CST 0 0 Hail (1.25)

Hail, an inch and a quarter in diameter, was reported by a former National Weather Service employee in Kearney.

Jackson County

Kansas City

24 1922CST 0 0 Hail (1.75)

The Jackson County sheriff's office reported golfball-size hail at 72nd and Ward Parkway in Kansas City.

Ray County

Vibbard

24 1935CST 0 0 Hail (1.50)

A ham radio operator in Vibbard reported hail an inch and a half in diameter during a severe thunderstorm moving through Ray County.

Caldwell County

Hamilton

24 1935CST 0 0 Hail (1.75)

The Hamilton Police Department reported golfball size hail in Hamilton.

Jackson County

Kansas City

24 2000CST 0 0 Urban/Sml Stream Fld
2200CST

Heavy thunderstorm rains resulted in urban flooding throughout parts of Kansas City. Kansas City Fire Department gave numerous reports of flooded intersections and several auto rescues.

Clay County

Missouri City

24 2002CST 0 0 Hail (0.75)

A ham radio spotter in Missouri City reported dime-size hail during a severe thunderstorm over Clay County.

MOZ054

Henry

28 0000CST 0 0 Flood
2359CST

With over an inch of rain falling across Northern Henry County on the 27th, the South Grand River at Urich, MO reached flood stage on the 28th.

South Grand River
Urich, MO

Flood Stage 24 ft
Above Flood Stage 3/28
Crest 24.0 ft

Storm Data and Unusual Weather Phenomena

March 1997

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

MISSOURI, Southeast

**MOZ076-087-
111>112-114**

Perry - Cape Girardeau - Scott - Mississippi - New Madrid

01	0001CST				1	0	150K		Flood
22	1100CST								

A death occurred when an 18-year-old girl lost control of her vehicle and went off a levee which bound backwater from the Mississippi River. This death occurred around 4:30 A.M. about 9 miles east of Portageville, Missouri. The most significant flooding occurred downriver from Cairo, including New Madrid, due mainly to a massive flood crest from the Ohio River. A Red Cross shelter was opened in East Prairie. About 30 county roads were closed, as was Big Oak Tree State Park. Several businesses along the levees were affected, including a grain elevator company. Around 50,000 sandbags were issued by the Corps Of Engineers. A drainage levee failed near Sikeston, impacting fewer than 50 homes.

The Army Corps of Engineers declared a Mississippi River flood emergency and monitored levees south of Sikeston. In Mississippi County, about 114 homes were impacted by seep and impound water, with 4 homes reported with water inside. F18VE

**Cape Girardeau
County**

Cape Girardeau

01	1500CST				0	0	150K		Flash Flood
	1700CST								

Cumulative rainfall totals over the past two days were near 4 inches in spots. Road and stream flooding was fairly common.

Ripley County

Briar

01	1600CST				0	0	20K		Thunderstorm Wind (G52)
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Large trees, averaging 2 to 3 feet in diameter, were blown down.

Carter County

Grandin

01	1620CST				0	0	20K		Thunderstorm Wind
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A garage was blown down, along with some trees.

Bollinger County

Marble Hill

01	1700CST				0	0	20K		Flash Flood
	2030CST								

Repeat thunderstorms caused flooding of roads and streams. No severe problems were reported.

Butler County

Poplar Bluff

01	1700CST				0	0	20K		Flash Flood
	2030CST								

8 to 10 inches of water was over some roads.

Carter County

Van Buren

01	1700CST				0	0	20K		Flash Flood
	2000CST								

Road and stream flooding was fairly common, but no severe problems were reported. This flooding was caused by the final round of thunderstorms that occurred over a 2 day period.

Mississippi County

Charleston

01	1700CST				0	1	40K		Flash Flood
	2000CST								

Streams and roads were flooded by thunderstorms. This round of storms was the final one over a two day period, bringing rainfall totals to near 8 inches in spots. Farm field flooding was extensive. A pickup truck attempting to cross a flooded roadway was swept into a ditch. The truck filled with water, temporarily submerging a young girl in the truck. The girl was flown to a hospital near St. Louis.

New Madrid County

New Madrid

01	1700CST				1	1	6K		Flash Flood
	2000CST								

A vehicle on Interstate 55 just south of Sikeston went out of control and into the St. Johns Bayou drainage ditch. A man pulled his wife to safety from the vehicle, then he fell back into the flooded ditch. His body was swept away and not recovered for over 24 hours. The wife was treated for injuries at a hospital.

M65VE

Perry County

Perryville

01	1700CST				0	0	6K		Flash Flood
	2000CST								

Roads and streams were flooded by the final round of thunderstorms over a two day period. No severe problems were reported.

Ripley County

Doniphan

01	1700CST				0	0	6K		Flash Flood
	2000CST								

Roads and streams were flooded, but no road closures or other severe problems occurred.

Storm Data and Unusual Weather Phenomena

March 1997

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

MISSOURI, Southeast

Scott County

Sikeston	01	1700CST 2000CST			0	0			Flash Flood
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Water was over some roads, 4 to 6 inches deep. Signs were posted to warn motorists.

Stoddard County

Dexter	01	1700CST 2000CST			0	0	20K		Flash Flood
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High water prompted the closure of three roads.

Wayne County

Greenville	01	1700CST 2000CST			0	0			Flash Flood
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Roads and streams were flooded, but no severe problems were reported. This flooding was the result of numerous storms over a 48-hour period.

MISSOURI, Southwest

Ozark County

Pontiac	01	1340CST			0	0			Hail (0.75)
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Howell County

Moody	01	1440CST			0	0			Hail (0.75)
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Shannon County

12 NW Eminence	01	1515CST			0	0			Flash Flood
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Heavy rains of 2 inches in one hour caused flooding in the Eminence Area, making parts of Highway 19 impassable.

Howell County

Moody	13	1700CST			0	0			Flash Flood
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Heavy rains caused flooding of creeks and rivers in the southern part of the county. Sections of Highway 142 were closed, 3 miles west of Highway 17 along the South Fork of the Spring River, and 1.5 miles west of County Highway E along Bennetts River.

Ozark County

2 E Rockbridge	13	1700CST			0	0			Flash Flood
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Heavy rains caused flooding of Bryant Creek closing parts of Highway 95, six miles south of Highway 14.

Douglas County

Ava	13	1700CST			0	0			Flash Flood
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Heavy rains caused flooding of low water bridges along several county highways in the Ava area. A section of Highway Y, three miles west of Highway 5, was closed.

Cedar County

2 W Caplinger Mills	18	1410CST			0	0			Hail (0.75)
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Oregon County

Couch	18	1430CST			0	0			Hail (0.75)
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Newton County

10 SW Neosho	25	0053CST			0	0			Hail (0.88)
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Newton County

Neosho	25	0100CST			0	0	5K	0	Thunderstorm Wind
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Numerous trees and power lines down in Neosho. Trees were also down in Granby.

MONTANA, Central

MTZ015

Gallatin/Madison	02	0600MST 1800MST			0	0			Heavy Snow
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5 inches of new snow was reported at Bozeman and West Yellowstone.

MTZ015

Gallatin/Madison	04	0000MST 1000MST			0	0			Heavy Snow
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6 inches of new snow was reported by an observer near Alder.

Storm Data and Unusual Weather Phenomena

March 1997

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, Central</u>									
MTZ011		Blaine/Hill							
	05	0600MST			0	0			Heavy Snow
		2000MST							
		12 inches of snow fell near Simpson.							
MTZ015		Gallatin/Madison							
	07	0200MST			0	0			Heavy Snow
		2200MST							
		The Big Sky ski resort reported 10 inches of new snow.							
MTZ011		Blaine/Hill							
	08	0100MST			0	0			High Wind (G52)
		0200MST							
		A wind gust of 60 mph was reported at Fort Belknap.							
MTZ009>010		Rocky Mountain Front - Eastern Glacier/Eastern Pondera/Toole/Liberty							
	09	1349MST			0	0			High Wind (G66)
		1445MST							
		High winds were reported along the northern part of the Rocky mountain front. A gust of 76 mph was reported at Heart Butte, while Cut Bank recorded a gust of 61 mph. Ground blizzard conditions were prevalent. Highway 2 between East Glacier and Browning was closed most of the day.							
MTZ015		Gallatin/Madison							
	10	0200MST			0	0			Heavy Snow
		2200MST							
		13 inches of snow fell at the Big Sky ski resort.							
MTZ015		Gallatin/Madison							
	10	0300MST			0	0			High Wind (G53)
		0400MST							
		A wind gust of 61 mph was recorded at an automated observing site, 9 miles south of Melrose.							
MTZ012-014		Cascade/Eastern Teton/Judith Basin - Broadwater/Jefferson/Meagher Central And Southern Lewis And Clark							
	11	0000MST			0	0			Heavy Snow
		2300MST							
		4 to 6 inches of new snow fell at several spots in central Montana. Martinsdale reported the most with 10 new inches.							
MTZ009>011-013-015		Rocky Mountain Front - Eastern Glacier/Eastern Pondera/Toole/Liberty - Blaine/Hill - Fergus/Chouteau - Gallatin/Madison							
	12	0000MST			0	0			Heavy Snow
	13	0600MST							
		Many areas reported 4 to 6 inches of new snow with up to 10 inches in a few locations.							
MTZ014		Broadwater/Jefferson/Meagher Central And Southern Lewis And Clark							
	12	1900MST			0	0			High Wind (G50)
		A wind gust of 58 mph was recorded at an automated observing site, 3 miles west of Townsend.							
MTZ009>010		Rocky Mountain Front - Eastern Glacier/Eastern Pondera/Toole/Liberty							
	17	0000MST			0	0			Heavy Snow
		1800MST							
		10 inches of new snow was recorded at St. Mary and 5 inches fell at Gold Butte.							
MTZ009		Rocky Mountain Front							
	20	0230MST			0	0			High Wind (G80)
		0400MST							
		High winds were reported at Heart Butte. The highest gust was 92 mph.							
Glacier County									
2 W Cutbank	20	1200MST			0	0			Urban/Sml Stream Fld
		1500MST							
		Warm weather melted snow and caused Cut Bank Creek to rise. An ice jam formed, causing some damage to the Cut Bank creek dam.							
MTZ011		Blaine/Hill							
	20	2100MST			0	0			High Wind (G69)
		2200MST							
		A wind gust of 79 mph was reported at Fort Belknap.							
MTZ010>011		Eastern Glacier/Eastern Pondera/Toole/Liberty - Blaine/Hill							
	25	1500MST			0	0			High Wind (G60)
		1700MST							

Storm Data and Unusual Weather Phenomena

March 1997

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, Central</u>									
	High winds were reported at Cut Bank and Fort Belknap with gusts of 69 mph and 61 mph respectively.								
MTZ013									
	26	0600MST			0	0			Heavy Snow
		1800MST							
	5 inches of snow fell at Lewistown.								
MTZ011									
	26	1100MST			0	0			High Wind (G52)
		1200MST							
	A wind gust of 60 mph was reported at Fort Belknap.								
MTZ015									
	26	1900MST			0	0			High Wind
		2000MST							
	A metal roof was blown off a 20 year old shed by brief gusty winds in the northern part of bozeman. These gusty winds were associated with nearby showers. The strongest gust reported in the area was 37 mph at Belgrade.								
MTZ012-014>015									
	Cascade/Eastern Teton/Judith Basin - Broadwater/Jefferson/Meagher Central And Southern Lewis And Clark - Gallatin/Madison								
	26	2000MST			0	0			Heavy Snow
	27	1800MST							
	There were spotty reports of 4 to 6 inches of new snow in southwest Montana.								
MTZ013									
	27	1100MST			0	0			High Wind (G57)
		1200MST							
	A wind gust of 66 mph was reported at Flatwillow.								
Blaine County									
5 N Chinook	27	1800MST			0	0	25K		Urban/Sml Stream fld
		2200MST							
	Snow melt from southern Canada caused flooding along Battle Creek, east and north of Chonook. 5 county roads were washed out. Damage was estimated at \$25,000.								
MTZ009>010-012-015									
	Rocky Mountain Front - Eastern Glacier/Eastern Pondera/Toole/Liberty - Cascade/Eastern Teton/Judith Basin - Gallatin/Madison								
	28	1300MST			0	0			High Wind (G68)
		1700MST							
	A number of high winds were reported across central Montana. Heart Butte reported the highest gust at 78 mph.								
MTZ010									
	29	0400MST			0	0			Heavy Snow
		1800MST							
	5 inches of snow fell at Gold Butte.								
MTZ013-015									
	31	0000MST			0	0			Heavy Snow
		2300MST							
	5 to 6 inches of snow fell across southwest and central Montana.								
<u>MONTANA, East</u>									
MTZ021>027									
	Petroleum - Garfield - Mccone - Richland - Dawson - Prairie - Wibaux								
	12	0900MST			0	0			Winter Storm
	13	0330MST							
MTZ016>020									
	Phillips - Valley - Daniels - Sheridan - Roosevelt								
	12	0945MST			0	0			Blizzard
		2100MST							
	Moist air overrunning an arctic air mass over northeast Montana caused areas of heavy snow to develop. East winds at 30 to 40 miles an hour with gusts to 45 miles an hour caused blizzard conditions north of the Missouri River. While only 2 to 3 inches of snow was reported, drifts as high as 6 to 10 feet were reported in the warned area. Travel was not possible and many motorists were stranded.								
MTZ016									
	17	0900MST			0	0			Heavy Snow
		2130MST							
	A storm system moving across central Montana with cold arctic air to the northeast and a milder pacific air mass to the southwest produced heavy snow across portions of northcentral and northeast Montana. The heaviest snowfall reported was 6 inches at Malta.								

Storm Data and Unusual Weather Phenomena

March 1997

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

Phillips County

10 N Malta

19	1600MST				0	0			Urban/Sml Stream Fld
20	0408MST								

Rapid snow melt caused Assiniboine Creek to overflow its banks and wash out roads in Phillips County.

MTZ024

Richland

20	1034MST				0	0			Flood
22	1521MST								

Snow melt caused the Lone Tree Creek in Richland County to rise rapidly. The Lone Tree Creek empties into the Yellowstone River at Sidney. The Lone Tree rose 4 feet in three hours. Many bridges were damaged by ice on the river. While homes were not affected, a local feed lot was flooded and several head of cattle were drowned.

MTZ024>025

Richland - Dawson

20	1100MST				0	0	280K		Flood
22	1600MST								

After a winter with record setting cold and snow, the rapid snow melt caused the Yellowstone River to rise to flood stage. Many ice jams developed causing low land flooding. While two homes were evacuated, no damage to homes was reported. Small streams draining into the Yellowstone River also were out of their banks. The ice on the Yellowstone River and area streams did major damage to several bridges.

MTZ016

Phillips

20	1743MST				0	0			Flood
21	1523MST								

MTZ016>017

Phillips - Valley

23	1100MST				0	0			Flood
09	1930MST								

After a winter of record cold and record snowfall, spring weather caused rapid snow melt and runoff. The Milk River Valley saw its worst flooding in twenty years. Several homes were evacuated in the Glasgow area and many of these homes were flooded.

MTZ017

Valley

24	1900MST				0	0			Flood
30	1513MST								

Snow melt caused several small streams in Valley County to come out of their banks. Minimal damage was done but roads were block due to flooding from Cherry Creek and Rock Creek.

MTZ016

Phillips

26	0930MST				0	0			Flood
03	1930MST								

Unusually high snow pack in northern Montana and southern Saskatchewan lead to an enormous volume of water draining into the Frenchman Creek Basin. The Frenchman Creek came out of its banks. One home was evacuated. The river began to flood in March but did not go back into its banks until early April.

MTZ018-020

Daniels - Roosevelt

26	0930MST				0	0			Flood
30	2100MST								

Record cold and snow during the winter of 96-97 lead to above normal run-off in the Poplar River Basin. Several homes along the Poplar River were sand bagged and two families were evacuated.

MONTANA, South

NONE REPORTED.

MONTANA, West

MTZ004

Lower Clark Fork/Bitterroot Mountains

01	0001MST				0	0			Heavy Snow
	0400MST								

6-8 inches of snow fell at Lookout Pass in the 24 hours ending at 400 am.

MTZ004

Lower Clark Fork/Bitterroot Mountains

01	0400MST				0	0			Heavy Snow
02	0400MST								

12-13 inches of snow at both Lookout Pass Ski Area and DeBorgia.

MTZ004

Lower Clark Fork/Bitterroot Mountains

07	0400MST				0	0			Heavy Snow
08	0400MST								

6-8 inches of snow at Lookout Pass Ski Area.

Storm Data and Unusual Weather Phenomena

March 1997

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

MTZ001			Kootenai/Cabinet Region						
	07	1645MST			0	0			High Wind (G51)
	Non-thunderstorm related wind gust to 51 knots just west of Plains.								
MTZ002-004-006			West Glacier/Bob Marshall Region - Lower Clark Fork/Bitterroot Mountains - Blackfoot/Pintlar Region						
	09	0800MST			0	0			Heavy Snow
	10	1000MST							
	10-12 inches snow at Discovery Basin Ski Resort, and 6-8 inches at DeBorgia and Big Mountain Ski Area.								
MTZ005>006			Missoula/Bitterroot Valleys - Blackfoot/Pintlar Region						
	10	0500MST			0	0			Heavy Snow
	11	0300MST							
	Widespread snow, 9-11 inches around Missoula and Potomac.								
MTZ001>004			Kootenai/Cabinet Region - West Glacier/Bob Marshall Region - Flathead/Mission Valleys - Lower Clark Fork/Bitterroot Mountains						
	12	0800MST			0	0			Winter Storm
	13	0200MST							
	Widespread 10-12 inches of snow around Libby, with 9 inches at Evaro, 12 inches at Marshall Mountain Ski Area, and 6 inches at Big Fork and Huson. Blizzard conditions reported between Kalispell and Columbia Falls, with some trees blown over.								
MTZ004			Lower Clark Fork/Bitterroot Mountains						
	14	0600MST			0	0			Heavy Snow
	15	0600MST							
	8-10 inches of snow at Lookout Pass Ski Area.								
MTZ001-004			Kootenai/Cabinet Region - Lower Clark Fork/Bitterroot Mountains						
	15	0600MST			0	0			Heavy Snow
		2200MST							
	Six inches of snow at DeBorgia in 11 hours, with 5 inches in 5 hours at Libby and up to 9 inches in 12 hours.								
MTZ001			Kootenai/Cabinet Region						
	18	2000MST			0	0			Flood
	Farm to Market Road, 3 miles south of Libby, washed out due to broken culvert at McMillan Creek. Water was one foot deep over 1/8 mile, with a 3 foot section of asphalt gone.								
MTZ001>002			Kootenai/Cabinet Region - West Glacier/Bob Marshall Region						
	20	1625MST			0	0			Flood
		1830MST							
	Six highway signs on Reserve St. down at Martin City, with one foot thick trees also down from snowmelt related high water. Water is 2 feet deep between 3rd Street and 4th Street, 2 city blocks long. Six or more homes flooded in Martin City. At Libby, flooding is 4 inches deep on Pioneer Road with flooding in 25 homes and a trailer park. Some mudslides blocking roads and threatening homes.								
MTZ004			Lower Clark Fork/Bitterroot Mountains						
	28	0500MST			0	0			Heavy Snow
		1327MST							
	Six inches of snow in 8 hours.								

NEBRASKA, Central

NONE REPORTED.

NEBRASKA, East

Colfax County									
	Howells	08	2030CST			0	0		Hail (1.00)
Antelope County									
	1 N Tilden	08	2040CST			0	0		Hail (0.75)
Cuming County									
	West Point	08	2040CST			0	0		Hail (0.75)
Madison County									
	1 N Tilden	08	2040CST			0	0		Hail (0.75)

NEBRASKA, Extreme Northeast

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

March 1997

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

NEBRASKA, Extreme Southwest

NONE REPORTED.

NEBRASKA, South Central

Phelps County									
2 S Funk	08	1815CST			0	0	0	0	Hail (1.00)
Kearney County									
3 E Axtell	08	1825CST			0	0	0	0	Hail (1.00)
Kearney County									
Heartwell	08	1915CST			0	0	0	0	Hail (1.50)
Adams County									
Kenesaw	08	1926CST			0	0	0	0	Hail (0.75)
Adams County									
2 S Juniata	08	1930CST			0	0	0	0	Hail (1.50)
Adams County									
4 N Hastings	08	1955CST			0	0	0	0	Hail (1.25)
Clay County									
Clay Center	09	0035CST			0	0	0	0	Hail (0.75)

Early season thunderstorms rolled through a part of South Central Nebraska dropping some rain, but mostly hail. Hail as large as 1.25 inches in diameter covered the ground at the National Weather Service Office north of Hastings.

NEBRASKA, West

NEZ003-019>021-054>055 **Box Butte - Scotts Bluff - Banner - Morrill - Kimball - Cheyenne**

27	1000MST 1800MST				0	0			High Wind (G55)
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Strong winds occurred over the Nebraska panhandle. Sustained winds were 40 to 50 MPH with a gust to 63 MPH at Scottsbluff at 257 PM. The strong winds also created areas of poor visibility due to blowing dust.

NEVADA, North

NONE REPORTED.

NEVADA, South

NONE REPORTED.

NEVADA, West

NVZ003									
Greater Reno/Carson City/Minden Area									
01	2139PST 2140PST				0	0			High Wind (G60)
A weather spotter in Gardnerville reported a wind gust of 60 kts.									
NVZ003									
Greater Reno/Carson City/Minden Area									
01	2320PST 2321PST				0	0			High Wind (G58)
A wind sensor in Washoe Valley measured a wind gust of 58 kts.									
NVZ003									
Greater Reno/Carson City/Minden Area									
02	0208PST 0209PST				0	0			High Wind (G64)
A wind gust of 64 kts was reported at the Reno NWSFO. Winds were sustained at 50 kts.									
NVZ003									
Greater Reno/Carson City/Minden Area									
02	0215PST 0216PST				0	0			High Wind (G74)
A wind sensor in Washoe Valley measured a wind gust of 74 kts.									
NVZ002									
Greater Lake Tahoe Area									
02	1025PST 1030PST				0	0			High Wind (G39)
Sustained wind of 39 kts was measured at the Lakeside Golf Course at Stateline, NV.									

Storm Data and Unusual Weather Phenomena

March 1997

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>								
NVZ003			Greater Reno/Carson City/Minden Area					
	03	0239PST 0240PST			0 0		High Wind (G55)	
			A wind sensor in Washoe Valley reported a wind gust of 55 kts.					
NVZ003			Greater Reno/Carson City/Minden Area					
	16	1527PST 1528PST			0 0		High Wind (G50)	
			A weather spotter in Gardnerville reported a wind gust of 50 kts.					
<u>NEW HAMPSHIRE, North and Central</u>								
NHZ001>006			Northern Coos - Southern Coos - Northern Grafton - Northern Carroll - Southern Grafton - Southern Carroll					
	06	0100EST 2000EST			0 0		Winter Storm	
			A low pressure system moving east from the Ohio River Valley and a secondary low that developed off the New England Coast combined to bring heavy snow and high winds to most of central and northern New Hampshire. Snowfall ranged from about more than a foot in northern New Hampshire to 6 to 10 inches in central areas. Southern areas generally had between 1 and 3 inches of snow while the coast had little or no accumulation.					
NHZ008>010-013>014			Merrimack - Belknap - Strafford - Interior Rockingham - Coastal Rockingham					
	06	0700EST 1900EST			0 1		High Wind (G60)	
			Strong winds associated with a low pressure center that developed off the New England coast caused damage throughout much of southeastern New Hampshire. In Portsmouth, the wind tore a 30 by 50 ft. section off brick veneer of a building, causing about 1000 bricks to fall on the pavement below. In Dunbarton, an 18 inch diameter pine tree fell onto a police car, critically injuring the policeman inside. The officer was stopped guarding some wind-downed power lines across the roadway about 600 ft away. Statewide, about 18,000 customers lost electrical service during the event as trees and tree limbs fell onto power lines. At the Loon Mountain ski area near Lincoln, about 25 people had to be rescued from a ski lift, as the wind caused the lift to become derailed.					
Rockingham County								
Seabrook Beach to Portsmouth	06	0730EST 0900EST			0 0	5K	Storm Surge	
			Northeasterly winds combined with an astronomically high tide to cause minor flooding throughout coastal sections of Rockingham County. In Portland, Maine, the tide reached 12.6 feet which was 0.6 feet above the flood stage. The wind and seas were calm during the peak of the tidal surge, preventing significant damage from occurring.					
NHZ005-009>010-013>014			Southern Grafton - Belknap - Strafford - Interior Rockingham - Coastal Rockingham					
	31	1000EST 2359EST			0 0		Winter Storm	
			A deep low pressure system moving slowly eastward from New Jersey brought high winds and snow to southern and central sections of the state. Snowfall accumulations ranged from 15 inches in southern Merrimack and western Rockingham Counties to 8 inches along the coast, with 2 to 6 inches in central areas and 2 inches or less in the north. The storm started on March 31 and continued into the morning of April 1.					
<u>NEW HAMPSHIRE, Southern</u>								
NHZ011>012			Cheshire - Hillsborough					
	06	0900EST 1900EST			0 0		Strong Winds	
			Strong winds with gusts reaching 45 to 50 mph from the west and northwest occurred in the wake of a strong low pressure system that passed through New England and into the Gulf of Maine. Trees and limbs brought down power lines throughout the area and up to a total of 15,000 electric customers lost power statewide. Peak gusts up to 50 mph were reported in the Nashua area.					
NHZ011			Cheshire					
	14	0900EST 2100EST			0 0		Heavy Snow	
			Snow accumulations of 3 to 6 inches were reported before precipitation changed to sleet and freezing rain. An isolated maximum amount of 7 inches was reported at Westmoreland in far southwest New Hampshire.					
NHZ011>012			Cheshire - Hillsborough					
	31	1500EST 2359EST			0 0		Heavy Snow	
NHZ011>012			Cheshire - Hillsborough					
	31	1600EST 2359EST			0 0		Strong Winds	
			A low pressure system formed off the New Jersey coast during the early morning hours and intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island by early evening. Pressure falls of 14 millibars occurred during a 12 hour					

Storm Data and Unusual Weather Phenomena

March 1997

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

period. The system then retreated to the south during the evening.

Precipitation began mostly as rain during the morning of March 31st. It began mixing with and then finally changing to all heavy, wet snow during the afternoon.

Snow began accumulating rapidly, especially in the higher elevations. Blizzard conditions developed by late afternoon and evening, as northeast winds increased and gusted to 30 to 40 mph. Numerous power outages began to occur by evening as the weight of the wet snow brought tree limbs and wires crashing down.

Snow accumulations of more than one foot, including 17 inches at Jaffrey, were reported by midnight in the higher elevations, with 6 to 12 inches elsewhere.

The final effects of this storm will be reported in April 1997 Storm Data.

NEW JERSEY, Northeast

NJZ003>006-011

Bergen - Eastern Passaic - Essex - Hudson - Union

06	0650EST			0	0	High Wind (G50)
	1523EST					

As a large and intense low pressure system moved from Kentucky east-northeast just north of New York City and across Eastern Massachusetts, it caused high winds. Winds gusted over 60 MPH at many locations. They knocked down trees and power lines on houses and streets.

Here are selected highest wind gusts for Essex County: 79 mph at West Orange, 59 mph at Newark Airport, and 58 mph at Elizabeth.

High winds downed power lines in Paramus of Bergen County and in Linden of Union County. Windows were blown out of a house in Hudson County.

NJZ004>006

Eastern Passaic - Essex - Hudson

31	0500EST			0	0	Coastal Storm
	2359EST					

An intense low pressure system developed off the DELMARVA Coast during Monday morning. It moved slowly east-northeast, passing south of Long Island Monday afternoon and southeast of Cape Cod, MA during Tuesday morning, April 1st.

Heavy rain developed Monday morning. As winds increased, it became wind-swept. Rain gradually mixed with sleet and snow before it changed to wet snow during Monday night. Peak wind gusts ranged from 35 to 45 mph.

Here are selected rainfall amounts for:

Eastern Passaic County: from 0.99 inches at Charlotteburg to 2.38 inches at Little Falls.

Essex County: from 1.19 inches at Essex Falls to a new daily record of 2.39 inches at Newark Airport.

Hudson County: 2.02 inches at Harrison.

Here are selected snowfall amounts for:

Essex County: from 2 inches at Millburn to 3.5 inches at New Providence. At Newark Airport, 2.8 inches of snow was measured.

Hudson County: A trace was recorded at both Harrison and Jersey City.

NEW JERSEY, South and Northwest

NJZ001-007>010-012>026

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

01	0000EST			0	0	Unseasonably Warm
02	1700EST					

A persistent west to southwest flow of air throughout the Eastern United States brought unseasonably warm air into New Jersey from the afternoon of February 26th through March 2nd. The warmest day through this spring preview was February 27th as many

Storm Data and Unusual Weather Phenomena

March 1997

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

NEW JERSEY, South and Northwest

new record high temperatures were set. A series of cold fronts, one early on February 28th and a stronger second one on March 2nd brought temperatures closer to seasonal levels. On February 27th, at New Brunswick, the high of 74 degrees thoroughly thrashed the previous record of 62 degrees last set in 1976. The high temperature of 73 degrees at the Atlantic City International Airport in Pomona broke the previous record of 70 degrees set in 1971. Record highs were also set in Philadelphia (74 degrees) and the Lehigh Valley International Airport (72 degrees). Other high temperatures from February 27th around New Jersey included 75 degrees in Somerdale (Camden County), 74 degrees in Atsion (Burlington County), Hightstown (Mercer County), Mount Holly (Burlington County), Parsippany (Morris County) and Belle Mead (Somerset County), 73 degrees in Estell Manor (Atlantic County), Millville and Seabrook (Cumberland County) and Wertsville (Hunterdon County), 72 degrees in Stewartsville (Warren County), 70 degrees in Sussex, 69 degrees in Boonton (Morris County), 68 degrees in Newton and Wantage (Sussex County) and 66 degrees at the Marina within Atlantic City.

NJZ001-007>010-012-015 **Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Mercer**

03	1000EST 2300EST	0	0				Snow
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The run of unseasonably warm weather came to an abrupt end during the day on the 3rd as snow fell over most of Central and Northwest New Jersey. A strong cold front on the 2nd brought in a colder air mass into the Northeast the night of the 2nd and the morning of the 3rd. Meanwhile a low pressure system developed in Eastern Texas the morning of the 2nd. It moved into the Tennessee Valley the morning of the 3rd before it jumped and redeveloped along the Middle Atlantic Coast near Norfolk the evening of the 3rd. It quickly moved out to sea overnight.

Snow began falling around noon on the 3rd and was over by midnight. In the central part of the state, precipitation type was partially intensity driven. When it became lighter, it mixed with or changed to sleet and rain. During heavier bursts precipitation went back to all snow. The recent warm weather caused considerably less snow to accumulate on roadways. The heaviest snow fell during the afternoon hours and did cause some slippery travel. Accumulations averaged between 2 and 4 inches, with some higher amounts over the higher terrain in the northwest part of the state.

Snowfall accumulations included 5 inches in Wantage (Sussex County), 4.5 inches in Jefferson Township (Morris County), 4 inches in White House Station (Hunterdon County) and Montague (Sussex County), 3.5 inches in New Brunswick (Middlesex County), 3 inches in Wertsville (Hunterdon County), Pottersville (Somerset County) and Boonton (Morris County) and 2.5 inches in Princeton (Mercer County).

NJZ001-008>010-016-018-021>025 **Sussex - Morris - Hunterdon - Somerset - Salem - Camden - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic**

06	0500EST 1700EST	0	0				Wind
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NJZ007-012>015-017-019>020-026 **Warren - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Gloucester - Burlington - Western Ocean - Eastern Ocean**

06	0500EST 1700EST	0	0				High Wind (G63)
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NJZ014-024>026 **Eastern Monmouth - Eastern Cape May - Eastern Atlantic - Eastern Ocean**

06	1000EST	0	0				Blow-Out Tide
07	1400EST						

A rapidly intensifying low pressure system and the pressure difference between it and a high pressure system over the Upper Plains caused strong to locally damaging winds in New Jersey. The surface low pressure system went from a pressure of 1012 millibars in Western Kentucky the morning of the 5th to a pressure of 986 millibars just east of Boston the morning of the 6th. The drop of 26 millibars or .78 inches of mercury within a 24 hour period constitutes what's called a meteorological bomb. The rapid intensification of this storm helped cause the very strong winds. The strongest wind gusts for most places coincided with this low pressure system's cold frontal passage during the early morning of the 6th. But winds remained very strong until the sun set that afternoon. The strong northwest winds also produced a relatively rare blow-out conditions during times of low tide from around noon on the 6th to around noon on the 7th.

The strong winds pulled down numerous tree limbs and consequently wires throughout the state. Public Service Electric and Gas, Atlantic Electric and GPU reported about 44,000 homes and businesses lost power throughout the state. In the Public Service Electric and Gas service area, Mercer and Burlington Counties had the most outages. The hardest hit communities included Burlington, Hopewell, Lawrence, Princeton, West Windsor and Willingboro.

In Mercer County, a driver and passenger narrowly escaped injuries in Lawrence Township when a tree fell on their vehicle. Whole trees were blown down in Trenton and Princeton. Roofs were blown off a house in Trenton and a warehouse in Hamilton. Siding was also ripped from a house in Hamilton. In Ocean County, several buildings were damaged in Seaside Heights. Several trees were uprooted along the Garden State Parkway. A tree fell on a house in Brick Township and shingles were blown off a building in Lakehurst. In Middlesex County, whole trees were uprooted in South River and Carteret. Fences were blown down in Carteret. Siding was blown off a building in Woodbridge. Downed poles closed a road off of U.S. Route 1 in Edison. In Monmouth County, 17 residents of the Seabreeze Hotel in Keansburg were relocated after the wind destroyed the hotel's chimney.

Storm Data and Unusual Weather Phenomena

March 1997

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

NEW JERSEY, South and Northwest

Numerous pine trees were uprooted in Manalapan and a tree damaged a roof in Fair Haven. In Warren County, in Mansfield Township an uprooted tree damaged a house's roof and a van in its driveway. Numerous lines and transformers were reported down in Blairstown and Lopatcong Townships.

The strong northwest winds caused blow-out tides along the New Jersey shore on both the 6th and 7th. The low tide in Atlantic City was 2.6 feet below mean low water at 1146 p.m. EST on the 6th and 2.2 feet below mean low water at 1152 a.m. EST on the 7th. A dredger was pushed onto the south shore of Brigantine Island and became stuck.

The highest wind gusts recorded including 73 mph in Seaside Park (Ocean County), 71 mph in Harvey Cedars (Ocean County), 63 mph in New Brunswick (Middlesex County), 61 mph in Deptford (Gloucester County), 60 mph in Upper Freehold Township (Monmouth County), 56 mph in Hancocks Bridge (Salem County), 55 mph in Chatham (Morris County), 52 mph at the Cape May and Mercer County Airports and 51 mph at the Atlantic City International Airport in Pomona and McGuire AFB.

NJZ001

Sussex

14	0200EST 1700EST				0	0			Winter Storm
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NJZ007>009

Warren - Morris - Hunterdon

14	0200EST 1000EST				0	0			Wintry Mix
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A low pressure system that developed over the southern Rockies the afternoon of the 12th and a high pressure system over nearby Canada that kept a wedge of cold air in place over Northwest New Jersey helped produce a wintry mix of precipitation across the area on the 14th. The low pressure system was in Ohio the morning of the 14th. A second low formed along its associated warm front over the Delmarva Peninsula during the day on the 14th and slowed the progression of warmer air into Northwest New Jersey and produced a prolonged period of freezing rain in Sussex County. By the morning of the 15th, the secondary low was over the Atlantic to the southeast of Cape Cod. Precipitation started as snow across the area prior to dawn on the 14th. It changed quickly to freezing rain and sleet by around dawn. The snow lingered until about 8 a.m. EST over extreme northern Sussex County. Accumulations were around 1.5 inches in Sussex County and less than an inch elsewhere. Warmer air slowly moved northwest and eventually scoured enough of the cold air to end the freezing rain across most of Northwest New Jersey by around 10 a.m. EST. But, the cold air stubbornly hanged on longer in some of the deeper valleys in Sussex County where approximately 1/4 to 1/2 inch of ice accrued on exposed surfaces. Even there, temperatures rose above the freezing mark overnight on the 14th. Prior to the changeover, untreated roadways were treacherous. Indirect insolation from the March sun and temperatures near the freezing mark prevented significant accumulations of ice prior to the change to plain rain and also seemed to hold down the number of accidents. A few accidents though were reported along Interstates 78 and 80.

Gloucester County

Williamstown

29	1550EST				0	0			Hail (1.00)
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In addition to the quarter size hail in Williamstown, penny size hail fell in Glassboro.

Burlington County

Hainesport

29	1610EST				0	0	0		Thunderstorm Wind
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A severe thunderstorm uprooted a couple of trees in central Burlington County which included Hainesport Township.

NJZ001-007>010-015>019-021>022

Sussex - Warren - Morris - Hunterdon - Somerset - Mercer - Salem - Gloucester - Camden - Burlington - Cumberland - Western Atlantic

31	0700EST 2359EST				0	0			Heavy Snow
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NJZ001-007>010-012-015>019-021>023

Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Mercer - Salem - Gloucester - Camden - Burlington - Cumberland - Western Atlantic - Western Cape May

31	0800EST 2359EST				0	0	0		Wind
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NJZ013>014-020-024>026

Western Monmouth - Eastern Monmouth - Western Ocean - Eastern Cape May - Eastern Atlantic - Eastern Ocean

31	0800EST 2359EST				0	0	0		High Wind (G62)
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NJZ012-014

Middlesex - Eastern Monmouth

31	1300EST 2359EST				0	0			Snow
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A late season snowstorm dropped some of the heaviest snow of all winter across New Jersey from the morning of March 31st into the morning of April 1st. The low pressure system responsible for this looked rather innocuous on March 30th as it moved with its associated cold front through the Midwest. Temperatures that day (Easter Sunday) warmed into the 50s and 60s across the area. But as the low intensified off the New Jersey Coast on the 31st, it pulled down colder air. The heavy precipitation it created also cooled the atmosphere and changed the rain over to snow. The rain changed to snow close to dawn across extreme Northwest New Jersey. The changeover progressed southeast reaching the rest of Northwest New Jersey around 9 a.m. EST and the Greater Philadelphia Metropolitan Area close to noon EST. Bands of heavier snow moved through the Middle Atlantic States and caused

Storm Data and Unusual Weather Phenomena

March 1997

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

NEW JERSEY, South and Northwest

wide variations in accumulations that were both location (underneath these bands) and elevation dependent. A pocket of warm air associated with the low pressure system itself kept precipitation as rain longer across East Central New Jersey and held accumulations down.

Sussex and Warren Counties along with the northwest part of Morris County were hit the hardest. A limited state of emergency was declared in Sussex County. Shelters were opened in 12 municipalities. Vernon Township within Sussex County declared a state of emergency that banned all driving. The combination of heavy wet snow, up to around two feet in some areas, and strong winds produced numerous power outages. GPU reported 75,000 homes lost power in Morris, Sussex and Warren Counties with the majority in Sussex County. Full power was not restored in all areas until April 3rd. Trees were described as being "down all over the place". Downed trees also closed most of the major roadways in Sussex County including New Jersey State Routes 15 and 23 (closed through April. 1st) and County Roads 515 and 517. Accumulations in Sussex and Warren Counties included 26 inches at High Point, 22 inches in Wantage, 19 inches in Sussex, 18 inches in Hackettstown, 17 inches in Sparta, 15 inches in Montague and 14 inches in Washington.

In Morris County, the differences of location and elevation came to play with this storm. Only 2 inches of snow accumulated in Morristown in the southeast part of the county, while 24 inches accumulated in Jefferson Township at the northwest end of the county. During the storm U.S. Route 46 was described as a parking lot. Heavy wet snow downed trees and at least damaged one home within Kinnelon Borough. Strong gusty winds and the heavy wet snow continued to cause problems on April 1st even after the snow ended as downed trees closed U.S. Route 46 and New Jersey State Route 24 for several hours. Other accumulations within the county included 15 inches in Long Valley, Mount Arlington and Mount Olive and 14 inches in Rockaway.

In West Central New Jersey, accumulations were generally less. But several bands of heavier snow brought season high accumulations to sections of Hunterdon, Somerset, Mercer and Burlington Counties. While there were less road closures, the combination of wind and heavy wet snow did cause an additional 34,000 homes and businesses within Public Service Electric and Gas's service area to lose power. About 25,000 of the outages were centered in Princeton and nearby communities. All power was restored by the evening of the 1st. In Princeton Township, about two dozen downed trees forced the closure of 10 roadways. In Princeton Borough, one tree fell and crushed a porch. There were about twenty reports of downed trees and limbs that forced three road closures. In Somerset County, Bernardsville was hit the hardest with up to 30 trees down that forced 6 road closures. Accumulations included 18 inches in Califon (Hunterdon County), 10 inches in Willingboro (Burlington County), 9 inches in Pottersville (Somerset County), 8 inches in Wertsville (Hunterdon County), Somerville (Somerset County) and Mercerville (Mercer County) and 6 inches in Mount Holly (Burlington County).

In the rest of the state, accumulations were less as more precipitation fell as rain. They averaged around 5 inches in Camden, Gloucester and Salem Counties, ranged between 3 and 6 inches in Western Atlantic and Cumberland Counties, and averaged around 3 inches in Middlesex, Monmouth and Western Ocean Counties. Little if any snow accumulated from Coastal Ocean County southward. But, wind gusts were stronger near the New Jersey Shore and power outages due to downed trees increased again. Downed trees and limbs caused power outages in Monmouth and Ocean Counties in Howell Township, Lacey Township, Lakewood Township, Millstone Township, Tinton Falls and Wall Township. Peak wind gusts included 71 mph in Harvey Cedars (Ocean County), 64 mph in North Wildwood (Cape May County), 60 mph in Seaside Park (Ocean County) and 58 mph aboard the Cape May/Lewes Ferry. The strong winds forced a reduction in the number of departures by the ferry across Delaware Bay.

NEW MEXICO, Central and North

NMZ002-004-008

Northwest Mountains Including Jemez - Sangre De Cristo Mountains - Westcentral Mountains

01	0300MST	0	0	Heavy Snow
	1200MST			

Localized heavy snow of 4 to 6 inches was reported at Eagle Nest and El Rito in northern New Mexico and 8 inches at the El Morro National Monument southwest of Grants. Several additional inches were recorded at Chama causing a snow bank to fall off a shop roof, breaking a gas line and starting a fire.

NMZ009

Middle Rio Grande Valley

20	1510MST	0	0	Record Temperatures
	1547MST			

Daily record high temperatures of 77 and 81 degrees were set at Albuquerque on the 20th and 21st. This capped nearly three weeks of dry and unusually warm weather. Temperatures during the period across the northern two-thirds of the state averaged 4 to 8 degrees warmer than normal raising concern for a high fire danger season and prompting the early budding of trees and greening of spring plants and grasses.

NMZ002>005-007-009>011-014-017

Northwest Mountains Including Jemez - Upper Rio Grande Valley - Sangre De Cristo Mountains - Northeast Highlands - Far Northeast Plains - Middle Rio Grande Valley - Sandia/Manzano Mountains - Central High Plains/Estancia Valley County - Southwest Mountains/Upper Gila Region - Capitan/Northern Sacramento Mountains

24	1700MST	0	0	Winter Storm
	1200MST			

A winter storm brought an abrupt end to unusually warm spring weather across New Mexico producing heavy snows in the

Storm Data and Unusual Weather Phenomena

March 1997

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

NEW MEXICO, Central and North

mountains and central valleys and setting the stage for a damaging freeze. Snow amounts averaged about 6 inches in the mountains and 2-3 inches in the valleys, but Lake Maloya near Raton reported 12 inches of snow. Blowing snow closed the road between Raton and Clayton while Interstate 25 was closed between Raton and Las Vegas after snow was turned into an ice pack. Over 2000 homes were without power during the morning of the 25th in Albuquerque when heavy, wet snow weighed down tree branches onto power lines. Freeze damage followed the snow causing losses of 65 to 100 percent of some stone fruit crops in Rio Arriba, Santa Fe and Bernalillo counties. Other trees and ornamental plants which had responded to unusually warm spring weather also suffered under the weight of snow and cold temperatures.

NEW MEXICO, South Central and Southwest

NONE REPORTED.

NEW MEXICO, Southeast

NONE REPORTED.

NEW YORK, Central

NYZ057-062

Delaware - Sullivan

06	0500EST	0	0	High Wind
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Strong gusty winds associated with a deep storm system just north of Lake Ontario buffeted the western Catskills from the early morning hours of the 6th until mid- afternoon. Many trees, power lines, and large branches were knocked down under the force of frequent 50 to 60 mph wind gusts. State and local officials estimated that nearly 10,000 customers lost electrical power in the afternoon and early evening of the 6th.

NYZ009-036

Northern Oneida - Madison

06	1600EST	0	0	Heavy Snow
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A cold west to northwest wind flow across Lake Ontario brought locally heavy lake effect squalls to portions of central New York. Northern Madison and northern Oneida counties received the highest totals from late in the afternoon of the 6th into the pre-dawn hours of the 7th as a well defined single band meandered through these respective areas. Accumulations of 6 to 9 inches were common with the heaviest amount of about 9 inches noted near Boonville in far northern Oneida county.

NYZ009-037

Northern Oneida - Southern Oneida

14	0500EST	0	0	Ice Storm
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A strengthening storm system moved northeast from the Ohio valley across western New York and into Ontario by the evening of the 14th. Trapped cold air at lower levels of the atmosphere combined with copious moisture from the low pressure system to bring 2 to 4 inches of snow, followed by several hours of heavy sleet and freezing rain.

Significant ice accumulations resulted in widespread downed trees and power lines. Extremely hazardous travel conditions prevailed and scores of motor vehicle accidents were reported, especially during the afternoon hours.

NYZ009

Northern Oneida

15	0500EST	0	0	Heavy Snow
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As a deep storm moved eastward across the Canadian maritimes, persistent west to northwest winds delivered a very cold air mass and lake effect snow to portions of central New York.

A pronounced single band off Lake Ontario moved into northern Oneida county early in the morning of the 15th. The band oscillated north and south over the next 48 hours or so, but spent most of its time in northern Oneida county. By the time the snow tapered off early in the morning of the 17th, very heavy amounts had fallen. Accumulations ranged from 9 to 22 inches over the area. Point Rock and Taberg recorded 22 inches of fresh snow, while the towns of Western and Ava received about 16 inches.

Storm Data and Unusual Weather Phenomena

March 1997

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

NYZ009-036>037-044>046-056>057-062 **Northern Oneida - Madison - Southern Oneida - Cortland - Chenango - Otsego - Broome - Delaware - Sullivan**

31	0400EST 2359EST				0	0			Heavy Snow
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A slow moving low pressure system exited the New Jersey coast during the pre-dawn hours of the 31st and intensified into a powerful system during the day just south of Long Island. Significant Atlantic moisture was thrown back inland over portions of central New York. This moisture combined with colder air moving south into the region to bring heavy snow.

Rain changed to snow early in the morning of the 31st. Snow quickly became heavy by mid to late morning. Blinding, heavy wet snow belted the western Catskills of New York from midday on the 31st into the early morning hours of April 1st. The wet nature of the snow and strong accompanying winds brought down many trees and caused widespread power outages, especially across the higher terrain. State police and emergency management officials reported that hundreds of motorists had to be rescued and placed in Red Cross shelters or other accommodations on the night of the 31st. Most roadways through the Catskills became impassable and were closed by late in the day on the 31st. States of emergency were declared in Sullivan and Delaware counties.

By the time snow finally began to wind down after midnight on April 1st, a general 12 to 30 inches had fallen from the Catskills northward into the Mohawk valley. Claryville in Sullivan county picked up about 24 inches of snow while the higher elevations of Delaware county had a widespread 15 to 20 inch snowfall. Significant 6 to 12 inch accumulations extended as far back westward as hilltop sections of Cortland, Broome, and Chenango counties.

NEW YORK, Coastal

NYZ078 **Northwest Suffolk**

01	2335EST				1	1			Fog
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Two cars collided on a foggy and wet Hauppauge Road Saturday night. The accident resulted in 1 death and 1 injury. Dense fog along with rain-slick roads were the primary causes of the accident as one of the drivers lost control of its' car.

M50VE

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**

06	0720EST 1611EST				5	9			High Wind (G64)
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As a large and intense low pressure system moved from Kentucky east-northeast just north of New York City and across Eastern Massachusetts, it caused high winds. Winds gusted over 60 MPH at many locations. They knocked down trees and power lines on houses and streets.

In Laurelton of Queens, a 75 foot tall maple tree fell on a small school bus carrying 10 children. Four young girls died and the other six children were injured as the tree crushed the bus.

In White Plains (Westchester County), a person was killed when a tree fell on their car.

In New York (Manhattan), one person was injured from flying debris while walking and another person was injured when he or she was hit by a coffee stand that blew down the street.

In Dix Hills (Suffolk County), one person was seriously injured when a tree fell on a construction van.

Here are selected highest wind gusts for:

Queens: 60 MPH at both Kennedy Airport and Jamaica Estates.

Kings: 62 MPH at Brooklyn.

Long Island: 70 MPH at both Fire Island and Mt. Sinai.

Lower Hudson Valley: 74 MPH at Ossining.

F10VE, F10VE, F10VE, F12VE, ??VE

Storm Data and Unusual Weather Phenomena

March 1997

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

NEW YORK, Coastal

NYZ071>081

Southern Westchester - New York (Manhattan) - Bronx - Richmond (Staten Is.) - Kings (Brooklyn) - Queens - Nassau - Northwest Suffolk - Northeast Suffolk - Southwest Suffolk - Southeast Suffolk
31 0600EST 1 0 Coastalstorm
2359EST

An intense low pressure system developed off the DELMARVA Coast during Monday morning. It moved slowly east-northeast, passing south of Long Island Monday afternoon and southeast of Cape Cod, MA during Tuesday morning, April 1st.

Heavy rain developed Monday morning. As winds increased, it became wind-swept. Rain gradually mixed with sleet and snow before it changed to wet snow during Monday night. Although most peak wind gusts ranged from 40 to 50 mph, a 53 mph gust was measured at Kennedy Airport in Queens.

Here are selected rainfall amounts for:

New York County: 1.39 inches at Central Park.

Queens County: from 1.17 inches at Kennedy Airport to 1.28 inches at LaGuardia Airport.

Suffolk County: from 1.64 inches at the National Weather Service (NWS) Office in Upton to 2.07 inches at Bridgehampton.

Here are selected snowfall amounts for:

New York City: from a trace at Central Park to 1.7 inches at Kennedy Airport.

Long Island: from 0.5 inches at Plum Island to 4 inches at the NWS Upton Office.

A woman died after being pulled from her car, which had flipped over in the Sheldrake River in New Rochelle. F49VE

NYZ067>070

Orange - Putnam - Rockland - Northern Westchester
31 1700EST 0 0 Winter Storm
2359EST

An intense low pressure system developed off the DELMARVA Coast during Monday morning. It moved slowly east-northeast, passing south of Long Island Monday afternoon and southeast of Cape Cod, MA during Tuesday morning, April 1st.

Rain developed Monday morning. It changed to heavy wet snow during the afternoon. By the times indicated above, at least 6 inches of snow had fallen. Strong gusty winds (to at least 40 mph) combined with heavy wet snow caused numerous trees and power lines to fall. Many roads were closed due to fallen trees and power lines. Towns declared a State of Emergency.

Here are selected snowfall amounts for:

Putnam County: from 6 inches at Croton Falls to 18 inches at both Carmel and Brewster.

Orange County: from 6 inches at Coldenham to 17 inches at Warwick and Cornwall (800 feet elevation).

Rockland County: 6 inches across the high terrain of Northwest Rockland County.

Northern Westchester County: from 9 inches at Croton On Hudson to 16 inches at Yorktown Heights.

NEW YORK, East

NYZ032>033-042>043

Northern Herkimer - Hamilton - Warren - Washington
05 2100EST 0 0 Heavy Snow
06 1300EST

During March 5 and 6, a low pressure system moved from the Tennessee Valley northeast to Cape Cod. Heavy snow fell across the southern Adirondacks and northern Washington County. There was a very sharp cutoff between snow to the north and rain to the south. In northern Washington County, approximately 10 inches of snow fell while the southern portions of the county observed less than an inch of snow. In Warren County, North Creek and Warrensburg received 10 and 9 inches of snow respectively. Other snowfall totals included, 9 inches at Indian Lake and 11 inches at Piseco Lake.

Storm Data and Unusual Weather Phenomena

March 1997

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

A number of power outages were reported across the area. In addition, numerous traffic accidents were reported.

A few snowfall reports from this storm were:

Lake Placid (Essex County).....18 inches
 Ellenburg Depot (Clinton County).....14 inches
 Malone (Franklin County).....13 inches
 Gouverneur (St Lawrence County).....12 inches
 Massena (St Lawrence County)..... 8 inches

NYZ026>031-034>035 Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex

14 0900EST 0 0 85K Winter Storm
2359EST

An area of low pressure in the Ohio Valley Thursday (3/13/97) afternoon moved into the eastern Great Lakes region midday Friday (3/14/97) and across northern New England Friday night.

Snow overspread the region Friday and mixed with sleet and freezing rain during Friday afternoon and night with ice accumulations on top of the snow.

Snow accumulations were generally 4 to 6 inches across the area before the mix or change to sleet or freezing rain. A few of the snow reports were as follows:

Ellenburg Depot (Clinton County)...6 inches
 Gouverneur (St Lawrence County)...6 inches
 Newcomb (Essex County).....5 inches
 Malone (Franklin County).....4 inches

NYZ026>031-034>035 Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southern St. Lawrence - Southern Franklin - Southwest Clinton - Western Essex - Eastern Essex

21 1800EST 0 0 50K Light Snow
22 0400EST

An area of low pressure moved across the Great Lakes late Friday (3/21/97) and reached the New England coast near Cape Cod, Massachusetts Saturday morning (3/22/97).

Snow fell across the area during Friday night ending early Saturday morning. Generally between 3 and 5 inches of snow fell across the area...with the greatest amounts in the mountains.

NYZ029>030-034 Southern St. Lawrence - Southern Franklin - Western Essex

31 0900EST 0 0 30K Winter Storm
2359EST

A storm system along the middle Atlantic coast developed explosively during Monday (3/31/97). It moved slowly northeast passing east of New England overnight.

A mixture of snow and rain changed to all snow during Monday and Monday night. Generally between 4 and 6 inches of wet snow fell across this area...with the heaviest accumulations in southern portions of the area. For example, Gouverneur, NY in southern St Lawrence county received 8 inches.

NYZ026>028-031-035 Northern St. Lawrence - Northern Franklin - Northeast Clinton - Southwest Clinton - Eastern Essex

31 0900EST 0 0 25K Light Snow
2359EST

NEW YORK, West

NYZ004>006 Wayne - Northern Cayuga - Oswego

06 0205EST 0 0 22K Heavy Snow
2350EST

A northwest flow of cold air across the warmer waters of Lake Ontario produced lake effect snows across the counties. Amounts of five to seven inches across the area were reported. The lake effect snows combined with strong winds to produce blizzard like conditions...resulting in numerous auto accidents.

Storm Data and Unusual Weather Phenomena

March 1997

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, West

NYZ001>002-004-007-010>014 **Niagara - Orleans - Wayne - Jefferson - Erie - Genesee - Wyoming - Livingston - Ontario**

06	0705EST				0	0	81K		Heavy Snow
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Low pressure deepened rapidly as it passed across Pennsylvania and drew cold air southward changing rain over the area to heavy, wet snow. Totals ranged from six to nine inches near Lake Ontario to five to seven inches across metro Buffalo and the western Finger Lakes. Numerous accidents were blamed on the heavy snow which fell after several weeks of mild, spring-like conditions.

NYZ001>008-010>014-019>021 **Niagara - Orleans - Monroe - Wayne - Northern Cayuga - Oswego - Jefferson - Lewis - Erie - Genesee - Wyoming - Livingston - Ontario - Chautauqua - Cattaraugus - Allegany**

14	0300EST				0	0	196K		Winter Storm
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Deepening low pressure over Missouri tracked northeast and brought a mix of ice and snow to the area. Several inches of the icy slush coated trees and power lines, the weight of which downed the trees and lines. Various school districts throughout the area cancelled classes because of the treacherous conditions. Countless automobile accidents, some with injuries, were blamed on the storm. Power outages were scattered across the region. In Rochester, a Boeing 727 charter slid off the runway while landing in freezing rain. The airport was shut down for more than two and a half hours before another runway could be cleared.

NYZ006-006

Oswego									
15	1920EST				0	0	12K		Heavy Snow
16	0600EST								

Lake effect snows developed in a cold northwest flow across Lake Ontario. Amounts of six to eight inches were reported in Stokes Hill and Redfield. Several automobile accidents were blamed on the slippery conditions and reduced visibilities.

NORTH CAROLINA, Central

Forsyth County
Winston-Salem

05	1800EST				1	1	20K		Thunderstorm Wind (G50)
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Trees and power lines were downed across Forsyth county including the Winston-Salem and Clemmons areas. One adult was killed and a child was injured as a large tree crushed their van. The family was leaving the Hine Park soccer complex after practice.

F45VE

Guilford County
Greensboro

05	1820EST				0	0	50K		Thunderstorm Wind (G50)
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A trailer home was destroyed on West Market Street in Greensboro and numerous trees were blown down over northern Guilford county.

Guilford County
Greensboro

05	1820EST				0	0			Hail (0.75)
-----------	----------------	--	--	--	----------	----------	--	--	--------------------

Alamance County
10 N Burlington

05	1855EST				0	0			Thunderstorm Wind (G50)
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Trees and power lines were downed across the county. The hardest hit areas were north of Burlington.

Person County
Roxboro Area

05	1900EST				0	0			Thunderstorm Wind (G50)
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Several trees were downed in the Roxboro area.

Orange County
Hillsborough

05	1905EST				0	0			Thunderstorm Wind (G50)
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Numerous trees were blown down by a squall line moving northwest to southeast across Orange county. Most of the trees were reported down in the Hillsborough area.

Orange County
Hillsborough

05	1905EST				0	0			Hail (0.75)
-----------	----------------	--	--	--	----------	----------	--	--	--------------------

Durham County
Durham

05	1920EST				0	0			Hail (0.75)
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Durham County
Durham

05	1920EST				0	0			Thunderstorm Wind (G50)
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A squall line produced damaging wind that downed trees throughout Durham county. The hardest hit communities were along Highway 98 just north of the Durham city limits and extending to the Person county line.

Storm Data and Unusual Weather Phenomena

March 1997

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>									
Granville County									
Creedmoor	05	1920EST 1930EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were downed in Creedmoor.									
Granville County									
Oxford	05	1935EST			0	0			Hail (0.75)
Dime size hail was reported in Oxford.									
Wake County									
Wake Forest/Zebulon	05	1935EST 1945EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down in northern and eastern Wake county. The areas hit hardest by the squall line were Wake Forest and Zebulon.									
Wake County									
5 NE Raleigh	05	1945EST			0	0			Hail (0.75)
Dime size hail was reported 5 miles northeast of Raleigh on US401.									
Vance County									
Henderson	05	1945EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were downed from the Henderson area of Vance county southward to the Franklin county line.									
Franklin County									
Youngsville	05	1945EST			0	0			Thunderstorm Wind (G50)
Trees were blown down in the Youngsville area.									
Franklin County									
Franklinton	05	1945EST			0	0			Hail (0.75)
Warren County									
10 SW Warrenton	05	2000EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down on a rural county road 10 miles southwest of Warrenton.									
Nash County									
Spring Hope	05	2025EST			0	0			Thunderstorm Wind (G50)
Trees were downed by strong winds on several county roads.									
Wilson County									
Elm City	05	2100EST			0	0			Thunderstorm Wind (G50)
Several trees were downed in Elm City.									
Edgecombe County									
Tarboro	05	2110EST			0	0			Thunderstorm Wind (G50)
Several trees were blown down in the Tarboro area.									
<u>NORTH CAROLINA, Central Coastal</u>									
Carteret County									
Harkers Is	31	0320EST			0	0			Thunderstorm Wind (G56)
Pea to dime size hail reported with winds estimated to be in excess of 65 mph.									
<u>NORTH CAROLINA, Extreme Southwest</u>									
Cherokee County									
Murphy And Andrews	29	0235EST			0	0			Hail (0.75)
A severe thunderstorm produced 3/4 inch hail in the towns of Murphy and Andrews.									
<u>NORTH CAROLINA, North Coastal</u>									
Northampton County									
Pleasant Hill	05	2040EST			0	0	1K		Thunderstorm Wind
Large pine tree blown down.									
Bertie County									
Kelford	05	2110EST			0	0	2K		Thunderstorm Wind
Several trees blown down onto power lines.									

Storm Data and Unusual Weather Phenomena

March 1997

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

NORTH CAROLINA, Northwest and North Central

Rockingham County

Madison	03	1222EST			0	0	1K		Thunderstorm Wind
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Thunderstorms during the early afternoon hour on the 3rd produced damaging winds that downed trees and resulted in minor roof damage in Madison.

Watauga County

Boone	05	1620EST			0	0			Thunderstorm Wind (G56)
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Watauga County

9 E Boone	05	1630EST			0	0	20K		Thunderstorm Wind
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Watauga County

Deep Gap	05	1630EST			0	0			Hail (0.75)
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Wilkes County

Countywide	05	1640EST 1715EST			0	0	160K		Thunderstorm Wind
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Wilkes County

4 SE North Wilkesboro	05	1650EST			0	0	120K		Thunderstorm Wind
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Alleghany County

Laurel Spgs	05	1700EST			0	0			Hail (0.75)
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Alleghany County

Laurel Spgs	05	1700EST			0	0			Thunderstorm Wind
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Wilkes County

6 SW Elkin	05	1700EST			0	0	50K		Thunderstorm Wind
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Surry County

Elkin	05	1710EST			0	0	8K		Thunderstorm Wind
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Yadkin County

Countywide	05	1715EST 1745EST			0	0	20K		Thunderstorm Wind
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Surry County

Dobson	05	1720EST			0	0	1.5K		Thunderstorm Wind
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Yadkin County

Hamptonville	05	1725EST			0	0	10K		Thunderstorm Wind
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Stokes County

Countywide	05	1735EST 1805EST			0	0	15K		Thunderstorm Wind
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Stokes County

Pinnacle	05	1735EST			0	0	100K		Thunderstorm Wind
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Rockingham County

Countywide	05	1800EST 1835EST			0	0	25K		Thunderstorm Wind
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Rockingham County

6 SW Eden	05	1810EST			0	0	35K		Thunderstorm Wind
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Rockingham County

Eden	05	1815EST			0	0			Thunderstorm Wind (G51)
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Rockingham County

8 SE Madison	05	1815EST			0	0	0.50K		Lightning
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Thunderstorms during the early evening hours on the 5th produced hail up to dime size, damaging winds, and damaging lightning.

In Wilkes County, thunderstorm winds uprooted trees, and damaged or destroyed mobile homes, outbuildings, barns, and roofs of homes and businesses. Thunderstorm winds destroyed a chicken house and damaged 25 other chicken houses across the county, killing 8,000 chicks. The winds also destroyed two greenhouses and damaged four others about six miles southwest of Elkin, and broke out windows of businesses in North Wilkesboro. At the North Wilkesboro Speedway about four miles southeast of North Wilkesboro, thunderstorm winds destroyed a building and damaged several other buildings, and damaged or destroyed several billboards.

In Yadkin County, thunderstorm winds knocked down trees and power lines, damaged or destroyed sheds, storage buildings, outbuildings, barns, and carports and severely damaged a greenhouse in Hamptonville.

In Rockingham County, thunderstorm winds downed trees and power lines, damaged or destroyed mobile homes, storage sheds,

Storm Data and Unusual Weather Phenomena

March 1997

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

NORTH CAROLINA, Northwest and North Central

and signs, tore the roof off a business six miles southwest of Eden, and tore the roof off a home in Eden. A large tree fell on and crushed a new truck six miles southwest of Eden. An elderly man was killed five miles north of Stoneville when he crashed into a utility pole while trying to avoid a tree that had fallen across the road.

Thunderstorm winds destroyed a cinder block convenient store in Pinnacle, knocked a tree onto a house in Dobson, knocked down trees, damaged the roof of a business, and blew a carport onto a road in Elkin, damaged roofs and downed trees in most of Stokes County, blew a one foot diameter tree down across route 88 in Laurel Springs, and tore a portion of a roof off a house, damaged a log cabin home and toppled over 50 trees nine miles east of Boone. A wind gust of 59 mph was measured at the Eden water treatment plant and winds were estimated near 65 mph in Boone.

Lightning started a fire which destroyed an outbuilding eight miles southeast of Madison.

NCZ003

Surry

31	1100EST				0	0	10K		High Wind
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High winds on the 31st flipped over a mobile home near Dobson.

NORTH CAROLINA, South Coastal

NCZ097

Pender

31	0300EST				0	0			High Wind (G52)
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Strong, gradient winds resulted in power outages to several thousand customers in Brunswick, Pender, Columbus and New Hanover Counties. Gusts to 60 MPH reported in Pender county and 47 mph at New Hanover Int. Airport.

NORTH CAROLINA, Southwest

Macon County

Otto

03	0400EST				0	0			Flood
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Graham County

Snowbird

03	0730EST				0	0			Flash Flood
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The Little Tennessee River flooded in Macon county, and in parts of Graham county numerous small streams flooded washing out some bridges and roads. Some residents reported they observed the highest water levels on small streams in the past 10 years or so. Trees were blown down by the wind at Snowbird (11 S Tapoco).

Graham County

7 W Robbinsville

03	0730EST				0	0			Thunderstorm Wind (G50)
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Madison County

10 N Marshall

05	1555EST				0	0			Thunderstorm Wind (G50)
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Yancey County

6 W Burnsville

05	1600EST				0	0			Thunderstorm Wind (G50)
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Swain County

Countywide

05	1600EST				0	0			Thunderstorm Wind (G50)
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Mitchell County

Buladean

05	1612EST				0	0			Thunderstorm Wind (G50)
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Avery County

Banner Elk

05	1625EST				0	0			Thunderstorm Wind (G50)
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Avery County

Banner Elk

05	1625EST				0	0			Hail (0.75)
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Avery County

Grandfather Mountain

05	1632EST				0	0			Hail (0.75)
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Caldwell County

10 N Lenoir

05	1655EST				0	0			Thunderstorm Wind (G50)
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Severe thunderstorms moved across the Tennessee border causing trees to be blown down in a number of locations listed above.

Storm Data and Unusual Weather Phenomena

March 1997

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

NORTH CAROLINA, Southwest

Dime size hail covered the ground at Grandfather Mountain and fell to such depth at Banner Elk that roads required scraping. Trees blocked roads in several locations.

NCZ033-053-066

Avery - Buncombe - Polk

05	2100EST				0	0			High Wind (G55)
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06 0600EST

High winds followed a strong cold front. Gusts were estimated at over 60 mph in several locations. Damage was mostly confined to downed trees and power lines.

Macon County

Highlands to Eastern Sections

14	0130EST 0600EST				0	0			Flood
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Haywood County

Cruso

14	0130EST 0600EST				0	0			Flood
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Transylvania County

Rosman

14	0200EST 0600EST				0	0			Flood
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Henderson County

Mountain Home

14	0200EST 0600EST				0	0			Flood
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Transylvania County

Rosman Area

14	0500EST 0900EST				0	0			Flood
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The southern part of the mountains received rainfall of 4 to 6 inches in 6 to 12 hours on relatively wet ground causing a gradual rise in streams. Flooding resulted in several flood-prone areas. Minor flooding was reported on the French Broad River at Rosman, and the nearby Davidson and Pigeon Rivers. Some roads were closed and a few bridges were under water. Flooding also occurred on small streams near Highlands, an area that does not flood as often. High water around Mountain Home and in Transylvania county persisted into the next day. Some drivers had to be rescued when they drove into flooded areas.

NCZ065

Henderson

15	0400EST				1	0			Cold
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A woman in Hendersonville succumbed partly from the cold weather when she was locked outside a home overnight. F45OU

Graham County

Tapoco

29	0122EST 0132EST				0	0			Hail (1.75)
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Union County

Waxhaw

29	0605EST 0615EST				0	0			Hail (1.25)
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Severe thunderstorms caused large hail.

NCZ033-049>050

Avery - Yancey - Mitchell

31	0000EST 1200EST				0	0			Snow
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Light snow accumulated to an inch or two at high elevations.

NCZ034>036-054>057-066>072-082 **Caldwell - Alexander - Iredell - McDowell - Burke - Catawba - Rowan - Polk - Rutherford - Cleveland - Lincoln - Gaston - Mecklenburg - Cabarrus - Union**

31	0900EST 1800EST				0	2			Gusty Winds
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Winds gusted to between 40 and 50 mph frequently, and to near 60 mph in a few places. Although below "high wind" criteria for the most part, significant damage was caused in some places because of wet ground conditions. A tree fell on a mobile home near Lenoir. A tree fell on a truck in Shelby injuring two of the four occupants - one critically. Scattered trees and power lines were blown down elsewhere. A large balloon became entangled in power lines in Gastonia.

NORTH DAKOTA, Central and West

NDZ023

Wells

05	0900CST 2000CST				1	1	15K		Blowing Snow
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An 84 yr old Harvey man died from injuries sustained in a car accident. Winds were gusting to 35 to 40 mph and visibility in open areas was near zero in blowing snow. Snow was sticking to the roadway and creating very slick conditions. The driver of the vehicle he was traveling in attempted to pass another, lost control of the vehicle, and struck an oncoming pickup. His 75 yr old wife was also injured in the accident. M84VE

Storm Data and Unusual Weather Phenomena

March 1997

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

NDZ001>002-009>011- Divide - Burke - Williams - Mountrail - Ward - Mckenzie - Dunn - Mercer - Oliver - Mclean - Sheridan - Wells - Morton - Burleigh - Kidder - Stutsman - Grant - Sioux - Emmons - Logan - La Moure - Mcintosh - Dickey
017>023-034>037-042-045>048-050>051

12	2100CST				0	4	15K		Winter Storm
13	1800CST								

A winter storm that moved out of Montana brought yet more snow to a winter weary state. The snow was mainly confined in a band from the northwest part of the state to the southcentral. I-94 was again closed from Bismarck to Fargo, and many of the smaller school districts again cancelled school. Snowfall amounts include 4 inches at Minot and Washburn, 5 inches at Williston, 7 inches at Bismarck, and 10-11 inches at Powers Lake and Jamestown. At Jamestown, Thompson Auditorium was closed due to structural damage done to the roof from all the snow. A car accident near Berthold in Ward county sent 4 to the hospital. Roads were icy and visibility near zero. The driver of the car lost control and spun into oncoming traffic.

NDZ019>021-034>037-041>042-045>048-050>051 **Mercer - Oliver - Mclean - Morton - Burleigh - Kidder - Stutsman - Hettinger - Grant - Sioux - Emmons - Logan - La Moure - Mcintosh - Dickey**

21	0800CST				2	1	3.0M		Flood
31	1600CST								

Warm weather toward the end of March lead to rapid snow melt across southcentral North Dakota. This in turn lead to flooding across much of the area. Near the confluence of Spring Creek and the Knife River, the town of Beulah(Mercer Co) had 150 families evacuated. Sewer lines backed up when the lift stations failed. Up to 4 feet of water flooded streets and lawns. Also in Mercer Co. 1 person was injured when he drove over a section of road that the Knife River washed out. Along the Cannonball River in Hettinger Co., 50 families in the town of Mott were evacuated. In Grant Co., 20 residents along the Cannonball River had to be evacuated. 1 farmer reported losing 50 hogs due to the flooding. In LaMoure Co, the Bonehill and Cottonwood creeks flooded, washing out at least 7 bridges. A 41 yr. old female and her 17 yr. old daughter were killed when they drove their pickup off a section of road washed out by the Bonehill Creek. There was a 50-75 foot section of road missing with the pickup falling approximately 15 feet into the water. 2 horses that were in the horse trailer they were pulling also perished. In the town of Edgely, water lines were forced up by the flood waters and broke, leaving much of the town without water for awhile. Also in LaMoure Co, its estimated that there were 600 washout sites to either dirt or paved roads. The Maple River in Dickey Co isolated 2 farm families. 12 familes were without power for a day when ice sheared off a power pole. Minor flooding in Sioux, Morton and Burleigh counties resulted in overland flooding and a few wet basements. The James River in Stutsman, LaMoure and Dickey counties also did some minor overland flooding with some residents reporting wet basements or washed out county roads. F41VE, F17VE

NORTH DAKOTA, East

NDZ030-039-053 **Traill - Cass - Richland**

03	0200CST				0	0		Heavy Snow
04	0200CST							

A strong low pressure system tracked from near Aberdeen, South Dakota, into western Minnesota. An inverted trough stretched north from the low, from Aberdeen to Roseau, Minnesota. Heavy amounts of snow fell along the inverted trough axis, with the heaviest amounts over southeast North Dakota. The 12 inches of snow that fell in Fargo, ND, on the 3rd, broke the seasonal snowfall record, which dates back to 1885. After the 3rd, the seasonal snowfall total for Fargo stood at 95.6 inches.

NDZ006>008-014>016-024-026>030-038>039-049-052>053 **Towner - Cavalier - Pembina - Benson - Ramsey - Walsh - Eddy - Nelson - Grand Forks - Griggs - Steele - Traill - Barnes - Cass - Ransom - Sargent - Richland**

04	0200CST				0	0		Blizzard
	1200CST							

As the low pressure system responsible for the snow across eastern North Dakota moved to the east, a strong north wind increased across the area. Gusts up to 45 mph whipped up the fresh snow and reduced the visibility to near zero. Numerous east-west roads were closed, including Interstate 29 from Grand Forks to the South Dakota border, Interstate 94 from Fargo to Jamestown, and US Highway 2 from Grand Forks to Lakota. Numerous motorists who attempted travel were stranded, including a bus with 15 passengers that got stuck in a snow drift near Hillsboro. These people had to wait 8 hours until they were rescued. Many schools also cancelled classes on the 3rd and 4th.

NDZ038>039-049-052>053 **Barnes - Cass - Ransom - Sargent - Richland**

13	0400CST				0	0		Heavy Snow
	1800CST							

A band of heavy snow fell across southeast North Dakota, where Lisbon reported 12 inches of new snow. Litchville and Cayuga both reported 10 inches of snow, Havanna reported 9 inches, and Lidgerwood reported 8 inches. A north to northeast wind gusted up to 35 mph, which resulted in the closure of Interstate 94 from Bismarck to Fargo.

Storm Data and Unusual Weather Phenomena

March 1997

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

OHIO, East

Monroe County

Woodsfield

01	2215EST				0	0	3M	Flash Flood
02	0959EST							

Widespread two-day rainfall totals for March 1 and 2 generally ranged from 2.4 to 3.4 inches across much of Monroe County. The heavy rainfall led to widespread flooding across the county.

Sunfish Creek in the eastern part of the county was among the first creek to be reported out of its banks during the evening of March 1st. State Route 78 was also under water where the creek crosses the road.

Numerous other streams and roads became flooded overnight. A total of 15 township roads were closed. Parts of roads, hillsides, and culverts were washed away, primarily in the southern and southwestern parts of the county. Debris also covered many roads. Roads were flooded near Lewisville State Route 78, Brownsville and Rinard Mills State Route 26. A six inch water line broke apart after part of a hill slide away near Round Bottom.

All townships in the county were affected to some degree with flooding. Twenty to thirty homes were affected by basement and/or minor first floor flooding in the county. Some small township and private bridges were either damaged or destroyed.

Belmont County

2 S St Clairsville

02	0010EST				0	0	10K	Flash Flood
	0930EST							

Widespread rainfall totals between 2 and 3 inches over a 48 hour period led to flooding across the Belmont County.

A bridge, about 2 miles south of St. Clairsville, was under water from the Little McMahon Creek. Parts of Route 148 were flooded from the Captina Creek in the southern part of the county.

Debris and mud washed onto railroad tracks near Powhatan Point. A resident of a mobile home was assisted in getting out of his home, which was about 4 miles west of Powhatan Point. A few basements were also flooded in the county.

Noble County

3 NE Sarahsville

02	0400EST				0	0		Flash Flood
	1400EST							

Route 147 between Mt. Ephraim and Sarahsville was flooded when the Little Buffalo Creek and its tributaries went out of their banks. Widespread low-land flooding and other small stream flooding also occurred throughout the county.

Guernsey County

3 S Byesville

02	0600EST				0	0		Flash Flood
	0900EST							

Flooding was reported along Routes 660, 821, 146, and 285 when several small streams went out of their banks. All of the flooding was confined to the southern part of the county.

Monroe County

Woodsfield

02	0959EST				0	0		Flash Flood
	1930EST							

Flood waters slowly receded in most areas along creeks and streams by the evening of the March 2 and no additional flooding was reported. However, a few low-lying areas remained under water for several more days.

OHIO, North

OHZ006

Wood

01	0000EST				0	0		Flood
02	1530EST							

The Maumee River at Grand Rapids continued to exceed its flood stage of 15 feet. Flooding was mostly confined to low lying areas, although the business district did experience some minor flooding.

OHZ008

Sandusky

01	0001EST				0	0		Flood
02	0330EST							

The Portage River at Woodville continued to exceed its flood stage of 9 feet, affecting residences along Riverside Drive and the eastern end of Erie Street.

OHZ005

Henry

01	0100EST				0	0		Flood
02	2300EST							

The Maumee River at Napoleon exceeded its flood stage of 12 feet and crested at 14.8 feet at 1900 EST on 03/01/97. Flooding occurred on several secondary roads adjacent to the river.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, North									
OHZ036		Marion							
	01	1400EST			0	0			Flood
	02	0300EST							
	The Scioto River at Prospect slightly exceeded its flood stage of 9 feet. There was some flooding of Highway 203 and also along Elm Street.								
OHZ014		Ashtabula							
	06	0100EST			0	0	30K		Heavy Snow
		1500EST							
	Heavy snow fell and accumulated to six inches. Numerous traffic accidents were reported.								
OHZ036		Marion							
	06	0700EST			0	0			Flood
		1240EST							
	The Scioto River at LaRue crested briefly at its flood stage of 11 feet at 0700 EST on 03/06/97. There was minor flooding of low lying cropland.								
OHZ014		Ashtabula							
	06	1700EST			0	0			Heavy Snow
	07	0500EST							
	Heavy lake effect snow fell, with a maximum accumulation of 8 inches reported at Pierpont.								
OHZ036		Marion							
	07	1445EST			0	0			Flood
	08	0605EST							
	The Scioto River at Prospect exceeded its flood stage of nine feet and crested at 9.2 feet at 2225 EST on 03/07/97. Minor flooding occurred along Highway 203 and Elm street.								
OHZ011>012-014		Cuyahoga - Lake - Ashtabula							
	09	2221EST			0	0			High Wind (G54)
	Gusty winds associated with a cold front occurred near Lake Erie. Lost Nation Airport (Lake County) reported a peak gust of 62 miles per hour. There were no reports of damage.								
Lucas County									
Erie Lakeshore	13	1800EST			0	0	100K		Storm Surge
	14	0600EST							
Ottawa County									
Erie Lakeshore	13	1800EST			0	0	50K		Storm Surge
	14	0600EST							
Sandusky County									
Erie Lakeshore	13	1800EST			0	0	50K		Storm Surge
	14	0600EST							
	Gale force east winds to 35 knots caused the water level at the west end of Lake Erie to rise to 79 inches above low water datum, around 35 inches above the recent average lake level. Flooding and considerable beach erosion occurred along the lakeshores of Lucas, Ottawa, Sandusky and Erie Counties. In Toledo (Lucas County), roads and a parking lot were water covered, including Monroe and Second Streets, and at Point Place on Maumee Bay. Water was also over a road in Jerusalem Township. In Ottawa County, roads were flooded in Port Clinton and sandbagging was done at some local businesses. Also, on Catawba Island, waves were coming over at least one road. At Bayview (Sandusky County), County Road 259 was flooded.								
Erie County									
Erie Lakeshore	13	1800EST			0	0			Storm Surge
	14	0600EST							
OHZ002>003-005>006		Fulton - Lucas - Henry - Wood							
	13	1900EST			0	0	200K		Ice Storm
	14	0600EST							
	Freezing rain with temperatures around 32 degrees fahrenheit caused 1/4 to 1/2 inch of ice to form on colder surfaces such as trees and power lines which were downed by the added weight. This resulted in numerous power outages. Some basements filled with water because of the lack of power to run electrical sump pumps. Many trees and branches were downed on cars. Scores of traffic accidents occurred as roadways were transformed into hockey rinks. Throughout the day on the 14th, patchy freezing rain continued, accompanied by gusty winds, resulting in a few more downed trees.								
OHZ003		Lucas							
	14	2100EST			0	0			Flood
	16	0800EST							
	The Maumee River at Waterville exceeded its flood stage of nine feet and crested at 10.3 feet at 2000 EST on 03/15/97. Flooding was confined to low lying areas.								

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>OHIO, North</u>									
OHZ008		Sandusky							
	15	0400EST 2200EST			0	0			Flood
									The Portage River at Woodville exceeded its flood stage of nine feet and crested at 9.7 feet at 1100 EST on 03/15/97. Minor flooding occurred in low lying areas, including Trail Marker Trail.
OHZ047		Knox							
	25	1242EST			0	0	10K		High Wind (G55)
									In Fredericktown, a porch was torn off a building and dropped on a vehicle.
<u>OHIO, Northwest</u>									
									NONE REPORTED.
<u>OHIO, Southeast</u>									
Lawrence County									
Countywide	01	0630EST 1930EST			0	0	2M		Flash Flood
Gallia County									
Countywide	01	1000EST 2000EST			0	0	500K		Flash Flood
Athens County									
Countywide	01 02	2000EST 0730EST			0	0	500K		Flash Flood
Jackson County									
Countywide	01 02	2000EST 0730EST			0	0	3.5M		Flash Flood
Meigs County									
Countywide	01 02	2000EST 0730EST			0	0	800K		Flash Flood
Vinton County									
Countywide	01 02	2000EST 0730EST			0	0	750K		Flash Flood
Washington County									
Countywide	01 02	2000EST 0730EST			0	0	500K		Flash Flood
Perry County									
Countywide	01 02	2200EST 0730EST			0	0	10K		Flash Flood
Morgan County									
Countywide	01 02	2200EST 0730EST			0	0	50K		Flash Flood
Lawrence County									
Countywide	02	0000EST 1100EST			0	0	1M		Flash Flood
Gallia County									
Countywide	02	0200EST 1000EST			0	0	750K		Flash Flood
OHZ075		Athens							
	02 04	0400EST 1700EST			0	0	750K		Flood
OHZ085		Meigs							
	02 06	0800EST 0800EST			0	0	1.5M		Flood
OHZ086		Gallia							
	02 06	0800EST 0800EST			1	0	500K		Flood
		M76VE							

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southeast									
OHZ076	Washington								
	02	1600EST			0	0	200K		Flood
OHZ087	Lawrence								
	04	1700EST							
Gallia County Countywide	Lawrence								
	02	1900EST			0	0	2M		Flood
Lawrence County Countywide	Lawrence								
	07	0800EST							
Gallia County Countywide	Lawrence								
	03	0400EST			0	0	10K		Flash Flood
Lawrence County Countywide	Lawrence								
	03	0800EST			0	0	10K		Flash Flood
Gallia County Countywide	Lawrence								
	04	0100EST			0	0	5K		Flash Flood
Lawrence County Countywide	Lawrence								
	04	0500EST							
Lawrence County Countywide	Lawrence								
	04	0100EST			0	0	5K		Flash Flood
Lawrence County Countywide	Lawrence								
	04	0500EST							

Showers and thunderstorms dumped 4 to 9 inches of rain across southeast Ohio from the predawn hours of Saturday, the 1st, through the morning hours of Monday, the 3rd. The heaviest rain rates were on Saturday and Saturday night, with a lull in the rain during Sunday, the 2nd. The early Saturday downpours were concentrated across the extreme south, lifting north, into the Hocking and lower Muskingum Valleys late Saturday. The early Monday rains, contributed little to the overall damage, but kept some of the larger streams out of their banks.

The full spectrum of flooding occurred. The worst effects were over Lawrence and Jackson Counties. The least damage was over Perry and Morgan Counties. Lawrence, Gallia, Jackson, Vinton, Meigs, Washington, Athens, and Morgan Counties were all declared a federal disaster by President Clinton. Only one death occurred in southeast Ohio. An elderly man died Sunday night after driving his vehicle into high water along Route 7, near Eureka of Gallia County. No significant injuries were reported.

On the order of 2,800 residents received individual assistance from FEMA, over 1,000 of which, were from Lawrence County alone. Jackson County had nearly 600 citizens get federal assistance. Throughout southeast Ohio, around 700 homes received major damage or were destroyed, by either the small stream or the river flooding. Of the 700, around 600 were from Lawrence, Jackson, Gallia, and Meigs Counties. The majority of the homes affected were low income dwellings. Many small private bridges were damaged or destroyed. Secondary roads were undermined by flooding streams.

The first flooding was from small feeder streams across Lawrence County early Saturday morning. However, it was the larger streams that eventually did more damage. Residents of Aid along Symmes Creek reported the water covering the valley from hillside to hillside. Dozens were evacuated early Sunday around Aid and Arabia. Residents ran low on supplies, as access roads remained flooded into Monday and Tuesday, the 3rd and 4th.

In Jackson County, Little Salt and Horse Creeks pushed 1 to 3 feet of water into homes in the city of Jackson, after midnight on that Sunday morning, the 2nd. The sewer plant, an auto parts store, and a major industry were damaged in Jackson. Pigeon Creek flooded homes in the Byer vicinity.

In Vinton County, Pigeon Creek and Middle Fork flooded homes. Two teenagers were rescued by boat, about 3 miles east of McArthur along Route 50. They had driven their van into the rising water of Elk Fork. The time was after midnight, on Sunday morning the 2nd. After escaping the vehicle, they held onto a broken telephone pole for about 3 hours, before being rescued. The Radcliff area of Vinton Township of Vinton County was flooded by Raccoon Creek.

In Athens County, the worst flooding appeared along Sunday, Sugar, and Federal Creeks affecting communities such as Chauncey and Amesville. A mobile home along Sugar Creek was carried several hundred feet. A babysitter and 4 children were rescued from the mobile home. In Amesville, 2 dozen homes and every business received some degree of flooding. Later, the Hocking River crested 2 to 3 feet above flood stage on Monday, the 3rd.

In Gallia County, Raccoon Creek reached record heights on the 2nd, and continued to cause flooding on the 3rd and 4th. The town of Vinton was hard hit by the flooding along Raccoon Creek. Some 50 to 60 homes were evacuated. The general store was damaged. Further downstream, the crest at Adamsville was 29 feet. Chickamauga Creek flooded areas in and near Gallipolis.

In Meigs County, Leading Creek damaged about 15 homes in Langsville. Little Leading Creek caused damage around Rutland. The Shade River flooded Chester.

In Morgan County, county officials reported no homes were flooded. The damage was mainly to water and sewer lines around the

Storm Data and Unusual Weather Phenomena

March 1997

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

Stockport region of Windsor Township.

In Washington County, Duck Creek put 6 feet of water into the village building at Lower Salem. Rainbow and Wolf Creeks also caused damage.

The Ohio River rose rapidly on the 2nd, at about a half foot per hour. The Pomeroy mayor said, "about as fast as I've ever seen". Upriver of the Hocking and Little Kanawha Rivers, the crest on the Ohio River did not caused major problems. The crest at Marietta was below flood stage. The crest reached 1 to 2 feet above flood stage around Belpre, increasing in magnitude downriver. The crest was 4 to 8 feet above flood stage in the Pomeroy, Gallipolis, Proctorville, and Ironton reach of the river. The crest did not reach Ironton until the predawn hours on the 5th. Specific crests were 50.9 feet at Pomeroy, and 55 feet at the lock and dam near Gallipolis. Water was 1 to 3 feet deep on the ground floor of most businesses along Pomeroy's Main Street. The last time the water was higher at Pomeroy was late February in 1979. The village of Proctorville received heavy damage from the Ohio River. Water was about 3 to 4 feet deep in many businesses in that Lawrence County river town. Damage was less in Chesapeake. Main Street of Coal Grove was flooded.

OHIO, Southwest

**OHZ015>016-
024>025-034**

Paulding - Putnam - Van Wert - Allen - Mercer

01	0000EST	0	0			Flood
02	0500EST					

Heavy rainfall brought area rivers, including the Blanchard, Maumee, Auglaize, and St. Mary's rivers, out of their banks in late February. The crests occurred in late February but flooding continued into early March. The Blanchard river at Ottawa, which flooded area farmland and several city streets, went below flood stage on March 2nd at 500 am. Flood stage is 23.0 feet. The Auglaize river fell below flood stage at 300 pm on March 1st.

**Scioto County
Countywide**

01	0730EST	0	0	3M		Flash Flood
02	0800EST					

Estimated rainfall of 5 to 10 inches across the county in less than 36 hours caused numerous creeks and streams to rise out of their banks. Numerous roads were covered and at least 2000 people were evacuated as water rose into many area homes. Several cars were washed away. Across the county, at least 10 bridges were washed out, 200 homes damaged beyond repair, and 400 additional homes received repairable damage.

**Adams County
Countywide**

01	0755EST	2	0	8M		Flash Flood
02	0800EST					

Estimated rainfall of 6 to 12 inches across the county in less than 36 hours caused area creeks and streams to rise out of their banks. Numerous roads were closed due to high water. Several rescue operations occurred. Five hundred homes were damaged beyond repair with 700 more having repairable damage. Two people were killed during this event. A boy was swept away while riding an all-terrain vehicle and a women was killed when her car was swept off a bridge along State Route 32 near Lawshe. Her husband survived by clinging to a tree. M16VE, F34VE

OHZ081

Adams

01	0800EST	0	0	1M		Flood
02	2330EST					

Persistent heavy rainfall of over 10 inches in less than 36 hours caused the Ohio Brush Creek to rise rapidly out its banks. The river crested at 31.0 feet which is the second highest stage on record and the highest since 1962. More than 20 miles of State Rte 348 were covered and Routes 32 and 41 outside of Peebles were flooded. Also, water flooded onto State Rte 125 near West Union. Numerous homes and farms were flooded.

**Clermont County
Felicity**

01	0908EST 1100EST	0	0	10K		Flash Flood
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Very heavy rainfall persisted for over 12 hours causing creeks and streams to rise out of their banks over the southern part of the county. Several roads and bridges were covered with water.

**Brown County
Countywide**

01	1038EST	1	0	2M		Flash Flood
02	0800EST					

Estimated rainfall as high as 12 inches in less than 36 hours over the southeastern part of the county caused many creeks and streams to overflow their banks. The waters rose into several homes causing evacuations to occur. Also, numerous roads were flooded and some bridges were washed out. A man was killed on State Route 763 when he climbed from his car after it became

Storm Data and Unusual Weather Phenomena

March 1997

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

OHIO, Southwest

surrounded by water. He was swept away by the swift currents. M24VE

OHZ064-073-082-088

Pickaway - Ross - Pike - Scioto

01	2000EST				0	0			Flood
05	0600EST								

Heavy rainfall on the 1st and 2nd brought the Scioto River out of its banks. At Piketon, the river crested at 28.0 feet at 800 am on the 3rd causing serious flooding of agricultural land. Also, significant backwater flooding occurred in area creeks. Flood stage is 18.0 feet. At Circleville, the river crested at 14.9 feet at 315 pm on the 3rd causing flooding of bottomland areas near Circleville and all across Pickaway county. Flood stage is 14.0 feet.

Clermont County Countywide

02	0030EST				0	0	10K		Flash Flood
	0800EST								

Heavy rainfall returned to the county causing creeks and streams to rise out of their banks. Water covered roads in many parts of the county.

Ross County Countywide

02	0100EST				0	0	250K		Flash Flood
	0800EST								

Heavy rainfall occurred for the second night in a row causing area creeks and streams to rise out of their banks. Numerous roads were covered by high water. Several evacuations occurred as 32 homes were damaged by the flooding.

Hocking County Countywide

02	0100EST				0	0	1M		Flash Flood
	0600EST								

Heavy rainfall visited the county for the second night in a row causing area creeks and streams to rise out of their banks. Numerous roads were flooded and severely damaged. Also, 6 homes were damaged by high water.

Highland County Rocky Fork Lake

02	0100EST				0	0	400K		Heavy Rain
	0600EST								

Rocky Fork Lake came out of its banks causing damage to the local state park and flooding 3 homes.

OHZ073

Ross

02	0215EST				0	0			Flood
	1400EST								

Heavy rainfall occurred on the 1st and 2nd bringing Paint Creek at Bourneville out of its banks. The river crested at 13.7 feet at 630 am on the 2nd causing flooding on Alum Cliff Road and low land flooding in Paxton and Twin Townships in Ross county.

OHZ074

Hocking

02	0300EST				0	0	1M		Flood
03	1400EST								

Heavy rainfall on the 1st and 2nd caused the Hocking River at Enterprise to rise out of its banks. U.S. Rte 33 and State Rte. 93 were flooded as well as numerous low lying roads in Sugar Grove. Rockbridge Elementary school and several nearby homes were flooded. The river reached a crest of 15.1 feet at 300 pm on the 2nd. Flood stage is 12.0 feet.

Pike County Countywide

02	0400EST				1	0	1.5M		Flash Flood
	0800EST								

Persistent heavy rainfall caused area creeks and streams to rise out of their banks. Numerous roads were closed due to high water. Breaks occurred in Crooked Creek's earthen levee destroying houses, cars, and several restaurants and businesses in Waverly. A total of 224 homes were flooded and 70 evacuations occurred. An elderly man drowned as Sunfish creek flooded his home. He had been advised to evacuate but decided to stay. M87PH

OHZ077>079-081-088

Hamilton - Clermont - Brown - Adams - Scioto

02	0830EST				0	0	15M		Flood
11	0300EST								

Heavy rainfall occurred across Southern Ohio and Northern Kentucky on the 1st and 2nd with areas along the Ohio river receiving up to 12 inches of rainfall. The river rose rapidly reaching a crest of 59.8 feet at Portsmouth at 1000 pm on the 4th. Flood stage is 50.0 feet. Further downstream at Meldahl Dam, the river crested at 61.3 feet at 700 pm on the 6th. Flood stage is 51.0 feet. In Cincinnati, the river crested at 64.7 feet at 1100 pm on the 5th. Many towns were flooded from Portsmouth to Cincinnati and thousands of people were evacuated from their homes for several days.

OHZ077

Hamilton

02	0900EST				0	0			Flood
	1700EST								

Heavy rainfall that occurred on the 1st and 2nd caused the Great Miami River at Miamitown to rise out of its banks. However, only the areas immediately surrounding the river were affected. The crest of 16.4 feet occurred at 130 pm on the 2nd. Flood stage

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southwest									
									is 16.0 feet.
Scioto County Hales Creek to Minford	03	1100EST 1300EST			0	0	5K		Flash Flood
									Heavy rainfall fell on already saturated areas of the county causing Hales creek to flood along State Route 140. Roads were closed near Minford due to high water.
Scioto County Countywide	05	1100EST 1200EST			0	0	3K		Flash Flood
									Heavy rainfall for the third time in less than one week caused several creeks and streams to overflow their banks.
OHZ071 Warren	25	1000EST 1200EST			0	0	3K		High Wind (G50)
									Numerous trees and power lines downed. A sheet metal roof was damaged.
OHZ044>045 Logan - Union	25	1100EST 1300EST			0	1	50K		High Wind (G50)
									Strong winds caused 2 tractor-trailers carrying mobile homes to flip over closing U.S. Rte 33 for 2 hours and 40 minutes. One person received minor injuries. Several trees were blown down and a few windows were broken by flying debris.
Clermont County Milford	28	2020EST 2025EST			0	0			Hail (0.75)
Hamilton County Terrace Park	28	2030EST 2035EST			0	0			Hail (1.00)
Preble County Gettysburg	28	2120EST 2125EST			0	0			Hail (0.75)
Hamilton County Cleves	28	2140EST 2145EST			0	0			Hail (0.75)
Butler County Millville	28	2150EST 2155EST			0	1	10K		Thunderstorm Wind (G60)
									Numerous trees downed. One tree fell on a mobile home, crushing a door frame and collapsing part of a wall. One person received a sprained arm and a bruised back.
Darke County Greenville	28	2155EST 2200EST			0	0			Hail (1.00)
Clermont County Batavia	28	2205EST 2208EST			0	0			Thunderstorm Wind (G52)
									Spotter reported a gust to 60 mph.
Warren County Lebanon	28	2205EST 2210EST			0	0			Thunderstorm Wind (G52)
									Off duty National Weather Service employee reported a gust to 60 mph.
Montgomery County Brookville	28	2225EST 2230EST			0	0			Thunderstorm Wind (G76)
									Anemometer recorded a gust to 88 mph. Local police estimated a gust to be 75 mph.
Highland County Leesburg	28	2235EST 2240EST			0	0			Hail (0.75)
Greene County Xenia	28	2235EST 2238EST			0	0			Thunderstorm Wind (G74)
									An anemometer reported a wind gust to 86 mph.

Storm Data and Unusual Weather Phenomena

March 1997

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

OHIO, Southwest

Brown County

Mt Orab	28	2240EST 2243EST			0	0	3K	Thunderstorm Wind (G50)
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Numerous power lines downed by winds.

OKLAHOMA, Eastern

Le Flore County

1 SW Heavener	01	1210CST			0	0		Hail (0.88)
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Le Flore County

4 SW Heavener	01	1215CST			0	0		Hail (0.88)
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Le Flore County

3 W Pocola	01	1312CST			0	0		Hail (0.75)
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Isolated severe thunderstorms developed in Le Flore County of southeast Oklahoma during the early afternoon of March 1st. The storms produced nickel size hail 1 mile southwest of Heavener and 4 miles southwest of Heavener and dime size hail 3 miles west of Pocola.

Le Flore County

2 S Wister	02	1435CST			0	0		Hail (1.00)
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Le Flore County

1 NE Wister	02	1440CST			0	0		Hail (1.00)
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Le Flore County

1 N Poteau	02	1450CST			0	0		Hail (0.75)
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A severe thunderstorm produced quarter size hail 2 miles south of Wister and 1 mile northeast of Wister and dime size hail 1 mile north of Poteau.

Mcintosh County

2 NW Checotah	07	2205CST			0	0		Hail (0.75)
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A severe thunderstorm produced dime size hail 2 miles northwest of Checotah.

Osage County

Fairfax	24	2225CST			0	0		Hail (1.00)
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Osage County

10 E Ponca City	24	2225CST			0	0		Hail (1.75)
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Pawnee County

Pawnee	24	2225CST			0	0		Hail (1.00)
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Pawnee County

Pawnee	24	2225CST			0	0		Thunderstorm Wind (G52)
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Osage County

2 S Wynona	24	2255CST			0	0		Thunderstorm Wind (G58)
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Creek County

Oilton	24	2300CST			0	0	5K	Thunderstorm Wind
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Osage County

Pawhuska	24	2300CST			0	0		Hail (1.75)
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Pawnee County

Cleveland	24	2300CST			0	0	1K	Thunderstorm Wind (G61)
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Osage County

Pawhuska	24	2302CST			0	0		Thunderstorm Wind (G59)
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Osage County

Hominy	24	2310CST			0	0		Hail (1.75)
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Osage County

Hominy	24	2310CST			0	0	30K	Thunderstorm Wind (G61)
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Osage County

9 NE Pawhuska	24	2310CST			0	0		Hail (1.75)
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Storm Data and Unusual Weather Phenomena

March 1997

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									
Osage County									
9 NE Pawhuska	24	2310CST			0	0			Thunderstorm Wind (G61)
Osage County									
1 W Skiatook	24	2320CST			0	0			Hail (1.00)
Washington County									
Bartlesville	24	2325CST			0	0			Hail (0.75)
Tulsa County									
2 SW Collinsville	24	2332CST			0	0			Thunderstorm Wind (G65)
Creek County									
Oilton	24	2335CST			0	0	0.10K		Thunderstorm Wind
Tulsa County									
Collinsville	24	2338CST			0	0			Hail (0.75)
Nowata County									
3 W Nowata	24	2340CST			0	0			Hail (1.75)
Nowata County									
Nowata	24	2340CST			0	0			Hail (0.88)
Tulsa County									
Owasso	24	2344CST			0	0			Hail (0.75)
Tulsa County									
Owasso	24	2344CST			0	0			Thunderstorm Wind (G61)
Pawnee County									
Cleveland	24	2345CST			0	0			Hail (0.88)
Pawnee County									
1 N Terlton	24	2350CST			0	0	20K		Thunderstorm Wind
Rogers County									
Oologah	24	2350CST			0	0			Hail (1.00)
Rogers County									
Oologah	24	2350CST			0	0			Thunderstorm Wind (G52)
Pawnee County									
Cleveland	24	2355CST			0	0			Hail (0.88)
Creek County									
Mannford	25	0002CST			0	0			Hail (0.88)
Creek County									
Mannford	25	0002CST			0	0			Thunderstorm Wind (G52)
Craig County									
Vinita	25	0015CST			0	0			Thunderstorm Wind (G61)
Mayes County									
4 S Adair	25	0015CST			0	0			Thunderstorm Wind (G51)
Creek County									
2 W Bristow	25	0020CST			0	0			Hail (0.75)
Ottawa County									
2 W Miami	25	0023CST			0	0			Hail (1.00)
Ottawa County									
Miami	25	0023CST			0	0			Hail (1.00)
Tulsa County									
Tulsa	25	0025CST			0	0			Hail (0.75)
Delaware County									
1 W Bernice	25	0033CST			0	0			Thunderstorm Wind (G52)
Delaware County									
Bernice	25	0033CST			0	0			Thunderstorm Wind (G52)
Delaware County									
Bernice	25	0038CST			0	0			Hail (0.88)
Delaware County									
2 SW Cleora	25	0040CST			0	0	0.10K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

March 1997

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									
Tulsa County									
Tulsa	25	0044CST			0	0			Hail (0.75)
Mayes County									
Disney	25	0046CST			0	0			Hail (0.75)
Delaware County									
6 NW Jay	25	0052CST			0	0	0.10K		Thunderstorm Wind
Okmulgee County									
Okmulgee	25	0105CST			0	0	30K		Thunderstorm Wind
Muskogee County									
Muskogee	25	0117CST			0	0			Thunderstorm Wind (G52)
Okfuskee County									
Bearden	25	0133CST			0	0			Hail (0.75)
Okmulgee County									
Henryetta	25	0153CST 0213CST			0	0			Hail (0.75)
<p>Severe thunderstorms moved across northeast Oklahoma during the late evening of March 24th and early morning of March 25th. Thunderstorm winds estimated at 70 miles an hour caused considerable damage in Hominy, where windows were blown out, roofs were damaged, and signs, trees, and large tree limbs were blown down. The roof was partially blown off 1 building, and a large overhead door was blown in at another business. Siding was damaged at 1 house, and another house received porch damage. A tree was blown down onto a bus at the Assembly of God Church in Hominy.</p> <p>Strong thunderstorm winds blew the roofs off several homes and buildings and blew out windows in Okmulgee, and a mobile home was destroyed by strong winds 1 mile north of Terilton. An outbuilding was blown over and large tree limbs were downed in Oilton, and a large tree was blown down across State Highway 85 2 miles southwest of Cleora. Strong winds blew down a 24 foot tall, 2 foot diameter tree 6 miles northwest of Jay, and 70 mile an hour thunderstorm winds downed 4 to 6 inch diameter tree limbs and a few signs in Cleveland. Thunderstorm winds gusted to 75 miles an hour 2 miles southwest of Collinsville and to 59 to 70 miles an hour at numerous other locations in northeast Oklahoma. Golfball size hail fell 10 miles east of Ponca City, at Pawhuska, at Hominy, at Osage Hills State Park 9 miles northeast of Pawhuska, and 3 miles west of Nowata. Dime size hail fell for 20 minutes at Henryetta, and dime to quarter size hail also fell at numerous other locations in northeast Oklahoma.</p>									
Creek County									
Bristow	27	1904CST			0	0			Thunderstorm Wind (G52)
Creek County									
Kellyville	27	1922CST			0	0			Hail (0.88)
Creek County									
Kellyville	27	1923CST			0	0			Hail (1.75)
Tulsa County									
3 W Jenks	27	1932CST			0	0			Hail (1.75)
Tulsa County									
2 NW Jenks	27	1943CST			0	0			Hail (1.75)
Creek County									
4 NE Sapulpa	27	1944CST			0	0			Hail (1.00)
Tulsa County									
2 W Jenks	27	1944CST			0	0			Hail (1.75)
Tulsa County									
Tulsa	27	1945CST			0	0			Hail (1.75)
Tulsa County									
Tulsa	27	1946CST			0	0			Hail (1.75)
Tulsa County									
2 SW Catoosa	27	1952CST			0	0			Hail (1.00)
Tulsa County									
Tulsa	27	1952CST			0	0			Hail (1.75)
Tulsa County									
Tulsa	27	1953CST			0	0			Hail (1.00)
Tulsa County									
Tulsa	27	1955CST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

March 1997

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									
Tulsa County									
Tulsa	27	1958CST			0	0			Hail (1.00)
Tulsa County									
Tulsa	27	1959CST			0	0			Hail (0.75)
Tulsa County									
Tulsa	27	2002CST			0	0			Thunderstorm Wind (G56)
Rogers County									
Catoosa	27	2005CST			0	0			Hail (0.75)
Tulsa County									
Tulsa	27	2006CST			0	0			Hail (1.00)
Tulsa County									
3 SW Catoosa	27	2007CST			0	0			Hail (1.00)
Tulsa County									
2 SW Catoosa	27	2008CST			0	0			Hail (1.75)
Tulsa County									
2 SW Catoosa	27	2009CST			0	0			Hail (1.75)
Rogers County									
Catoosa	27	2010CST			0	0			Hail (0.88)
Tulsa County									
Tulsa	27	2010CST			0	0			Hail (3.75)
Rogers County									
Catoosa	27	2011CST			0	0			Hail (1.00)
Tulsa County									
2 SW Catoosa	27	2012CST			0	0			Hail (1.00)
Rogers County									
Catoosa	27	2013CST			0	0			Hail (1.75)
Wagoner County									
3 SE Catoosa	27	2020CST			0	0			Hail (1.00)
Rogers County									
6 W Inola	27	2023CST			0	0			Hail (1.75)
Wagoner County									
7 ESE Catoosa	27	2023CST			0	0			Hail (1.75)
Rogers County									
2 NW Inola	27	2035CST			0	0			Hail (0.88)
Mayes County									
4 W Pryor	27	2043CST			0	0			Hail (0.88)
Mayes County									
4 W Pryor	27	2045CST			0	0			Hail (0.88)
Mayes County									
Pryor	27	2054CST			0	0			Hail (1.00)
Mayes County									
Pryor	27	2100CST			0	0			Hail (1.25)
Mayes County									
Salina	27	2115CST			0	0			Hail (1.00)
Delaware County									
9 W Jay	27	2122CST			0	0			Hail (1.00)
Delaware County									
9 W Jay	27	2123CST			0	0			Hail (1.25)
Delaware County									
9 W Jay	27	2127CST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

March 1997

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

Delaware County

9 W Jay

27 2128CST 0 0 Hail (1.25)

A severe thunderstorm moved across Creek, Tulsa, Wagoner, Rogers, Mayes, and Delaware Counties of northeast Oklahoma during the evening of March 27th. Thunderstorm winds gusted to 65 miles an hour at the intersection of Interstate 44 and 129th East Avenue in the city of Tulsa and to 60 miles an hour in Bristow, but large hail was the main feature with this storm. Hail ranging from dime size to 3.75 inches in diameter fell across the city of Tulsa, and hail up to golfball size fell at Kellyville, 2 miles southwest of Catoosa, and at Catoosa. Golfball size hail also fell 3 miles west of Jenks, 2 miles northwest of Jenks, 2 miles west of Jenks, 6 miles west of Inola, and 7 miles east southeast of Catoosa. Hail up to half dollar size covered the ground in Pryor, and half dollar size hail also fell 9 miles west of Jay. Nickel to quarter size hail fell at several other locations in northeast Oklahoma.

Creek County

Bristow

29 2130CST 0 0 Hail (1.00)

Creek County

Bristow

29 2130CST 0 0 Thunderstorm Wind (G61)

Okfuskee County

Okfuskee

29 2135CST 0 0 Hail (0.88)

Okfuskee County

Welty

29 2139CST 0 0 Hail (0.88)

Okmulgee County

8 W Okmulgee

29 2146CST 0 0 Hail (0.88)

Okfuskee County

Bearden

29 2152CST 0 0 Hail (0.75)

Okfuskee County

Bearden

29 2155CST 0 0 Hail (0.75)

Okmulgee County

Okmulgee

29 2207CST 0 0 Hail (0.75)

Okfuskee County

Clearview

29 2208CST 0 0 Hail (1.00)

Okfuskee County

4 N Weleetka

29 2208CST 0 0 Hail (1.00)

Okfuskee County

Weleetka

29 2210CST 0 0 Hail (1.00)

Okmulgee County

Henryetta

29 2210CST 0 0 5K Thunderstorm Wind

Okmulgee County

2 W Dewar

29 2212CST 0 0 0.10K Thunderstorm Wind

Okfuskee County

5 S Okemah

29 2224CST 0 0 0.10K Thunderstorm Wind

Muskogee County

5 N Webbers Falls

29 2240CST 0 0 0.10K Thunderstorm Wind

Mcintosh County

7 W Checotah

29 2248CST 0 0 Thunderstorm Wind (G52)

Cherokee County

10 S Tahlequah

29 2300CST 0 0 0.10K Thunderstorm Wind

Sequoyah County

Gore

29 2305CST 0 0 1K Thunderstorm Wind

Pittsburg County

6 ESE Mc Alester

29 2320CST 0 0 Hail (0.75)

Adair County

Stilwell

29 2330CST 0 0 Thunderstorm Wind (G52)

Latimer County

Panola

29 2345CST 0 0 Hail (0.88)

Storm Data and Unusual Weather Phenomena

March 1997

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, Eastern

Le Flore County

Talihina	30	0011CST			0	0	15K		Thunderstorm Wind
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Severe thunderstorms moved across eastern Oklahoma during the evening of March 29th and very early morning of March 30th. Strong thunderstorm winds damaged the press building at a football field in Talihina, and an outbuilding was blown over in Henryetta. Trees and power poles were blown down in Gore, and trees were also downed 2 miles west of Dewar, 5 miles north of Webbers Falls, and 10 miles south of Tahlequah. Large tree limbs were blown down 5 miles south of Okemah, and thunderstorm winds gusted to 70 miles an hour in Bristow and to 60 miles an hour 7 miles west of Checotah and in Stilwell. Quarter size hail fell at Bristow, at Clearview, 4 miles north of Weleetka, and at Weleetka, and dime to nickel size hail fell at several other locations in eastern Oklahoma.

OKLAHOMA, Extreme Southeast

Mccurtain County

Broken Bow	01	1315CST			0	0			Hail (0.75)
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OKLAHOMA, Panhandle

NONE REPORTED.

OKLAHOMA, Western, Central and Southeast

Choctaw County

2 W Hugo	01	1205CST			0	0			Hail (1.75)
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Pushmataha County

1 E Rattan	01	1220CST			0	0			Hail (0.75)
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Choctaw County

3 NW Frogville	02	1325CST			0	0			Hail (1.00)
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Quarter-sized hail covered the ground.

Choctaw County

7 W Frogville	02	1330CST			0	0			Hail (1.00)
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Quarter-sized hail covered the ground.

Pushmataha County

3 E Corinne	02	1345CST			0	0			Hail (0.75)
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Pushmataha County

13 ENE Cloudy	02	1400CST			0	0			Hail (0.75)
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3/4-inch hail covered the ground.

Pushmataha County

1 E Fewell	02	1420CST			0	0			Hail (1.00)
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Quarter-sized hail covered the ground.

OKZ049

Pushmataha

12		1800CST			1	0			Flood
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Over a week after heavy rains fell over central and southeastern Oklahoma, some creeks and rivers in southeastern Oklahoma remained in flood. One man drowned when he drove through a flooded area where a lumber road crossed Can Creek about 10 miles northeast of Corinne in Pushmataha County. His vehicle was found about 100 feet downstream from where the road crossed the creek and his body was found another 100 feet downstream.

M68VE

OKZ006>008-011>013-019>020-025>031-045>046

Alfalfa - Grant - Kay - Major - Garfield - Noble - Logan - Payne - Oklahoma - Lincoln - Grady - McClain - Cleveland - Pottawatomie - Seminole - Jefferson - Carter

24		1945CST			0	0			Summary Of March 24-25
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Severe thunderstorms moved across northern...central...and south-central Oklahoma during the evening of March 24th, lasting into the early morning hours of the 25th.

The storms across northern Oklahoma produced hail as large as ping-pong balls at Vance Air Force Base and severe wind damage in several locations. Extensive wind damage occurred in Noble County in and around Morrison and Perry. Other significant damage occurred in Payne County in and north of Stillwater and in Garfield County west-northwest of Carrier.

The thunderstorms over central and south-central Oklahoma generated numerous large hail reports. The largest hail was reported in McLoud in Pottawatomie County, where hail as large as golf balls fell.

Storm Data and Unusual Weather Phenomena

March 1997

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

OKLAHOMA, Western, Central and Southeast

See individual Storm Data entries for further details and additional reports.

Alfalfa County Amorita	24	1950CST			0	0	Hail (1.00)
Major County 20 NW Fairview	24	2030CST			0	0	Hail (1.00)
Woods County 4 ESE Cora	24	2030CST			0	0	Hail (0.75)
Woods County 4 NNE Waynoka	24	2030CST			0	0	Hail (1.00)
Garfield County 6 WNW Carrier	24	2100CST			0	0	Thunderstorm Wind
Severe thunderstorm winds downed numerous tree limbs.							
Major County 4 ENE Meno	24	2100CST			0	0	Hail (0.75)
Alfalfa County Goltry	24	2110CST			0	0	Hail (1.00)
Garfield County Vance Afb	24	2130CST			0	0	Hail (1.50)
Garfield County Enid	24	2133CST			0	0	Hail (1.00)
Grant County Lamont	24	2138CST			0	0	Hail (1.00)
Kay County 6 NW Tonkawa	24	2150CST			0	0	Hail (1.00)
Garfield County Vance Afb	24	2159CST			0	0	Hail (0.75)
Noble County 7 SSE Red Rock	24	2200CST			0	0	Thunderstorm Wind (G53)
measured at the Oklahoma Mesonet site							
Noble County Red Rock	24	2200CST			0	0	Hail (1.00)
Noble County Morrison	24	2200CST			0	0	36K Thunderstorm Wind
A mobile home was blown across a road and into a pasture by severe thunderstorm winds. At a house northwest of Morrison, numerous large trees were uprooted, a corral and a stock trailer were destroyed, and a barn sustained extensive damage. About a mile north of Morrison a small building was destroyed, killing one bull and three cows. The Morrison football field sustained an estimated \$15000 in damage to the scoreboard, a goal post, and a utility building. nine power poles east of Morrison were blown down by the severe thunderstorm winds.							
Noble County Perry	24	2200CST			0	0	Hail (0.88)
Noble County Perry to 8 E Perry	24	2230CST			0	0	50K Thunderstorm Wind
Three mobile homes were destroyed and five others were heavily damaged by severe thunderstorm winds at a mobile home park 8 miles east of Perry. On US 64, a camping trailer 6 miles east of Perry was completely destroyed. It was described by the owner as having been "put in a press and squashed". In Perry the Elks lodge roof was damaged and some bleachers from a ball field were blown into a road. Numerous tree, power lines, and signs were also downed in Perry.							
Payne County 7 N Stillwater	24	2238CST			0	0	10K Thunderstorm Wind
An unoccupied mobile home was overturned on HWY 177 north of Stillwater.							
Logan County Mulhall	24	2300CST			0	0	Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OKLAHOMA, Western, Central and Southeast									
Payne County									
Stillwater	24	2315CST			0	0			Thunderstorm Wind
									Severe thunderstorm winds downed large tree limbs throughout town.
Cleveland County									
Oklahoma City	24	2320CST			0	0			Hail (0.75)
									at SW 119th and Pennsylvania Ave
Oklahoma County									
Oklahoma City	24	2330CST			0	0			Hail (0.88)
									at SW 89th and Pennsylvania Ave
Oklahoma County									
Oklahoma City	24	2330CST			0	0			Hail (0.75)
									at SW 92nd and Youngs
Oklahoma County									
Oklahoma City	24	2335CST			0	0			Hail (0.75)
									at I-240 and Walker
Cleveland County									
Oklahoma City	24	2337CST			0	0			Hail (0.75)
									at SW 89th and Robinson
Oklahoma County									
Harrah	24	2340CST			0	0			Hail (0.75)
Oklahoma County									
Midwest City	24	2340CST			0	0			Hail (0.75)
Oklahoma County									
Oklahoma City	24	2350CST			0	0			Hail (1.00)
									at NW 23rd and Council
Oklahoma County									
Arcadia	25	0005CST			0	0			Hail (0.75)
Oklahoma County									
Oklahoma City	25	0007CST			0	0			Hail (0.75)
									at HWY 66 and Westminster
Lincoln County									
Stroud	25	0015CST			0	0			Hail (0.75)
Pottawatomie County									
Mc Loud	25	0020CST			0	0			Hail (1.75)
Jefferson County									
Ringling	25	0030CST			0	0			Hail (0.88)
Cleveland County									
Norman	25	0032CST			0	0			Hail (0.75)
Cleveland County									
2 E Noble	25	0038CST			0	0			Hail (0.88)
Carter County									
4 N Healdton	25	0040CST			0	0			Hail (0.75)
Grady County									
4 NE Middleberg	25	0045CST			0	0			Hail (0.75)
Seminole County									
6 NW Seminole	25	0100CST			0	0			Hail (0.88)
Pottawatomie County									
Shawnee	25	0108CST			0	0			Hail (0.88)
Pottawatomie County									
Shawnee	25	0108CST			0	0			Hail (0.88)
McClain County									
2 W Purcell	25	0110CST			0	0			Hail (0.75)
Cleveland County									
2 S Lexington	25	0130CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

March 1997

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

Lincoln County

5 W Prague 25 0130CST 0 0 **Hail (0.75)**

Pottawatomie County

Earlsboro 25 0135CST 0 0 **Hail (0.88)**

OKZ006>007-014-017>018-025>026

Alfalfa - Grant - Roger Mills - Blaine - Kingfisher - Oklahoma - Lincoln
27 1730CST 0 0 **Summary Of March 27**
1830CST

Scattered severe thunderstorms moved across portions of central, west-central, and north-central Oklahoma during the late afternoon of March 27th. Severe tetrahedrons winds were measured at 62 mph by the Oklahoma Mesonet site southwest of Cheyenne in Roger Mills County, and severe wind damage occurred east of Heedlessly in Kingfisher County. Hail as large as quarters was reported in Chandler in Lincoln County. In a more unusual event, a small tornado, probably a landspout, occurred just northeast of Watonga in Blaine County. See individual Storm Data entries for further details and additional reports.

Oklahoma County

Se Oklahoma City 27 1733CST 0 0 **Hail (0.75)**

Roger Mills County

6 SW Cheyenne 27 1735CST 0 0 **Thunderstorm Wind (G54)**
measured at the Oklahoma Mesonet site

Oklahoma County

Choctaw 27 1744CST 0 0 **Hail (1.75)**

Grant County

4 WNW Medford 27 1755CST 0 0 **Hail (0.75)**

Alfalfa County

4 SW Cherokee 27 1810CST 0 0 **Hail (0.75)**

Lincoln County

Chandler 27 1817CST 0 0 **Hail (1.00)**
1821CST

Grant County

3 SW Renfrow 27 1830CST 0 0 **Hail (0.88)**

Kingfisher County

2 E Hennessey 27 1830CST 0 0 30K **Thunderstorm Wind**

Severe winds from a collapsing thunderstorm toppled a stationary tractor-trailer rig. Damage to the truck was estimated at \$30,000.

Blaine County

.5 NE Watonga 27 2355CST 0.1 10 0 0 0.55K **Tornado (F0)**

A brief tornado, probably a landspout, struck a barn just northeast of Watonga. Nearby witnesses described a white funnel that touched down for about 5 seconds and threw tin from the barn into the air. The barn lost its roof and two of its sides. A long piece of pipe that had been in the barn was thrown about a hundred feet and speared about 5 feet into the ground. Another piece of metal was blown through the roof and ceiling of a nearby house.

The landspout formed in a small, weak, unorganized thunderstorm. Nearby witnesses, including the residents of the damaged farm, described a blue sky and only a few sprinkles with the brief storm.

OKZ025>026-

031>033-038-040-042-

046

Oklahoma - Lincoln - Seminole - Hughes - Harmon - Comanche - Garvin - Pontotoc - Carter
29 1950CST 0 0 **Summary Of March 29**
2300CST

Evening severe thunderstorms over parts of southern and central Oklahoma produced strong and damaging winds and some large hail. Hail as large as quarters was reported east of Ada in Pontotoc County. Wind gusts estimated to be as high as 70 mph occurred southeast of Atwood in Hughes County and north of Schoolton in Seminole County.

Significant wind damage occurred in central Oklahoma in Lincoln and Oklahoma Counties. Damage across northern Oklahoma County from northwest Oklahoma City to Edmond was limited mainly to power lines, poles, trees, and signs that were downed. In Lincoln County damage reports were limited to a mobile home and a pontoon boat that were flipped over.

See individual Storm Data entries for further details and additional reports.

Storm Data and Unusual Weather Phenomena

March 1997

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

OKLAHOMA, Western, Central and Southeast

Harmon County

3 W Gould	29	1955CST			0	0	Thunderstorm Wind (G51)
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measured at the Oklahoma Mesonet site

Lincoln County

Prague	29	2000CST			0	0	Thunderstorm Wind (G56)
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An unoccupied mobile home was completely destroyed by severe thunderstorm winds estimated at 65 mph. Also, a pontoon boat was flipped over and several trees in the area were blown down.

Oklahoma County Edmond

Edmond	29	2000CST			0	0	Thunderstorm Wind (G52)
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A 10-foot plate glass window was blown out of a business in south Edmond.

Oklahoma County Oklahoma City

Oklahoma City	29	2000CST			0	0	Thunderstorm Wind (G52)
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Numerous power lines and poles were blown down in northwest Oklahoma City, with the heaviest damage between Portland and Rockwell on NW 164th Street. Trees were blown down across Waterloo Road at Western and just west of Portland. Signs were blown down at Britton and May and near the I-35 exit at Waterloo Road.

Comanche County 3 W Medicine Park

3 W Medicine Park	29	2035CST			0	0	Thunderstorm Wind (G50)
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measured at the Oklahoma Mesonet site

Comanche County 3 W Medicine Park

3 W Medicine Park	29	2040CST			0	0	Thunderstorm Wind (G52)
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measured at the Oklahoma Mesonet site

Comanche County 3 W Medicine Park

3 W Medicine Park	29	2105CST			0	0	Thunderstorm Wind (G50)
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measured at the Oklahoma Mesonet site

Lincoln County 4 WSW Meeker

4 WSW Meeker	29	2105CST			0	0	Thunderstorm Wind (G52)
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Carter County 8 SW Ardmore

8 SW Ardmore	29	2127CST			0	0	Hail (1.00)
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Seminole County 1 N Schoolton

1 N Schoolton	29	2130CST			0	0	Thunderstorm Wind (G61)
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Garvin County Stratford to 1 S Stratford

Stratford to 1 S Stratford	29	2200CST			0	0	Hail (0.88)
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Seminole County Konawa

Konawa	29	2215CST			0	0	Hail (0.75)
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Pontotoc County 8 E Ada

8 E Ada	29	2225CST			0	0	Hail (1.00)
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Hughes County 1 W Atwood

1 W Atwood	29	2230CST			0	0	Hail (0.88)
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Hughes County 2 SE Atwood

2 SE Atwood	29	2300CST			0	0	Hail (0.75)
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Hughes County 2 SE Atwood

2 SE Atwood	29	2300CST			0	0	Thunderstorm Wind (G61)
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Severe thunderstorm winds estimated at 60 to 70 mph downed tree limbs.

OREGON, Central and East

ORZ010

Eastern Columbia River Gorge	02	1000PST 1800PST			0	5	Heavy Snow
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A four car crash sent more than a dozen cars sliding into each other on highway 26. Five people were injured.

ORZ016>017

Lower Columbia Basin - Foothills Of The Blue Mountains	30	1300PST 1900PST			0	0	High Wind (G52)
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More than 1100 customers lost power when trees fell across lines. At least one business reported significant roof damage. Several street signs and trees blew down.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Character of Storm
					Killed	Injured	Property Crops	
OREGON, Northwest								
ORZ011		Northern Cascades						
	01	0000PST			0	0	0	Heavy Snow
	03	1200PST						
	The first storm of March brought very heavy snows to the northern Cascades. Three day storm totals included 28 inches at Mt. Hood Meadows, 27 inches at Bennett Pass, 25 inches at Timberline Lodge, Government Camp, and Tombstone Summit, 24 inches at Mt. Bachelor, and 22 inches at Santiam Pass.							
ORZ001		Northern Coast						
	01	1000PST			0	0	0	High Wind
		1600PST						
	March came in like a lion. A strong Pacific storm caused south winds that gusted to 78 mph at Netarts.							
ORZ011		Northern Cascades						
	03	1600PST			0	0	0	Heavy Snow
		2300PST						
	An additional 9 inches of new snow fell at Mt. Hood Meadows and Bennett Pass the evening of the third.							
ORZ004		Northern Willamette Valley Including Portland Metro Area						
	03	1600PST			0	0	0	Heavy Snow
		2300PST						
	Two inches of snow fell at Skyline Boulevard on the Sunset Highway in the West Hills of Portland.							
ORZ001		Northern Coast						
	03	1600PST			0	0	0	Heavy Snow
		2300PST						
	Four inches of new snow fell at Sunset Summit.							
ORZ011		Northern Cascades						
	06	2200PST			0	0	0	Heavy Snow
	07	1200PST						
	Another Pacific storm dumped 12 inches of new snow at Mt. Hood Meadows and 10 inches at Bennett Pass.							
ORZ011		Northern Cascades						
	09	1800PST			0	0	0	Heavy Snow
	10	1800PST						
	The next March storm brought 10 inches of new snow to Timberline Lodge, and 8 inches at Mt. Hood Meadows, Government Camp, and Bennett Pass.							
ORZ009		Western Columbia River Gorge						
	10	1200PST			0	0	0	Heavy Snow
	11	1800PST						
	Six inches of snow fell in Parkdale in the upper Hood River Valley.							
ORZ011		Northern Cascades						
	11	0900PST			0	0	0	Heavy Snow
	13	0400PST						
	Another storm dumped 12 inches of new snow at Mt. Hood Ski Bowl, 10 inches at Mt. Hood Meadows and Bennett Pass, and 9 inches at Timberline Lodge and Government Camp.							
ORZ009		Western Columbia River Gorge						
	14	1800PST			0	0	0	Heavy Snow
	15	1900PST						
	Five inches of new snow fell at Parkdale in the upper Hood River valley.							
ORZ001		Northern Coast						
	15	1310PST			0	0	0	High Wind
	Winds at Netarts gusted to 70 mph, Tillamook 67 mph, and Cannon Beach 65 mph.							
ORZ001		Northern Coast						
	17	1350PST			0	0	0	High Wind
	Winds at Cannon Beach gusted to 60 mph.							
ORZ001		Northern Coast						
	18	1810PST			0	0	10K	High Wind
		1915PST						
	Strong winds associated with a Pacific storm lashed the north coast in the early evening. At 610 PM winds gusted to 58 mph at Astoria airport, flipping over a small airplane on the ground. Trees in the Astoria area were also reported being blown down. At 7 PM winds gusted to 78 mph at Netarts and Cannon Beach, and 75 mph at Warrenton.							
ORZ001		Northern Coast						
	30	0900PST			0	0	0	High Wind
		1700PST						
	March went out like a lion. A strong Pacific storm brought high winds to the coast again. At 130 PM winds gusted to 62 mph at Netarts.							

Storm Data and Unusual Weather Phenomena

March 1997

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

ORZ006 Southern Willamette Valley Including Eugene
30 1000PST **1** **0** **1K** **High Wind**
1200PST
 At 1030 AM winds gusting to 45 mph and swell 3 to 4 feet capsized a boat on Fern Ridge reservoir. The sole occupant of the boat drowned, and his body was not recovered until April. Winds gusted to 60 mph at Veneta shortly after the boat capsized.
 M41IW

ORZ004 Northern Willamette Valley Including Portland Metro Area
30 1100PST **0** **0** **0** **High Wind**
1200PST
 Winds at Portland International Airport gusted to 58 mph at 1130 AM.

ORZ011 Northern Cascades
30 2000PST **0** **0** **0** **Heavy Snow**
31 0800PST
 The last storm of March dumped 7 inches of new snow at Mt. Hood Meadows and Bennett Pass.

OREGON, Southeast

NONE REPORTED.

OREGON, Southwest

NONE REPORTED.

PACIFIC

NOT RECEIVED.

PENNSYLVANIA, Central

PAZ017-019-050 Clearfield - Southern Centre - Snyder
01 0815EST **0** **0** **High Wind (G50)**
1000EST
 Wind gusts over 50 mph ripped shingles from houses, roofs off barns, and knocked trees and powerlines down in Boalsburg.

Somerset County Meyersdale
03 0619EST **0** **0** **Flash Flood**
1100EST
 Heavy rains caused a tributary of Castleman Creek to overflow its banks flooding a roadway near Meyersdale.

PAZ004>005 Warren - Mckean
06 0800EST **0** **0** **Heavy Snow**
2300EST
 Heavy lake effect snow produced up to 11 inches of snow at Columbus. Five to six inch amounts were common across western McKean and most of Warren County.

PAZ004>006-010>012-017>019-024>028-033-037-041>042-045>046-049 Warren - Mckean - Potter - Elk - Cameron - Northern Clinton - Clearfield - Northern Centre - Southern Centre - Cambria - Blair - Huntingdon - Mifflin - Juniata - Somerset - Tioga - Northern Lycoming - Sullivan - Southern Clinton - Southern Lycoming - Union
14 0800EST **0** **0** **Ice Storm**
2300EST
 1/4-inch of ice on top of 2 inches of snow and sleet brought trees and powerlines down. Thousands were without power for several hours.

Bedford County Langdondale
29 0955EST **0** **0** **Hail (0.75)**
 Dime size hail fell in the Langdondale and Riddlesburg areas.

Huntingdon County Dudley
29 1000EST **0** **0** **Hail (0.75)**
 Dime size hail fell in Dudley.

Lancaster County Peach Bottom
29 1420EST **0** **0** **Hail (0.75)**
 Thunderstorms with hail moved east across southern Lancaster County. Up to 3/4 inch hail was reported in Peach Bottom.

PAZ042-058-066 Sullivan - Schuylkill - Lancaster
31 1200EST **0** **0** **Heavy Snow**
2359EST

Storm Data and Unusual Weather Phenomena

March 1997

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

PENNSYLVANIA, Central

Schuylkill, Sullivan and Lancaster Counties were on the western border of a major east coast storm that was unusually severe for the time of year. Heavy snow was confined to eastern sections of the counties with up to 18 inches reported at Christiana in eastern Lancaster County, up to 10 inches across eastern Schuylkill County, and 6 inches to a foot across the higher elevations of Sullivan County. There were many accidents due to whiteouts and I-81 was closed for 5 hours east of Harrisburg. It was noteworthy that the border of the heavy snow was so sharp that western parts of the hard hit counties had little accumulation.

PENNSYLVANIA, East

PAZ054>055-060>062-067>071 **Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia**

01	0000EST				0	0			
02	1700EST								Unseasonably Warm

A persistent west to southwest flow of air throughout the Eastern United States brought unseasonably warm air into Eastern Pennsylvania from the afternoon of February 26th through March 2nd. The warmest day through this spring preview was February 27th as many new record high temperatures were set. A series of cold fronts, one early on February 28th and a stronger second one on March 2nd brought temperatures closer to seasonal levels. At the Philadelphia International Airport, the high of 74 degrees beat the previous record of 70 degrees for February 27th set in 1946. At the Lehigh Valley International Airport, the high temperature of 72 degrees thoroughly thrashed the previous record of 64 degrees set in 1976. Other high temperatures from February 27th around Eastern Pennsylvania included 76 degrees in Reading, 74 degrees in Doylestown (Bucks County) and Crum Creek (Delaware County), 73 degrees in Green Lane (Montgomery County) and Neshaminy Falls (Bucks County), 69 degrees in East Stroudsburg (Monroe County), 65 degrees in Jundale (Carbon County) and 64 degrees in Tobyhanna (Monroe County).

PAZ054-060>062-067>069 **Carbon - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks**

03	0900EST				0	0			
	2300EST								Snow

PAZ055

Monroe									
03	1200EST				0	0			
	2300EST								Heavy Snow

The run of unseasonably warm weather came to an abrupt end during the day on the 3rd as heavy snow fell over parts of the Poconos and lighter snow fell elsewhere. A strong cold front on the 2nd brought in a colder air mass into the Northeast the night of the 2nd and the morning of the 3rd. Meanwhile a low pressure system developed in Eastern Texas the morning of the 2nd. It moved into the Tennessee Valley the morning of the 3rd before it jumped and redeveloped along the Middle Atlantic Coast near Norfolk the evening of the 3rd. It quickly moved out to sea overnight.

Snow began falling around noon on the 3rd and was over by midnight. In the southeast part of the state, precipitation type was partially intensity driven. When it became lighter, it mixed with or changed to sleet and rain. During heavier bursts precipitation went back to all snow. The recent warm weather caused considerably less snow to accumulate on roadways. The heaviest snow fell during the afternoon hours. Accumulations across much of the area averaged between 2.5 and 5 inches, with some higher amounts in Monroe County. The lightest accumulations, an inch or less, fell across extreme Lower Bucks, Delaware and Philadelphia Counties. The afternoon heavy snow burst did contribute to numerous accidents in the Northwest Philadelphia Suburbs. The most serious accident occurred in Middletown Township (Bucks County) when a minivan rammed into a utility pole and critically injured its driver.

Snowfall accumulations included 6 inches in Saylorsburg (Monroe County), 5 inches in Green Lane (Montgomery County), Long Pond (Monroe County) and Perkasio (Bucks County), 4 inches in Reading (Berks County), the Lehigh Valley International Airport, Glenmoore (Chester County) and Lehigh Valley International Airport, 3 inches in Doylestown (Bucks County) and Coatesville (Chester County) and 2 inches in Valley Forge (Montgomery County) and Hamburg (Berks County). Only 0.5 inches of snow accumulated at the Philadelphia International Airport.

PAZ054>055-060-067-070 **Carbon - Monroe - Berks - Chester - Delaware**

06	0500EST				0	0			
	1700EST						0		Wind

PAZ061>062-068>069-071 **Lehigh - Northampton - Montgomery - Bucks - Philadelphia**

06	0500EST				1	0			
	1700EST						0		High Wind (G59)

M81UT
A rapidly intensifying low pressure system and the pressure difference between it and a high pressure system over the Upper Plains caused strong to locally damaging winds in Eastern Pennsylvania and one fatality. An 81-year-old male was killed shortly after noon on the 6th in Upper Merion Township in Montgomery County when a large limb from a tree fell on him. He was cleaning up other limbs from the same tree.

The surface low pressure system went from a pressure of 1012 millibars in Western Kentucky the morning of the 5th to a pressure of 986 millibars just east of Boston the morning of the 6th. The drop of 26 millibars or .78 inches of mercury within a 24 hour

Storm Data and Unusual Weather Phenomena

March 1997

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

PENNSYLVANIA, East

period constitutes what's called a meteorological bomb. The rapid intensification of this storm helped cause the very strong winds. The strongest wind gusts for most places coincided with this low pressure system's cold frontal passage during the early morning of the 6th. But winds remained very strong until the sun set that afternoon.

About 28,000 homes lost power in the Pennsylvania Power and Light service area, half of them in the Lehigh Valley and Poconos. Fallen tree limbs were the main culprit. By late afternoon, most of the service was restored. In Lower Macungie Township, a third of a barn roof was blown off. In Upper Saucon Township, a fallen utility pole caused the evacuation of two families. In Allentown, fallen trees (including a 125-year-old elm) closed five roads. In Bethlehem, dozens of trees were uprooted. Also, the west wall of a building under construction was blown over.

Around the Philadelphia area about 60,000 Philadelphia Electric Company (PECO) customers lost power with Bucks County having the most outages. The hardest hit areas within Bucks County included Bedminster, Bristol, Langhorne, Middletown, Newton and Warminster. In Doylestown, a family narrowly escaped injury after a huge tree branch came crashing through their roof and crushed the bathroom. In Plumstead Township, the winds ripped the tin roof from a barn. In Montgomery County, some terra-cotta tiles were ripped from the roof of a Beaver College building. In Philadelphia, one uprooted tree crushed an automobile. A few roadways throughout the Philadelphia Metropolitan area were closed because of downed trees. SEPTA, the regional rail line, experienced day long delays of up to 30 minutes due to downed branches.

The highest wind gusts recorded including 68 mph at a PECO Energy site in Bucks County, 62 mph in Towamencin Township (Montgomery County), 58 mph at the Northeast Philadelphia Airport, 55 mph at the Willow Grove NAS, 52 mph at the Lehigh Valley International Airport and Reading and 51 mph at the Philadelphia International Airport. M81UT

PAZ054>055-060>062-068>069 Carbon - Monroe - Berks - Lehigh - Northampton - Montgomery - Bucks

14	0200EST 1500EST	0	0	Wintry Mix
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A low pressure system that developed over the southern Rockies the afternoon of the 12th and a high pressure system over nearby Canada that kept a wedge of cold air in place over Eastern Pennsylvania helped produce a wintry mix of precipitation across the area on the 14th. The low pressure system was in Ohio the morning of the 14th. A second low formed along its associated warm front over the Delmarva Peninsula during the day on the 14th and slowed the progression of warmer air into northern Pennsylvania. By the morning of the 15th, the secondary low was over the Atlantic to the southeast of Cape Cod. Precipitation started as snow across the area prior to dawn on the 14th. It changed quickly to freezing rain and sleet in the northwest Philadelphia suburbs and the Lehigh Valley by dawn. Accumulations were less than an inch. The change to sleet and freezing rain took longer over the Poconos where accumulations averaged two to three inches prior to the change over. Warmer air slowly moved northwest and eventually scoured enough of the cold air to end the freezing rain across the northwest Philadelphia Suburbs and Berks County by 9 a.m. EST, the Lehigh Valley by 11 a.m. EST and the Poconos by 3 p.m. EST. Untreated roadways were treacherous. Indirect insolation from the March sun and temperatures near the freezing mark prevented significant accumulations of ice prior to the change to plain rain.

PAZ054>055-060>062-067>071 Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

31	0700EST 2359EST	0	0	Heavy Snow
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PAZ054>055-060>062-067>071 Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

31	0800EST 2359EST	0	0	Wind
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A late season snowstorm dropped some of the heaviest snow of all winter across Eastern Pennsylvania from the morning of March 31st into the morning of April 1st. The low pressure system responsible for this looked rather innocuous on March 30th as it moved with its associated cold front through the Midwest. Temperatures that day (Easter Sunday) warmed into the 50s and 60s across the area. But as the low intensified off the New Jersey Coast on the 31st, it pulled down colder air. The heavy precipitation it created also cooled the atmosphere and changed the rain over to snow. The rain changed to snow close to dawn across the Poconos. The changeover progressed southeast reaching the Lehigh Valley around 9 a.m. EST and Philadelphia close to noon EST. Bands of heavier snow moved through the Middle Atlantic States and caused wide variations in accumulations that were both location (underneath these bands) and elevation dependent.

The Poconos and Western Chester County were hit the hardest. The combination of the heavy wet snow and strong gusty winds pulled down trees and power lines and caused blowing and drifting of the snow. It also caused major traffic accidents. The State of Pennsylvania declared a disaster emergency in Carbon, Chester and Monroe Counties. Interstates 80 and 380 were closed for up to 20 hours on March 31st and April 1st. The National Guard sent humvees into the area to rescue stranded motorists. In Monroe County, about 1,300 motorists spent the night of March 31st in shelters after traffic accidents and heavy snow forced the closure of Interstates 80 and 380. While the rain changed to snow early in the day, the problems started with the heavier snow during the afternoon. Over 250 accidents occurred. Near white-out conditions were reported between 8 p.m. EST on the 31st and 230 a.m. EST on the 1st. It was estimated nearly 3,000 vehicles were stuck on roadways. The heavy wet snow and strong winds

Storm Data and Unusual Weather Phenomena

March 1997

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

PENNSYLVANIA, East

also knocked down trees and power lines cutting off power to about 5,000 homes in the Poconos. Accumulations included 23 inches in Mount Pocono, 18 inches in Blakeslee, 17 inches in Long Pond and 9 inches in Lehigh. No serious injuries were reported.

In Chester County, over 300 persons took shelter overnight in a firehouse under construction in the western part of the county. The heavy snow contributed to two traffic fatalities within the county. At 1230 p.m. EST an 18-year-old woman passenger was killed in East Nottingham when the vehicle she was in skidded and struck a pole. At 6 p.m. EST a 45-year-old male was killed in West Whiteland Township when his vehicle was struck by a delivery truck. In all, the county reported about 300 traffic accidents and nearly the same number of downed trees, wires, traffic lights and abandoned cars. Dozens of vehicles were abandoned between East Nottingham and Avondale. Fifteen tractor trailers were disabled on Pennsylvania State Route 41 alone. All or parts of Pennsylvania State Routes 10 and 41 and U.S. Routes 30 and 202 were closed in the county. The Philadelphia Electric Company (PECO) estimated 15,000 homes lost power in the county. Accumulations included 11 inches in Coatesville, 9 inches in Downingtown and 4 inches in Honey Brook.

This storm featured bands of heavier snow. No place was this more apparent than in Berks County where accumulations ranged from a trace in western parts of the county to 10 inches in eastern parts of the county in Greenwich, Ruscombmanor and Union Townships. Interstate 78 was closed overnight between exits 12 (Greenwich Township) and 13 (New Smithville in Lehigh County) because of accidents and blowing snow. The eastbound lanes were backed up for 10 miles. The Pennsylvania Office of Emergency Management dispatched the Red Cross to help stranded motorists with food and drinks between exits 8 and 14 on Interstate 78. The Berks County Communication Center responded to over 50 serious accidents throughout the county between 3 and 9 p.m. EST. The most serious one (4 injuries) was a jackknifed tractor trailer that was rammed by a car and then a moving van on Interstate 78 in Windsor Township. GPU reported 2,500 homes lost power in the county, nearly all in Muhlenberg Township after a large tree came crashing down. In addition to Interstate 78, numerous accidents and road closures occurred on Pennsylvania State Routes 401, 422, 568 and 625.

In the Lehigh Valley, northern parts of Northampton County were hit the hardest. The most problems were reported in Bushkill and Moore Townships. Accidents and/or downed trees shut down sections of Pennsylvania State Routes 33, 191, 248, 512 and 611. Forty motorists were stranded on Airport Road, their vehicles were unable to get up the hill just south of Pennsylvania State Route 329. At the Lehigh Valley International Airport, 4.4 inches of snow accumulated.

Elsewhere around the Philadelphia Metropolitan Area, rush hour was called a nightmare in Bucks County. The southbound side of Interstate 95 was shut down for an hour because of a multi-vehicle accident. Pennsylvania State Route 412 was also closed because of accidents. In Montgomery County, numerous accidents were reported in Upper Pottsgrove, Worcester, Lower Pottsgrove and Lower Providence Townships. In addition, 11,000 PECO homes lost power. About 65,000 homes and businesses throughout the Greater Philadelphia Metropolitan Area lost power because of the combination of the heavy wet snow and strong winds. Within Philadelphia, there were over 200 trees that were damaged because of this combination. Accumulations included 12 inches in Furlong, 11 inches in Sellersville and Palm, 10 inches in Green Lane, 9 inches in Neshaminy Falls, 8 inches in Pottstown and Perkasiel, 5 inches in Levittown, 3.9 inches at the Philadelphia International Airport and 3 inches at Valley Forge.

While the snow was over by daybreak on April 1st, strong gusty winds persisted throughout the daylight hours hampering utility and road crew work. The strongest wind gusts averaged around 45 mph throughout the region.

PENNSYLVANIA, Northeast

PAZ040-048

Wayne - Pike

06 0500EST

0

1

High Wind

1500EST

Strong winds associated with a deep storm system just north of Lake Ontario brought down many trees, large branches, and power lines across sections of the Poconos. Wind gusts of 50 to 60 mph were common across the region during the early and mid morning hours especially. At one point during the late morning, as many as 10,000 customers were without power. Also, in Pike county in the town of Milford, a woman sustained minor injuries as she was struck by a falling tree branch.

Storm Data and Unusual Weather Phenomena

March 1997

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, Northeast

**PAZ039>040-043>044-
047>048** **Susquehanna - Wayne - Wyoming - Lackawanna - Luzerne - Pike**

31	0400EST				0	0			Heavy Snow
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A slow moving low pressure system exited the New Jersey coast during the pre-dawn hours of the 31st and intensified into a powerful system during the day just south of Long Island. Significant Atlantic moisture was thrown inland over northeastern Pennsylvania. This moisture combined with colder air moving south into the region to bring heavy snow.

Rain changed to snow early in the morning on the 31st. Snow quickly became heavy by mid to late morning. Blinding, heavy wet snow belted the Poconos from midday on the 31st into the early morning hours of April 1st. The wet nature of the snow and strong accompanying winds brought down many trees and caused widespread power outages, especially over the highest elevations. State police and emergency management officials reported that hundreds of motorists had to be rescued and placed in Red Cross shelters or other accommodations on the night of the 31st. The Pennsylvania turnpike and interstates 81 and 84 were among the many roadways that became impassable and were closed by late in the day on the 31st. States of emergency were declared in Pike and Wayne counties.

By the time snow finally began to wind down after midnight on April 1st, a general 12 to 30 inches had fallen from the Wilkes-Barre Scranton area eastward through the Poconos. The hardest hit areas were eastern Lackawanna, Pike, and Wayne counties. Hamlin and Gouldsboro in southern Wayne county picked up 30 inches of snow while Lords Valley in Pike county got 24 inches. Significant 6 to 12 inch accumulations extended as far back westward as hilltop sections of Wyoming and Susquehanna counties.

PENNSYLVANIA, Northwest

PAZ001>003 **Northern Erie - Southern Erie - Crawford**

06	0100EST				0	0			Heavy Snow
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Heavy snow fell, with accumulations of six to 12 inches. Total storm accumulations were 12 inches in Union City (Erie County), 10 inches in Amity Township (Erie), 9 inches in Corry and Waterford (Erie), 8 inches in Cambridge Springs (Crawford County) and 8 inches in the city of Erie (Erie).

PAZ001>003 **Northern Erie - Southern Erie - Crawford**

06	1700EST				0	0			Heavy Snow
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Heavy lake effect snow fell, with accumulations of six to ten inches. A maximum amount of 10 inches was reported in Amity Township in Erie County. Also in Erie County, Union City and Corry each reported seven inches. In Crawford County, Cambridge Springs and Riceville both received six inches.

Storm Data and Unusual Weather Phenomena

March 1997

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, Northwest

Erie County

Presque Isle

	14	2300EST			0	0	100K		Storm Surge
	15	0900EST							

Southwest to west gale force winds up to 40 knots, combined with recent high water levels on Lake Erie and waves of six to nine feet, forced the park to close Friday night through Saturday afternoon. Roads were flooded, tons of debris were washed up on the beaches, and considerable erosion of beaches occurred. A peak wind of 49 miles per hour was reported on Friday and trees and branches were downed. Ice dunes that normally protect the shoreline had already melted.

PENNSYLVANIA, West

Greene County

Kirby

	02	0245EST			0	0	10K		Flash Flood
		1100EST							

Whitley Creek flooded near Kirby and the flood waters covered parts of Route 19. Hoovers Run Road near Brave was flooded when Hoovers Run went out of its banks. Stewart Run near Oak Forest went out of its banks. Some basements were flooded. Numerous roads were closed in the western part of the county and a few evacuations were ordered.

Fayette County

Connellsville

	02	0500EST			0	0	10K		Flash Flood
		0800EST							

A few basements were flooded across the county after widespread 1 to 1.50 inches of rain fell.

PAZ021-029>030

Allegheny - Washington - Westmoreland

	02	2100EST			0	0			Flood
	03	0800EST							

After widespread heavy rainfall in the lower and upper basins of the Monongahela River, the river level crested just above flood stage at Lock 4 Charleroi and further downstream at Lock 3 Elizabeth. No damage occurred.

The river first went into flood at Lock 4 Charleroi. The river crested there at 20.8 feet, 0.8 feet above its 28 foot flood stage, early on the morning of the 3rd and had fallen below flood stage by 7 am.

Lock 3 Elizabeth crested at 20.4 feet, just 0.4 feet above its 20 foot flood stage. The river fell below flood stage at Elizabeth around 8 am.

PAZ030

Westmoreland

	06	0600EST			0	0	5K		High Wind
		0700EST							

Strong, gusty, west to northwest winds behind an intense cold front, downed a couple of wires and some trees across the county between 6 and 7 am.

PAZ008>009-015>016

Venango - Forest - Clarion - Jefferson

	14	0000EST			0	0	20K		Ice Storm
		1200EST							

A storm system moved from southern Indiana into Michigan by late morning. With cold air in place across northwest and central Pennsylvania, freezing rain accumulated to between 0.25 and 0.50 inches. Numerous trees and branches were also downed throughout the counties.

PUERTO RICO

Bayamon

Bayamon

	18	1515AST			0	0			Urban/Sml Stream Fld
		1715AST							

Civil Defense reported heavy rain and street flooding in Bayamon.

Culebra

Culebra

	24	1125AST			0	0			Waterspout
		1140AST							

A pilot reported a waterspout 2 miles northwest of Culebra.

Arecibo

Adjuntas

	27	1430AST			0	0			Heavy Rain
		1830AST							

Civil Defense and Police reported heavy rains.

RHODE ISLAND

RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

	06	0800EST			0	0			Strong Winds
		1800EST							

Storm Data and Unusual Weather Phenomena

March 1997

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

RHODE ISLAND

RIZ002-007

Southeast Providence - Newport

06	1200EST 1800EST				0	0			High Wind (G54)
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High winds, with gusts reaching 50 to 62 mph from the west and northwest, occurred across the state in the wake of strong low pressure that passed through New England and into the Gulf of Maine. Wind speeds increased dramatically around mid-morning and the strongest winds occurred during the afternoon.

Buildings and vehicles were damaged by falling trees and tree limbs in many communities throughout the state. In Burrillville and Glocester, houses were damaged by falling trees and in Chepachet, a parked car was set afire by a falling power line. Part of a roof was blown off a school in Providence. Up to 11,800 electric customers were without power during the afternoon, but only a couple of thousand remained without power by early evening. A peak gust to 62 mph was reported from downtown Providence around mid-afternoon. Some peak gusts reported around the state included: Little Compton, 58 mph; Coventry, 57 mph; Block Island, 55 mph; and Woonsocket, 52 mph.

RIZ002>007

Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

26	0000EST 1000EST				0	0			Strong Winds
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A strong south to southwest wind flow ahead of an approaching cold front brought sustained winds of 30 to 40 mph with gusts to 50 to 60 mph along coastal sections and as far north as Providence in the eastern portion of the state. Some peak wind gusts included: Newport, 55 mph; downtown Providence, 53 mph; and Cranston and West Warwick, both 51 mph. There were no reports of damage.

RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

31	1400EST 2359EST				0	0			Heavy Snow
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RIZ001>007

Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

31	1500EST 2359EST				0	0			Strong Winds
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RIZ007

Newport

31	1800EST 2100EST				0	0			High Wind (G61)
----	--------------------	--	--	--	---	---	--	--	------------------------

A low pressure system formed off the New Jersey coast during the early morning hours and intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island by early evening. Pressure falls of 14 millibars occurred during a 12 hour period. The system then retreated to the south during the evening.

Precipitation began occurring from south to north across the state during the morning and began mixing and changing to heavy, wet snow in the northwest portion of the state by late morning and during the afternoon. Over the remainder of the state, rain became mixed with snow during the afternoon and had changed to all snow over most of the state, with the exception of the south coast, by midnight.

Increasing northeast winds during the afternoon became strong to gale force with gusts to 30 to 40 mph inland and up to 60 to 70 mph along the south coast. A peak gust to 71 mph from the northeast was recorded at Little Compton during the early evening. The strongest winds with this storm occurred during the late afternoon to early evening, during the time of lowest barometric pressure.

The weight of the heavy, wet snow began knocking down tree limbs and power lines and widespread power outages began occurring during the late afternoon and evening across much of the state, except the area from Providence south and southwestward where there were only scattered outages. Highway travel was just about impossible during the evening due to the prevailing blizzard conditions. Snowfall totals by midnight exceeded one foot in northern Rhode Island, with 15 inches at North Foster and 14 inches at Woonsocket.

A complete report of this storm will be included in April 1997 Storm Data.

SOUTH CAROLINA, Central

Fairfield County

7 WNW Winnsboro

26	0437EST				0	0			Thunderstorm Wind (G50)
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A severe thunderstorm took down large tree branches and powerlines in Lebanon.

SOUTH CAROLINA, North Coastal

Georgetown County

Carvers Bay

08 14	0000EST 0000EST				0	0			Wild/Forest Fire
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Storm Data and Unusual Weather Phenomena

March 1997

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 CAROLINA, North Coastal

Dry, windy conditions resulted in a wildfire which destroyed more than 4,000 acres.

SOUTH CAROLINA, Northwest

Oconee County

Seneca to Walhalla	05	1845EST 1900EST			0	0			Thunderstorm Wind (G50)
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Greenwood County

Callison	05	2000EST 2010EST			0	0			Thunderstorm Wind (G50)
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Trees and power lines were blown down.

Pickens County

Liberty	29	0431EST 0441EST			0	0			Hail (0.75)
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Greenville County

Greenville	29	0439EST 0449EST			0	0			Hail (0.75)
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Greenville County

2 E Piedmont	29	0444EST 0454EST			0	0			Hail (0.75)
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Anderson County

Near Williamston	29	0450EST 0455EST			0	0	10K		Thunderstorm Wind (G50)
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Greenville County

1 W Fountain Inn	29	0458EST 0508EST			0	0			Hail (1.75)
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Laurens County

Gray Court	29	0505EST 0515EST			0	0			Hail (1.00)
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Union County

Jonesville	29	0520EST			0	0			Hail (1.00)
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Early morning severe thunderstorms caused mostly large hail and spotty wind damage. Several buildings and sheds were damaged at a farm near Williamston by downburst winds. Large hail also fell in the Simpsonville area but size and time of occurrence was not reported.

SCZ009

York

31	1000EST 1800EST			0	0			Gusty Winds
----	--------------------	--	--	---	---	--	--	-------------

Frequent wind gusts to over 40 mph combining with wet ground conditions caused a number of trees and power lines to fall. Power was out to several thousand customers in and around Rock Hill. The wind did not reach normal "high wind" criteria though.

SOUTH CAROLINA, South Coastal

Charleston County

Sullivans Is	14	0500EST 0505EST	0.1	30	0	0	30K		Tornado (F1)
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WATERSPOUT MOVED ONSHORE AND CAUSED MINOR DAMAGE TO A HOME.

Charleston County

Awendaw	14	0515EST 0520EST	0.2	30	0	0	75K		Tornado (F1)
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TORNADO CAUSED MODERATE DAMAGE TO A HOME AND MINOR DAMAGE TO TWO TRAILERS.

SOUTH DAKOTA, Central and North

SDZ005>008-010>011-017>023-034>037 Mcpherson - Brown - Marshall - Roberts - Edmunds - Day - Faulk - Spink - Clark - Codington - Grant - Hamlin - Deuel - Sully - Hughes - Hyde - Hand

03	1100CST			0	0			Winter Storm
04	1600CST							

Two to five inches of snow fell across northeast and part of central South Dakota. This new snowfall combined with the already deep and expansive snowpack and winds of 20 to 40 mph brought widespread blowing and drifting snow. Visibilities were reduced to near zero at times making travel treacherous and many roads were blocked by snowdrifts. Several roads were closed. Several vehicles became stuck and had to be pulled out. Many area schools were closed once again. Some snowfall amounts included, 4 inches at Clear Lake, Britton, Waubay, and Wilmot, 5 inches at Onida, Blunt, Highmore, Miller, and Milbank.

Storm Data and Unusual Weather Phenomena

March 1997

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

SOUTH DAKOTA, Central and North

SDZ003>011-015>023 Corson - Campbell - Mcpherson - Brown - Marshall - Roberts - Walworth - Edmunds - Day - Dewey - Potter - Faulk - Spink - Clark - Codington - Grant - Hamlin - Deuel

12	1800CST				0	0			Winter Storm
14	1000CST								

A winter storm began with widespread freezing drizzle creating icy roadways and walkways before changing over to snow. Before the snow was over, 2 to 8 inches had fallen on an already expansive and deep snowpack. The winds came up to 20 to 40 mph resulting in widespread blowing and drifting snow. Visibilities were reduced to near zero at times making travel treacherous. Many roads again became blocked by snowdrifts and several were closed. Many area schools were again canceled making for some up to 18 days missed for the winter season. Some people were stranded to wait out the storm. Some airport flights were canceled. The icy roads and low visibilities resulted in several vehicle mishaps. There was a rollover accident west of Mobridge in the early afternoon of the 13th with minor injuries. A van overturned 7 miles west of Webster. Also, on Interstate-29 there were several rollover accidents including vehicles sliding off of the road. Some snowfall amounts included, 4 inches at Timber Lake, Mobridge, Eureka, Leola, Britton, and Clark, 5 inches at Leola, 6 inches at Waubay and Summit, and 8 inches at Pollock.

SDZ020 Codington

17	0900CST				0	0			Strong Winds
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 Strong winds ripped a large office trailer off its frame and axle 7 miles south of Watertown on Interstate-29.

SDZ015 Dewey

21	0200CST				0	0			Flood
26	0700CST								

The near record to record snowpack of the winter of 1996-97 meltdown resulted in high runoff into the Moreau River through Dewey county and many ice jams. High runoff and ice jams resulted in a record stage on the Moreau River on March 21st of 27.4 feet at the river gage two miles southeast of Whitehorse. Flood stage here is 21 feet. Many roads, pasture, and farmland were flooded interrupting transportation and stranding some livestock.

SDZ003>011-015>023-033>037-045-048-051 Corson - Campbell - Mcpherson - Brown - Marshall - Roberts - Walworth - Edmunds - Day - Dewey - Potter - Faulk - Spink - Clark - Codington - Grant - Hamlin - Deuel - Stanley - Sully - Hughes - Hyde - Hand - Jones - Lyman - Buffalo

21	0200CST				0	0			Flood
31	2359CST								

As temperatures began to warm up towards the end of March, the near record to record winter snowpack over central, north central and northeast South Dakota began to melt and runoff, filling up ditches, lakes, creeks, streams, and low-lying areas. The massive amount of water, inundated hundreds of sections of county and township roads as well as several state and federal highways. The inundated sections of roads were either broken up or washed out. Tens of culverts were blown out or damaged and several bridges were either damaged or washed out by chunks of ice and the highwater flow. Thus, road closures were extensive with rerouting taking place for school buses, mail carriers, farmers, ranchers, etc.. Many spillways and dams received some damage or were washed out. Also, thousands of acres of farmland and pastureland were underwater.

Due to the high groundwater, a countless number of homes received water in their basements. A few towns were partially flooded, including Twin Brooks in Grant County, Corona in Roberts County, and Raymond in Clark County. On March 27th, in the early morning hours, water flowed into Raymond filling the basements of several homes. In rural areas, several farms were surrounded by water and were inaccessible, leaving some people stranded and livestock marooned. Many other residences and businesses, mainly across northeast South Dakota, were threatened by highwater while others received significant damage or were a total loss. As a result, several people had to be evacuated. Many long-term residents said this was the most significant flooding they had seen in their lifetimes. The flooding continued into early to mid April.

SDZ033-045 Stanley - Jones

21	1900CST				0	0			Flood
24	1100CST								

Snowmelt runoff and ice jams had caused the Bad River to go above flood stage the evening of the 21st and crest at 22.1 feet on the 22nd. Flood stage 2 miles south of Ft. Pierre is 21 feet. Mainly low pastureland flooding occurred as well as a few roads flooded.

SDZ003 Corson

23	0400CST				0	0			Flood
25	0800CST								

Snowmelt runoff and ice jams forced the Grand River through Corson County over flood stage in the early morning hours of the 23rd. The Grand River 1 mile south of Little Eagle rose to 17.3 feet on March 24th. Flood stage is 15 feet. Flooding of lowlands and some roads resulted. The Grand River again went above flood stage from March 28th to the 29th and rose to 16.2 feet.

SDZ006 Brown

25	1700CST				0	0			Flood
31	2359CST								

Snowmelt runoff and ice jamming caused the Elm River to go above flood stage in the early evening of March 25th. The Elm River at Westport rose to 21.5 feet on March 30th. Flood stage at Westport is 14 feet. Most of the town of Westport was flooded and most people were evacuated. Four out of forty families stayed in their homes. Almost every home in Westport received major

Storm Data and Unusual Weather Phenomena

March 1997

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

SOUTH DAKOTA, Central and North

damage. This was the worst flooding at Westport since 1969. Also, three residences in Ordway were evacuated. At both Westport and Ordway, extensive sandbagging was done to no avail. Flooding on the Elm River continued into early April.

SDZ003

Corson

26	0800CST				0	0			Flood
29	1000CST								

Due to rapid snowmelt runoff and ice jamming, Oak Creek rose over its banks and a levee in the early morning hours of March 26th, flooding Wakpala. Oak creek rose over 5 feet in 12 hours and was the worst flooding since 1961. Over 100 people were evacuated from their homes for one to two weeks and had to be put in shelters. The school was flooded and heavily damaged. Some of the homes in Wakpala were a total loss.

SDZ018

Spink

26	1200CST				0	0			Flood
31	2359CST								

Record flooding occurred on Turtle Creek as snowmelt runoff and ice jamming caused Turtle Creek to go above flood stage around noon on the 26th with a record crest of 18.1 feet on March 30th. Flood stage of Turtle Creek at Redfield is 7 feet. Sixteen homes were evacuated in Redfield in the subdivisions of Vinegar Flats and Behula Park, including homes around Redfield Lake. Several of the homes, especially in Vinegar Flats, were flooded and damaged. Extensive sandbagging was done to save several homes. Flooding on Turtle creek continued into April.

SDZ006-018

Brown - Spink

27	0700CST				0	0			Flood
31	2359CST								

Runoff from the near record to record snowpack and ice jamming caused the James River to go above flood stage in northern Brown County the morning of the 27th. The James River continued to go above flood stage at all locations through Brown and Spink counties by the end of the month. Flood stage 1 mile west of Columbia is 11 feet, 1 mile south of Columbia is 13 feet, 7 miles southwest of Stratford is 14 feet, Ashton is 13 feet, and 3 miles northeast of Redfield flood stage is 20 feet. The river rose from 6 to 13 feet above flood stage and surpassed record stages at most of these points by the end of March and would eventually set record stages at all the points in April.

The James River widened to nearly three quarters of a mile in some locations. Numerous county and townships roads were flooded and closed. Thousands of acres of farmland and pastureland were inundated by the rising river. Several farm houses and outbuildings were surrounded by water and were inaccessible. Some evacuations took place as result of the rising river, especially in Spink County.

SDZ035

Hughes

27	0800CST				0	0			Flood
29	1400CST								

Rapid snowmelt runoff and ice jamming resulted in significant flooding on Medicine Creek through Blunt. A dozen residences were flooded as a result. Also, some roads were underwater and closed.

SDZ006

Brown

29	1200CST				0	0			Flood
30	1500CST								

Snowmelt runoff and ice jamming caused the Maple River in northern Brown County to go above the 100 year flood elevation at Frederick. As a result, about half of the homes in Frederick were flooded and damaged. Also, several roads were flooded.

SDZ006

Brown

30	0130CST				0	0			Flood
31	2359CST								

Backwater from flooding on the Elm River and snowmelt runoff forced the Mocassin Creek to flood a portion of the Prariewood housing subdivision north of Aberdeen and part of the golf course. Several homes were flooded and received significant damage. The Mocassin Creek rose nearly four feet through the city of Aberdeen flooding some low lying areas, a few buildings, and parts of a recreation trail. Sandbagging and diking was done to hold off the rising creek. The Mocassin Creek remained high into early April with continued flooding.

SOUTH DAKOTA, Southeast

SDZ038>040-050-052>071

Beadle - Kingsbury - Brookings - Gregory - Jerauld - Sanborn - Miner - Lake - Moody - Brule - Aurora - Davison - Hanson - Mccook - Minnehaha - Charles Mix - Douglas - Hutchinson - Turner - Lincoln - Bon Homme - Yankton - Clay - Union

12	0700CST				0	0			Flood
31	2359CST								

Widespread snowmelt flooding began around the middle of March and continued through the end of the month. Record flooding occurred on the James River. Flooding also occurred on the Vermillion and Big Sioux Rivers and on smaller rivers and streams. Widespread flooding of farmland and other lowlands occurred, both near and away from the main river basins. Lake flooding also occurred from runoff into already full lakes. Many roads, farm buildings, and some homes and businesses were flooded. Many basements were flooded just from groundwater seepage. Communities which suffered significant flooding included Davis, Spencer, Dell Rapids, Baltic, and Renner. Travel was severely hampered by flooded roads in some areas. Farmland flooding was

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, Central									
			Local law enforcement reported many trees blown down.						
Decatur County									
Sugar Tree	01	0410CST			0	0			Thunderstorm Wind (G50)
			Local law enforcement reported a few trees blown down.						
Humphreys County									
Waverly	01	0415CST			0	0			Hail (0.88)
			Local law enforcement reported nickel size hail.						
Sumner County									
Westmoreland	01	0420CST			0	0	50K		Thunderstorm Wind
			Mobile home was damaged. A roof was blown off a home. The report was by local law enforcement.						
Macon County									
Northern Sections	01	0445CST			0	0			Thunderstorm Wind (G50)
			A few trees were blown down.						
Robertson County									
Orlinda	01	0545CST			0	0			Thunderstorm Wind (G50)
			Trees over power lines.						
Robertson County									
Cross Plains	01	0545CST			0	0			Thunderstorm Wind (G50)
			Trees were over power lines.						
Benton County									
Camden	01	0630CST 0745CST			0	0			Flash Flood
			Water over road on HWY 69 north.						
Benton County									
Big Sandy	01	0630CST			0	0			Flash Flood
			Water over road along HWY 69 north.						
Dickson County									
Dickson	01	0630CST 0815CST			0	0			Flash Flood
			Water over road.						
Cheatham County									
Countywide	01	0640CST 0915CST			0	0			Flash Flood
			Mud and rock slides due to flooding along HWY 49 near Petway. One to 2 feet of water on roads across the county. There was flooding along Highway 12 and Dry Creek in Ashland City. People had to be evacuated in Ashland City.						
Robertson County									
10 SW Springfield	01	0645CST 0915CST			0	0			Flash Flood
			There was water over HWY 49.						
Sumner County									
Countywide	01	0649CST 1000CST			0	0	50K		Flash Flood
			Flash flooding was occurring across the county. Areas that had the most trouble were Lower Station Camp Road in Cottontown along Highway 25, also along E.B. Wade Road and finally along Butler Mill Road, which is about 10 miles north of Gallatin.						
			Several mobile homes were destroyed by flooding near Gallatin.						
			The Portland Water Treatment Plant measured 7.32 inches of rain from shortly after midnight on Sunday, March 1 to 8 AM Monday, March 3. This was the worst flooding since 1973.						
Decatur County									
Countywide	01	0700CST 0815CST			0	0			Flash Flood
			Widespread flooding and water across the roads around the county.						
Perry County									
10 SW Linden	01	0710CST			0	0			Hail (0.75)
			Dime size hail reported by local law enforcement.						
Perry County									
Linden	01	0720CST			0	0			Hail (0.75)
			Dime size hail reported by local law enforcement.						

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
TENNESSEE, Central							
Perry County							
Linden	01	0750CST			0	0	Hail (0.75)
		Dime size hail reported.					
Hickman County							
Centerville	01	0750CST			0	0	Hail (0.88)
		Nickel size hail reported.					
Williamson County							
5 SW Franklin	01	0835CST			0	0	10K Thunderstorm Wind
		Local law enforcement reported a home damaged and a tree blown down.					
Stewart County							
Countywide	01	1120CST 1330CST			0	0	Flash Flood
		Widespread flooding across the county with 1 to 2 feet of water across the roads.					
Stewart County							
Countywide	01	1343CST 1615CST			0	0	Flash Flood
		Widespread flooding county wide. Hardest hit areas are Bumpus Mills and Big Rock.					
Montgomery County							
Countywide	01	1500CST 1800CST			0	0	Flash Flood
		Widespread flooding county wide. Several roads and streets closed in and near Clarksville. The report was by local law enforcement.					
Stewart County							
Bumpus Mills	01	2115CST 2345CST			0	0	Flash Flood
		Several roads closed at Bumpus Mills.					
Montgomery County							
Countywide	01 02	2120CST 0015CST			0	0	10K Flash Flood
		Roads closed countywide with evacuations beginning.					
Cheatham County							
Countywide	02	0000CST 0300CST			0	0	Flash Flood
		Widespread flooding throughout the county with many roads closed.					
Dickson County							
Countywide	02	0000CST 0300CST			0	0	10K Flash Flood
		Widespread flooding throughout the county with evacuations.					
Houston County							
Countywide	02	0000CST 0300CST			0	0	10K Flash Flood
		Widespread flooding throughout the county with evacuations and many roads closed.					
Humphreys County							
Countywide	02	0000CST 0300CST			0	0	10K Flash Flood
		Widespread flooding countywide with evacuations.					
Robertson County							
Countywide	02	0000CST 0300CST			0	0	10K Flash Flood
		Widespread flooding throughout the county with evacuations.					
Davidson County							
Nashville	01	2320CST			0	0	Thunderstorm Wind (G50)
		Local law enforcement reported power lines were down and signs were blown down.					
Decatur County							
3 N Parsons	01	2330CST			0	0	Hail (0.75)
		Dime size hail reported by local law enforcement.					
Benton County							
5 SE Camden	01	2330CST			0	0	Thunderstorm Wind (G50)
		A few trees were blown down.					

Storm Data and Unusual Weather Phenomena

March 1997

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

TNZ006

Montgomery

02 0000CST

0

0

500K

Flood

07 2300CST

The Red River was out of its banks. Local law enforcement reported 4 to 6 feet of water in the Belmont Subdivision. 60 homes were affected by the flooding in Montgomery county.

A cooperative weather observer in Clarksville, TN, in Montgomery county, reported about 5.25 inches of rain from the morning of Saturday, March 1 to Monday morning, March 3.

Robertson County

Countywide

02 0000CST

0

0

Flash Flood

03 0300CST

Widespread flooding throughout the county with many roads closed.

Stewart County

Countywide

02 0000CST

0

0

Flash Flood

03 0300CST

Widespread flooding throughout the county with many roads closed.

Decatur County

Decaturville

02 0300CST

0

0

Flash Flood

06 0600CST

Flooding reported in Decaturville.

Stewart County

Countywide

02 1425CST

0

0

Flood

03 0600CST

Widespread flooding throughout the county with several roads closed.

Cheatham County

Countywide

02 1430CST

0

0

50K

Flood

03 0600CST

Widespread flooding around the county. A bridge was washed out near Ashland City and 3 roads were closed in Ashland City.

Decatur County

Countywide

02 1435CST

0

0

150K

Flood

03 0600CST

Widespread flooding around the county. 3 bridges were washed out near Sugar Tree.

Dickson County

Countywide

02 1446CST

0

0

Flood

03 0600CST

Widespread flooding countywide. 2 county roads had 3- 5 inches of water over road near Slayden.

Hickman County

Countywide

02 1453CST

0

0

100K

Flood

03 0600CST

Widespread flooding around county. 2 bridges were washed out and a few roads had high water over them near Pinewood.

Montgomery County

Clarksville

02 0030CST

0

0

500K

Flash Flood

06 0600CST

The Red River came out of its banks. Local law enforcement reported 4 to 6 feet of water in the Belmont Subdivision.

About 60 homes were damaged from the flooding.

Wilson County

Mt Juliet

02 0130CST

0

0

Flash Flood

06 0600CST

Local law enforcement reported water over roads.

Cheatham County

Countywide

02 0300CST

0

0

1M

Flash Flood

08 0800CST

Widespread flooding around the county with many roads closed. About 250 homes and businesses were damaged.

Dickson County

Countywide

02 0300CST

0

0

Flash Flood

08 0800CST

Several roads closed due to high water.

Houston County

Countywide

02 0300CST

0

0

250K

Flash Flood

08 0800CST

Local law enforcement reported high water on several roads. About 40 to 50 homes received some damage.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, Central									
Humphreys County									
Countywide	02	0300CST 0800CST			0	0	250K		Flash Flood
Several roads closed due to high water. 40 to 50 homes were damaged in the county.									
Robertson County									
Countywide	02	0300CST 0800CST			0	0	10K		Flash Flood
Widespread water over many roads. Over 40 county roads had to be closed. A sink hole was created on Hugh Gill Road that was 18 to 20 feet deep. A motorist damaged his car during the weekend when he hit the sink hole.									
Benton County									
Countywide	02	0600CST 0800CST			0	0			Flash Flood
Widespread reports of water on roads by local law enforcement.									
Giles County									
Pulaski	02	1400CST			0	0	100K		Flood
	03	1540CST							
8 roads closed due to high water. Several roads were damaged. Hardest hit area was northwest to northeast of Pulaski.									
Bedford County									
Countywide	02	1500CST 2200CST			0	0			Flood
High water on several roads around the county.									
Maury County									
Countywide	02	1500CST			0	0			Flood
	03	1515CST							
Several county roads covered with high water especially Hwy 129.									
Wayne County									
8 S Waynesboro	02	1500CST			0	0	100K		Flood
	03	1500CST							
2 bridges were closed, 2 roads closed and one road washed out. 8 roads still covered with high water. 7.25 inches of rain fell from Friday, February, 28, 1997 through Monday, March 3, 1997.									
Lawrence County									
Ethridge	02	1530CST			0	0			Flood
	03	0600CST							
Several roads closed due to high water near Ethridge.									
Lincoln County									
Countywide	02	1535CST			0	0			Flood
	03	1500CST							
Several county roads with high water.									
Marshall County									
Countywide	02	1535CST			0	0			Flood
	03	1500CST							
Several county roads with high water.									
Davidson County									
Nashville	02	1700CST			0	0			Flood
	03	0300CST							
High water over roads in the southern part of the city.									
Rutherford County									
Countywide	02	1700CST			0	0			Flood
	03	1520CST							
17 roads were covered with high water.									
Wilson County									
Mt Juliet	02	1700CST			0	0			Flood
	03	0200CST							
Some minor flooding along U.S. Route 70.									
Houston County									
Countywide	02	1457CST			0	0			Flood
	03	0600CST							
High water on several secondary roads.									
Humphreys County									
Countywide	02	1501CST			0	0			Flood
	03	0600CST							
High water on several secondary roads around the county.									

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
TENNESSEE, Central								
Benton County								
Camden	02	1503CST			0	0	80K	Flood
	03	0600CST	4 roads were closed or washed away due to high water.					
Robertson County								
Adams	02	1505CST			0	0		Flood
	03	0600CST	Mint Spring Road was closed near Elk Creek in Adams.					
Williamson County								
Leipers Fork	02	1508CST			0	0		Flood
	03	0600CST	2 roads had high water over them near the West Harpeth River.					
Macon County								
Lafayette	02	1510CST			0	0	80K	Flood
	03	0600CST	Several bridges and roads were washed out.					
Montgomery County								
Clarksville	02	1515CST			0	0		Flood
	03	0600CST	8 roads were closed in the Clarksville area due to high water.					
Perry County								
Countywide	02	1517CST			0	0		Flood
	03	0600CST	Several roads around the county had water 3-4 inches deep.					
Sumner County								
Westmoreland	02	1518CST			0	0	80K	Flood
	03	0600CST	A few roads were washed out near Westmoreland.					
Lawrence County								
2 E Lawrenceburg	02	1530CST			0	0		Flood
	03	0600CST	2 roads were closed at Quaildrive.					
Lewis County								
5 E Hohenwald	02	1530CST			0	0		Flood
	03	0600CST	High water was standing on 2 county roads.					
Williamson County								
Countywide	02	1900CST			0	0		Flash Flood
	03	0600CST	High water covered 50 roads in the county.					
Rutherford County								
Countywide	02	1900CST			0	0		Flash Flood
	03	0600CST	12 roads were closed around the county due to high water.					
Stewart County								
Dover	05	0310CST			0	0		Hail (0.75)
			Penny size hail reported by sheriff's office.					
Benton County								
Camden	05	0440CST			0	0		Thunderstorm Wind (G50)
			Sheriff's office reported trees down.					
Sumner County								
Gallatin	05	0556CST			0	0		Hail (0.75)
			Dime size hail was reported.					
Davidson County								
Antioch	05	0614CST			0	0		Thunderstorm Wind (G50)
			Large tree limbs were blown down.					
Davidson County								
Nashville	05	0628CST			0	0		Thunderstorm Wind (G50)
			Large tree limb was down at downtown Nashville.					
Trousdale County								
1.7 E Hartsville	05	0630CST			0	0	1K	Thunderstorm Wind
			Thunderstorm winds flattened a tobacco barn on Old Lafayette Road.					

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TENNESSEE, Central									
			Some trees were also blown down.						
Davidson County Nashville	05	0638CST 0915CST			0	0			Flash Flood
			Roads were flooded in the downtown area near the Bicentennial Mall. Culverts were full.						
Davidson County Nashville	05	0645CST 0915CST			0	0			Urban/Sml Stream Fld
			Street flooding at intersection of Ellington and McGavok Pike.						
Wilson County 1 W Mt Juliet	05	0730CST 0915CST			0	0			Flash Flood
			A road was under water at Central Pike.						
Cheatham County Countywide	05	0800CST 1330CST			0	0			Flash Flood
			Many roads were under water. About 8 roads were closed.						
Benton County Countywide	05	0800CST 1400CST			0	0			Flash Flood
			Many roads were under water, and some roads were impassible. Road damage from the floods in Benton county from March 1 to March 5 caused about a million dollars worth of damage. Benton county has 2,552 miles of road, and there was some damage to every road.						
Dickson County Countywide	05	0800CST 1330CST			0	0			Flash Flood
			The Highway Department reported many roads were closed due to high water.						
Davidson County Nashville	05	0816CST 1300CST			0	0			Urban/Sml Stream Fld
			Street flooding occurred at 10th Circle North in the downtown area.						
Putnam County Algood	05	0826CST			0	0			Hail (1.00)
			Quarter size hail reported by E.M.A. official.						
Davidson County Nashville	05	0834CST 1300CST			0	0			Urban/Sml Stream Fld
			Street flooding at Davidson Road and Harding Road.						
Davidson County Nashville	05	0845CST 1330CST			0	0			Urban/Sml Stream Fld
			Street flooding at Tulip Grove Road and Chandler Road.						
Davidson County Nashville	05	0853CST 1330CST			0	0			Flash Flood
			Flooding at junction of Interstate 24 and Interstate 40. Also flooding on I-40 at Charlotte Pike exit.						
Sumner County 7 N Gallatin	05	0900CST 1330CST			0	0			Flash Flood
			Old Gallatin Road was under water near South Tunnel.						
Decatur County Countywide	05	0900CST 1300CST			0	0			Flash Flood
			Police reported some roads were under water.						
Humphreys County Countywide	05	0900CST 1330CST			0	0			Flash Flood
			Many roads were closed and under water.						

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					Killed	Injured	Property	Crops	
<u>TENNESSEE, Central</u>									
Williamson County									
Countywide	05	1000CST 1300CST			0	0			Flash Flood
									10 roads were closed due to high water.
Rutherford County									
Countywide	05	1000CST 1330CST			0	0			Flash Flood
									Many roads were under water.
Perry County									
7 N Linden	05	1030CST 1300CST			0	0			Flash Flood
									Mud slide on road.
Overton County									
Countywide	05	1130CST 1345CST			0	0			Flash Flood
									Many roads were under water.
Putnam County									
Countywide	05	1200CST 1345CST			0	0			Flash Flood
									Many roads were under water.
Dekalb County									
Countywide	05	1200CST 1345CST			0	0			Flash Flood
									Many roads were under water. Rock slide on U.S. HWY 70.
Perry County									
Countywide	05	1230CST 1630CST			0	0			Flash Flood
									Several roads under water county wide. Water going over a bridge at Cedar Creek.
Cannon County									
Countywide	05	1257CST 1700CST			0	0			Flash Flood
									As many as 30 roads were under water around the county. School was let out early as a precautionary measure. The hardest hit area was the northwest part of the county.
Houston County									
Countywide	05	1300CST 1600CST			0	0			Flash Flood
									The Highway Department reported many roads were closed due to high water. Bridges were also washed out.
Montgomery County									
Countywide	05	1300CST 1600CST			0	0			Flash Flood
									Some roads were closed due to high water.
Clay County									
Countywide	05	1300CST 1600CST			0	0			Flash Flood
									Several roads were under water.
Marshall County									
Countywide	05	1300CST 1600CST			0	0			Flash Flood
									Several roads were under water.
Warren County									
Countywide	05	1300CST 1600CST			0	0			Flash Flood
									Several roads were under water.
Maury County									
Countywide	05	1840CST 2240CST			0	0			Flash Flood
									A few roads were closed around the county due to high water. Some schools were closed Thursday from the flooding.

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					Killed	Injured	Property	Crops	
TENNESSEE, Central									
Robertson County 1 N Millersville to 1.5 NE Millersville	28	1806CST 1808CST	0.5	200	0	0			Tornado (F0)
No damage was done by this tornado. Path length and width are approximations.									
Benton County 5 N Camden	28	1824CST			0	0			Hail (1.00)
SKYWARN Spotter reported quarter size hail.									
Humphreys County Gorman	28	1906CST			0	0			Hail (0.75)
Dime size hail reported by amateur radio operator.									
Decatur County Parsons	28	1916CST			0	0			Hail (1.00)
SKYWARN Spotter reported quarter size hail.									
Dickson County 2 N Dickson	28	1920CST			0	0			Hail (1.50)
SKYWARN spotter reported large hail.									
Dickson County Dickson	28	1920CST			0	0	50K		Thunderstorm Wind
Cars were dented and windshields were cracked. There were pock-marked siding and broken windows for some homes.									
Hickman County Centerville	28	1935CST			0	0			Hail (0.75)
Dime size hail reported by amateur radio operator in western part of the city.									
Cheatham County Chapmansboro	28	1936CST			0	0			Hail (0.75)
SKYWARN Spotter reported dime size hail.									
Davidson County Nashville	28	1955CST			0	0			Hail (0.88)
Amateur radio operator relayed report of nickel size hail at Opryland Park.									
Hickman County Northern Section	28	1959CST			0	0			Hail (1.00)
Amateur radio operator reported quarter size hail.									
Dickson County Southern Sections	28	1959CST			0	0			Hail (1.00)
Amateur radio operator reported quarter size hail.									
Davidson County Goodlettsville	28	2000CST			0	0			Hail (0.88)
Emergency management official reported nickel size hail.									
Cheatham County 5 W Ashland City	28	2000CST			0	0			Hail (1.00)
E.M.A. official reported nickel to quarter size hail along the Cumberland River.									
Davidson County Madison	28	2004CST			0	0			Hail (1.75)
SKYWARN Spotter reported golf ball size hail.									
Wilson County Mt Juliet	28	2006CST			0	0			Hail (0.75)
Dime size hail at the National Weather Service Office.									
Wilson County Mt Juliet	28	2009CST			0	0			Hail (1.75)
Golf ball size hail reported by NWS employee at home.									
Sumner County Westmoreland	28	2030CST			0	0			Hail (1.50)
Highway department reported 1 inch to 1.5 inches diameter hail covering the ground around Westmoreland.									
Wayne County Houston	28	2035CST			0	0	10K		Thunderstorm Wind
Trees were down at Houston. One tree fell on a truck on Green River Road.									
Trousdale County Providence	28	2055CST			0	0			Hail (0.75)

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March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, Central									
			Sheriff reported dime size hail.						
Macon County Red Boiling Spgs	28	2100CST			0	0			Hail (0.75)
			Penny size hail was reported by sheriff's office.						
Lawrence County Northwest Section	28	2100CST			0	0			Thunderstorm Wind (G50)
			Electric company reported a tree down on a power line.						
Wayne County Collinwood	28	2105CST			0	0			Hail (1.75)
			Golf ball size hail was reported.						
Smith County 3 W Carthage to 2 W Carthage	28	2117CST 2119CST	1	20	0	0	50K		Tornado (F1)
			The tornado started near Watervale, which is 3 miles west of Carthage on HWY 70N. One trailer was damaged, and there was damage to a house under construction. Many barns and outbuildings were damaged.						
Lawrence County St Joseph	28	2125CST			0	0			Hail (0.75)
			Dime size hail reported by E.M.A. official.						
Lawrence County Ethridge	28	2125CST			0	0	2K		Thunderstorm Wind (G50)
			Highway Department reported a large tree down on Dry Weakley Road.						
Dekalb County Belk	28	2130CST			0	0			Thunderstorm Wind (G50)
			2 trees were blown down.						
Dekalb County Belk	28	2130CST			0	0			Hail (0.75)
			Dime size hail was reported.						
Giles County Lynnville	28	2140CST			0	0			Thunderstorm Wind (G50)
			Trees and power lines down at Lynnville.						
Overton County 1 SW Livingston to Alpine	28	2155CST 2205CST	5.9	440	0	2	250K		Tornado (F2)
			A trailer was overturned and destroyed. 3 people were trapped inside and 2 of them sustained minor injuries. Several homes were damaged in the Goose Creek area near Alpine. A few barns were damaged near Livingston and another barn was damaged near Alpine. Many trees and power lines were down.						
			Path length and width are approximations.						
Giles County Prospect	28	2200CST			0	0			Hail (0.88)
			Nickel size hail reported.						
Putnam County Silver Pt	28	2205CST			0	0			Hail (1.75)
			Golf ball size hail reported by E.M.A. official.						
Putnam County Baxter	28	2205CST			0	0			Hail (1.75)
			Golf ball size hail reported by E.M.A. official at junction of HWY 56 and U.S. Route 70.						
Lincoln County Kelso	28	2225CST			0	0			Hail (0.75)
			Dime size hail reported by SKYWARN Spotter.						
Franklin County Huntland	28	2238CST			0	0			Hail (1.75)
			T.E.M.A. reported golf ball size hail at Huntland.						
Coffee County Hillsboro to .5 NE Hillsboro	28	2238CST 2239CST	0.5	20	0	0			Tornado (F0)
			No damage was reported. Path length and width are approximations.						

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					Killed	Injured	Property	Crops	
<u>TENNESSEE, Central</u>									
Lincoln County 5 S Fayetteville	28	2240CST			0	0			Thunderstorm Wind (G50)
	Sheriff's office reported trees and power lines down at Pork City.								
Coffee County Manchester	28	2240CST			0	0			Hail (0.75)
	Dime size hail reported.								
Franklin County Winchester	28	2300CST			0	0			Hail (0.75)
	Dime size hail reported.								
Franklin County Cowan	28	2300CST			0	0			Hail (0.75)
	Dime size hail reported.								
Marion County Jasper	28	2325CST			0	0			Hail (1.75)
	Sheriff reported golf ball size hail.								
Bledsoe County Brayton	28	2330CST			0	0	50K		Thunderstorm Wind
	Trees were blown down near Brayton. A car windshield was damaged. The strong thunderstorm winds tore roofing off a utility building, took some roofing off the back of a house, a trailer was knocked off its foundation, and a tin roof was taken off a barn and workshop. The winds also ripped shingles off the roof of a house, pulled siding and shutters from another house and overturned an outbuilding.								
Sequatchie County 5 W Cagle to 1.4 NE Cagle	28	2333CST 2338CST	6	440	0	0	100K		Tornado (F2)
	The tornado started in the Savage Gulf State Natural area and went about 6 miles. It damaged 5 structures...including a grocery store in the Savage Gulf State Natural Area. The Tennessee Nitrate Technologies were completely destroyed near the junction of RT 111 and RT 8. The tornado dissipated on Mc Carver Loop Road.								
	Tornado path length and width are approximations.								
<u>TENNESSEE, East</u>									
Anderson County Countywide	03	0520EST 0700EST			0	0			Flash Flood
	Heavy rain training over the county caused widespread flooding. Several routes closed including Highway 116...Highway 441 and I-75 in the Lake City area...and Highway 330 around the community of Frost Bottom.								
Knox County East Part Of County	03	0725EST			0	0	15K		Thunderstorm Wind
	Trees down on some phone and power lines in eastern part of county.								
Jefferson County Countywide	03	0730EST			0	0		8K	Thunderstorm Wind
	Tree down on Highway 139. Several trees down throughout the county.								
Hamblen County Countywide	03	0735EST			0	0		5K	Thunderstorm Wind
	A few trees knocked down throughout the county.								
Claiborne County Clairfield	03	0745EST 0800EST			0	0			Flash Flood
	Training of heavy precipitation across the county resulted in the town of Clairfield being flooded.								
Campbell County Countywide	03	0745EST 0800EST			0	0			Flash Flood
	Training of heavy precipitation echoes across the county resulted in the closing of Valley Street and others in the town of Jacksboro. Highways 297 and 63 flooded but passable. Streets in the town of Newcomb flooded.								
Fentress County Near Jamestown	05	0756CST			0	0			Hail (0.75)
	Nickel-sized hail just north of Jamestown.								
Fentress County South Part Of County	05	0905CST			0	0			Hail (0.75)

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					Killed	Injured	Property	Crops	
<u>TENNESSEE, East</u>									
Dime-sized hail in southern part of county.									
Scott County									
Nw Part Of County	05	0930EST			0	0	6K		Hail (0.75)
	Three-quarter inch sized hail reported in northwest part of county. Trees down in Fiarview community. Some windows blown out at WBNT radio station.								
Scott County									
Huntsville	05	1030EST			0	0			Hail (0.75)
	Dime-sized hail covered the ground in Huntsville.								
Scott County									
Winona And Norma	05	1100EST			0	0			Flash Flood
	Heavy rain across the county. Wolf Creek Road and bridge underwater. Several other roads closed in the area.								
Campbell County									
Countywide	05	1104EST			0	0	15K	12K	Thunderstorm Wind
	A severe thunderstorm moved across the county resulting in numerous trees down.								
Scott County									
Nrn Part Of County	05	1145EST			0	0	9K		Thunderstorm Wind
	A severe thunderstorm moved across the northern part of the county. Numerous trees down near Highway 63 near Campbell/Scott county line.								
Rhea County									
Countywide	05	1430EST			0	0	4K		Thunderstorm Wind
	A few trees blown down.								
Blount County									
Countywide	05	1500EST			0	0	14K	8K	Thunderstorm Wind
	A few trees and power lines down throughout county.								
Sevier County									
Extreme N Part Of Co	05	1515EST			0	0	3K		Thunderstorm Wind
	A few trees down in extreme northern part of county near Jefferson county line.								
Cocke County									
Newport	05	1550EST			0	0	5K		Thunderstorm Wind
	A few trees blown down near Newport.								
Greene County									
Greeneville	05	1550EST			0	0	2K		Thunderstorm Wind
	Tree blown down on Highway 70 near Greeneville.								
Carter County									
Countywide	05	1630EST			0	0	11K	9K	Thunderstorm Wind
	A few trees and power lines blown down throughout county.								
Scott County									
Oneida	25	2115EST			0	0	5K		Thunderstorm Wind
	A few trees blown down in Oneida.								
Fentress County									
Countywide	28	2240CST			0	0	20K		Hail (1.75)
	A severe thunderstorm produced golfball-sized hail which damaged numerous cars in the county.								
Anderson County									
Nrn Part Of County	28	2345EST			0	0	20K	15K	Hail (0.75)
	29	2345EST							
	A severe thunderstorm produced 3/4 inch hail and flooding on secondary roads mainly across the northern part of the county.								
Morgan County									
Sunbright	29	0010EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail in the town of Sunbright.								
Meminn County									
Englewood	29	0025EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail near Englewood.								
Knox County									
Knoxville	29	0030EST			0	0			Hail (0.75)
	Hail broke out windshield of truck.								

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<u>TENNESSEE, East</u>									
Campbell County Countywide	29	0040EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail in the county.								
Monroe County Tellico Plains	29	0045EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail near Tellico Plains.								
Jefferson County Jefferson City	29	0045EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail in Jefferson City.								
Hamblen County W Part Of County	29	0047EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail in west part of county.								
Rhea County E Part Of County	29	0106EST			0	0			Hail (4.00)
	A severe thunderstorm produced baseball-sized hail just west of Rhea/Meigs county line.								
Hamilton County 2 W Chattanooga to 6 E Chattanooga	29	0110EST 0130EST	8	100	0	44	45M		Tornado (F3)
Bradley County Sw Of Cleveland	29	0130EST 0200EST	4	100	0	50	3.2M		Tornado (F3)
	In Hamilton county...the tornado first touched down in the Tiftonia community just west of downtown Chattanooga around 1:10 am EDT. As the tornado moved due east across the southern part of the county, 50 homes were completely destroyed. Another 600 homes and one business were heavily damaged. Most of the damage was concentrated in the East Brainerd community. There, about half of the 180-unit Hickory Villa apartment complex was destroyed, and 18 of 23 townhomes of the Hickory Trace complex were destroyed. Two more apartment complexes, Hickory Valley and Ledford Apartments, were severely damaged. Around 20000 homes were without electricity after the storm. Most power had been restored by Monday morning. In Bradley county...the tornado destroyed 5 poultry farms, 4 homes, and 4 mobile homes. Another 45 homes, 16 mobile homes and 3 poultry farms were damaged.								
Meigs County N Part Of County	29	0120EST			0	0			Hail (1.75)
	A severe thunderstorm produced 1 3/4 inch hail in northern part of county.								
Meminn County Just N Of Athens	29	0130EST			0	0			Hail (0.75)
	A severe thunderstorm produced 3/4 inch hail just north of Athens.								
Polk County Grassy Creek	29	0225EST	3	100	0	0	100K		Tornado (F1)
	The severe thunderstorm that spawned a tornado earlier in Hamilton and Bradley counties created another in eastern Polk county. One mobile home was destroyed and fifteen homes were damaged. The damage was concentrated in the Grassy Creek area a few miles southwest of Ducktown.								
<u>TENNESSEE, West</u>									
TNZ001>004-019>021-048>049-051>054-088-090>092	01 11	0400CST 0000CST			3	0	19.8M	150K	Flood
	Excessive rainfall during the first few days of March along with rivers that were already high caused prolonged flooding along the Mississippi and Tennessee rivers as well as their tributaries. Along the Mississippi, the river reached levels that had not been seen since 1937. Numerous roads were closed for days. In several counties people had to be evacuated from homes including 400 persons in the town of Rives in Obion county. In Madison county, two persons were killed when their car was swept off a flooded road. One person was killed in Shelby county when his car went over a flooded bridge. One man was also killed in Obion county when he fell out of a boat helping people out of their homes. M18VE, F31VE, M50VE								
Fayette County Somerville	01	0430CST 0530CST			0	0	1K		Flash Flood
	Several roads were closed and a few cars were under water. Some homes were threatened as well.								

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TENNESSEE, West									
Mcnairy County Ramer to Selmer	01	0545CST 0600CST	5	200	0	0	300K		Tornado (F2)
									A tornado touched down near the town of Ramer and moved northeast toward the town of Selmer. Forty-eight homes and two businesses were damaged or destroyed. One farm which housed emus was damaged and nine emus were killed. Several trees were uprooted or shredded.
Henry County Paris	01	0920CST 0925CST			0	0	2K		Thunderstorm Wind
									Part of the roof of a mobile home was blown off. A car lost its t-top roof.
Crockett County 2 SW Alamo to 3 NE Alamo	01	1602CST 1607CST	5	100	0	0	5K		Tornado (F2)
Gibson County 1 W Humboldt to 5 NE Milan	01	1607CST 1640CST	15	100	0	0	25K		Tornado (F2)
Carroll County Atwood to Mc Kenzie	01	1640CST 1705CST	10	100	0	0	2M		Tornado (F2)
									A tornado developed in Crockett County near the town of Alamo. A long porch from a brick house was ripped off. The tornado continued northeast into Gibson county. Several business were damaged and a storage shed was destroyed as the tornado moved through the county. The tornado then reached Carroll county where it reached its peak intensity. Significant damage occurred in the town of McKenzie. Sixty-seven homes and ten businesses were damaged or destroyed. Four people were injured as well.
Gibson County Trenton	01	1635CST 1640CST			0	0	0.01K		Hail (0.75)
Dyer County Chic to Churchton	01	1900CST 1930CST	15	200	0	15	2M		Tornado (F4)
Gibson County 3 W Yorkville to 2 E Rutherford	01	1930CST 1945CST	10	200	0	0	100K		Tornado (F4)
									A tornado developed in Mississippi county near the town of Lennie. Three mobile homes were damaged or destroyed and a cotton trailer was overturned. The tornado touched down again in Dyer county. The most severe damage with the tornado occurred in Dyer county. A thirteen-year-old girl was killed at her home which was destroyed by the tornado in the town of Finley. In all 190 buildings were damaged or destroyed in the county including parts of Dyer County High School. The tornado then continued into Gibson county where eight homes were damaged or destroyed. Numerous trees and power lines were knocked down as well.
Tipton County Munford to Covington	01	2050CST 2110CST			0	0	5K		Thunderstorm Wind
									Numerous trees were knocked down.
Fayette County Hickory Withe	01	2200CST 2300CST			0	0	1K		Flash Flood
									A few roads were closed due to flash flooding.
Hardeman County Silerton	01	2350CST 2355CST			0	0	5K		Thunderstorm Wind
									Numerous trees were knocked down in Chickasaw State Park.
Chester County Henderson	02	0001CST 0015CST			0	0	2K		Thunderstorm Wind (G55)
									A house and a business were damaged.
Mcnairy County Selmer	02	0050CST 0055CST			0	0	0.05K		Hail (0.88)
Gibson County Rutherford	02	2230CST 2235CST			0	0	0.01K		Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TENNESSEE, West</u>									
Fayette County									
Rossville	05	0915CST 1015CST			0	0	1K		Flash Flood
									Several roads had over 1 foot of water covering them.
Haywood County									
Brownsville	05	0930CST 1030CST			0	0	1K		Flash Flood
									Several roads were closed due to flash flooding.
Henderson County									
Wildersville	25	1610CST 1615CST			0	0	1K		Thunderstorm Wind
									A few trees and power lines were knocked down near the Natchez Trace Park.
Gibson County									
Trenton to Milan	28	1720CST 1740CST			0	0	0.51K		Hail (1.75)
Hardeman County									
Whiteville to Hickory Vly	28	1730CST 1835CST			0	0	0.66K		Hail (1.75)
Chester County									
Deanburg to Woodville	28	1746CST 1855CST			0	0	0.12K		Hail (1.00)
Carroll County									
Trezevant to Cedar Grove	28	1800CST 1835CST			0	0	1.3K		Hail (1.75)
Fayette County									
Laconia	28	1820CST 1825CST			0	0	0.50K		Hail (0.88)
Madison County									
Spring Creek	28	1830CST 1835CST			0	0	0.50K		Hail (1.75)
Henderson County									
Sardis	28	1830CST 1835CST			0	0	0.01K		Hail
Mcnairy County									
Bethel Spgs	28	1905CST 1907CST	0.1	10	0	0	1K		Tornado (F0)
									A few trees were downed as a tornado briefly touched down.
Mcnairy County									
Finger to Adamsville	28	1915CST 2010CST			0	0	0.25K		Hail (1.00)
Hardin County									
Cerro Gordo to Pickwick Dam	28	1955CST 2017CST			0	0	0.06K		Hail (0.88)
Hardin County									
Pickwick Dam	28	2017CST 2020CST	0.1	10	0	0	0.01K		Tornado (F0)
									A tornado briefly touched down near Pickwick Dam producing little damage.
<u>TEXAS, Central</u>									
Kimble County									
Junction	01	2226CST			0	0			Hail (0.75)
Mason County									
Mason	01	2305CST			0	0			Hail (0.75)
San Saba County									
San Saba	01	2340CST			0	0			Hail (1.00)
TXZ170									
Mason	09	2230CST			0	0	100K	100K	Flood
	13	0500CST							Minor river flooding began late in the evening of the 9th along the Llano River near Mason as the river exceeded bankfull of six

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, Central									
feet. The river remained above bankfull through the morning of the 13th with 9.9 feet at 1120 p.m. on the 9th.									
Kimble County									
London	10	0030CST 0725CST			0	0	100K	0	Flash Flood
Up to eight inches of rain fell near London overnight and morning of the 10th. Highway 377 was closed to due to water five feet deep on low water crossings. The water receded very slowly during the morning hours.									
Mitchell County									
Cuthbert	24	2013CST			0	0			Hail (0.88)
Jones County									
Noodle	24	2200CST			0	0			Hail (1.75)
Jones County									
Funston	24	2210CST			0	0			Hail (1.75)
Nolan County									
1 W Sweetwater to Sweetwater	24	2220CST 2235CST			0	0			Hail (1.75)
Nolan County									
Sweetwater	24	2235CST			0	0	25K	0	Thunderstorm Wind (G52)
Jones County									
6 W Stith	24	2254CST			0	0			Hail (1.00)
Taylor County									
2 E Merkel	24	2315CST			0	0			Hail (1.75)
Taylor County									
Abilene	24	2325CST 2337CST			0	0			Hail (1.00)
Jones County									
Hawley	24	2337CST			0	0			Hail (1.75)
Jones County									
10 N Abilene	24	2344CST			0	0			Hail (1.00)
Shackelford County									
2 W Albany	24	2352CST			0	0			Hail (0.75)
Irion County									
Mertzon	25	0020CST			0	0			Hail (0.75)
Shackelford County									
Albany	25	0030CST 0500CST			0	0			Flash Flood
Between two and a half and three inches of rain caused running water in the streets of Albany.									
Coke County									
1 S Tennyson	25	0140CST	0.1	20	0	0			Tornado (F0)
Shackelford County									
Albany	25	0140CST			0	0			Hail (0.75)
Tom Green County									
5 SW San Angelo to 6 SE San Angelo	25	0144CST 0156CST			0	0			Hail (0.88)
A hailstorm affected the western and southern sections of San Angelo.									
Runnels County									
Ballinger	25	0205CST			0	0			Thunderstorm Wind (G52)
Schleicher County									
12 N Eldorado	25	0255CST			0	0			Hail (1.75)
Schleicher County									
15 NE Eldorado	25	0258CST	0.1	15	0	0			Tornado (F0)
A supercell thunderstorm dropped golfball-sized hail and a weak tornado over northern Schleicher County.									
Mcculloch County									
Lohn	25	0340CST			0	0			Hail (0.75)
San Saba County									
Richland Spgs	25	0400CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TEXAS, Central</u>									
San Saba County									
Richland Spgs	25	0400CST			0	0			Hail (0.75)
Coleman County									
3 E Coleman	29	1655CST			0	0			Hail (0.75)
Concho County									
1 W Paint Rock	29	1710CST			0	0			Hail (1.75)
Tom Green County									
5 S San Angelo to 7 SE San Angelo	29	1735CST 1800CST			0	0			Hail (1.00)
Callahan County									
Cross Plains	29	1745CST			0	0			Hail (0.75)
Brown County									
Brownwood	29	1755CST			0	0			Hail (0.75)
Concho County									
Paint Rock	29	1803CST			0	0			Hail (0.75)
Brown County									
1 S Brownwood	29	1837CST			0	0			Hail (0.75)
Brown County									
2 S Brownwood	29	2045CST			0	0			Hail (0.75)
Mcculloch County									
Doole	29	2200CST			0	0			Hail (0.75)
Concho County									
Paint Rock	29	2222CST			0	0			Hail (0.75)
Mcculloch County									
1 S Brady	29	2305CST			0	0			Hail (0.75)
<u>TEXAS, Central Southeast</u>									
Colorado County									
Garwood	12	0147CST 0340CST			0	0	2K		Flash Flood
Street flooding in Garwood.									
Fort Bend County									
Needville	12	0330CST 0333CST	0.2	25	0	0	10K		Tornado (F0)
Tornado blew powerlines down.									
Harris County									
Houston	12	0530CST 0630CST			0	0	3K		Flash Flood
Training rains caused street flooding in south and southwest Houston.									
Harris County									
Houston	12	0800CST 1800CST			0	0	130K		Flash Flood
Training rains caused significant flooding throughout the Houston metropolitan area. Many bayous/streams were overbanks for much of the day. Widespread street flooding occurred with HPD receiving 675 flood related calls from 6 AM to 3 PM. Portions of I-10 were shut down from 8 AM to 2 PM due to high waters.									
Harris County									
Houston	18	1400CST			0	0	75K		Lightning
Lightning related fire destroyed house on the 10700 block of Olympia Dr.									
Galveston County									
Texas City	25 26	2150CST 0030CST			0	0	10K		Flash Flood
Numerous reports of street flooding in Texas City and Galveston Island due to training rains.									

TEXAS, Extreme West

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, Mid - South									
Calhoun County Indianola	17	0645CST 0646CST	0.1	10	0	0	10K		Tornado (F0)
									Gustnado with a 70 knot wind gust recorded by a local resident. A small shed was destroyed, porch overhangs were destroyed, and a 1 to 3 foot storm surge accompanied the gust front with minor flooding.
Calhoun County Port O Connor	17	0710CST 0711CST	0.1	10	0	0	5K		Tornado (F0)
									Gustnado partially destroyed a boat shed ripping portions of the tin roof and supports. Residents estimated wind gusts to 70 knots.
Calhoun County Port O Connor	17	0710CST			0	0			Thunderstorm Wind (G50)
									The USCG in Port O Connor measured a wind gust to 50 knots.
Calhoun County Port Lavaca	17	1015CST 1200CST			0	0			Flash Flood
									Six inches of water was reported across highway 87, and portions of highways 87 and 185 were closed.
Victoria County Victoria	17	1015CST 1200CST			0	0			Flash Flood
									Six inches of water reported on highway 87.
Refugio County Refugio	18	1315CST			0	0			Hail (0.75)
									Sheriff and public reported dime size hail.
Goliad County Goliad	18	1315CST 1500CST			0	0			Flash Flood
									DPS reported flooding along highway 183.
Victoria County Mc Faddin	18	1315CST 1500CST			0	0			Flash Flood
									Sheriff and public reports of street flooding.
Refugio County Refugio	18	1400CST 1700CST			0	0			Flash Flood
									Numerous reports of widespread flooding across the county with several roadways under water.
Calhoun County Long Mott	18	1400CST 1700CST			0	0			Flash Flood
									Sheriff and the public reported many flooded roadways.
Refugio County Refugio	18	1400CST 1700CST			0	0			Flash Flood
									Widespread flooding reported across the entire county.
Victoria County Mc Faddin	18	1400CST 1700CST			0	0			Flash Flood
									Widespread street flooding reported across the southern half of the county.
Goliad County 8 S Goliad	18	1400CST 1700CST			0	0			Flash Flood
									DPS reported minor flooding across portions of highway 183.
Duval County 12 W San Diego	18	1420CST			0	0			Hail (0.75)
									Sheriff and DPS reported dime size hail covering the road.
Calhoun County 10 S Port Lavaca	18	1730CST 2000CST			0	0			Flash Flood
									Sheriff and public reported many flooded roadways.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TEXAS, Mid - South</u>									
Refugio County									
Refugio	18	1730CST 2000CST			0	0			Flash Flood
									Widespread flooding reported across the entire county with three to five inches of rain.
Victoria County									
10 S Victoria	18	1730CST 2000CST			0	0			Flash Flood
									Widespread street flooding reported across the southern half of the county.
Goliad County									
8 S Goliad	18	1730CST 2000CST			0	0			Flash Flood
									DPS reported minor flooding along highway 183.
Victoria County									
Inez	25	2030CST 2230CST			0	0			Flash Flood
									Flooding on Bischoff Road resulted in road closure.
Victoria County									
Coletto Creek Park	25	2100CST 2230CST			0	0			Flash Flood
									Flooding along Arnold Road resulted in the road being closed.
Webb County									
13 WNW Encinal	29	1704CST 1705CST			0	0			Hail (1.75)
									Border Patrol reported golf ball size hail.
Jim Wells County									
12 SW Alice	30	1010CST 1015CST	0.1	10	0	0			Tornado (F0)
									NWS spotter and Sheriff report of a tornado.
Kleberg County									
Kingsville	30	1053CST 1100CST			0	0			Hail (4.00)
									Quarter size to softball size hail reported in Kingsville.
<u>TEXAS, North</u>									
Hill County									
Hillsboro	01	2005CST			0	0			Hail (0.75)
Bell County									
Belton	01	2226CST			0	0			Hail (1.75)
Bell County									
2 SE Temple	01	2230CST			0	0			Hail (1.75)
Bell County									
3 SE Temple	01	2230CST			0	0	50K		Thunderstorm Wind
									Strong winds overturned a mobile home, uprooted trees and blew windows out.
Bell County									
2 S Temple to 3 SE Temple	01	2230CST 2234CST	2.5	75	0	0	40K		Tornado (F1)
									A tornado destroyed outbuildings, damaged a roof, snapped trees, and lifted a car 20 yards into the side of a house.
Falls County									
Lott	01	2320CST			0	0			Thunderstorm Wind
									A tree was blown down by high winds.
Falls County									
Marlin	01	2335CST			0	0			Hail (1.75)
Falls County									
Marlin	02	0005CST			0	0	5K		Thunderstorm Wind
									Strong winds destroyed a barn.
Mills County									
10 E Goldthwaite	02	0010CST			0	0	2K		Thunderstorm Wind
									A barn was damaged by high winds.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, North									
Limestone County 6 SW Groesbeck	02	0030CST			0	0			Hail (1.00)
Hamilton County Hamilton	02	0105CST			0	0			Hail (0.75)
Mills County 8 S Center City	02	0205CST			0	0	2K		Thunderstorm Wind Strong winds damaged a barn and blew down large cedar trees.
Erath County Stephenville	02	0715CST 0930CST			0	0			Flash Flood Several county roads were closed throughout the county.
Lampasas County Lampasas	02	0715CST 0930CST			0	0			Flash Flood Several county roads were flooded and closed throughout the county.
Comanche County Comanche	02	0715CST 0930CST			0	0			Flash Flood Low-lying areas were flooded throughout the county.
Hamilton County Hamilton	02	0720CST 0930CST			0	0			Flash Flood Several county roads were closed due to high water.
Navarro County 5 N Kerens	02	0750CST			2	4	500K		Thunderstorm Wind An elevated severe windstorm developed just east of Corsicana and accelerated northeastward at 50 to 60 mph. The storm resulted in widespread wind damage, produced by estimated wind gusts determined by a damage survey of up to around 100 mph, over a 3 to 5 mile wide path across the northeastern quarter of the county. Within the damage path, at least 3 mobile homes were overturned and destroyed, trees were snapped and uprooted, and homes received minor damage to their roofs. The path of damage stretched from just northeast of Corsicana to the county line, east of the Bazette Community. Two fatalities occurred in this community when the very strong winds overturned a mobile home. Several other injuries were also reported in the same community. M31MH, F2MH
Henderson County Tool	02	0804CST			0	0	3M		Thunderstorm Wind The severe windstorm that developed over eastern Navarro County moved into northwestern Henderson County and continued to produce widespread wind damage across a widening path of 4 to 6 miles. Four mobile homes were overturned, thousands of large trees were snapped and uprooted, and hundreds of homes and businesses were damaged by high winds. In Tool, trees were snapped and uprooted, numerous homes and businesses in the lake community sustained minor damage, and power lines were blown down by strong winds.
Henderson County 5 NW Tool	02	0805CST			0	0	400K		Thunderstorm Wind In Seven Points, trees were snapped and uprooted, numerous homes and businesses sustained minor damage, and power lines were blown down by strong winds.
Henderson County Payne Springs	02	0810CST			0	0	600K		Thunderstorm Wind High winds damaged hundreds of homes and businesses, and blew down trees and power lines.
Henderson County 4 NW Payne Springs	02	0810CST			0	0	1.7M		Thunderstorm Wind Extensive wind damage occurred along Highway 198 from Gun Barrel City to Mabank. The canopy of a convenience store/gas station was destroyed, numerous homes and businesses sustained roof and structural damage, and trees and power lines were blown down. In Gun Barrel City, an estimated 13 homes received major damage, 151 sustained minor damage, 10 mobile homes were destroyed, 21 mobile homes received major damage, and 6 businesses and a church sustained major damage.
Henderson County 3 NW Eustace	02	0820CST			0	5	200K		Thunderstorm Wind Four mobile homes were rolled with several injuries occurring to the occupants.
Kaufman County Mabank	02	0820CST			0	1	1.5M		Thunderstorm Wind The severe windstorm produced widespread damage across the extreme southeastern corner of Kaufman County. In Mabank,

Storm Data and Unusual Weather Phenomena

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Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TEXAS, North									
many homes and businesses received minor damage, and trees, power lines and signs were blown down. Twenty-five power poles were also blown down. In all, an estimated 8 mobile homes were destroyed, 20 homes had major damage and 220 other homes received minor damage and 1 person was injured.									
Kaufman County Mabank	02	0820CST			0	0			Hail (1.00)
Kaufman County 3 SE Kemp	02	0820CST			0	0	50K		Thunderstorm Wind
Strong winds overturned a mobile home.									
Van Zandt County 4 SW Phalba	02	0825CST			0	0	120K		Thunderstorm Wind
The severe windstorm continued to produce widespread wind damage as it moved through southwestern Van Zandt County but it weakened by the time it reached Canton. In Odom, two mobile homes and several barns were destroyed by the high winds.									
Hopkins County Brashear	02	0840CST			0	0			Hail (0.75)
Henderson County Malakoff	02	0920CST			0	0			Hail (1.75)
A second thunderstorm became severe as it moved into southwestern Henderson County and produced golfball hail south of Cedar Creek Reservoir.									
Van Zandt County Fruitvale	02	0945CST			0	0			Hail (0.75)
Hopkins County Sulphur Bluff	02	1049CST			0	0			Hail (0.75)
Dime size hail covered the ground.									
Delta County Cooper	02	1245CST			0	0			Hail (0.75)
Lamar County Paris	02	1306CST			0	0			Hail (1.00)
Hood County Granbury	02	1536CST 1700CST			0	0			Flash Flood
Street flooding was reported in and around town.									
Bosque County Meridian	02	1539CST 1730CST			0	0			Flash Flood
Several roads were reported flooded throughout the county.									
Bosque County Meridian	02	1657CST 1800CST			0	0			Flash Flood
Several roads remained closed throughout the county.									
Bosque County Meridian	02	1910CST 2100CST			0	0			Flash Flood
Flood waters continued over a few roads across the county but water levels were receding.									
Hill County Blum	09	2016CST 2200CST			0	0			Flash Flood
Farm-to-Market Road 933 was partially flooded with over one foot of water covering it in some places.									
Mills County Democrat	09	2024CST 2200CST			0	0			Flash Flood
Farm-to-Market Road 218 was reported flooded and impassable in some places.									
Mills County Goldthwaite	09	2100CST 2330CST			0	0			Flash Flood
County Road 508 was reported impassable due to high water.									
Mills County Goldthwaite	09	2130CST 2330CST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, North									
County Road 505 at Brown Creek was reported flooded and impassable due to high water.									
TXZ119									
Dallas	17	0600CST			0	0			Fog
		1100CST							
Dense fog contributed to 6 accidents in which 18 cars were involved. These accidents resulted in 11 indirect injuries.									
Stephens County	25	0032CST			0	0			Hail (0.75)
Breckenridge									
Eastland County	29	1755CST			0	0			Thunderstorm Wind (G52)
Cisco									
Eastland County	29	1802CST			0	0			Hail (1.00)
Cisco									
Palo Pinto County	29	1844CST			0	0			Hail (0.75)
3 E Santo									
Palo Pinto County	29	1850CST			0	0			Hail (0.75)
5 E Gordon									
Dime size hail covered portions of I-20 east of Gordon.									
Stephens County	29	1850CST			0	0			Hail (0.75)
Breckenridge									
Stephens County	29	1850CST			0	0			Thunderstorm Wind (G52)
Breckenridge									
Stephens County	29	1855CST			0	0			Hail (1.75)
3 S Ivan									
Stephens County	29	1906CST			0	0			Hail (1.00)
Ivan									
Young County	29	1945CST			0	0	2K		Thunderstorm Wind
4 S South Bend									
An outbuilding was blown over and destroyed by high winds.									
Jack County	29	1952CST			0	0			Hail (0.75)
7 W Perrin									
Wise County	29	2000CST			0	0			Hail (1.00)
Boonsville									
Parker County	29	2000CST			0	0			Hail (1.00)
2 N Poolville									
Wise County	29	2013CST			0	0			Hail (0.75)
Bridgeport									
Wise County	29	2020CST			0	0			Hail (1.00)
Decatur									
Wise County	29	2020CST			0	0			Hail (1.50)
Alvord									
Wise County	29	2020CST			0	0			Hail (0.75)
Chico									
Collin County	29	2152CST			0	0			Thunderstorm Wind (G52)
Plano									
McLennan County	29	2155CST			0	0			Hail (0.75)
Robinson									
Collin County	29	2216CST			0	0	20K		Thunderstorm Wind (G52)
Allen									
Strong winds damaged fences and roofs, and blew down trees.									
Collin County	29	2220CST			0	0	2K		Thunderstorm Wind
Lavon									
Strong winds damaged a barn on a ranch on the south side of Lake Lavon.									
Navarro County	29	2225CST			0	0			Hail (0.75)
Corsicana									
Henderson County	29	2225CST			0	0			Hail (0.75)
Tool									
Dime size hail covered the ground and was up to three inches deep in places.									

Storm Data and Unusual Weather Phenomena

March 1997

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, North</u>									
Hunt County									
Quinlan	29	2232CST			0	0			Thunderstorm Wind (G52)
Hunt County									
Kingston	29	2232CST			0	0			Thunderstorm Wind (G52)
Hunt County									
4 N Greenville	29	2247CST			0	0			Thunderstorm Wind (G52)
Hopkins County									
Cumby	29	2258CST			0	0			Thunderstorm Wind (G52)
Hopkins County									
Emblem	29	2258CST			0	0			Thunderstorm Wind (G52)
Hopkins County									
Emblem	29	2302CST			0	0			Hail (0.75)
Delta County									
Cooper	29	2303CST			0	0			Thunderstorm Wind
A tree was blown down by high winds.									
<u>TEXAS, North Panhandle</u>									
NONE REPORTED.									
<u>TEXAS, Northeast</u>									
Cherokee County									
1 E Alto	02	0505CST			0	0			Flash Flood
Heavy rains caused flash flooding over FM1247.									
Panola County									
2 SE Beckville	02	0505CST			0	0			Flash Flood
Two feet of water was reported across FM959 south of Hwy 149 from heavy rain.									
Panola County									
5 E Woods	02	0505CST			0	0			Flash Flood
Flash flooding occurred across CR455.									
Shelby County									
1 S Arcadia to 1 W Arcadia	02	0515CST			0	0			Flash Flood
Widespread flash flooding occurred flooding FM138 and FM1645 with over 1 foot of water.									
Shelby County									
3 NW Tenaha	02	0520CST			0	0			Flash Flood
Two feet of water was reported from the Sheriffs Office across FM947.									
TXZ124>125-136>138-151 Wood - Upshur - Smith - Gregg - Harrison - Panola									
	02	0600CST			0	0			Flood
	31	1800CST							
Significant flooding occurred along the Sabine River in northeast Texas during the entire month. A few homes in Longview, Tx and a few businesses in Gladewater reported flooding with secondary roads under several feet of water. Several thousand acres of river lowlands were flooded and cattle had to be moved to higher ground. The river at Gladewater crested on the 18th and 19th at 33.0 feet or 7 feet above floodstage.									
Wood County									
Mineola	02	0950CST			0	0			Hail (0.75)
Franklin County									
Hagensport	02	1045CST			0	0			Hail (1.00)
Red River County									
Clarksville	02	1100CST			0	0			Hail (1.00)
Shelby County									
Shelbyville	02	1330CST			0	0			Urban/Sml Stream Fld
Several city streets were reported under water due to heavy rain.									
Bowie County									
Simms	04	2315CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

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

TEXAS, Northeast

Titus County

5 NW Mt Pleasant	29	2355CST			0	0			Thunderstorm Wind (G60)
Numerous trees and power lines were toppled across Hwy 271.									

TEXAS, South

Hidalgo County

Countywide	11	2000CST			0	0			Urban/Sml Stream Fld
	12	0600CST							

Willacy County

Countywide	12	0000CST			0	0			Urban/Sml Stream Fld
		0700CST							

Cameron County

Countywide	12	0100CST			0	0			Urban/Sml Stream Fld
		0700CST							

Hidalgo County

Mccook	14	1330CST			0	0			Hail (1.75)
		1340CST							

Hidalgo County

Mission	14	1405CST			0	0			Hail (4.50)
		1430CST							

TEXAS, South Central

**TXZ183>184-202>204- Val Verde - Edwards - Kinney - Uvalde - Medina - Maverick - Zavala - Frio - Atascosa - Dimmit
217>220-228**

01		0001CST			0	0	4M	10M	Drought
31		2359CST							

Scattered showers and thundestorms added some moisture to soils across South Central Texas, mainly northeast of a line from Kerrville to San Antonio to Karnes City. Drought conditions continued through March over the southwestern portion of this area. Monthly damages are based on the estimated annual loss to agriculture across all of Texas through this year. Property damages do not include business or commercial revenue losses.

Frio County

Moore	01	2324CST			0	0	0	0	Hail (0.75)
		2330CST							

Medina County

Hondo	02	0010CST			0	0	0	0	Thunderstorm Wind
		0020CST							
Trees blown down near Hondo.									

Uvalde County

Utopia	02	0115CST			0	0	0	0	Hail (1.25)
		0120CST							

Comal County

Canyon Dam	02	0130CST			0	0	0	0	Hail (0.75)
		0135CST							

Comal County

12 NE Spring Branch	02	0140CST			0	0	0	0	Hail (0.75)
		0145CST							

Bandera County

Bandera	02	0140CST			0	0	0	0	Hail (0.75)
		0145CST							

Hays County

Wimberley	02	0145CST			0	0	0	0	Hail (1.00)
		0150CST							

Kerr County

Center Point	02	0150CST			0	0	0	0	Hail (0.75)
		0155CST							

Kendall County

7 SE Boerne	02	0220CST			0	0	0	0	Hail (0.75)
		0225CST							

Reported at Fair Oaks Estates.

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TEXAS, South Central</u>									
Bexar County									
San Antonio	02	0225CST 0230CST			0	0	0	0	Hail (0.75)
Hail reported near Wincrest Mall.									
Kerr County									
Eastern Part	11	1830CST 2000CST			0	0	20K	0	Flash Flood
Nearly 4 inches of rain fell within 2 hours, producing countywide flash flooding of low lying areas in the eastern part of the county.									
Gillespie County									
Countywide	11	1915CST 2030CST			0	0	15K	0	Flash Flood
Over 4 inches of rain fell within 2 hours, producing widespread flash flooding across most of the county.									
Burnet County									
Watson	29	2150CST 2157CST			0	0	0	0	Hail (0.75)
Medina County									
Hondo	30	0545CST 0550CST			0	0	0	0	Thunderstorm Wind
Trees were knocked down by severe winds.									
Medina County									
Devine	30	0610CST 0620CST			0	0	0	0	Thunderstorm Wind
Trees were knocked down by severe winds.									
Frio County									
3 S Pearsall to 3 SE Pearsall	30	0640CST 0650CST			0	0	5K	100K	Hail (2.50)
Hail, along with high winds later in the morning, destroyed crops in a 5,000 acre area just south of Pearsall.									
Frio County									
Pearsall to 3 SE Pearsall	30	0645CST 0650CST			0	0	20K	50K	Thunderstorm Wind
Crops were damaged and power lines were knocked down in and near Pearsall by high winds.									
Frio County									
Pearsall	30	0730CST 0745CST			0	0	20K	5K	Thunderstorm Wind
Windows in Pearsall were broked due to high winds.									
<u>TEXAS, South Panhandle</u>									
NONE REPORTED.									
<u>TEXAS, Southeast</u>									
Jasper County									
Buna	18	1522CST			0	0	10K		Thunderstorm Wind
The Jasper County Sheriff Department reported several trees blown down on power lines in Buna.									
Newton County									
4 NW Deweyville	18	1558CST			0	0	20K		Thunderstorm Wind
The Jasper-Newton Electric Company reported several power poles and lines blown down along Highway 87 near Deweyville.									
<u>TEXAS, West</u>									
Howard County									
Sand Spgs	24	1950CST			0	0			Hail (0.75)
The dry line and a weak upper level disturbance combined to produce severe thunderstorms in the eastern areas this evening. Other storms appeared severe on radar but were in uninhabited areas.									
<u>TEXAS, Western North</u>									
Archer County									
7 N Archer City	24	2325CST			0	0			Hail (0.75)
Clay County									
Lake Arrowhead	24	2345CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

March 1997

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

TEXAS, Western North

Clay County									
6 S Henrietta	29	2028CST			0	0			Hail (1.00)
Clay County									
6 SE Henrietta	29	2028CST			0	0			Thunderstorm Wind

A tractor-trailer rig was jack-knifed on Highway 287 by severe thunderstorm winds.

UTAH, North, Central and South

UTZ002>004-006>010	Northern Wasatch Front/Brigham City/Ogden Bountiful - Salt Lake And Toole Valleys - Southern Wasatch Front/Lehi/Provo/Nephi - Wasatch Mountain Valleys/Huntsville/Park City/Heber - Wasatch Mountains I80 North - Wasatch Mountains South Of I80 - Western Unita Mountains - Wasatch Plateau/Book Cliffs								
02	1000MST				0	30	500K		Heavy Snow
04	2200MST								

A strong cold front moved through the state dumping criteria snowfall across northern Utah. Snow occurred in the south but remained below warning criteria. In northwest Utah behind the front, snow bands developed over the Great Salt Lake. 1-2' of snow generally fell in the mountains and 2-10" in the valleys. Alta had the most snowfall with 30". Magna had 11" for tops in the valleys. Numerous traffic accidents and several small avalanches occurred.

UTZ001>008-010-015>016-019	Cache Valley/Utah Portion - Northern Wasatch Front/Brigham City/Ogden Bountiful - Salt Lake And Toole Valleys - Southern Wasatch Front/Lehi/Provo/Nephi - Great Salt Lake Desert And Mountains/Wendover/Snowville - Wasatch Mountain Valleys/Huntsville/Park City/Heber - Wasatch Mountains I80 North - Wasatch Mountains South Of I80 - Wasatch Plateau/Book Cliffs - West Central Utah/Delta - Southwest Utah/Cedar City/Milford - Utah'S Dixie And Zion National Park								
31	0400MST				3	60	2M		Winter Storm
	1700MST								

A strong cold front roared through Utah on this date. High winds and local heavy snowfall were the main weather problems with this system. 6-14" of snow accumulated in the northern mountains and 2-6" elsewhere. High winds caused extensive damage. Some peak wind gusts were: Logan Peak (9600' ASL) 95 mph (83 kts), Solitude (9800') 90 mph (78 kts), 81 mph (70 kts) at the Saltair Marina, and 70 mph (61 kts) on top of the 6-story KSL building in downtown Salt Lake City. Numerous locations had wind gusts in excess of 50 mph. Damage included a roof being blown off a house in Salt Lake City. A mast on a sailboat being toppled at the Saltair Marina. Large trees were downed and several power outages occurred. Several traffic accidents resulted in numerous injuries and 3 fatalities. F56VE, M77VE, F58VE

UTAH, Northeast

NONE REPORTED.

VERMONT, North and Central

VTZ001>012	Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor								
05	2200EST				0	0	385K		Winter Storm
06	2200EST								

An area of low pressure moved out of the Ohio Valley Wednesday night (3/5/97) and across central New England early Thursday (3/6/97). It intensified into a "big one" and moved into the Canadian maritimes Thursday night.

Accumulations of heavy wet snow were generally 10 to 20 inches across North Central and Northeast Vermont with 8 to 16 inches across Southern and Western Vermont. However, the greatest amount reported was 28 inches at Jay Peak along the Franklin/Orleans county border.

At least 25,000 people lost power during the storm due to the heavy wet snow downing powerlines primarily in the counties of: Orange, Windsor, Caledonia, Rutland, Essex, Addison and Washington. In addition, portions of I-89 were closed due to numerous traffic accidents. Numerous traffic accidents were reported across the entire area.

A few snowfall reports from this storm were:

Jay Peak (Franklin/Orleans County border).....	28 inches
Sutton (Caledonia County).....	18 inches
Brookfield (Orange County).....	18 inches
Eden (Lamoille County).....	17 inches
Shoreham (Addison County).....	16 inches
Waitsfield (Washington County).....	16 inches
Albany (Orleans County).....	16 inches
Rutland (Rutland County).....	12 inches
Rochester (Windsor).....	12 inches

Storm Data and Unusual Weather Phenomena

March 1997

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

VERMONT, North and Central

South Burlington (Chittenden County).....11 inches
 Enosburg Falls (Franklin County).....11 inches
 Island Pond (Essex County).....11 inches

VTZ005

Chittenden

12	1200EST 1500EST				1	0	40K		Snow Squalls
----	--------------------	--	--	--	---	---	-----	--	---------------------

Snow Squalls moved across western Vermont. The heaviest snow was concentrated in Chittenden County. Near whiteout conditions were reported with numerous traffic accidents. One death occurred in a traffic accident due to icy snow covered roads during the snow squalls. M31VE

VTZ001>012

Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor

14	0900EST 2359EST				0	0	205K		Winter Storm
----	--------------------	--	--	--	---	---	------	--	---------------------

An area of low pressure in the Ohio Valley Thursday (3/13/97) afternoon moved into the eastern Great Lakes region midday Friday (3/14/97) and across northern New England Friday night.

Snow overspread the region Friday and mixed with sleet and freezing rain during Friday afternoon and night with ice accumulations on top of the snow.

Snow accumulations were generally 4 to 7 inches across the area before the mix or change to sleet or freezing rain. A few of the snow reports were as follows:

Bethel (Windsor County).....7 inches
 South Newbury (Orange County).....7 inches
 Newport (Orleans County).....6 inches
 West Burke (Caledonia County).....5 inches
 Island Pond (Essex County).....5 inches
 Morrisville (Lamoille County).....5 inches
 St Albans (Franklin County).....5 inches
 Jericho (Chittenden County).....5 inches
 Rutland (Rutland County).....4 inches

VTZ001>012

Grand Isle - Franklin - Orleans - Essex - Chittenden - Lamoille - Caledonia - Washington - Addison - Orange - Rutland - Windsor

21	2000EST				0	0	75K		Light Snow
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An area of low pressure moved across the Great Lakes late Friday (3/21/97) and reached the New England coast near Cape Cod, Massachusetts Saturday morning (3/22/97).

Snow fell across the area during Friday night ending early Saturday morning. Generally between 3 and 5 inches of snow fell across the area...with the greatest amounts in the mountains.

VTZ003>004-006>008

Orleans - Essex - Lamoille - Caledonia - Washington

25	1700EST 2359EST				0	0	25K		Light Snow
----	--------------------	--	--	--	---	---	-----	--	-------------------

A low pressure system moved through the central Great Lakes region Tuesday morning (3/25/97) and into Canada early Wednesday morning (3/26/97). Across portions of North Central and Northeast Vermont snow accumulations were between 3 and 5 inches before the precipitation mixed with sleet and freezing drizzle.

VTZ010>012

Orange - Rutland - Windsor

31	0900EST 2359EST				0	0	95K		Winter Storm
----	--------------------	--	--	--	---	---	-----	--	---------------------

A storm system along the middle Atlantic coast developed explosively during Monday (3/31/97). It moved slowly northeast passing east of New England overnight.

A mixture of rain and snow Monday changed to all snow and continued Monday night. The heaviest accumulations of wet snow fell across Rutland, Windsor and Orange Counties with general accumulations of 8 to 14 inches. However, the greatest amount was 17 inches at South Woodstock in Windsor County.

To the north, across Chittenden, Addison and Washington Counties, only 3 to 6 inches of snow fell. Further to the north, less than 3 inches of snow fell.

VTZ005-008>009

Chittenden - Washington - Addison

31	0900EST 2359EST				0	0	30K		Light Snow
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Storm Data and Unusual Weather Phenomena

March 1997

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

VERMONT, North and Central

VTZ005-008>009 Chittenden - Washington - Addison

31	0900EST 2359EST				0	0	30K		Light Snow
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VERMONT, South

VTZ014 Windham

05	2300EST				0	0			Heavy Snow
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06 2000EST

During March 5 and 6, a low pressure system moved from the Tennessee Valley northeast to Cape Cod. Heavy snow fell across the higher terrain of northern Windham County. Just west of Brattleboro, 8 inches of snow fell with over one foot reported in the mountains.

VTZ013 Bennington

06	0600EST 1100EST				0	0	10K		High Wind
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During the morning of March 6, deep low pressure off the coast of New England produced damaging winds across parts of Bennington County. The damaging winds brought trees and power lines down, which resulted in power outages.

VTZ014 Windham

09	2300EST				0	0			Heavy Snow
----	---------	--	--	--	---	---	--	--	------------

10 0900EST

On March 10, a warm front with significant oceanic moisture dumped around 7 inches of snow across Windham County.

VTZ013>014 Bennington - Windham

14	0400EST 2300EST				0	0	20K		Winter Storm
----	--------------------	--	--	--	---	---	-----	--	--------------

On March 14, a complex area of low pressure tracked from northern Ohio northeast to southern Ontario Canada. This system produced several hours of heavy snow across Bennington and Windham Counties. The snow changed to sleet and eventually to freezing rain which caused significant icing. Snowfall totals generally ranged from 2 to 5 inches with up to 8 inches in the Green Mountains. The icing resulted in treacherous driving conditions along with downed trees and power lines. Scattered power outages occurred across this region.

VTZ013>014 Bennington - Windham

31	0800EST 2359EST				0	0	1.5M		Winter Storm
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On March 31 and April 1, a classic late season nor'easter tracked from the Chesapeake Bay area northeast to central coastal New Jersey then slowly out to sea. This system produced rain across Bennington and Windham Counties during the morning hours of March 31. The rain changed to heavy wet snow by early afternoon. Snowfall amounts were highly elevation dependent. Some specific snowfall totals included: 12 inches at Shaftsbury and 13 inches at Peru in Bennington County and 23 inches at West Wardsboro and 12 inches at Grafton in Windham County. The wet snow brought down many trees and power lines causing widespread power outages and road closures. Some areas remained without power for several days. Route 9, between Bennington and Brattleboro was closed for much of the night.

VIRGIN ISLANDS

St. Croix County

St. Croix

21	1650AST 1705AST				0	0			Waterspout
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A pilot reported a waterspout 15 miles northwest of St. Croix.

VIRGINIA, East

Mecklenburg County

Clarksville to South Hill

05	1925EST 1935EST				0	0	4K		Thunderstorm Wind
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Numerous trees blown down onto power lines from Clarksville to Boydton to South Hill.

Suffolk (C)

Holland

29	1415EST				0	0			Hail (1.75)
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Chesapeake (C)

Deep Creek

29	1425EST				0	0			Hail (0.88)
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Northampton County

Exmore

29	1430EST				0	0			Hail (1.25)
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Accomack County

Belle Haven

29	1430EST				0	0			Hail (0.75)
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Portsmouth (C)

Portsmouth

29	1430EST				0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

March 1997

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

VIRGINIA, East

Accomack County

New Church	29	1445EST			0	0			Hail (0.75)
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Virginia Beach (C)

Virginia Beach	29	1448EST			0	0			Hail (0.75)
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Norfolk (C)

Norfolk	29	1500EST			0	0			Hail (1.25)
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VIRGINIA, Extreme Southwest

Lee County

Blackwater	05	1130EST			0	0	12K	5K	Thunderstorm Wind
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Trees and power lines down in Blackwater area.

Lee County

Jonesville	25	2315EST			0	0	1K	4K	Thunderstorm Wind
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Trees and a canopy blown down in Jonesville.

VIRGINIA, North

VAZ042-052>057

Loudoun - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

06	0400EST				0	0	35K		Gusty Winds
	1600EST								

The combination of deep low pressure over the Canadian Maritime region with arctic high pressure over the midwestern U.S. produced northwesterly winds gusts to 50 mph or greater on land and as high as 54 mph over water. In Virginia, scattered power outages were reported in a swath from the northern Shenandoah Valley through the Northern Neck region.

VAZ021-025>031-036>042-050>057

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

31	1600EST				0	1	500K		Gusty Winds
	2359EST								

A nor'easter, languishing off the middle Atlantic coast, produced sustained winds between 25 and 40 mph with gusts to 50 mph or higher over much of northern Virginia. The winds caused scattered damage to buildings under construction, roofs, and trees and power lines. In Fairfax Co (VAZ053), damage included a partial unroofing of the Pickwick shopping facility in Centreville. Several businesses were closed during the cleanup, with one of the businesses, a video store, condemned. In Vienna, two partially constructed town homes sustained damage. One of the homes was nearly destroyed, and the other had its top level collapse.

There were several damage reports from Arlington Co (VAZ054), and even one injury. An elderly woman (over 70 years of age) was blown down and sustained head lacerations, requiring a brief hospital stay. A town home under construction was damaged. A large oak tree, at least 15 feet in diameter, was uprooted, totalling a nearby automobile. Several trees in its path were damaged, and a portion of the tree fell onto a home. Another uprooted tree destroyed a deck along South Sixth Street. A roof facing was blown off an office building along Wilson Blvd, causing damage to several nearby automobiles. A woman was trapped in her car by a fallen utility pole in Alexandria.

Counties along the tidal Potomac River also sustained some damage. In Nokesville (VAZ052- Prince William Co), a woman was trapped in a market when its awning collapsed. At least 20 reports of down trees were logged in Prince William Co. A boat was reported missing on the tidal Potomac east of Stafford Co (VAZ055).

The Shenandoah Valley was not spared the damage, either. In Staunton (VAZ025), two 80-foot sycamore trees fell onto a roof due to channeling winds through a valley along Jennings Branch Creek. A 38-foot metal roof was blown off a nearly completed barn at the Ammonett Farm. In Elkton (VAZ026), a mobile home's roof was peeled off by the gusty winds. Several other homes across the region reported minor damage to shingles and siding. Nearly a dozen trees were blown down in Fauquier Co (VAZ041). At least 20 trees were reported down in Shenandoah Co (VAZ027), with nearly one-third of all utility customers in the county without power.

Much of the damage occurred during the late afternoon and evening, when wind gusts exceeded 45 mph across much of the region. Power outages across northern Virginia put over 20,000 customers in the dark on the 31st. Outages included 4900 customers in the Woodbridge/Occoquan area; nearly 10,000 customers in the Spotsylvania/Stafford/King George region, and roughly 2000 across portions of the Shenandoah Valley.

VIRGINIA, Northwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

March 1997

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

VIRGINIA, Southwest

Smyth County
Countywide

03 1145EST
1330EST 0 0 Flash Flood

Henry County
Countywide

03 1200EST
1400EST 0 0 Flash Flood

Heavy rain during the late morning and early afternoon hours on the 3rd produced flash flooding which resulted in the closing of several roads throughout Smyth and Henry Counties.

VAZ044-058

Pittsylvania - Halifax

04 0200EST 0 0 Flood
06 1200EST

Heavy rainfall during the early part of March resulted in minor flooding on the Dan River.

The Dan River crested almost 1.5 feet above flood stage at Danville at 1400 EST on the 4th, just over half a foot above flood stage at Paces at 0330 EST on the 5th, and just over 4 feet above flood stage at South Boston at 1230 EST on the 5th.

VAZ047

Buckingham

05 0400EST 0 0 Flood
1200EST

Heavy rainfall during the early portion of March resulted in minor flooding on the James River. The James River crested about one-third foot above flood stage at Brems Bluff at 0800 EST on the 5th.

Danville (C)
Danville

05 1825EST 0 0 Thunderstorm Wind

Halifax County
Cluster Spgs

05 1905EST 0 0 3K Thunderstorm Wind

Thunderstorm winds during the evening hours on the 5th produced damaging winds in portions of south-central Virginia. Thunderstorm winds knocked down numerous trees in Danville and toppled a tree onto a car in Cluster Springs, totaling the car.

VAZ024-043>044

Rockbridge - Henry - Pittsylvania

31 1200EST 0 0 4K High Wind
2230EST

High winds during the afternoon and evening hours on the 31st knocked down a tree and tore a portion of a roof off a building in Lexington and knocked down power lines in Henry and Pittsylvania Counties.

WASHINGTON, Northeast

NONE REPORTED.

WASHINGTON, Northwest

WAZ035

Northeast Mountains

08 1200PST 1 0 Avalanche
1205PST

An avalanche kills a man while snowmobiling. M28OU

Kitsap County
Bremerton

15 0400PST 0 3 750K Heavy Rain
19 0400PST

Rainfall amounts, in inches, in the 24 hour period ending at 4 am on the 18th were, in the southern Olympics, Wynoochee Dam 6.77, at Wishkah Headworks 6.02. In the 24 hour period ending at 4 am on the 19th: In the southern Olympics, Wynoochee Dam 10.96 and Wishkah Headworks 7.30. At Francis, in the southwest interior, 5.10 inches. Seatac, 2.18 and Bremerton 5.38 inches. Many places in the Cascades received over 3 inches. The 5 day totals from the 15th to the 19th ranged from 14 to 22 inches in the southern Olympics, 4 to 9 inches in the southwest interior and 3 to 6 inches over Puget Sound.

The heavy rain resulted in about 40 mudslides in Western Washington. At least 21 homes were evacuated and one home was knocked into Puget Sound from Bainbridge Island. Several homes were damaged by mudslides as well as a vehicle and a condo.

In Bremerton the new monthly rainfall record for March was broken as of March 20th. The old record was 10.23 and as of the morning of the 20th they had 11.59 inches of rainfall. There were several highways closed due to the heavy rains washing out parts of the roadways.

Grays Harbor County
Montesano

15 0400PST 0 0 1.2M Heavy Rain
19 1600PST

Along the coast 5 day rainfall totals from the 15th to the 19th ranged from 6.18 inches at Hoquiam to 12.03 inches at Forks. Montesano had 9 inches in the 24 hr period ending at 8 am on the 19th. Nearly 300 people were evacuated from their homes with damage to about 380 structures in Grays Harbor County. Grays Harbor was one of 10 counties that were in a state of emergency. 13 county roads were closed, including a stretch of Highway 101 that had never flooded before. The number of houses damaged

Storm Data and Unusual Weather Phenomena

March 1997

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

WASHINGTON, Northwest

by flooding or mudslides over the 5 day period was nearly 300 with 10 destroyed. Some people had nearly 5 ft of water in their homes.

WAZ034>035

Spokane - Northeast Mountains

15	1100PST 2330PST				0	0			Heavy Snow
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3 to 5 inches of snow fell around Spokane disrupting traffic along I-90 and U.S. Highway 95. Snoqualmie Pass also closed for the day.

WAZ016

Central Coast

17	2200PST				0	0			High Wind (G50)
18	0600PST								

Along with the heavy rain winds gusted to 58 mph, knocking out power to 2500 South Beach residents.

WAZ006>008-010>011

Everett And Vicinity - Seattle Metropolitan Area - Tacoma Area - Hood Canal/Kitsap Peninsula - West Central Interior

20	0100PST 2200PST				0	0	1.2M		Flood
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Flooding occurred on the Chehalis, Skykomish, Snohomish, Stillaguamish, Skagit, Naselle, Willapa, Satsop, Wynoochee, Elwha, Cedar and Tolt rivers. This was the first time in about 20 years the Wynoochee River flooded and about 150 people were evacuated along its banks. There were homes along the Wynoochee that had 5 to 8 feet of water in them. 10 counties were in a state of emergency from the heavy rains and river flooding. In Stanwood, it took about an hour for a park and ride lot to fill with 5 ft of water, flooding 13 cars. The damage from these floods also includes damage from the 5 days of heavy rain.

WAZ001>003-005>016

Sanjuan - Western Whatcom - Northern Casade Foothills - Northwest Interior - Everett And Vicinity - Seattle Metropolitan Area - Tacoma Area - Admiralty Inlet Area - Hood Canal/Kitsap Peninsula - West Central Interior - Olympics - Eastern Strait Of Juan De Fuca - Western Strait Of Juan De Fuca - North Coast - Central Coast

30	1300PST 2100PST				2	4	250K		High Wind (G71)
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Two deaths were reported from a wind storm that hit on Easter Sunday. One woman was killed when a tree fell on the pickup truck her husband was driving. Another man died when his canoe overturned in the winds and seas on Burley Lagoon off of Puget Sound. Many other boaters on Puget Sound needed rescuing, although a gale warning was issued at 830 pm the night before. About 160,000 customers lost power in the storm and 3 houses were damaged from fallen trees. In Jefferson County up to 40 roads were blocked and part of a 130 year old tree was knocked over. Peak winds reported were: On the coast, Westport, 71 mph; Hoquiam, 60 mph. Puget Sound, Hood Canal Bridge, 71 mph; West Point, 64 mph; Bangor 68 mph. In the Northwest Interior, Point Wilson, 82 mph; Burlington and Smith Island, 71 mph; Bellingham, 60 mph. F35VE, M45BO

WASHINGTON, Southeast

WAZ025

East Slopes Southern Cascades

01	0000PST 2359PST				0	0			Avalanche
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Avalanches closed Interstate 90 over Snoqualmie Pass after two feet of snow fell. Some cars were nearly buried but there were no injuries.

WAZ028

Lower Columbia Basin

30	1300PST 1800PST				0	0			High Wind
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Wind fallen trees caused power outages, one traffic accident, and one fell on two rows of parked cars. Wind blown dust dropped visibility to near zero on Interstate 182 between Pasco and Richland. A driver fighting the wind overcorrected and rolled the car.

WAZ028

Lower Columbia Basin

30	1200PST 1900PST				0	0			High Wind
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Three tent trailers blew off their bases at a RV sales lot. Two were destroyed and the other was damaged. Several trees...power poles and street signs blew down.

WASHINGTON, Southwest

WAZ021

South Coast

30	0900PST 1700PST				0	0	10K		High Wind
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A strong Pacific storm brought high winds to the southern Washington coast on Easter Sunday. At 945 at Cape Disappointment winds gusted to 58 mph; at 1230 PM at Megler a gust to 87 mph was reported; at 221 PM South Bend had a gust to 62 mph; and at 430 PM Long Beach reported a gust to 74 mph.

WAZ039

Vancouver Area

30	1100PST 1200PST				0	0	0		High Wind
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Winds gusted to 60 mph at Hockinson at 1150 AM.

Storm Data and Unusual Weather Phenomena

March 1997

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

WVZ050>053	Hampshire - Morgan - Berkeley - Jefferson								
	06	0300EST 1600EST			0	0	30K		Gusty Winds

The combination of deep low pressure over the Canadian Maritime region with arctic high pressure over the midwestern U.S. produced northwesterly wind gusts to 50 mph. In eastern Berkeley Co (WVZ052), a single-wide trailer was destroyed at around 3 AM. The home was uninhabited. Scattered tree and power outages were also reported in the panhandle.

Berkeley County Hedgesville

29	1220EST				0	0		Hail (0.88)
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A line of strong to severe thunderstorms, associated with a vigorous upper-level disturbance acting on relatively unstable air, produced several instances of hail and wind gusts up to 50 mph in the eastern panhandle of West Virginia around noon. One cell dropped nickel-sized hail in Hedgesville; other cells dropped hail the size of peas and marbles. No damage was reported.

WVZ048>055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy									
	31	1600EST 2359EST			0	0	53K		Gusty Winds

A nor'easter, languishing off the middle Atlantic coast, produced sustained winds between 25 and 35 mph with gusts to 45 mph or higher over all of eastern West Virginia. The winds caused isolated damage and power outages.

WEST VIRGINIA, North

Wetzel County

1 N New Martinsville	02	0050EST 1900EST			0	0	500K		Flash Flood
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Heavy rains led to widespread flood problems throughout Wetzel County. A Skywarn observer first reported flooding along Williams Run, 1 mile north of New Martinsville, and flood waters covered part of Route 2. Hydro Drive was also flooded. Route 7 and 20 were also flooded. Six feet of water covered Route 20 near Reader. A total of about 20 businesses and 110 homes were affected by flood waters in the County. By evening, a few low-lying areas remained under water, but in most areas the water had receded.

Marshall County Bellton

02	0240EST 1900EST				0	0	5K		Flash Flood
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Fish Creek went out of its banks and caused road flooding near Bellton. Little Grave Creek near Glendale and Big Grave Creek near Moundsville also went out of their banks and flooded nearby roads. Fish Creek also flooded along County Road 74 with as much as 3 feet of water and 1 foot of water over a bridge near Graysville. Runoff problems and rock/mudslides were also reported along State Route 2 near Glendale and McMechen.

Marion County Mannington

02	0930EST 1900EST				0	0			Flash Flood
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Several roads near Mannington were flooded. Route 19 at Whiterock was closed between Fairmont and Monongah. Route 19 at Rivesville was also closed. Widespread rainfall totals of 1 to 2 inches was reported across the county.

Monongalia County 4 E Blacksville

02	0930EST 1400EST				0	0	20K		Flash Flood
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A SKYWARN spotter reported 2.3 inches storm total rainfall, 4 miles east of Blacksville. Dunkard Creek was out of its banks and a few homes were flooded. Nearby Jakes Run was also flooded.

Wetzel County

1 N New Martinsville	02	1900EST 2100EST			0	0			Flash Flood
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Marshall County Bellton

02	1900EST 2100EST				0	0			Flash Flood
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Marion County Mannington

02	1900EST 2130EST				0	0			Flash Flood
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Flooding continued throughout Marion County.

WEST VIRGINIA, Southeast

Greenbrier County

1 W Alderson	03	1035EST 1115EST			0	0			Flash Flood
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Storm Data and Unusual Weather Phenomena

March 1997

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, Southeast

Greenbrier County

Caldwell	03	1100EST 1430EST			0	0	Flash Flood
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WVZ043>045

Summers - Monroe - Greenbrier

04	0300EST 1200EST			0	0	Flood
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Heavy rainfall during the morning hours on the 12th produced flash flooding in Greenbrier County and minor flooding on the Greenbrier River.

Flash flooding resulted in the closing of route 12 just west of Alderson and Monroe Draft road near Caldwell.

The Greenbrier River crested a little over half a foot above flood stage at Alderson at 0345EST on the 4th.

WEST VIRGINIA, West

Wayne County

Countywide	01	0645EST 1400EST			0	0	2M Flash Flood
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Lincoln County

Countywide	01	0700EST 1400EST			0	0	700K Flash Flood
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Jackson County

Countywide	01	0830EST 1600EST			0	2	200K Flash Flood
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Mason County

Countywide	01	0830EST 1600EST			0	0	300K Flash Flood
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Kanawha County

Countywide	01	0830EST 1600EST			0	0	3.5M Flash Flood
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Putnam County

Countywide	01	0830EST 1600EST			0	0	200K Flash Flood
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Roane County

Countywide	01	0830EST 1600EST			0	0	1.5M Flash Flood
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Clay County

Countywide	01	0900EST 1600EST			0	0	500K Flash Flood
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Calhoun County

Countywide	01	0930EST 1600EST			0	0	500K Flash Flood
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Webster County

Countywide	01	0930EST 1400EST			0	0	50K Flash Flood
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Gilmer County

Countywide	01	1300EST 1800EST			0	0	100K Flash Flood
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Braxton County

Countywide	01	1300EST 1800EST			0	0	50K Flash Flood
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Boone County

Seth	01	1736EST			0	0	3K Thunderstorm Wind
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Trees and powerlines were blown down.

Kanawha County

Chelyan	01	1745EST			0	0	2K Thunderstorm Wind
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Trees fell across roads.

Doddridge County

Countywide	02	0030EST 0600EST			0	0	10K Flash Flood
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Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, West									
Pleasants County									
Countywide	02	0030EST 0600EST			0	0	10K		Flash Flood
Ritchie County									
Countywide	02	0030EST 0600EST			0	0	50K		Flash Flood
Tyler County									
Countywide	02	0030EST 0600EST			0	0	150K		Flash Flood
Wirt County									
Countywide	02	0030EST 0700EST			0	0	300K		Flash Flood
Wood County									
Countywide	02	0030EST 0600EST			0	0	50K		Flash Flood
Cabell County									
Countywide	02	0100EST 1500EST			0	0	1M		Flash Flood
Putnam County									
Countywide	02	0100EST 0900EST			0	0	50K		Flash Flood
Braxton County									
Countywide	02	0100EST 0900EST			0	0	25K		Flash Flood
Calhoun County									
Countywide	02	0100EST 0900EST			0	0	10K		Flash Flood
Clay County									
Countywide	02	0100EST 0900EST			0	0	100K		Flash Flood
Gilmer County									
Countywide	02	0100EST 0900EST			0	0	10K		Flash Flood
Kanawha County									
Countywide	02	0100EST 1500EST			0	0	1M		Flash Flood
Lincoln County									
Countywide	02	0100EST 0900EST			0	0	15K		Flash Flood
Roane County									
Countywide	02	0100EST 0900EST			0	0	100K		Flash Flood
Wayne County									
Countywide	02	0100EST 0900EST			0	0	100K		Flash Flood
WVZ017		Wirt							
	02	0700EST			0	0	500K		Flood
	04	1200EST							
WVZ008		Jackson							
	02	0800EST			0	0	300K		Flood
	06	0400EST							
WVZ007		Mason							
	02	0800EST			0	0	700K		Flood
	06	0800EST							
WVZ018		Calhoun							
	02	0900EST			1	0	200K		Flood
	03	0800EST							
		M73OU							

Storm Data and Unusual Weather Phenomena

March 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WEST VIRGINIA, West									
WVZ009		Wood							
	02	1600EST			0	0	400K		Flood
	04	1700EST							
WVZ006		Cabell							
	02	1900EST			0	0	700K		Flood
	07	0800EST							
WVZ005		Wayne							
	02	1900EST			2	0	500K		Flood
	07	1900EST							
		F44VE, M38VE							
Lincoln County									
Countywide	03	1130EST 1300EST			0	0	5K		Flash Flood
Kanawha County									
Countywide	03	1130EST 1300EST			0	0	5K		Flash Flood
Putnam County									
Countywide	03	1130EST 1300EST			0	0	5K		Flash Flood

Showers and thunderstorms hit the western lowlands 3 separate times from the predawn of Saturday, the 1st, into midday Monday, the 2nd. Rainfall totals of 5 to 7.5 inches were measured. The southern extent of the heavy rain went from near Glenhayes of Wayne County on northeast to Madison, Marnet, Clay, and Hacker Valley. The northern edge of the heavy rain was near Parkersburg, Harrisville, and Burnsville.

The heaviest rain rates were on Saturday. One to 2 inches of rain fell in just 3 hours early Saturday morning over northern and central Wayne County. These rain rates also hit northern Kanawha, northern Clay, southern Roane, southern Jackson, and southern Calhoun Counties during Saturday morning. Lulls in the rain occurred late Saturday afternoon and again on Sunday. The rains on Monday morning, the 3rd, caused little additional damage. However, some of the larger streams did rise again, blocking roads that had previously been reopened.

The full spectrum of flooding occurred. President Clinton declared 16 West Virginia counties a federal disaster, 15 of which were in this section of the state. The 15 include Braxton, Cabell, Calhoun, Clay, Gilmer, Jackson, Kanawha, Lincoln, Mason, Putnam, Roane, Tyler, Wayne, Wirt, and Wood. Because of population density, the highest damage estimates were from Kanawha County. All total, about 220 homes were destroyed, 550 to 600 homes received major damage. The majority of the homes affected were low income dwellings. Wayne County had the most homes destroyed with around 80 dwellings. FEMA reported around 2,000 checks for individual assistance had been distributed, amounting to about 5 million dollars. The National Guard activated about 600 people to aid in the flood clean-up.

Flash flooding on small feeder creeks began before dawn in Wayne County. The most extensive flooding in Wayne County was along the lower reaches of Twelvepole Creek. Rain totals were less across extreme southern Wayne County. The water and sewage plant for the community of Wayne was damaged. Hurricane, Mill and even small Tabor Creek ripped out small private bridges. Further east, in Lincoln County, Ten Mile Creek also destroyed private bridges and flooded homes near Cuzzie. Later on the 1st, these rains caused the Mud River to flood Hamlin. By the predawn hours of Sunday, the 2nd, the Mud River was flooding homes, about 10 businesses, and an elementary school in Milton of Cabell County with 1 to 3 feet of water. In the aftermath, about 800 tons of damaged items were collected and hauled to a landfill from just this one region.

Further north, small streams that feed into the Pocatalico River flooded quickly on Saturday. This included Allen Fork and Haines Branch near Sissonville and the Pocatalico Creek near Goldtown of Jackson County. Even toward the headwaters, small streams flooded around Walton of Roane County.

The Big Sandy Creek basin saw severe flash flooding on Saturday and Saturday night. Flooding occurred from its headwaters around Newton, escalating around Amma, Cotton, and Osborne. A helicopter was used to rescue Amma residents from their roofs. Just to the east, Big Otter Creek flooded homes and destroyed private bridges in Clay County, from near Interstate 79 to Ivydale. This included the small tributaries of Rush Fork and Otterlick Run.

The West Fork of the Little Kanawha also received this heavy rain on Saturday. This eventually flooded Orma and Arnoldsburg of Calhoun County. Homes, a few businesses and an elementary school were damaged.

In response, the Elk, Pocatalico, and Little Kanawha Rivers flooded. At Sissonville, the Pocatalico River rose 26 feet in 12 hours on Saturday, cresting at over 34 feet during midday Sunday. Rescue boats were used to move people stranded by flood waters. The junior high school and many homes were flooded.

Storm Data and Unusual Weather Phenomena

March 1997

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

WEST VIRGINIA, West

Flooding occurred on the mainstem of the lower Elk River, despite Sutton Dam releasing only its minimum flow. The lake elevation at Sutton rose 66 feet in the vertical, while holding back the headwater flow for several days. The 23 foot crest at Clay caused minor flooding. The crest at Queen Shoals was 25.35 feet during the predawn hours on the 2nd. This is 5 to 6 feet above flood stage. The crest was the highest stage at Queen Shoals since the Sutton Dam was completed in 1960, and slightly higher than the March 1967 flood. In Clendenin, where the Big Sandy Creek meets the Elk River, homes and businesses were flooded. Further down the river, a high school and a private school were damaged.

On the Little Kanawha River, the crest was about 4 to 6 feet above flood stage. At Glenville, the crest was 29.3 feet near dawn on the 2nd. The crest was just over 40 feet in Grantsville during midday Sunday, the 2nd. A local Grantsville reported said, "I've never seen the river come up so fast. We had cows, sheep, propane tanks, cars, and campers floating by". Evacuations took place in Creston, Elizabeth, and Burning Springs of Wirt County. The crest reached Elizabeth around 0100 EST on the 3rd. The 40 foot crest at Elizabeth flooded about 20 homes and 6 businesses in town. The crest was a record for Elizabeth, just above the March, 1967 level. A 73 year old man of the Russett-Stumptown region died late Sunday. He was walking through flood waters 1 to 2 feet deep, checking on family and friends. He was found floating in water near his home. The cause of death was ruled accidental drowning. Near the mouth of the Little Kanawha River, residents of the Happy Valley region of Wood County were flooded.

On the Ohio River, flooding occurred from Parkersburg to Kenova. The rate of rise was about a half foot per hour Saturday night in the Point Pleasant to Kenova reach. The magnitude of the flooding increased below the mouth of the Hocking River. Crests were 1 to 2 feet above flood stage around Parkersburg, but 6 to 8 feet around Huntington, Cerodo, and Kenova. The crest was around 50 feet at Point Pleasant late on the 4th. The crest at Huntington was about 2 feet deep along much of the floodwall, reaching a level of 57.52 feet during the predawn hours of the 5th. This was the highest level at Huntington since March, 1955. Two hospital employees, a 38 year old male and a 44 year old female, drown during the early morning hours of the 5th. They were driving home from work, after midnight, on County Route 7, 2 miles southeast of Cerodo in Wayne County. The backwater from the Ohio River had the water of a small creek about 2 to 3 feet over the road. The 2 people drowned in their vehicle. The car and their bodies were not discovered until the evening of the 6th.

Jackson County

Ripley	28	2315EST			0	0			Hail (0.75)
WVZ046			Pocahontas						
	31	1400EST			0	0			High Wind (G68)

A wind gust of 78 mph was recorded on Kennison Mountain near the Cranberry Glades.

WISCONSIN, Extreme Southwest

NONE REPORTED.

WISCONSIN, Northeast

WIZ013-018>022-030>031-035>040	Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee								
		01	0600CST		0	0			Fog
			1300CST						

Dense fog enshrouded much of central and northeast Wisconsin, reducing visibilities to one-quarter mile or less.

WIZ005-010>013-018>022-030>031-035>040-045-048>050	Vilas - Oneida - Forest - Florence - Marinette - Lincoln - Langlade - Menominee - Oconto - Door - Marathon - Shawano - Wood - Portage - Waupaca - Outagamie - Brown - Kewaunee - Waushara - Winnebago - Calumet - Manitowoc								
		13	0000CST		0	0			Heavy Snow
		14	1400CST						

A tremendous late winter snowstorm brought record breaking snow to parts of central and east central Wisconsin. Eight to twelve inch accumulations fell north of a line from Wausau (Marathon county) to Marinette (Marinette county) and across the southern portions of Winnebago, Calumet and Manitowoc counties. The rest of central, east central and northeast Wisconsin received 12 to 30 inches of snow. The heaviest snowfall occurred in Waushara county, with reports of 30 inches in Mt. Morris, 28 inches in Hancock and Wautoma, and 26 inches at Pine River. The southern portions of Wood, Portage and Waupaca counties, as well as the southwest part of Outagamie county received over 20 inches. Some specific amounts for these areas included 21 inches at Wisconsin Rapids (Wood county), 22 inches in Port Edwards (Wood county), 20 inches in Stevens Point (Portage county), 21 inches at Boelter Lake (Portage county), and 24 inches at Hortonville (Outagamie county). Two March snowfall records were broken in Green Bay. The storm total of 17.5 inches and the 24 hour snowfall of 14.5 inches (between 600 am March 13th through 600 am March 14th) were both records for the month of March.

Winds gusting as high as 30 to 35 mph caused additional problems across the area, with near-blizzard conditions reported at times. The combination of snow and wind made for treacherous travel conditions, resulting in numerous accidents. One accident in

Storm Data and Unusual Weather Phenomena

March 1997

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

northern Wood county involved 14 vehicles, with seven people sustaining injuries.

**WIZ005>010>012-
018>019**

Vilas - Oneida - Forest - Florence - Lincoln - Langlade

28	1200CST 2100CST				0	0			Fog
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A steady rainfall on top of a deep snow cover resulted in widespread dense fog across north central Wisconsin. Visibilities were reduced to a few hundred feet in some locales.

WISCONSIN, Northwest

WIZ001>004-006>009

Douglas - Bayfield - Ashland - Iron - Burnett - Washburn - Sawyer - Price

13	0400CST				0	0			Heavy Snow
14	2100CST								

A late-season winter storm spread heavy snow across much of northwestern Wisconsin. As the storm wound down for most locations on the 14th after dropping around a foot of snow, north winds produced lake effect snow over northern Iron County, causing snow totals in the Hurley area to jump to 20.5 inches. Other totals around the region were 8.5 inches in Spooner/Shell Lake, 12 in Patzau, 14 near Amnicon Falls, 11 at Oulu, 7 in the Bayfield area, 11 in Ashland, 12 in Glidden, and 8.5 in Phillips.

WISCONSIN, Southeast

WIZ068

Green

01	0000CST				0	0			Flood
06	1200CST								

Lowland river flooding, which started in February, continued into March on the Pecatonica River in and near Martintown. Although the maximum crest of 19.2 feet occurred in February, the highest level in March at this location was 13.2 feet on March 4th. The water level finally went below flood stage on March 6th at 1200 CST. Flooding in March was considered "minor."

**WIZ046>047-051>052-
056>060**

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee

12	2100CST				0	0			Heavy Snow
13	0900CST								

Strong warm air advection, focused into a narrow region by an upper level weather disturbance, triggered heavy snowfalls across parts of southcentral and eastcentral Wisconsin. Gusty northeast winds of 20 to 40 mph resulted in considerable blowing and drifting of the heavy, wet snow. Radar imagery suggested that the snowfall had a convective nature. A maximum of 13 inches fell at Dalton in southern Green Lake county. Other totals include 12 inches at Juneau (Dodge county), 10 inches at Portage (Columbia county) and in southeast Marquette county, 8 inches in Baraboo (Sauk county), and 6 to 7 inches across the southern parts of Fond du Lac and Sheboygan counties as well as the northern parts of Washington and Ozaukee counties. Numerous vehicle accidents were reported, resulting in several indirectly-related injuries.

WIZ046>047-051

Marquette - Green Lake - Fond Du Lac

13	0900CST				0	0			Heavy Snow
14	0900CST								

Another round of heavy snow affected parts of southcentral and eastcentral Wisconsin on the heels of a round of heavy snow during the previous 12 hour period. This second round was triggered by a low pressure system moving northeast through Illinois and Indiana. Thundersnow was observed in many locations. Maximum additional snowfalls reached 20 inches in extreme northern Marquette county, 18 inches in extreme northwest Green Lake county, 9 inches in extreme northwest Fond du Lac county, and 3 to 6 inches over Sauk, Columbia, Dodge, and Sheboygan counties. Consequently, the 36-hour snowfall totals reached 26 inches in northern Marquette county, 21 inches in extreme northwest Green Lake county, 15 inches in extreme northcentral Columbia county and extreme northwest Sauk county, and 14 inches in extreme northwest Fond du Lac county. These totals were new 24 hour March records, or new March storm records for some sites. Needless to say, there were numerous vehicle accidents, and several indirectly-related injuries.

WIZ065

Waukesha

17	2030CST 2359CST				0	0			Ice Storm
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Freezing drizzle accumulated to 3/8 of an inch on roads and sidewalks over parts of Waukesha county, especially in and around Hartland. Numerous vehicle accidents were noted, although there no were no serious indirectly-related injuries.

WISCONSIN, Southwest

**WIZ017-029-032>034-
041>044-053-055**

Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Monroe - Juneau - Adams - Vernon - Richland

13	0000CST				0	0			Winter Storm
14	0400CST								

10 to 20 inches of snow combined with strong winds to produce whiteout conditions in high terrain and open country. Many rural roads were blocked as drifts reached as much as 6 feet high. In La Crosse, 14.3 inches of snow on the 13th set a new 24 hour snowfall record for the month.

Storm Data and Unusual Weather Phenomena

March 1997

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, West

WIZ014>016-023>028 Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire
13 0100CST 0 0 Winter Storm
14 0600CST

Some snowfall amounts included 11 inches at Chippewa Falls, 10 inches at Ladysmith, 9 inches at Menomonie and Durand, 8 inches at Rice Lake and Stanley, 7.4 inches at Eau Claire and 7 inches at River Falls and Amery. The snow was mixed with freezing rain and sleet at times.

WYOMING, Central and West

WYZ012>013 Lander Foothills - Wind River Basin
03 2100MST 0 0 Heavy Snow
04 0900MST

Up to 9 inches of snow in Lander Foothills, 7 inches in Riverton.

WYOMING, Extreme Southwest

NONE REPORTED.

WYOMING, North Central

NONE REPORTED.

WYOMING, Northeast

WYZ054>058 Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston
12 0100MST 0 0 Winter Storm
13 0800MST

A winter storm of freezing drizzle, fog, and light snow turned roads into ice rinks and resulted in numerous power outages across northeast Wyoming.

WYOMING, Southeast

WYZ062>063 North Carbon - Snowy Range
01 1400MST 0 0 High Wind (G57)
2200MST

Strong winds occurred over and adjacent to the Snowy Range. Sustained winds were 40 to 50 MPH with a gust to 65 MPH at Arlington at 915 PM. The strong winds also created areas of poor visibility due to blowing and drifting snow.

WYZ062>063-066 North Carbon - Snowy Range - Laramie Range
05 0200MST 0 0 High Wind (G74)
1500MST

Strong winds occurred over and adjacent to the southern Laramie Range and the Snowy Range. Sustained winds were 45 to 55 MPH with a gust to 85 MPH at Buford at 930 AM.

WYZ062>064-066>067 North Carbon - Snowy Range - North Laramie Range - Laramie Range - Platte
09 2200MST 0 0 High Wind (G61)
10 0900MST

Strong winds occurred over and adjacent to the Snowy Range and Laramie Range. Sustained winds were 50 to 60 MPH with a gust to 70 MPH at Arlington at 230 AM.

WYZ062>066 North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range
14 1700MST 0 0 Heavy Snow
15 0800MST

Heavy snow fell over southeast and south central Wyoming. Sixteen inches fell at Elk Mountain in the Snowy Range and 15 inches fell at the Ames Monument in the Laramie Range. Ten inches fell at the Snowy Range ski area and Laramie received 7 inches.

WYZ059>060-062>070 Converse - Niobrara - North Carbon - Snowy Range - North Laramie Range - Laramie Valley - Laramie Range - Platte - Goshen - Cheyenne Foothills - Pine Bluffs
27 0900MST 0 0 High Wind (G55)
2100MST

STORM DAMAGE CATEGORIES

REFERENCE NOTES

1	Less than \$50	0 / Blank	None reported.
2	\$50 to \$500	*	Miles instead of yards.
3	\$500 to \$5,000	**	Yards instead of miles.
4	\$5,000 to \$50,000	@	Includes heavy sleet storm.
5	\$50,000 to \$500,000	#	Freezing drizzle and freezing rain, commonly known as glaze.
6	\$500,000 to \$5 Million	=	Report incomplete.
7	\$5 Million to \$50 Million	= =	Report not received.
8	\$50 Million to \$500 Million		
9	\$500 Million to \$5 Billion	o/c	Indicates Crop Damage amount is included in the value give for property damage.

When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

Definition of Fujita Tornado Scale (F Scale)

(F0) Gale tornado (40-72 mph) : Light damage; Some damage to chimneys; break branches off trees; push over shallow-rooted trees; signs and billboards damaged.

(F1) Moderate tornado (73-112 mph): Moderate damage; The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage; Roofs torn from frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

(F3) Severe tornado (158-206 mph): Severe damage; Roofs and some walls torn from well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(F4) Devastating tornado (207-260 mph): Devastating damage; Well-constructed houses leveled; structure with weak foundations blown off some distance; cars thrown and large missiles generated.

(F5) Incredible tornado (261-318 mph): Incredible damage; Strong frame houses lifted from foundation and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 meters; trees debarked; incredible phenomena will occur.

(F6-F12) (319 mph to Mach 1, the speed of sound): The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

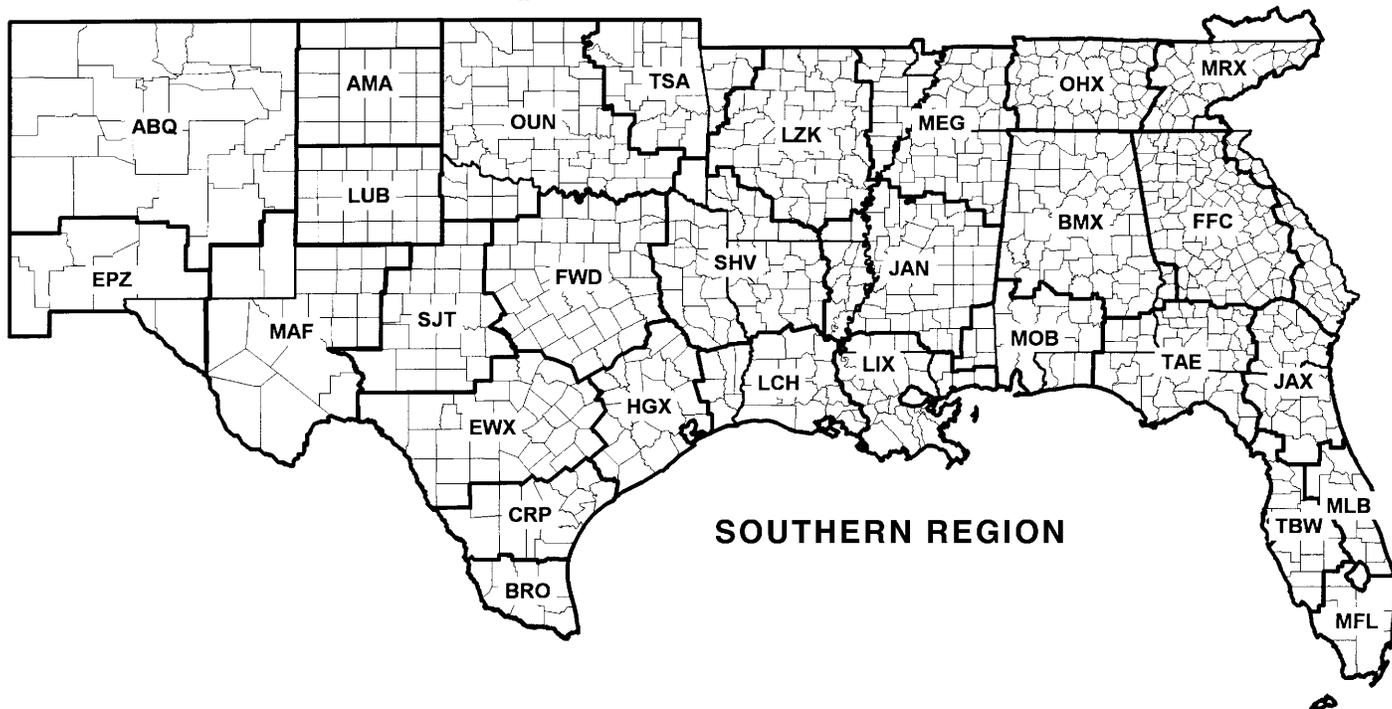
(F0+F1) Weak Tornado
(F2+F3) Strong Tornado
(F4+F5) Violent Tornado



COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS

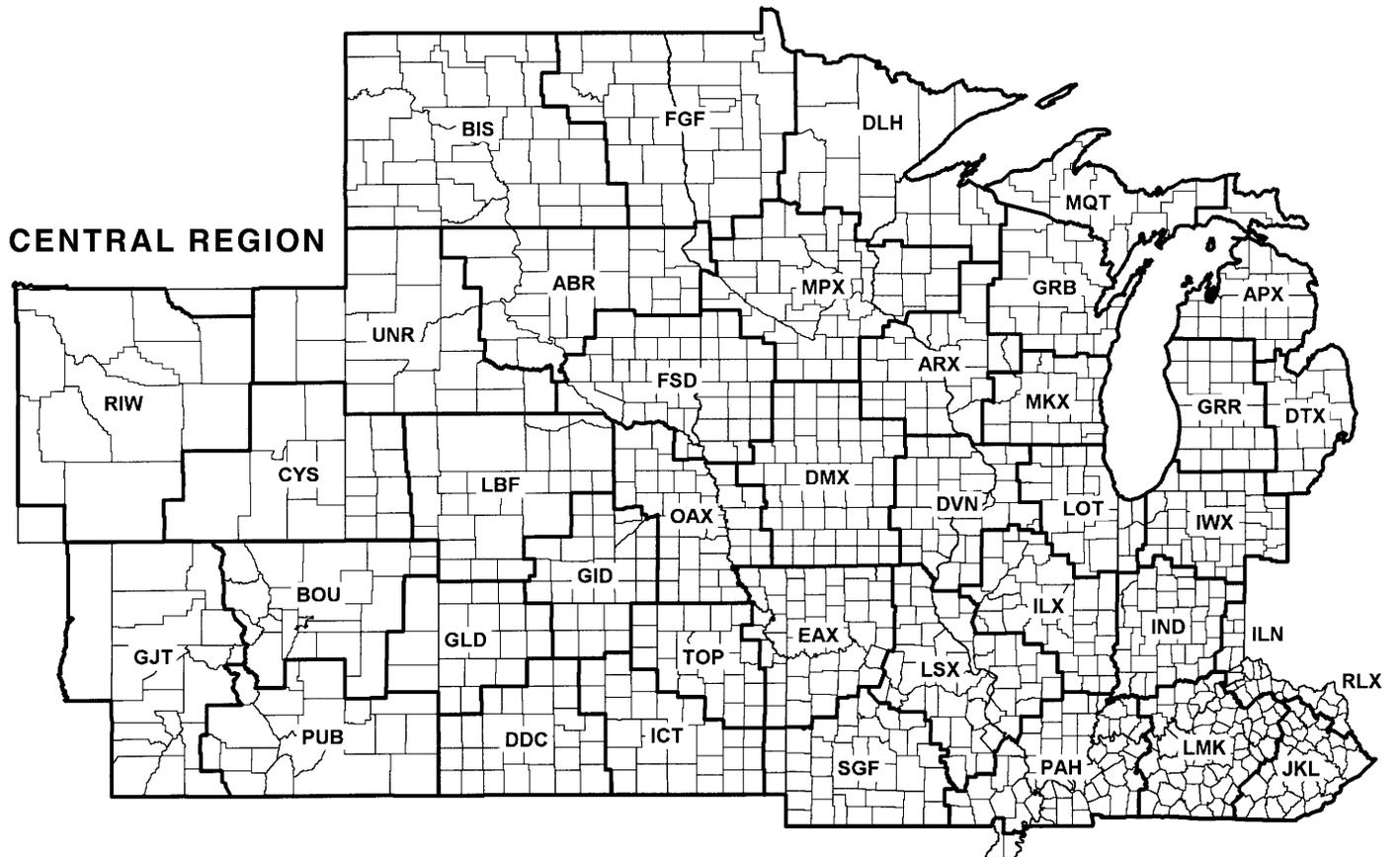
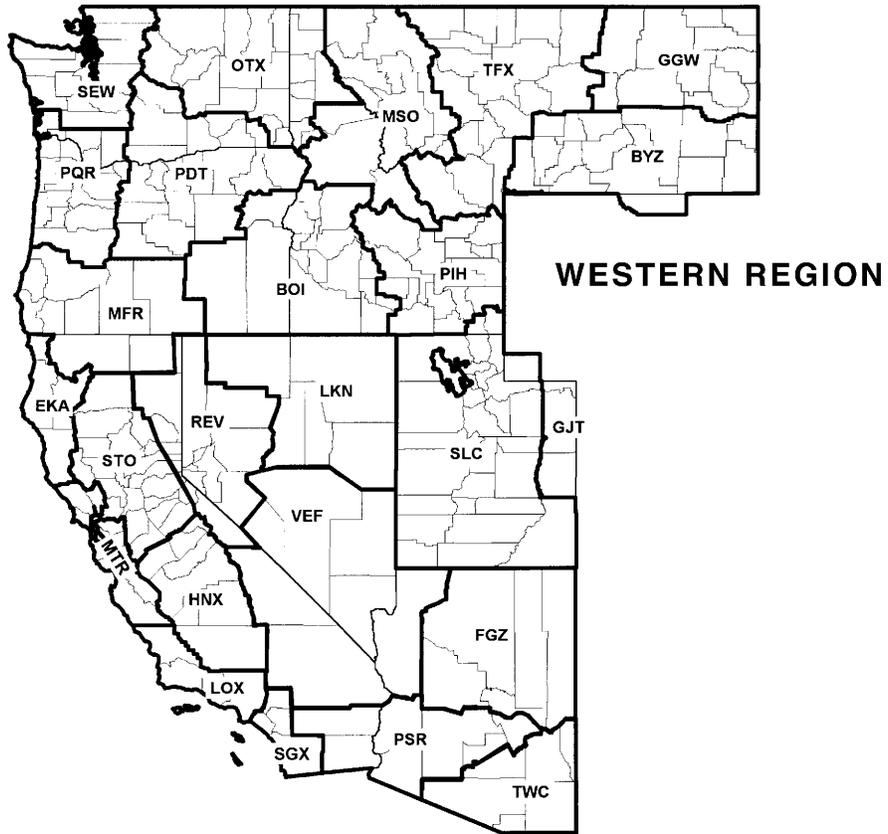


EASTERN REGION

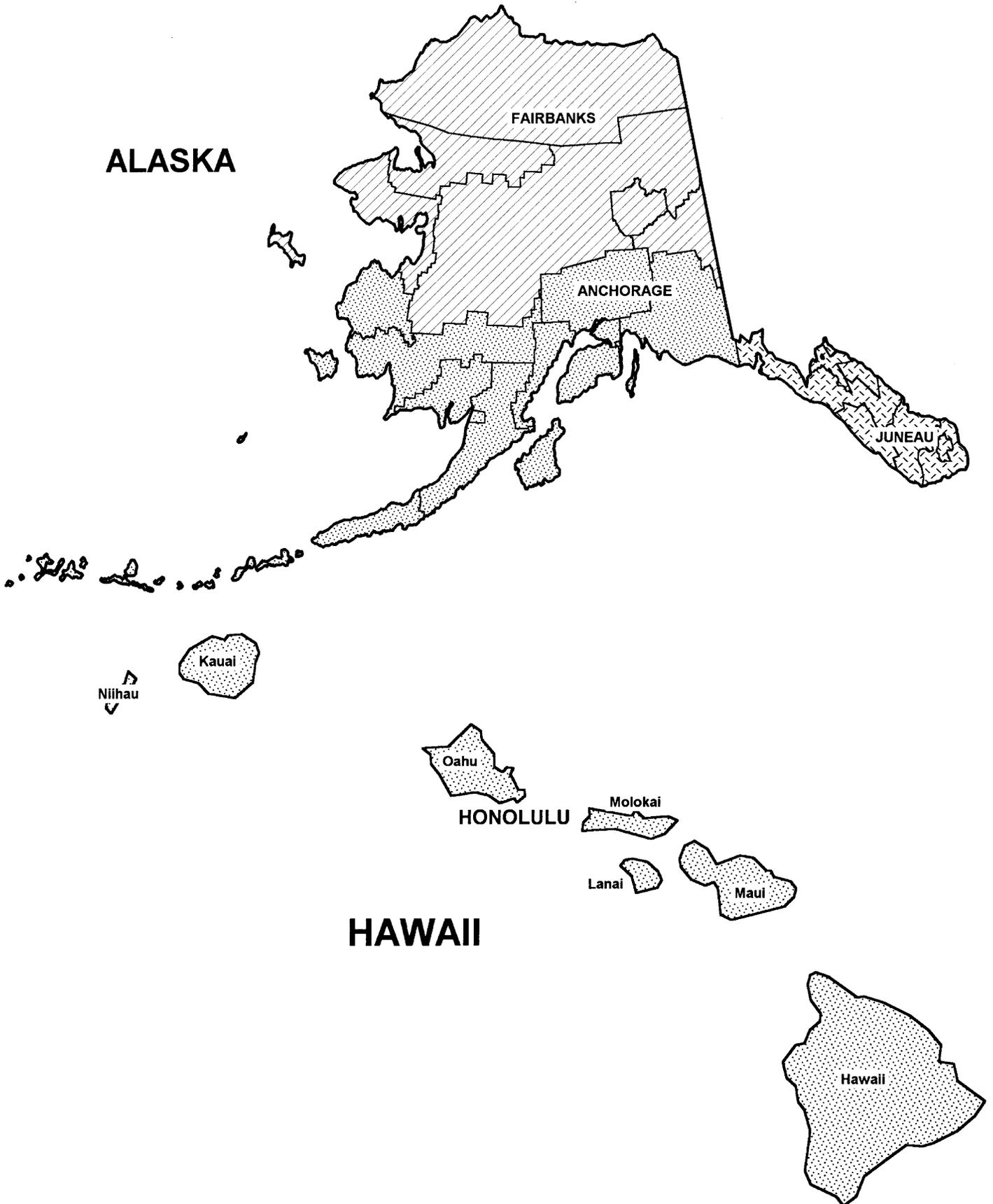


SOUTHERN REGION

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS



MODERNIZED COUNTY WARNING AREAS



ZONES

State	Zone #	WSO	Zone Descriptions
AK	1	AFG	ARCTIC SLOPE COASTAL
AK	2	AFG	NORTH SLOPES OF BROOKS RANGE
AK	3	AFG	UPPER YUKON VALLEY
AK	4	AFG	UPPER KOBUK-KOYUKUK VALLEY
AK	5	AFG	LOWER KOBUK VALLEY-NORTHERN SEWARD PENINSULA
AK	6	AFG	SOUTHERN SEWARD PENINSULA-EASTERN NORTON SOUND
AK	7	AFG	TANANA VALLEY
AK	8	AFG	LOWER YUKON VALLEY
AK	9	AFC	KUSKOKWIM VALLEY
AK	10	AFC	YUKON-KUSKOKWIM DELTA
AK	11	AFC	BRISTOL BAY COASTAL
AK	12	AJK	LYNN CANAL-GLACIER BAY
AK	13	AJK	CENTRAL SOUTHEAST ALASKA
AK	14	AJK	SOUTHERN SOUTHEAST ALASKA
AK	15	AJK	COASTAL SOUTHEAST ALASKA
AK	16	AJK	EASTERN GULF COAST
AK	17	AFC	COPPER RIVER BASIN
AK	18	AFC	COOK INLET-SUSITNA VALLEY
AK	19	AFC	CENTRAL GULF COAST
AK	20	AFC	KODIAK ISLAND-EASTERN ALASKA PENINSULA
AK	21	AFC	WESTERN ALASKA PENINSULA
AK	22	AFC	EASTERN ALEUTIANS
AK	23	AFC	ST. PAUL ISLAND
AK	24	AFG	ST. LAWRENCE ISLAND-BERING STRAIT COAST
AL	1	BMX	LAUDERDALE
AL	2	BMX	COLBERT
AL	3	BMX	FRANKLIN
AL	4	BMX	LAWRENCE
AL	5	BMX	LIMESTONE
AL	6	BMX	MADISON
AL	7	BMX	MORGAN
AL	8	BMX	MARSHALL
AL	9	BMX	JACKSON
AL	10	BMX	DEKALB
AL	11	BMX	MARION
AL	12	BMX	LAMAR
AL	13	BMX	FAYETTE
AL	14	BMX	WINSTON
AL	15	BMX	WALKER
AL	16	BMX	CULLMAN
AL	17	BMX	BLOUNT
AL	18	BMX	ETOWAH
AL	19	BMX	CALHOUN
AL	20	BMX	CHEROKEE
AL	21	BMX	CLEBURNE
AL	22	BMX	PICKENS
AL	23	BMX	TUSCALOOSA
AL	24	BMX	JEFFERSON
AL	25	BMX	SHELBY
AL	26	BMX	ST. CLAIR
AL	27	BMX	TALLADEGA
AL	28	BMX	CLAY
AL	29	BMX	RANDOLPH
AL	30	BMX	SUMTER
AL	31	BMX	GREENE
AL	32	BMX	HALE
AL	33	BMX	PERRY
AL	34	BMX	BIBB
AL	35	BMX	CHILTON
AL	36	BMX	COOSA
AL	37	BMX	TALLAPOOSA
AL	38	BMX	CHAMBERS
AL	39	BMX	MARENGO

ZONES

State	Zone #	WSO	Zone Descriptions
AL	40	BMX	DALLAS
AL	41	BMX	AUTAUGA
AL	42	BMX	LOWNDES
AL	43	BMX	ELMORE
AL	44	BMX	MONTGOMERY
AL	45	BMX	MACON
AL	46	BMX	BULLOCK
AL	47	BMX	LEE
AL	48	BMX	RUSSELL
AL	49	BMX	PIKE
AL	50	BMX	BARBOUR
AL	51	MOB	CHOCTAW
AL	52	MOB	WASHINGTON
AL	53	MOB	CLARKE
AL	54	MOB	WILCOX
AL	55	MOB	MONROE
AL	56	MOB	CONECUH
AL	57	MOB	BUTLER
AL	58	MOB	CRENSHAW
AL	59	MOB	ESCAMBIA
AL	60	MOB	COVINGTON
AL	61	MOB	UPPER MOBILE
AL	62	MOB	UPPER BALDWIN
AL	63	MOB	LOWER MOBILE
AL	64	MOB	LOWER BALDWIN
AL	65	TAE	COFFEE
AL	66	TAE	DALE
AL	67	TAE	HENRY
AL	68	TAE	GENEVA
AL	69	TAE	HOUSTON
AR	1	TSA	BENTON
AR	2	TSA	CARROLL
AR	3	LZK	BOONE
AR	4	LZK	MARION
AR	5	LZK	BAXTER
AR	6	LZK	FULTON
AR	7	LZK	SHARP
AR	8	MEG	RANDOLPH
AR	9	MEG	CLAY
AR	10	TSA	WASHINGTON
AR	11	TSA	MADISON
AR	12	LZK	NEWTON
AR	13	LZK	SEARCY
AR	14	LZK	STONE
AR	15	LZK	IZARD
AR	16	LZK	INDEPENDENCE
AR	17	MEG	LAWRENCE
AR	18	MEG	GREENE
AR	19	TSA	CRAWFORD
AR	20	LZK	FRANKLIN
AR	21	LZK	JOHNSON
AR	22	LZK	POPE
AR	23	LZK	VAN BUREN
AR	24	LZK	CLEBURNE
AR	25	LZK	JACKSON
AR	26	MEG	CRAIGHEAD
AR	27	MEG	POINSETT
AR	28	MEG	MISSISSIPPI
AR	29	TSA	SEBASTIAN
AR	30	LZK	LOGAN
AR	31	LZK	CONWAY
AR	32	LZK	FAULKNER
AR	33	LZK	WHITE

ZONES

State	Zone #	WSO	Zone Descriptions
AR	34	LZK	WOODRUFF
AR	35	MEG	CROSS
AR	36	MEG	CRITTENDEN
AR	37	LZK	SCOTT
AR	38	LZK	YELL
AR	39	LZK	PERRY
AR	40	LZK	POLK
AR	41	LZK	MONTGOMERY
AR	42	LZK	GARLAND
AR	43	LZK	SALINE
AR	44	LZK	PULASKI
AR	45	LZK	LONOKE
AR	46	LZK	PRAIRIE
AR	47	LZK	MONROE
AR	48	MEG	ST. FRANCIS
AR	49	MEG	LEE
AR	50	SHV	SEVIER
AR	51	SHV	HOWARD
AR	52	LZK	PIKE
AR	53	LZK	CLARK
AR	54	LZK	HOT SPRING
AR	55	LZK	GRANT
AR	56	LZK	JEFFERSON
AR	57	LZK	ARKANSAS
AR	58	MEG	PHILLIPS
AR	59	SHV	LITTLE RIVER
AR	60	SHV	HEMPSTEAD
AR	61	SHV	NEVADA
AR	62	LZK	DALLAS
AR	63	LZK	CLEVELAND
AR	64	LZK	LINCOLN
AR	65	LZK	DESHA
AR	66	LZK	OUACHITA
AR	67	LZK	CALHOUN
AR	68	LZK	BRADLEY
AR	69	LZK	DREW
AR	70	SHV	MILLER
AR	71	SHV	LAFAYETTE
AR	72	SHV	COLUMBIA
AR	73	SHV	UNION
AR	74	JAN	ASHLEY
AR	75	JAN	CHICOT
AZ	1	VEF	N MOHAVE
AZ	2	VEF	X SW MOHAVE
AZ	3	VEF	S MOHAVE T X SW AND X WC
AZ	4	FGZ	KAIBAB PLATEAU / X NW COCONINO
AZ	5	FGZ	MARBLE CANYON AND GLEN CANYON / NC COCONINO
AZ	6	FGZ	GRAND CANYON COUNTRY / WC COCONINO
AZ	7	FGZ	COCONINO PLATEAU / SW COCONINO
AZ	8	FGZ	YAVAPAI
AZ	9	FGZ	NORTHEAST PLATEAUS AND MESAS / NE COCONINO / N & C NAVAJO, C APACHE
AZ	10	FGZ	CHINLE VALLEY / N APACHE
AZ	11	FGZ	CHUSKA MOUNTAINS AND DEFIANCE PLATEAU / NE APACHE
AZ	12	FGZ	LITTLE COLORADO RIVER VALLEY IN COCONINO COUNTY / EC COCONINO
AZ	13	FGZ	LITTLE COLORADO RIVER VALLEY IN NAVAJO COUNTY / S NAVAJO T X S
AZ	14	FGZ	LITTLE COLORADO RIVER VALLEY IN APACHE COUNTY / S APACHE T X S
AZ	15	FGZ	WESTERN MOGOLLON RIM / SC COCONINO
AZ	16	FGZ	EASTERN MOGOLLON RIM / SE COCONINO, X S NAVAJO T X SE
AZ	17	FGZ	WHITE MOUNTAINS / X SE NAVAJO, X S APACHE
AZ	18	FGZ	NORTHERN GILA
AZ	19	TWC	NORTHERN GREENLEE
AZ	20	PSR	W LA PAZ / SW YUMA
AZ	21	PSR	C & E LA PAZ / NW MARICOPA

ZONES

State	Zone #	WSO	Zone Descriptions
AZ	22	PSR	C & E YUMA
AZ	23	PSR	SOUTHWEST MARICOPA
AZ	24	PSR	NC MARICOPA / NW PINAL
AZ	25	PSR	S GILA / NE MARICOPA / X N PINAL
AZ	26	TWC	W PIMA
AZ	27	TWC	SOUTHEAST PINAL
AZ	28	TWC	SANTA CRUZ / E PIMA
AZ	29	TWC	GRAHAM / S GREENLEE
AZ	30	TWC	COCHISE
AZ	31	VEF	X WC MOHAVE
CA	1	EKA	REDWOOD COAST
CA	2	EKA	MENDOCINO COAST
CA	3	EKA	NORTH COAST INTERIOR
CA	4	EKA	UPPER TRINITY RIVER
CA	5	MTR	SONOMA / MARIN
CA	6	MTR	SAN FRANCISCO / SAN MATEO / SANTA CRUZ
CA	7	MTR	ALAMEDA / CONTRA COSTA
CA	8	MTR	SANTA CLARA
CA	9	MTR	X W MONTEREY
CA	10	MTR	MONTEREY T X W / SAN BENITO
CA	11	MFR	SISKIYOU
CA	12	MFR	MODOC T X E
CA	13	STO	NW & NC SHASTA
CA	14	STO	NE & EC SHASTA
CA	15	STO	P SC SHASTA/C TEHAMA
CA	16	STO	C & E GLENN/COLUSA T X W/N SUTTER/SW YUBA/BUTTE T X E
CA	17	STO	YOLO T W/NE SOLANO/SACRAMENTO T X SW/X W PLACER/X W AMADOR/S SUTTER
CA	18	STO	S SOLANO/S NAPA/X SW SACRAMENTO/NW SAN JOAQUIN
CA	19	STO	SAN JOAQUIN T NW/STANISLAUS/X SW TUOLUMNE/SW CALAVERAS
CA	20	HNX	MERCED/SW MADERA/W FRESNO
CA	21	HNX	KINGS/W TULARE/NW KERN
CA	22	HNX	E FRESNO/MADERA T SW/MARIPOSA/SE TUOLUMNE
CA	23	HNX	E TULARE
CA	24	HNX	C & SW KERN
CA	25	HNX	E & SC KERN
CA	26	VEF	W INYO
CA	27	VEF	E INYO
CA	28	VEF	SAN BERNARDINO T SW & X SE
CA	29	VEF	X SE SAN BERNARDINO
CA	30	PSR	NC RIVERSIDE
CA	31	PSR	X E RIVERSIDE / E IMPERIAL
CA	32	PSR	E RIVERSIDE T X E
CA	33	PSR	W & C IMPERIAL
CA	34	MTR	X W SAN LUIS OBISPO
CA	35	LOX	W SANTA BARBARA
CA	36	LOX	P C SANTA BARBARA
CA	37	MTR	SAN LUIS OBISPO T SC & X W
CA	38	LOX	X N SANTA BARBARA
CA	39	LOX	X S SANTA BARBARA
CA	40	LOX	X S VENTURA
CA	41	LOX	X SE LOS ANGELES
CA	42	SGX	W/S ORANGE
CA	43	SGX	X W SAN DIEGO
CA	44	LOX	C VENTURA
CA	45	LOX	S VENTURA T X S
CA	46	LOX	X SW LOS ANGELES
CA	47	LOX	C LOS ANGELES
CA	48	SGX	X SW SAN BERNARDINO
CA	49	SGX	W RIVERSIDE T X NW
CA	50	SGX	X W SAN DIEGO VALLEY
CA	51	MTR	SC SAN LUIS OBISPO
CA	52	LOX	P C SANTA BARBARA
CA	53	LOX	N VENTURA

ZONES

State	Zone #	WSO	Zone Descriptions
CA	54	LOX	N LOS ANGELES T X N
CA	55	SGX	P SW SAN BERNARDINO
CA	56	SGX	P W RIVERSIDE
CA	57	SGX	NE ORANGE
CA	58	SGX	SAN DIEGO T X W
CA	59	LOX	X N LOS ANGELES
CA	60	SGX	APPLE AND YUCCA VALLEYS
CA	61	SGX	C RIVERSIDE
CA	62	SGX	C SAN DIEGO
CA	63	STO	SW SHASTA/W TEHAMA/W GLENN/X NW COLUSA/N LAKE
CA	64	STO	LAKE T N & X SW/W YOLO/X SW COLUSA/E NAPA/X NW SOLANO
CA	66	STO	P SC SHASTA/E TEHAMA T X E/X E BUTTE/X SW PLUMAS
CA	67	STO	X W SIERRA/NE YUBA/W NEVADA/W PLACER T X W/W EL DORADO/W AMADOR T X W/C CALAVERAS/SW TUOLUMNE T X SW
CA	68	STO	X SE SHASTA/X E TEHAMA/W PLUMAS T X SW
CA	69	STO	W SIERRA T X W/C NEVADA/C PLACER/C EL DORADO/E AMADOR/NE CALAVERAS/C & NE TUOLUMNE/SW ALPINE
CA	70	REV	X E MODOC
CA	71	REV	LASSEN/EASTERN PLUMAS/EASTERN SIERRA
CA	72	REV	E NEVADA/E PLACER/E EL DORADO/NE ALPINE
CA	73	REV	MONO
CO	1	GJT	LOWER YAMPA RIVER BASIN/RANGELY AND VICINITY / W MOFFAT / X NW RIO BLANCO
CO	2	GJT	CENTRAL YAMPA RIVER BASIN/CRAIG-HAYDEN AND VICINITY / E MOFFAT / C RIO BLANCO / SW ROUTT
CO	3	GJT	ROAN AND TAVAPUTS PLATEAUS / SW RIO BLANCO / W GARFIELD / PART OF NC MESA
CO	4	GJT	ELKHEAD AND PARK MOUNTAINS/FLAT TOPS/WHITE RIVER PLATEAU / E RIO BLANCO / NE GARFIELD / X NW EAGLE / ROUTT EXCEPT C XS
CO	5	GJT	UPPER YAMPA RIVER BASIN/STEAMBOAT SPRINGS AND VICINITY / C ROUTT
CO	6	GJT	GRAND VALLEY/GRAND JUNCTION AND VICINITY / NW & C MESA / X SW GARFIELD
CO	7	GJT	DEBEQUE RIFLE GLENWOOD SPRINGS CORRIDOR / C SE GARFIELD / NC MESA (PART) / X SW EAGLE / X NC PITKIN
CO	8	GJT	CENTRAL COLORADO RIVER BASIN/EAGLE AND VICINITY / N EAGLE EXCEPT X NW / X S ROUTT
CO	9	GJT	GRAND AND BATTLEMENT MESAS / X SC GARFIELD / E MESA EXCEPT X NE / N DELTA
CO	10	GJT	GORE AND ELK MOUNTAINS/CENTRAL MOUNTAIN VALLEYS/ASPEN AND VICINITY / NE S EAGLE / PITKIN EXCEPT XNC / X NE MESA / SE GARFIELD (PART)
CO	11	GJT	CENTRAL GUNNISON AND UNCOMPAHGRE RIVER BASIN/MONTROSE AND VICINITY / W C GUNNISON / PART OF NE MONTROSE / S DELTA / N C OURAY
CO	12	GJT	WEST ELK AND SAWATCH MOUNTAINS/TAYLOR PARK / W LAKE / W CHAFFEE / WC TO EC GUNNISON
CO	14	GJT	UPPER GUNNISON RIVER VALLEY/GUNNISON AND VICINITY / S GUNNISON EXCEPT X SW / PART OF E MONTROSE
CO	15	BOU	LEADVILLE AND VICINITY / E LAKE
CO	15	GJT	LEADVILLE AND VICINITY / E LAKE
CO	17	GJT	UNCOMPAHGRE PLATEAU / S MESA EXCEPT X SW / X NE SAN MIGUEL / C MONTROSE / NW OURAY
CO	18	GJT	NORTHWESTERN SAN JUAN MOUNTAINS / E OURAY / X SW GUNNISON / N HINSDALE / SE SAN MIGUEL
CO	19	GJT	SOUTHWESTERN SAN JUAN MOUNTAINS / C E DOLORES / SAN JUAN / S HINSDALE / N LA PLATA / NE MONTEZUMA / E N ARCHULETA
CO	20	GJT	PARADOX VALLEY/LOWER DOLORES RIVER / X SW MESA / W MONTROSE / C W SAN MIGUEL / C DOLORES
CO	21	GJT	FOUR CORNERS/UPPER DOLORES RIVER/CORTEZ AND VICINITY / X SW SAN MIGUEL / W DOLORES / MONTEAUMA EXCEPT NE
CO	22	GJT	ANIMAS RIVER BASIN/DURANGO AND VICINITY / S LA PLATA
CO	23	GJT	SAN JUAN RIVER BASIN/PAGOSA SPRINGS AND VICINITY / S ARCHULETA
CO	30	BOU	NORTH PARK / C NC JACKSON
CO	32	BOU	MIDDLE PARK / C GRAND
CO	33	BOU	RABBIT EARS & MEDICINE BOW RANGES/ROCKY MOUNTAIN NATIONAL PARK / W LARIMER / JACKSON ECEPT C / N GRAND / X NW BOULDER
CO	34	BOU	SUMMIT COUNTY/MOSQUITO RANGE/INDIAN PEAKS / S GRAND / SUMMIT / W CLEAR CREEK / W GILPIN / SW BOULDER / NW PARK
CO	35	BOU	NORTHERN FRONT RANGE FOOTHILLS/UPPER LARAMIE AND CACHE LA POUDDRE RIVER BASINS / C BOULDER / NE GILPIN / C LARIMER

ZONES

State	Zone #	WSO	Zone Descriptions
CO	36	BOU	SOUTHERN FRONT RANGE FOOTHILLS/CLEAR CREEK BASIN / W JEFFERSON / NE PARK / E CLEAR CREEK / SE GILPIN / SW DOUGLAS
CO	37	BOU	SOUTH PARK / S PARK
CO	38	BOU	EASTERN LARIMER AND NORTHWESTERN WELD COUNTIES / FORT COLLINS AND VICINITY / E LARIMER / NW WELD
CO	39	BOU	EASTERN BOULDER COUNTY/BOULDER AND VICINITY / E BOULDER / X SW WELD
CO	40	BOU	DENVER METROPOLITAN AREA / E JEFFERSON / W ADAMS / DENVER / W ARAPAHOE / N DOUGLAS
CO	41	BOU	EASTERN DOUGLAS AND WESTERN ELBERT COUNTIES/CASTLE ROCK AND VICINITY
CO	42	BOU	NORTHEASTERN WELD COUNTY
CO	43	BOU	SOUTHERN WELD COUNTY/GREELEY AND VICINITY
CO	44	BOU	MORGAN COUNTY/FORT MORGAN AND VICINITY
CO	45	BOU	EASTERN ADAMS AND EASTERN ARAPAHOE COUNTIES
CO	46	BOU	EASTERN ELBERT AND NORTHERN LINCOLN COUNTIES/LIMON AND VICINITY
CO	47	BOU	SOUTHERN LINCOLN COUNTY
CO	48	BOU	LOGAN COUNTY/STERLING AND VICINITY
CO	49	BOU	WASHINGTON COUNTY/AKRON AND VICINITY
CO	50	BOU	SEDGWICK AND PHILLIPS COUNTIES
CO	60	PUB	LA GARITA MOUNTAINS / W SANGUACHE
CO	61	PUB	EASTERN SAN JUAN MOUNTAINS / MINERAL / W RIO GRANDE / W CONEJOS
CO	62	PUB	NORTHERN SAN LUIS VALLEY/DEL NORTE AND VICINITY / E SANGUACHE EXCEPT X E / N RIO GRANDE
CO	63	PUB	ALAMOSA COUNTY/ALAMOSA AND VICINITY / ALAMOSA / E RIO GRANDE
CO	64	PUB	SOUTHERN SAN LUIS VALLEY / E CONEJOS / W COSTILLA
CO	65	PUB	NORTHERN SANGRE DE CRISTO MOUNTAINS / X SW FREMONT / X E SANGUACHE / W CUSTER / W HUERFANO / X N COSTILLA
CO	66	PUB	SOUTHERN SANGRE DE CRISTO MOUNTAINS / E COSTILLA / SW HUERFANO / X SW LAS ANIMAS
CO	67	PUB	TELLER COUNTY/RAMPART RANGE/PIKES PEAK / TELLER / W EL PASO
CO	68	PUB	WESTERN FREMONT AND NORTHERN CUSTER COUNTIES
CO	69	PUB	UPPER ARKANSAS RIVER VALLEY/SALIDA AND VICINITY / E CHAFFEE
CO	70	PUB	WET MOUNTAINS / E CUSTER / X SW PUEBLO / X N HUERFANO / PART SE FREMONT
CO	71	PUB	SOUTHERN EL PASO COUNTY/COLORADO SPRINGS AND VICINITY
CO	72	PUB	NORTHERN EL PASO COUNTY/MONUMENT RIDGE
CO	73	PUB	PUEBLO AND EASTERN FREMONT COUNTIES/PUEBLO AND VICINITY
CO	74	PUB	UPPER HUERFANO RIVER BASIN/WALSENBURG AND VICINITY / NC TO SC HUERFANO
CO	75	PUB	UPPER PURGATOIRE RIVER BASIN/TRINIDAD AND VICINITY / SW LAS ANIMAS EXCEPT X SW
CO	76	PUB	CROWLEY AND OTERO COUNTIES/LA JUNTA AND VICINITY
CO	77	PUB	EASTERN LAS ANIMAS COUNTY / E LAS ANIMAS / NE HUERFANO
CO	78	PUB	KIOWA COUNTY
CO	79	PUB	BENT COUNTY/LAS ANIMAS AND VICINITY
CO	80	PUB	PROWERS COUNTY/LAMAR AND VICINITY
CO	81	PUB	BACA COUNTY/SPRINGFIELD AND VICINITY
CO	90	GLD	YUMA COUNTY
CO	91	GLD	KIT CARSON COUNTY
CO	92	GLD	CHEYENNE COUNTY
CT	1	ALY	LITCHFIELD
CT	2	BOX	HARTFORD
CT	3	BOX	TOLLAND
CT	4	BOX	WINDHAM
CT	5	OKX	NORTHERN FAIRFIELD
CT	6	OKX	NORTHERN NEW HAVEN
CT	7	OKX	NORTHERN MIDDLESEX
CT	8	OKX	NORTHERN NEW LONDON
CT	9	OKX	SOUTHERN FAIRFIELD
CT	10	OKX	SOUTHERN NEW HAVEN
CT	11	OKX	SOUTHERN MIDDLESEX
CT	12	OKX	SOUTHERN NEW LONDON
DC	1	LWX	DISTRICT OF COLUMBIA
DE	1	PHI	NEW CASTLE
DE	2	PHI	KENT
DE	3	PHI	INLAND SUSSEX
DE	4	PHI	DELAWARE BEACHES / X E SUSSEX

ZONES

State	Zone #	WSO	Zone Descriptions
FL	1	MOB	INLAND ESCAMBIA
FL	2	MOB	COASTAL ESCAMBIA
FL	3	MOB	INLAND SANTA ROSA
FL	4	MOB	COASTAL SANTA ROSA
FL	5	MOB	INLAND OKALOOSA
FL	6	MOB	COASTAL OKALOOSA
FL	7	TAE	INLAND WALTON
FL	8	TAE	COASTAL WALTON
FL	9	TAE	HOLMES
FL	10	TAE	WASHINGTON
FL	11	TAE	JACKSON
FL	12	TAE	BAY
FL	13	TAE	CALHOUN
FL	14	TAE	GULF
FL	15	TAE	FRANKLIN
FL	16	TAE	GADSDEN
FL	17	TAE	LEON
FL	18	TAE	JEFFERSON
FL	19	TAE	MADISON
FL	20	JAX	HAMILTON
FL	21	JAX	SUWANNEE
FL	22	JAX	COLUMBIA
FL	23	JAX	BAKER
FL	24	JAX	NASSAU
FL	25	JAX	DUVAL
FL	26	TAE	LIBERTY
FL	27	TAE	WAKULLA
FL	28	TAE	TAYLOR
FL	29	TAE	LAFAYETTE
FL	30	JAX	UNION
FL	31	JAX	BRADFORD
FL	32	JAX	CLAY
FL	33	JAX	ST. JOHNS
FL	34	TAE	DIXIE
FL	35	JAX	GILCHRIST
FL	36	JAX	ALACHUA
FL	37	JAX	PUTNAM
FL	38	JAX	FLAGLER
FL	39	TBW	LEVY
FL	40	JAX	MARION
FL	41	MLB	VOLUSIA
FL	42	TBW	CITRUS
FL	43	TBW	SUMTER
FL	44	MLB	LAKE
FL	45	MLB	ORANGE
FL	46	MLB	SEMINOLE
FL	47	MLB	BREVARD
FL	48	TBW	HERNANDO
FL	49	TBW	PASCO
FL	50	TBW	PINELLAS
FL	51	TBW	HILLSBOROUGH
FL	52	TBW	POLK
FL	53	MLB	OSCEOLA
FL	54	MLB	INDIAN RIVER
FL	55	TBW	MANATEE
FL	56	TBW	HARDEE
FL	57	TBW	HIGHLANDS
FL	58	MLB	OKEECHOBEE
FL	59	MLB	ST. LUCIE
FL	60	TBW	SARASOTA
FL	61	TBW	DE SOTO
FL	62	TBW	CHARLOTTE
FL	63	MFL	GLADES

ZONES

State	Zone #	WSO	Zone Descriptions
FL	64	MLB	MARTIN
FL	65	TBW	LEE
FL	66	MFL	HENDRY
FL	67	MFL	INLAND PALM BEACH
FL	68	MFL	COASTAL PALM BEACH
FL	69	MFL	COASTAL COLLIER
FL	70	MFL	INLAND COLLIER
FL	71	MFL	INLAND BROWARD
FL	72	MFL	COASTAL BROWARD
FL	73	MFL	INLAND DADE
FL	74	MFL	COASTAL DADE
FL	75	MFL	MAINLAND MONROE
FL	76	MFL	MONROE/UPPER KEYS
FL	77	MFL	MONROE/MIDDLE KEYS
FL	78	MFL	MONROE/LOWER KEYS
GA	1	FFC	DADE
GA	2	FFC	WALKER
GA	3	FFC	CATOOSA
GA	4	FFC	WHITFIELD
GA	5	FFC	MURRAY
GA	6	FFC	FANNIN
GA	7	FFC	GILMER
GA	8	FFC	UNION
GA	9	FFC	TOWNS
GA	10	GSP	RABUN
GA	11	FFC	CHATTOOGA
GA	12	FFC	GORDON
GA	13	FFC	PICKENS
GA	14	FFC	DAWSON
GA	15	FFC	LUMPKIN
GA	16	FFC	WHITE
GA	17	GSP	HABERSHAM
GA	18	GSP	STEPHENS
GA	19	FFC	FLOYD
GA	20	FFC	BARTOW
GA	21	FFC	CHEROKEE
GA	22	FFC	FORSYTH
GA	23	FFC	HALL
GA	24	FFC	BANKS
GA	25	FFC	JACKSON
GA	26	GSP	FRANKLIN
GA	27	FFC	MADISON
GA	28	GSP	HART
GA	29	GSP	ELBERT
GA	30	FFC	POLK
GA	31	FFC	PAULDING
GA	32	FFC	COBB
GA	33	FFC	NORTH FULTON
GA	34	FFC	GWINNETT
GA	35	FFC	BARROW
GA	36	FFC	CLARKE
GA	37	FFC	OCONEE
GA	38	FFC	OGLETHORPE
GA	39	FFC	WILKES
GA	40	CAE	LINCOLN
GA	41	FFC	HARALSON
GA	42	FFC	CARROLL
GA	43	FFC	DOUGLAS
GA	44	FFC	SOUTH FULTON
GA	45	FFC	DE KALB
GA	46	FFC	ROCKDALE
GA	47	FFC	WALTON
GA	48	FFC	NEWTON

ZONES

State	Zone #	WSO	Zone Descriptions
GA	49	FFC	MORGAN
GA	50	FFC	GREENE
GA	51	FFC	TALIAFERRO
GA	52	FFC	HEARD
GA	53	FFC	COWETA
GA	54	FFC	FAYETTE
GA	55	FFC	CLAYTON
GA	56	FFC	SPALDING
GA	57	FFC	HENRY
GA	58	FFC	BUTTS
GA	59	FFC	JASPER
GA	60	FFC	PUTNAM
GA	61	FFC	HANCOCK
GA	62	FFC	WARREN
GA	63	CAE	MCDUFFIE
GA	64	CAE	COLUMBIA
GA	65	CAE	RICHMOND
GA	66	FFC	TROUP
GA	67	FFC	MERIWETHER
GA	68	FFC	PIKE
GA	69	FFC	UPSON
GA	70	FFC	LAMAR
GA	71	FFC	MONROE
GA	72	FFC	JONES
GA	73	FFC	BALDWIN
GA	74	FFC	WASHINGTON
GA	75	FFC	GLASCOCK
GA	76	FFC	JEFFERSON
GA	77	CAE	BURKE
GA	78	FFC	HARRIS
GA	79	FFC	TALBOT
GA	80	FFC	TAYLOR
GA	81	FFC	CRAWFORD
GA	82	FFC	BIBB
GA	83	FFC	TWIGGS
GA	84	FFC	WILKINSON
GA	85	FFC	JOHNSON
GA	86	FFC	EMANUEL
GA	87	CHS	JENKINS
GA	88	CHS	SCREVEN
GA	89	BMX	MUSCOGEE
GA	90	BMX	CHATTAHOOCHEE
GA	91	FFC	MARION
GA	92	FFC	SCHLEY
GA	93	FFC	MACON
GA	94	FFC	PEACH
GA	95	FFC	HOUSTON
GA	96	FFC	BLECKLEY
GA	97	FFC	LAURENS
GA	98	FFC	TREUTLEN
GA	99	CHS	CANDLER
GA	100	CHS	BULLOCH
GA	101	CHS	EFFINGHAM
GA	102	BMX	STEWART
GA	103	FFC	WEBSTER
GA	104	FFC	SUMTER
GA	105	FFC	DOOLY
GA	106	FFC	CRISP
GA	107	FFC	PULASKI
GA	108	FFC	WILCOX
GA	109	FFC	DODGE
GA	110	FFC	TELFAIR
GA	111	FFC	WHEELER

ZONES

State	Zone #	WSO	Zone Descriptions
GA	112	FFC	MONTGOMERY
GA	113	FFC	TOOMBS
GA	114	CHS	TATTNALL
GA	115	CHS	EVANS
GA	116	CHS	INLAND BRYAN
GA	117	CHS	COASTAL BRYAN
GA	118	CHS	INLAND CHATHAM
GA	119	CHS	COASTAL CHATHAM
GA	120	BMX	QUITMAN
GA	121	TAE	CLAY
GA	122	TAE	RANDOLPH
GA	123	TAE	CALHOUN
GA	124	TAE	TERRELL
GA	125	TAE	DOUGHERTY
GA	126	TAE	LEE
GA	127	TAE	WORTH
GA	128	TAE	TURNER
GA	129	TAE	TIFT
GA	130	TAE	BEN HILL
GA	131	TAE	IRWIN
GA	132	JAX	COFFEE
GA	133	JAX	JEFF DAVIS
GA	134	JAX	BACON
GA	135	JAX	APPLING
GA	136	JAX	WAYNE
GA	137	CHS	LONG
GA	138	CHS	INLAND LIBERTY
GA	139	CHS	COASTAL LIBERTY
GA	140	CHS	INLAND MCINTOSH
GA	141	CHS	COASTAL MCINTOSH
GA	142	TAE	EARLY
GA	143	TAE	MILLER
GA	144	TAE	BAKER
GA	145	TAE	MITCHELL
GA	146	TAE	COLQUITT
GA	147	TAE	COOK
GA	148	TAE	BERRIEN
GA	149	JAX	ATKINSON
GA	150	JAX	WARE
GA	151	JAX	PIERCE
GA	152	JAX	BRANTLEY
GA	153	JAX	INLAND GLYNN
GA	154	JAX	COASTAL GLYNN
GA	155	TAE	SEMINOLE
GA	156	TAE	DECATUR
GA	157	TAE	GRADY
GA	158	TAE	THOMAS
GA	159	TAE	BROOKS
GA	160	TAE	LOWNDES
GA	161	TAE	LANIER
GA	162	JAX	ECHOLS
GA	163	JAX	CLINCH
GA	164	JAX	CHARLTON
GA	165	JAX	INLAND CAMDEN
GA	166	JAX	COASTAL CAMDEN
GU	1	GUA	GUAM
GU	2	GUA	ROTA
GU	3	GUA	TINIAN
GU	4	GUA	SAIPAN
GU	5	GUA	PALAU
GU	6	GUA	YAP
GU	7	GUA	CHUUK
GU	8	GUA	POHNPEI

ZONES

State	Zone #	WSO	Zone Descriptions
GU	9	GUA	MAJURO
HI	1	HFO	KAUAI
HI	2	HFO	OAHU
HI	3	HFO	MAUI
HI	4	HFO	ISLAND OF HAWAII
HI	5	HFO	MOLOKAI
HI	6	HFO	LANAI
IA	1	FSD	LYON
IA	2	FSD	OSCEOLA
IA	3	FSD	DICKINSON
IA	4	DMX	EMMET
IA	5	DMX	KOSSUTH
IA	6	DMX	WINNEBAGO
IA	7	DMX	WORTH
IA	8	ARX	MITCHELL
IA	8	DMX	MITCHELL
IA	9	ARX	HOWARD
IA	9	DMX	HOWARD
IA	10	ARX	WINNESHIEK
IA	10	DMX	WINNESHIEK
IA	11	ARX	ALLAMAKEE
IA	11	DMX	ALLAMAKEE
IA	12	FSD	SIOUX
IA	13	FSD	O'BRIEN
IA	14	FSD	CLAY
IA	15	DMX	PALO ALTO
IA	16	DMX	HANCOCK
IA	17	DMX	CERRO GORDO
IA	18	ARX	FLOYD
IA	18	DMX	FLOYD
IA	19	ARX	CHICKASAW
IA	19	DMX	CHICKASAW
IA	20	FSD	PLYMOUTH
IA	21	FSD	CHEROKEE
IA	22	FSD	BUENA VISTA
IA	23	DMX	POCAHONTAS
IA	24	DMX	HUMBOLDT
IA	25	DMX	WRIGHT
IA	26	DMX	FRANKLIN
IA	27	DMX	BUTLER
IA	28	DMX	BREMER
IA	29	ARX	FAYETTE
IA	29	DMX	FAYETTE
IA	30	ARX	CLAYTON
IA	30	DVN	CLAYTON
IA	31	FSD	WOODBURY
IA	32	FSD	IDA
IA	33	DMX	SAC
IA	34	DMX	CALHOUN
IA	35	DMX	WEBSTER
IA	36	DMX	HAMILTON
IA	37	DMX	HARDIN
IA	38	DMX	GRUNDY
IA	39	DMX	BLACK HAWK
IA	40	DVN	BUCHANAN
IA	41	DVN	DELAWARE
IA	42	DVN	DUBUQUE
IA	43	OAX	MONONA
IA	44	DMX	CRAWFORD
IA	45	DMX	CARROLL
IA	46	DMX	GREENE
IA	47	DMX	BOONE
IA	48	DMX	STORY

ZONES

State	Zone #	WSO	Zone Descriptions
IA	49	DMX	MARSHALL
IA	50	DMX	TAMA
IA	51	DVN	BENTON
IA	52	DVN	LINN
IA	53	DVN	JONES
IA	54	DVN	JACKSON
IA	55	OAX	HARRISON
IA	56	OAX	SHELBY
IA	57	DMX	AUDUBON
IA	58	DMX	GUTHRIE
IA	59	DMX	DALLAS
IA	60	DMX	POLK
IA	61	DMX	JASPER
IA	62	DMX	POWESHIEK
IA	63	DVN	IOWA
IA	64	DVN	JOHNSON
IA	65	DVN	CEDAR
IA	66	DVN	CLINTON
IA	67	DVN	MUSCATINE
IA	68	DVN	SCOTT
IA	69	OAX	POTTAWATTAMIE
IA	70	DMX	CASS
IA	71	DMX	ADAIR
IA	72	DMX	MADISON
IA	73	DMX	WARREN
IA	74	DMX	MARION
IA	75	DMX	MAHASKA
IA	76	DVN	KEOKUK
IA	77	DVN	WASHINGTON
IA	78	DVN	LOUISA
IA	79	OAX	MILLS
IA	80	OAX	MONTGOMERY
IA	81	DMX	ADAMS
IA	82	DMX	UNION
IA	83	DMX	CLARKE
IA	84	DMX	LUCAS
IA	85	DMX	MONROE
IA	86	DMX	WAPELLO
IA	87	DVN	JEFFERSON
IA	88	DVN	HENRY
IA	89	DVN	DES MOINES
IA	90	OAX	FREMONT
IA	91	OAX	PAGE
IA	92	DMX	TAYLOR
IA	93	DMX	RINGGOLD
IA	94	DMX	DECATUR
IA	95	DMX	WAYNE
IA	96	DMX	APPANOOSE
IA	97	DMX	DAVIS
IA	98	DVN	VAN BUREN
IA	99	DVN	LEE
ID	1	BOI	BOUNDARY/BONNER/ X N KOOTENAI
ID	2	BOI	KOOTENAI T X N
ID	3	BOI	BENEWAH/LATAH/NEZ PERCE/LEWIS
ID	4	BOI	SHOSHONE
ID	5	BOI	CLEARWATER T X SW
ID	6	BOI	IDAHO T W
ID	7	BOI	NW IDAHO/X SW CLEARWATER
ID	8	BOI	SW IDAHO
ID	9	BOI	LEMHI T C
ID	10	BOI	C LEMHI
ID	11	BOI	VALLEY/ADAMS/N GEM/N WASHINGTON
ID	12	BOI	S WASHINGTON/PAYETTE/S GEM/CANYON/X NW OWYHEE

ZONES

State	Zone #	WSO	Zone Descriptions
ID	13	BOI	BOISE/N ELMORE/CAMAS
ID	14	BOI	ADA/S ELMORE/NC & NE OWYHEE
ID	15	BOI	OWYHEE T NC & NE & X NW/C & S TWIN FALLS
ID	16	BOI	GOODING/JEROME/N TWIN FALLS
ID	17	BOI	SE BLAINE/LINCOLN/MINIDOKA/X N CASSIA
ID	18	BOI	CUSTER/NW BUTTE/NW BLAINE
ID	19	BOI	CLARK/FREMONT/TETON
ID	20	BOI	JEFFERSON/MADISON/W BONNEVILLE/N BINGHAM/SE BUTTE
ID	21	BOI	SW & SC BINGHAM/X NW BANNOCK/N POWER
ID	22	BOI	CASSIA T X N/S POWER/ONEIDA
ID	23	BOI	E BONNEVILLE/SE BINGHAM/CARIBOU/BANNOCK T X NW
ID	24	BOI	W FRANKLIN
ID	25	BOI	E BRANKLIN/BEAR LAKE
IL	1	DVN	JO DAVIESS
IL	2	DVN	STEPHENSON
IL	3	LOT	WINNEBAGO
IL	4	LOT	BOONE
IL	5	LOT	MCHENRY
IL	6	LOT	LAKE
IL	7	DVN	CARROLL
IL	8	LOT	OGLE
IL	9	DVN	WHITESIDE
IL	10	LOT	LEE
IL	11	LOT	DE KALB
IL	12	LOT	KANE
IL	13	LOT	DU PAGE
IL	14	LOT	COOK
IL	15	DVN	ROCK ISLAND
IL	16	DVN	HENRY
IL	17	DVN	BUREAU
IL	18	DVN	PUTNAM
IL	19	LOT	LA SALLE
IL	20	LOT	KENDALL
IL	21	LOT	GRUNDY
IL	22	LOT	WILL
IL	23	LOT	KANKAKEE
IL	24	DVN	MERCER
IL	25	DVN	HENDERSON
IL	26	DVN	WARREN
IL	27	ILX	KNOX
IL	28	ILX	STARK
IL	29	ILX	PEORIA
IL	30	ILX	MARSHALL
IL	31	ILX	WOODFORD
IL	32	LOT	LIVINGSTON
IL	33	LOT	IROQUOIS
IL	34	DVN	HANCOCK
IL	35	DVN	MCDONOUGH
IL	36	ILX	FULTON
IL	37	ILX	TAZEWELL
IL	38	ILX	MCLEAN
IL	39	LOT	FORD
IL	40	ILX	SCHUYLER
IL	41	ILX	MASON
IL	42	ILX	LOGAN
IL	43	ILX	DE WITT
IL	44	ILX	PIATT
IL	45	ILX	CHAMPAIGN
IL	46	ILX	VERMILION
IL	47	ILX	CASS
IL	48	ILX	MENARD
IL	49	ILX	SCOTT
IL	50	ILX	MORGAN

ZONES

State	Zone #	WSO	Zone Descriptions
IL	51	ILX	SANGAMON
IL	52	ILX	CHRISTIAN
IL	53	ILX	MACON
IL	54	ILX	MOULTRIE
IL	55	ILX	DOUGLAS
IL	56	ILX	COLES
IL	57	ILX	EDGAR
IL	58	LSX	GREENE
IL	59	LSX	MACOUPIN
IL	60	LSX	MONTGOMERY
IL	61	ILX	SHELBY
IL	62	ILX	CUMBERLAND
IL	63	ILX	CLARK
IL	64	LSX	BOND
IL	65	LSX	FAYETTE
IL	66	ILX	EFFINGHAM
IL	67	ILX	JASPER
IL	68	ILX	CRAWFORD
IL	69	LSX	CLINTON
IL	70	LSX	MARION
IL	71	ILX	CLAY
IL	72	ILX	RICHLAND
IL	73	ILX	LAWRENCE
IL	74	LSX	WASHINGTON
IL	75	PAH	JEFFERSON
IL	76	PAH	WAYNE
IL	77	PAH	EDWARDS
IL	78	PAH	WABASH
IL	79	LSX	RANDOLPH
IL	80	PAH	PERRY
IL	81	PAH	FRANKLIN
IL	82	PAH	HAMILTON
IL	83	PAH	WHITE
IL	84	PAH	JACKSON
IL	85	PAH	WILLIAMSON
IL	86	PAH	SALINE
IL	87	PAH	GALLATIN
IL	88	PAH	UNION
IL	89	PAH	JOHNSON
IL	90	PAH	POPE
IL	91	PAH	HARDIN
IL	92	PAH	ALEXANDER
IL	93	PAH	PULASKI
IL	94	PAH	MASSAC
IL	95	LSX	ADAMS
IL	96	LSX	BROWN
IL	97	LSX	PIKE
IL	98	LSX	CALHOUN
IL	99	LSX	JERSEY
IL	100	LSX	MADISON
IL	101	LSX	ST. CLAIR
IL	102	LSX	MONROE
IN	1	LOT	LAKE
IN	2	LOT	PORTER
IN	3	IWX	LA PORTE
IN	3	LOT	LA PORTE
IN	4	IWX	ST. JOSEPH
IN	4	LOT	ST. JOSEPH
IN	5	IWX	ELKHART
IN	5	LOT	ELKHART
IN	6	FWA	LAGRANGE
IN	6	IWX	LAGRANGE
IN	7	FWA	STEUBEN

ZONES

State	Zone #	WSO	Zone Descriptions
IN	7	IWX	STEBEN
IN	8	FWA	NOBLE
IN	8	IWX	NOBLE
IN	9	FWA	DE KALB
IN	9	IWX	DE KALB
IN	10	LOT	NEWTON
IN	11	LOT	JASPER
IN	12	IWX	STARKE
IN	12	LOT	STARKE
IN	13	IWX	PULASKI
IN	13	LOT	PULASKI
IN	14	IWX	MARSHALL
IN	14	LOT	MARSHALL
IN	15	IWX	FULTON
IN	15	LOT	FULTON
IN	16	IWX	KOSCIUSKO
IN	16	LOT	KOSCIUSKO
IN	17	FWA	WHITLEY
IN	17	IWX	WHITLEY
IN	18	FWA	ALLEN
IN	18	IWX	ALLEN
IN	19	LOT	BENTON
IN	20	IWX	WHITE
IN	20	LOT	WHITE
IN	21	IND	CARROLL
IN	22	IND	CASS
IN	22	IWX	CASS
IN	23	IND	MIAMI
IN	23	IWX	MIAMI
IN	24	FWA	WABASH
IN	24	IWX	WABASH
IN	25	FWA	HUNTINGTON
IN	25	IWX	HUNTINGTON
IN	26	FWA	WELLS
IN	26	IWX	WELLS
IN	27	FWA	ADAMS
IN	27	IWX	ADAMS
IN	28	IND	WARREN
IN	29	IND	TIPPECANOE
IN	30	IND	CLINTON
IN	31	IND	HOWARD
IN	32	FWA	GRANT
IN	32	IWX	GRANT
IN	33	FWA	BLACKFORD
IN	33	IWX	BLACKFORD
IN	34	FWA	JAY
IN	34	IWX	JAY
IN	35	IND	FOUNTAIN
IN	36	IND	MONTGOMERY
IN	37	IND	BOONE
IN	38	IND	TIPTON
IN	39	IND	HAMILTON
IN	40	IND	MADISON
IN	41	IND	DELAWARE
IN	42	IND	RANDOLPH
IN	43	IND	VERMILLION
IN	44	IND	PARKE
IN	45	IND	PUTNAM
IN	46	IND	HENDRICKS
IN	47	IND	MARION
IN	48	IND	HANCOCK
IN	49	IND	HENRY
IN	50	ILN	WAYNE

ZONES

State	Zone #	WSO	Zone Descriptions
IN	51	IND	VIGO
IN	52	IND	CLAY
IN	53	IND	OWEN
IN	54	IND	MORGAN
IN	55	IND	JOHNSON
IN	56	IND	SHELBY
IN	57	IND	RUSH
IN	58	ILN	FAYETTE
IN	59	ILN	UNION
IN	60	IND	SULLIVAN
IN	61	IND	GREENE
IN	62	IND	MONROE
IN	63	IND	BROWN
IN	64	IND	BARTHOLOMEW
IN	65	IND	DECATUR
IN	66	ILN	FRANKLIN
IN	67	IND	KNOX
IN	68	IND	DAVISS
IN	69	IND	MARTIN
IN	70	IND	LAWRENCE
IN	71	IND	JACKSON
IN	72	IND	JENNINGS
IN	73	ILN	RIPLEY
IN	74	ILN	DEARBORN
IN	75	ILN	OHIO
IN	76	LMK	ORANGE
IN	77	LMK	WASHINGTON
IN	78	LMK	SCOTT
IN	79	LMK	JEFFERSON
IN	80	ILN	SWITZERLAND
IN	81	PAH	GIBSON
IN	82	PAH	PIKE
IN	83	LMK	DUBOIS
IN	84	LMK	CRAWFORD
IN	85	PAH	POSEY
IN	86	PAH	VANDEBURGH
IN	87	PAH	WARRICK
IN	88	PAH	SPENCER
IN	89	LMK	PERRY
IN	90	LMK	HARRISON
IN	91	LMK	FLOYD
IN	92	LMK	CLARK
KS	1	GLD	CHEYENNE
KS	2	GLD	RAWLINS
KS	3	GLD	DECATUR
KS	4	GLD	NORTON
KS	5	GID	PHILLIPS
KS	6	GID	SMITH
KS	7	GID	JEWELL
KS	8	TOP	REPUBLIC
KS	9	TOP	WASHINGTON
KS	10	TOP	MARSHALL
KS	11	TOP	NEMAHA
KS	12	TOP	BROWN
KS	13	GLD	SHERMAN
KS	14	GLD	THOMAS
KS	15	GLD	SHERIDAN
KS	16	GLD	GRAHAM
KS	17	GID	ROOKS
KS	18	GID	OSBORNE
KS	19	GID	MITCHELL
KS	20	TOP	CLOUD
KS	21	TOP	CLAY

ZONES

State	Zone #	WSO	Zone Descriptions
KS	22	TOP	RILEY
KS	23	TOP	POTTAWATOMIE
KS	24	TOP	JACKSON
KS	25	EAX	ATCHISON
KS	26	TOP	JEFFERSON
KS	27	GLD	WALLACE
KS	28	GLD	LOGAN
KS	29	GLD	GOVE
KS	30	DDC	TREGO
KS	31	DDC	ELLIS
KS	32	ICT	RUSSELL
KS	33	ICT	LINCOLN
KS	34	TOP	OTTAWA
KS	35	TOP	DICKINSON
KS	36	TOP	GEARY
KS	37	TOP	MORRIS
KS	38	TOP	WABAUNSEE
KS	39	TOP	SHAWNEE
KS	40	TOP	DOUGLAS
KS	41	GLD	GREELEY
KS	42	GLD	WICHITA
KS	43	DDC	SCOTT
KS	44	DDC	LANE
KS	45	DDC	NESS
KS	46	DDC	RUSH
KS	47	ICT	BARTON
KS	48	ICT	ELLSWORTH
KS	49	ICT	SALINE
KS	50	ICT	RICE
KS	51	ICT	MCPHERSON
KS	52	ICT	MARION
KS	53	ICT	CHASE
KS	54	TOP	LYON
KS	55	TOP	OSAGE
KS	56	TOP	FRANKLIN
KS	57	EAX	MIAMI
KS	58	TOP	COFFEY
KS	59	TOP	ANDERSON
KS	60	EAX	LINN
KS	61	DDC	HAMILTON
KS	62	DDC	KEARNY
KS	63	DDC	FINNEY
KS	64	DDC	HODGEMAN
KS	65	DDC	PAWNEE
KS	66	DDC	STAFFORD
KS	67	ICT	RENO
KS	68	ICT	HARVEY
KS	69	ICT	BUTLER
KS	70	ICT	GREENWOOD
KS	71	ICT	WOODSON
KS	72	ICT	ALLEN
KS	73	SGF	BOURBON
KS	74	DDC	STANTON
KS	75	DDC	GRANT
KS	76	DDC	HASKELL
KS	77	DDC	GRAY
KS	78	DDC	FORD
KS	79	DDC	EDWARDS
KS	80	DDC	KIOWA
KS	81	DDC	PRATT
KS	82	ICT	KINGMAN
KS	83	ICT	SEDGWICK
KS	84	DDC	MORTON

ZONES

State	Zone #	WSO	Zone Descriptions
KS	85	DDC	STEVENS
KS	86	DDC	SEWARD
KS	87	DDC	MEADE
KS	88	DDC	CLARK
KS	89	DDC	COMANCHE
KS	90	DDC	BARBER
KS	91	ICT	HARPER
KS	92	ICT	SUMNER
KS	93	ICT	COWLEY
KS	94	ICT	ELK
KS	95	ICT	WILSON
KS	96	ICT	NEOSHO
KS	97	SGF	CRAWFORD
KS	98	ICT	CHAUTAUQUA
KS	99	ICT	MONTGOMERY
KS	100	ICT	LABETTE
KS	101	SGF	CHEROKEE
KS	102	EAX	DONIPHAN
KS	103	EAX	LEAVENWORTH
KS	104	EAX	WYANDOTTE
KS	105	EAX	JOHNSON
KY	1	PAH	FULTON
KY	2	PAH	HICKMAN
KY	3	PAH	CARLISLE
KY	4	PAH	BALLARD
KY	5	PAH	MCCRACKEN
KY	6	PAH	GRAVES
KY	7	PAH	LIVINGSTON
KY	8	PAH	MARSHALL
KY	9	PAH	CALLOWAY
KY	10	PAH	CRITTENDEN
KY	11	PAH	LYON
KY	12	PAH	TRIGG
KY	13	PAH	CALDWELL
KY	14	PAH	UNION
KY	15	PAH	WEBSTER
KY	16	PAH	HOPKINS
KY	17	PAH	CHRISTIAN
KY	18	PAH	HENDERSON
KY	19	PAH	DAVISS
KY	20	PAH	MCLEAN
KY	21	PAH	MUHLENBERG
KY	22	PAH	TODD
KY	23	LMK	HANCOCK
KY	24	LMK	BRECKINRIDGE
KY	25	LMK	MEADE
KY	26	LMK	OHIO
KY	27	LMK	GRAYSON
KY	28	LMK	HARDIN
KY	29	LMK	BULLITT
KY	30	LMK	JEFFERSON
KY	31	LMK	OLDHAM
KY	32	LMK	TRIMBLE
KY	33	LMK	HENRY
KY	34	LMK	SHELBY
KY	35	LMK	FRANKLIN
KY	36	LMK	SCOTT
KY	37	LMK	HARRISON
KY	38	LMK	SPENCER
KY	39	LMK	ANDERSON
KY	40	LMK	WOODFORD
KY	41	LMK	FAYETTE
KY	42	LMK	BOURBON

ZONES

State	Zone #	WSO	Zone Descriptions
KY	43	LMK	NICHOLAS
KY	44	JKL	FLEMING
KY	44	LMK	FLEMING
KY	45	LMK	NELSON
KY	46	LMK	WASHINGTON
KY	47	LMK	MERCER
KY	48	LMK	JESSAMINE
KY	49	LMK	CLARK
KY	50	JKL	MONTGOMERY
KY	50	LMK	MONTGOMERY
KY	51	JKL	BATH
KY	51	LMK	BATH
KY	52	JKL	ROWAN
KY	52	LMK	ROWAN
KY	53	LMK	LARUE
KY	54	LMK	MARION
KY	55	LMK	BOYLE
KY	56	LMK	GARRARD
KY	57	LMK	MADISON
KY	58	JKL	ESTILL
KY	58	LMK	ESTILL
KY	59	JKL	POWELL
KY	59	LMK	POWELL
KY	60	JKL	MENIFEE
KY	60	LMK	MENIFEE
KY	61	LMK	BUTLER
KY	62	LMK	EDMONSON
KY	63	LMK	HART
KY	64	LMK	GREEN
KY	65	LMK	TAYLOR
KY	66	LMK	CASEY
KY	67	LMK	LINCOLN
KY	68	JKL	ROCKCASTLE
KY	68	LMK	ROCKCASTLE
KY	69	JKL	JACKSON
KY	70	LMK	LOGAN
KY	71	LMK	WARREN
KY	72	LMK	SIMPSON
KY	73	LMK	ALLEN
KY	74	LMK	BARREN
KY	75	LMK	MONROE
KY	76	LMK	METCALFE
KY	77	LMK	ADAIR
KY	78	LMK	RUSSELL
KY	79	JKL	PULASKI
KY	79	LMK	PULASKI
KY	80	JKL	LAUREL
KY	80	LMK	LAUREL
KY	81	LMK	CUMBERLAND
KY	82	LMK	CLINTON
KY	83	JKL	WAYNE
KY	83	LMK	WAYNE
KY	84	JKL	MCCREARY
KY	84	LMK	MCCREARY
KY	85	JKL	WHITLEY
KY	85	LMK	WHITLEY
KY	86	JKL	KNOX
KY	87	JKL	BELL
KY	88	JKL	HARLAN
KY	89	ILN	CARROLL
KY	90	ILN	GALLATIN
KY	91	ILN	BOONE
KY	92	ILN	KENTON

ZONES

State	Zone #	WSO	Zone Descriptions
KY	93	ILN	CAMPBELL
KY	94	ILN	OWEN
KY	95	ILN	GRANT
KY	96	ILN	PENDLETON
KY	97	ILN	BRACKEN
KY	98	ILN	ROBERTSON
KY	99	ILN	MASON
KY	100	ILN	LEWIS
KY	101	RLX	GREENUP
KY	102	RLX	CARTER
KY	103	RLX	BOYD
KY	104	JKL	ELLIOTT
KY	104	RLX	ELLIOTT
KY	105	RLX	LAWRENCE
KY	106	JKL	MORGAN
KY	107	JKL	JOHNSON
KY	107	RLX	JOHNSON
KY	108	JKL	WOLFE
KY	109	JKL	MAGOFFIN
KY	110	JKL	FLOYD
KY	111	JKL	LEE
KY	112	JKL	BREATHITT
KY	113	JKL	KNOTT
KY	114	JKL	OWSLEY
KY	115	JKL	PERRY
KY	116	JKL	CLAY
KY	117	JKL	LESLIE
KY	118	JKL	LETCHER
KY	119	JKL	MARTIN
KY	119	RLX	MARTIN
KY	120	JKL	PIKE
LA	1	SHV	CADDO
LA	2	SHV	BOSSIER
LA	3	SHV	WEBSTER
LA	4	SHV	CLAIBORNE
LA	5	SHV	LINCOLN
LA	6	SHV	UNION
LA	7	JAN	MOREHOUSE
LA	8	JAN	WEST CARROLL
LA	9	JAN	EAST CARROLL
LA	10	SHV	DE SOTO
LA	11	SHV	RED RIVER
LA	12	SHV	BIENVILLE
LA	13	SHV	JACKSON
LA	14	SHV	OUACHITA
LA	15	JAN	RICHLAND
LA	16	JAN	MADISON
LA	17	SHV	SABINE
LA	18	SHV	NATCHITOCHE
LA	19	SHV	WINN
LA	20	SHV	GRANT
LA	21	SHV	CALDWELL
LA	22	SHV	LA SALLE
LA	23	JAN	FRANKLIN
LA	24	JAN	CATAHOULA
LA	25	JAN	TENSAS
LA	26	JAN	CONCORDIA
LA	27	LCH	VERNON
LA	28	LCH	RAPIDES
LA	29	LCH	AVOUELLES
LA	30	LCH	BEAUREGARD
LA	31	LCH	ALLEN
LA	32	LCH	EVANGELINE

ZONES

State	Zone #	WSO	Zone Descriptions
LA	33	LCH	ST. LANDRY
LA	34	LIX	POINTE COUPEE
LA	35	LIX	WEST FELICIANA
LA	36	LIX	EAST FELICIANA
LA	37	LIX	ST. HELENA
LA	38	LIX	TANGIPAHOA
LA	39	LIX	WASHINGTON
LA	40	LIX	ST. TAMMANY
LA	41	LCH	CALCASIEU
LA	42	LCH	JEFFERSON DAVIS
LA	43	LCH	ACADIA
LA	44	LCH	LAFAYETTE
LA	45	LCH	UPPER ST. MARTIN
LA	46	LIX	IBERVILLE
LA	47	LIX	WEST BATON ROUGE
LA	48	LIX	EAST BATON ROUGE
LA	49	LIX	ASCENSION
LA	50	LIX	LIVINGSTON
LA	51	LCH	CAMERON
LA	52	LCH	VERMILION
LA	53	LCH	IBERIA
LA	54	LCH	ST. MARY
LA	55	LCH	LOWER ST. MARTIN
LA	56	LIX	ASSUMPTION
LA	57	LIX	ST. JAMES
LA	58	LIX	ST. JOHN THE BAPTIST
LA	59	LIX	UPPER LAFOURCHE
LA	60	LIX	ST. CHARLES
LA	61	LIX	UPPER JEFFERSON
LA	62	LIX	ORLEANS
LA	63	LIX	UPPER PLAQUEMINES
LA	64	LIX	UPPER ST. BERNARD
LA	65	LIX	UPPER TERREBONNE
LA	66	LIX	LOWER TERREBONNE
LA	67	LIX	LOWER LAFOURCHE
LA	68	LIX	LOWER JEFFERSON
LA	69	LIX	LOWER PLAQUEMINES
LA	70	LIX	LOWER ST. BERNARD
MA	1	ALY	BERKSHIRE
MA	2	BOX	WESTERN FRANKLIN
MA	3	BOX	EASTERN FRANKLIN
MA	4	BOX	NORTHERN WORCESTER
MA	5	BOX	WESTERN MIDDLESEX
MA	6	BOX	WESTERN ESSEX
MA	7	BOX	EASTERN ESSEX
MA	8	BOX	WESTERN HAMPSHIRE
MA	9	BOX	WESTERN HAMPDEN
MA	10	BOX	EASTERN HAMPSHIRE
MA	11	BOX	EASTERN HAMPDEN
MA	12	BOX	SOUTHERN WORCESTER
MA	13	BOX	WESTERN NORFOLK
MA	14	BOX	SOUTHEAST MIDDLESEX
MA	15	BOX	SUFFOLK / ALSO PART OF NORFOLK
MA	16	BOX	EASTERN NORFOLK
MA	17	BOX	NORTHERN BRISTOL
MA	18	BOX	WESTERN PLYMOUTH
MA	19	BOX	EASTERN PLYMOUTH / ALSO PART OF NORFOLK
MA	20	BOX	SOUTHERN BRISTOL
MA	21	BOX	SOUTHERN PLYMOUTH
MA	22	BOX	BARNSTABLE
MA	23	BOX	DUKES
MA	24	BOX	NANTUCKET
MD	1	PBZ	GARRETT

ZONES

State	Zone #	WSO	Zone Descriptions
MD	2	LWX	ALLEGANY
MD	3	LWX	WASHINGTON
MD	4	LWX	FREDERICK
MD	5	LWX	CARROLL
MD	6	LWX	NORTHERN BALTIMORE
MD	7	LWX	HARFORD
MD	8	PHI	CECIL
MD	9	LWX	MONTGOMERY
MD	10	LWX	HOWARD
MD	11	LWX	SOUTHERN BALTIMORE / BALTIMORE (C)
MD	12	PHI	KENT
MD	13	LWX	PRINCE GEORGES
MD	14	LWX	ANNE ARUNDEL
MD	15	PHI	QUEEN ANNES
MD	16	LWX	CHARLES
MD	17	LWX	ST. MARY'S
MD	18	LWX	CALVERT
MD	19	PHI	TALBOT
MD	20	PHI	CAROLINE
MD	21	AKQ	DORCHESTER
MD	22	AKQ	WICOMICO
MD	23	AKQ	SOMERSET
MD	24	AKQ	INLAND WORCESTER / EXCEPT X E WORCESTER
MD	25	AKQ	MARYLAND BEACHES / X E WORCESTER
ME	1	GYX	NORTHWEST AROOSTOOK
ME	2	GYX	NORTHEAST AROOSTOOK
ME	3	GYX	NORTHERN SOMERSET
ME	4	GYX	NORTHERN PISCATAQUIS
ME	5	GYX	NORTHERN PENOBSCOT
ME	6	GYX	SOUTHEAST AROOSTOOK
ME	7	GYX	NORTHERN OXFORD
ME	8	GYX	NORTHERN FRANKLIN
ME	9	GYX	CENTRAL SOMERSET
ME	10	GYX	SOUTHERN PISCATAQUIS
ME	11	GYX	CENTRAL PENOBSCOT
ME	12	GYX	SOUTHERN OXFORD
ME	13	GYX	SOUTHERN FRANKLIN
ME	14	GYX	SOUTHERN SOMERSET
ME	15	GYX	SOUTHERN PENOBSCOT
ME	16	GYX	INTERIOR HANCOCK
ME	17	GYX	INTERIOR WASHINGTON
ME	18	GYX	INTERIOR YORK
ME	19	GYX	INTERIOR CUMBERLAND
ME	20	GYX	ANDROSCOGGIN
ME	21	GYX	KENNEBEC
ME	22	GYX	INTERIOR WALDO
ME	23	GYX	COASTAL YORK
ME	24	GYX	COASTAL CUMBERLAND
ME	25	GYX	SAGADAHOC
ME	26	GYX	LINCOLN
ME	27	GYX	KNOX
ME	28	GYX	COASTAL WALDO
ME	29	GYX	COASTAL HANCOCK
ME	30	GYX	COASTAL WASHINGTON
MI	1	MQT	KEWEENAW
MI	2	MQT	ONTONAGON
MI	3	MQT	HOUGHTON
MI	4	MQT	BARAGA
MI	5	MQT	MARQUETTE
MI	6	MQT	ALGER
MI	7	MQT	LUCE
MI	8	APX	CHIPPEWA
MI	9	MQT	GOGEBIC

ZONES

State	Zone #	WSO	Zone Descriptions
MI	10	MQT	IRON
MI	11	MQT	DICKINSON
MI	12	MQT	MENOMINEE
MI	13	MQT	DELTA
MI	14	MQT	SCHOOLCRAFT
MI	15	APX	MACKINAC
MI	16	APX	EMMET
MI	17	APX	CHEBOYGAN
MI	18	APX	PRESQUE ISLE
MI	19	APX	CHARLEVOIX
MI	20	APX	LEELANAU
MI	21	APX	ANTRIM
MI	22	APX	OTSEGO
MI	23	APX	MONTMORENCY
MI	24	APX	ALPENA
MI	25	APX	BENZIE
MI	26	APX	GRAND TRAVERSE
MI	27	APX	KALKASKA
MI	28	APX	CRAWFORD
MI	29	APX	OSCODA
MI	30	APX	ALCONA
MI	31	APX	MANISTEE
MI	32	APX	WEXFORD
MI	33	APX	MISSAUKEE
MI	34	APX	ROSCOMMON
MI	35	APX	OGEMAW
MI	36	APX	IOSCO
MI	37	GRR	MASON
MI	38	GRR	LAKE
MI	39	GRR	OSCEOLA
MI	40	GRR	CLARE
MI	41	APX	GLADWIN
MI	42	APX	ARENAC
MI	43	GRR	OCEANA
MI	44	GRR	NEWAYGO
MI	45	GRR	MECOSTA
MI	46	GRR	ISABELLA
MI	47	DTX	MIDLAND
MI	48	DTX	BAY
MI	49	DTX	HURON
MI	50	GRR	MUSKEGON
MI	51	GRR	MONTCALM
MI	52	GRR	GRATIOT
MI	53	DTX	SAGINAW
MI	54	DTX	TUSCOLA
MI	55	DTX	SANILAC
MI	56	GRR	OTTAWA
MI	57	GRR	KENT
MI	58	GRR	IONIA
MI	59	GRR	CLINTON
MI	60	DTX	SHIAWASSEE
MI	61	DTX	GENESEE
MI	62	DTX	LAPEER
MI	63	DTX	ST. CLAIR
MI	64	GRR	ALLEGAN
MI	65	GRR	BARRY
MI	66	GRR	EATON
MI	67	GRR	INGHAM
MI	68	DTX	LIVINGSTON
MI	69	DTX	OAKLAND
MI	70	DTX	MACOMB
MI	71	GRR	VAN BUREN
MI	72	GRR	KALAMAZOO

ZONES

State	Zone #	WSO	Zone Descriptions
MI	73	GRR	CALHOUN
MI	74	GRR	JACKSON
MI	75	DTX	WASHTENAW
MI	76	DTX	WAYNE
MI	77	GRR	BERRIEN
MI	77	IND	BERRIEN
MI	77	IWX	BERRIEN
MI	78	GRR	CASS
MI	78	IND	CASS
MI	78	IWX	CASS
MI	79	GRR	ST. JOSEPH
MI	79	IND	ST. JOSEPH
MI	79	IWX	ST. JOSEPH
MI	80	GRR	BRANCH
MI	80	IWX	BRANCH
MI	81	GRR	HILLSDALE
MI	81	IWX	HILLSDALE
MI	82	DTX	LENAWEE
MI	83	DTX	MONROE
MN	1	BIS	WEST POLK
MN	1	FGF	WEST POLK
MN	2	BIS	NORMAN
MN	2	FGF	NORMAN
MN	3	BIS	CLAY
MN	3	FGF	CLAY
MN	4	BIS	KITTSOON
MN	4	FGF	KITTSOON
MN	5	FGF	ROSEAU
MN	6	FGF	LAKE OF THE WOODS
MN	7	BIS	WEST MARSHALL
MN	7	FGF	WEST MARSHALL
MN	8	BIS	EAST MARSHALL
MN	8	FGF	EAST MARSHALL
MN	9	FGF	NORTH BELTRAMI
MN	10	DLH	KOOCHICHING
MN	11	DLH	NORTHERN ST. LOUIS
MN	12	DLH	NORTHERN COOK / NORTHERN LAKE
MN	13	BIS	PENNINGTON
MN	13	FGF	PENNINGTON
MN	14	BIS	RED LAKE
MN	14	FGF	RED LAKE
MN	15	BIS	EAST POLK
MN	15	FGF	EAST POLK
MN	16	FGF	NORTH CLEARWATER
MN	17	FGF	SOUTH BELTRAMI
MN	18	DLH	NORTHERN ITASCA
MN	19	DLH	CENTRAL ST. LOUIS
MN	20	DLH	SOUTHERN LAKE / NORTH SHORE
MN	21	DLH	SOUTHERN COOK / NORTH SHORE
MN	22	BIS	MAHNOMEN
MN	22	FGF	MAHNOMEN
MN	23	FGF	SOUTH CLEARWATER
MN	24	BIS	HUBBARD
MN	24	FGF	HUBBARD
MN	25	DLH	NORTHERN CASS
MN	26	DLH	SOUTHERN ITASCA
MN	27	BIS	WEST BECKER
MN	27	FGF	WEST BECKER
MN	28	BIS	EAST BECKER
MN	28	FGF	EAST BECKER
MN	29	BIS	WILKIN
MN	29	FGF	WILKIN
MN	30	BIS	WEST OTTER TAIL

ZONES

State	Zone #	WSO	Zone Descriptions
MN	30	FGF	WEST OTTER TAIL
MN	31	BIS	EAST OTTER TAIL
MN	31	FGF	EAST OTTER TAIL
MN	32	BIS	WADENA
MN	32	FGF	WADENA
MN	33	DLH	SOUTHERN CASS
MN	34	DLH	CROW WING
MN	35	DLH	NORTHERN AITKIN
MN	36	DLH	SOUTHERN AITKIN
MN	37	DLH	SOUTHERN ST. LOUIS / CARLTON
MN	38	DLH	PINE
MN	39	ABR	TRAVERSE
MN	40	BIS	GRANT
MN	40	FGF	GRANT
MN	41	MPX	DOUGLAS
MN	42	MPX	TODD
MN	43	MPX	MORRISON
MN	44	MPX	MILLE LACS
MN	45	MPX	KANABEC
MN	46	ABR	BIG STONE
MN	47	MPX	STEVENS
MN	48	MPX	POPE
MN	49	MPX	STEARNS
MN	50	MPX	BENTON
MN	51	MPX	SHERBURNE
MN	52	MPX	ISANTI
MN	53	MPX	CHISAGO
MN	54	MPX	LAC QUI PARLE
MN	55	MPX	SWIFT
MN	56	MPX	CHIPPEWA
MN	57	MPX	KANDIYOHI
MN	58	MPX	MEEKER
MN	59	MPX	WRIGHT
MN	60	MPX	HENNEPIN
MN	61	MPX	ANOKA
MN	62	MPX	RAMSEY
MN	63	MPX	WASHINGTON
MN	64	MPX	YELLOW MEDICINE
MN	65	MPX	RENVILLE
MN	66	MPX	MCLEOD
MN	67	MPX	SIBLEY
MN	68	MPX	CARVER
MN	69	MPX	SCOTT
MN	70	MPX	DAKOTA
MN	71	FSD	LINCOLN
MN	72	FSD	LYON
MN	73	MPX	REDWOOD
MN	74	MPX	BROWN
MN	75	MPX	NICOLLET
MN	76	MPX	LE SUEUR
MN	77	MPX	RICE
MN	78	MPX	GOODHUE
MN	79	ARX	WABASHA
MN	80	FSD	MURRAY
MN	81	FSD	COTTONWOOD
MN	82	MPX	WATONWAN
MN	83	MPX	BLUE EARTH
MN	84	MPX	WASECA
MN	85	MPX	STEELE
MN	86	ARX	DODGE
MN	87	ARX	OLMSTED
MN	88	ARX	WINONA
MN	89	FSD	NOBLES

ZONES

State	Zone #	WSO	Zone Descriptions
MN	90	FSD	JACKSON
MN	91	MPX	MARTIN
MN	92	MPX	FARIBAULT
MN	93	MPX	FREEBORN
MN	94	ARX	MOWER
MN	95	ARX	FILLMORE
MN	96	ARX	HOUSTON
MN	97	FSD	PIPESTONE
MN	98	FSD	ROCK
MO	1	EAX	ATCHISON
MO	2	EAX	NODAWAY
MO	3	EAX	WORTH
MO	4	EAX	GENTRY
MO	5	EAX	HARRISON
MO	6	EAX	MERCER
MO	7	EAX	PUTNAM
MO	8	EAX	SCHUYLER
MO	9	LSX	SCOTLAND
MO	10	LSX	CLARK
MO	11	EAX	HOLT
MO	12	EAX	ANDREW
MO	13	EAX	DE KALB
MO	14	EAX	DAVISS
MO	15	EAX	GRUNDY
MO	16	EAX	SULLIVAN
MO	17	EAX	ADAIR
MO	18	LSX	KNOX
MO	19	LSX	LEWIS
MO	20	EAX	BUCHANAN
MO	21	EAX	CLINTON
MO	22	EAX	CALDWELL
MO	23	EAX	LIVINGSTON
MO	24	EAX	LINN
MO	25	EAX	MACON
MO	26	LSX	SHELBY
MO	27	LSX	MARION
MO	28	EAX	PLATTE
MO	29	EAX	CLAY
MO	30	EAX	RAY
MO	31	EAX	CARROLL
MO	32	EAX	CHARITON
MO	33	EAX	RANDOLPH
MO	34	LSX	MONROE
MO	35	LSX	RALLS
MO	36	LSX	PIKE
MO	37	EAX	JACKSON
MO	38	EAX	LAFAYETTE
MO	39	EAX	SALINE
MO	40	EAX	HOWARD
MO	41	LSX	BOONE
MO	42	LSX	AUDRAIN
MO	43	EAX	CASS
MO	44	EAX	JOHNSON
MO	45	EAX	PETTIS
MO	46	EAX	COOPER
MO	47	LSX	MONITEAU
MO	48	LSX	COLE
MO	49	LSX	OSAGE
MO	50	LSX	CALLAWAY
MO	51	LSX	MONTGOMERY
MO	52	LSX	LINCOLN
MO	53	EAX	BATES
MO	54	EAX	HENRY

ZONES

State	Zone #	WSO	Zone Descriptions
MO	55	SGF	BENTON
MO	56	SGF	MORGAN
MO	57	SGF	MILLER
MO	58	SGF	MARIES
MO	59	LSX	GASCONADE
MO	60	LSX	WARREN
MO	61	LSX	ST. CHARLES
MO	62	LSX	FRANKLIN
MO	63	LSX	ST. LOUIS
MO	64	LSX	ST. LOUIS (C)
MO	65	LSX	JEFFERSON
MO	66	SGF	VERNON
MO	67	SGF	ST. CLAIR
MO	68	SGF	HICKORY
MO	69	SGF	CAMDEN
MO	70	SGF	PULASKI
MO	71	SGF	PHELPS
MO	72	LSX	CRAWFORD
MO	73	LSX	WASHINGTON
MO	74	LSX	ST. FRANCOIS
MO	75	LSX	STE. GENEVIEVE
MO	76	PAH	PERRY
MO	77	SGF	BARTON
MO	78	SGF	CEDAR
MO	79	SGF	POLK
MO	80	SGF	DALLAS
MO	81	SGF	LACLEDE
MO	82	SGF	TEXAS
MO	83	SGF	DENT
MO	84	LSX	IRON
MO	85	LSX	MADISON
MO	86	PAH	BOLLINGER
MO	87	PAH	CAPE GIRARDEAU
MO	88	SGF	JASPER
MO	89	SGF	DADE
MO	90	SGF	GREENE
MO	91	SGF	WEBSTER
MO	92	SGF	WRIGHT
MO	93	SGF	NEWTON
MO	94	SGF	LAWRENCE
MO	95	SGF	CHRISTIAN
MO	96	SGF	DOUGLAS
MO	97	SGF	HOWELL
MO	98	SGF	SHANNON
MO	99	LSX	REYNOLDS
MO	100	PAH	WAYNE
MO	101	SGF	MCDONALD
MO	102	SGF	BARRY
MO	103	SGF	STONE
MO	104	SGF	TANEY
MO	105	SGF	OZARK
MO	106	SGF	OREGON
MO	107	PAH	CARTER
MO	108	PAH	RIPLEY
MO	109	PAH	BUTLER
MO	110	PAH	STODDARD
MO	111	PAH	SCOTT
MO	112	PAH	MISSISSIPPI
MO	113	MEG	DUNKLIN
MO	114	PAH	NEW MADRID
MO	115	MEG	PEMISCOT
MS	1	MEG	DE SOTO
MS	2	MEG	MARSHALL

ZONES

State	Zone #	WSO	Zone Descriptions
MS	3	MEG	BENTON
MS	4	MEG	TIPPAH
MS	5	MEG	ALCORN
MS	6	MEG	TISHOMINGO
MS	7	MEG	TUNICA
MS	8	MEG	TATE
MS	9	MEG	PRENTISS
MS	10	MEG	COAHOMA
MS	11	MEG	QUITMAN
MS	12	MEG	PANOLA
MS	13	MEG	LAFAYETTE
MS	14	MEG	UNION
MS	15	MEG	PONTOTOC
MS	16	MEG	LEE
MS	17	MEG	ITAWAMBA
MS	18	JAN	BOLIVAR
MS	19	JAN	SUNFLOWER
MS	20	MEG	TALLAHATCHIE
MS	21	MEG	YALOBUSHA
MS	22	MEG	CALHOUN
MS	23	MEG	CHICKASAW
MS	24	MEG	MONROE
MS	25	JAN	LEFLORE
MS	26	JAN	GRENADA
MS	27	JAN	CARROLL
MS	28	JAN	MONTGOMERY
MS	29	JAN	WEBSTER
MS	30	MEG	CLAY
MS	31	MEG	LOWNDES
MS	32	JAN	CHOCTAW
MS	33	JAN	OKTIBBEHA
MS	34	JAN	WASHINGTON
MS	35	JAN	HUMPHREYS
MS	36	JAN	HOLMES
MS	37	JAN	ATTALA
MS	38	JAN	WINSTON
MS	39	JAN	NOXUBEE
MS	40	JAN	ISSAQUENA
MS	41	JAN	SHARKEY
MS	42	JAN	YAZOO
MS	43	JAN	MADISON
MS	44	JAN	LEAKE
MS	45	JAN	NESHOBA
MS	46	JAN	KEMPER
MS	47	JAN	WARREN
MS	48	JAN	HINDS
MS	49	JAN	RANKIN
MS	50	JAN	SCOTT
MS	51	JAN	NEWTON
MS	52	JAN	LAUDERDALE
MS	53	JAN	CLAIBORNE
MS	54	JAN	COPIAH
MS	55	JAN	SIMPSON
MS	56	JAN	SMITH
MS	57	JAN	JASPER
MS	58	JAN	CLARKE
MS	59	JAN	JEFFERSON
MS	60	JAN	ADAMS
MS	61	JAN	FRANKLIN
MS	62	JAN	LINCOLN
MS	63	JAN	LAWRENCE
MS	64	JAN	JEFFERSON DAVIS
MS	65	JAN	COVINGTON

ZONES

State	Zone #	WSO	Zone Descriptions
MS	66	JAN	JONES
MS	67	MOB	WAYNE
MS	68	LIX	WILKINSON
MS	69	LIX	AMITE
MS	70	LIX	PIKE
MS	71	LIX	WALTHALL
MS	72	JAN	MARION
MS	73	JAN	LAMAR
MS	74	JAN	FORREST
MS	75	MOB	PERRY
MS	76	MOB	GREENE
MS	77	LIX	PEARL RIVER
MS	78	MOB	STONE
MS	79	MOB	GEORGE
MS	80	LIX	HANCOCK
MS	81	LIX	HARRISON
MS	82	LIX	JACKSON
MT	1	MSO	LINCOLN T X NE/SW FLATHEAD/N SANDERS/X NW LAKE
MT	2	MSO	FLATHEAD T SW & SC/NE&SE LAKE/X NE LINCOLN/NE MISSOULA/N POWELL
MT	3	MSO	SC FLATHEAD/C LAKE
MT	4	MSO	S SANDERS/MINERAL/W MISSOULA/X SW LAKE/W RAVALLI
MT	5	MSO	SC MISSOULA/C&NC RAVALLI
MT	6	MSO	E RAVALLI/SE MISSOULA/GRANITE T X NE/NW & X NE DEER LODGE/C&SE & X SW POWELL/ X N SILVER BOW
MT	7	MSO	SW POWELL T X SW/NC DEER LODGE/N SILVER BOW T X N/X NE GRANITE
MT	8	TFX	BEAVERHEAD/S SILVER BOW/S DEER LODGE
MT	9	TFX	W GLACIER/W PONDERA/W TETON/N LEWIS/CLARK
MT	10	TFX	EASTERN GLACIER/EASTERN PONDERA/TOOLE/LIBERTY
MT	11	TFX	BLAINE/HILL
MT	12	TFX	CASCADE/EASTERN TETON/JUDITH BASIN
MT	13	TFX	FERGUS/CHOUTEAU
MT	14	TFX	BROADWATER/JEFFERSON/MEAGHER CENTRAL AND SOUTHERN LEWIS AND CLARK
MT	15	TFX	GALLATIN/MADISON
MT	16	GGW	PHILLIPS
MT	17	GGW	VALLEY
MT	18	GGW	DANIELS
MT	19	GGW	SHERIDAN
MT	20	GGW	ROOSEVELT
MT	21	GGW	PETROLEUM
MT	22	GGW	GARFIELD
MT	23	GGW	MCCONE
MT	24	GGW	RICHLAND
MT	25	GGW	DAWSON
MT	26	BYZ	PRAIRIE
MT	26	GGW	PRAIRIE
MT	27	GGW	WIBAUX
MT	28	BYZ	WHEATLAND/PARK/SWEET GRASS
MT	29	BYZ	GOLDEN VALLEY/MUSSELSHELL
MT	30	BYZ	TREASURE
MT	31	BYZ	ROSEBUD
MT	32	BYZ	CUSTER
MT	33	BYZ	FALLON
MT	34	BYZ	STILLWATER/CARBON
MT	35	BYZ	YELLOWSTONE/BIG HORN
MT	36	BYZ	POWDER RIVER
MT	37	BYZ	CARTER
NC	1	RNK	ASHE
NC	2	RNK	ALLEGHANY
NC	3	RNK	SURRY
NC	4	RNK	STOKES
NC	5	RNK	ROCKINGHAM
NC	6	RNK	CASWELL
NC	7	RAH	PERSON

ZONES

State	Zone #	WSO	Zone Descriptions
NC	8	RAH	GRANVILLE
NC	9	RAH	VANCE
NC	10	RAH	WARRREN
NC	11	RAH	HALIFAX
NC	12	AKQ	NORTHAMPTON
NC	13	AKQ	HERTFORD
NC	14	AKQ	GATES
NC	15	AKQ	PASQUOTANK
NC	16	AKQ	CAMDEN
NC	17	AKQ	WESTERN CURRITUCK
NC	18	RNK	WATAUGA
NC	19	RNK	WILKES
NC	20	RNK	YADKIN
NC	21	RAH	FORSYTH
NC	22	RAH	GUILFORD
NC	23	RAH	ALAMANCE
NC	24	RAH	ORANGE
NC	25	RAH	DURHAM
NC	26	RAH	FRANKLIN
NC	27	RAH	NASH
NC	28	RAH	EDGECOMBE
NC	29	MHX	MARTIN
NC	30	AKQ	BERTIE
NC	31	AKQ	CHOWAN
NC	32	AKQ	PERQUIMANS
NC	33	GSP	AVERY
NC	34	GSP	CALDWELL
NC	35	GSP	ALEXANDER
NC	36	GSP	IREDELL
NC	37	GSP	DAVIE
NC	38	RAH	DAVIDSON
NC	39	RAH	RANDOLPH
NC	40	RAH	CHATHAM
NC	41	RAH	WAKE
NC	42	RAH	JOHNSTON
NC	43	RAH	WILSON
NC	44	MHX	PITT
NC	45	MHX	WASHINGTON
NC	46	MHX	TYRRELL
NC	47	MHX	WESTERN DARE
NC	48	GSP	MADISON
NC	49	GSP	YANCEY
NC	50	GSP	MITCHELL
NC	51	GSP	SWAIN
NC	52	GSP	HAYWOOD
NC	53	GSP	BUNCOMBE
NC	54	GSP	MCDOWELL
NC	55	GSP	BURKE
NC	56	GSP	CATAWBA
NC	57	GSP	ROWAN
NC	58	GSP	GRAHAM
NC	59	GSP	NORTHERN JACKSON
NC	60	MRX	CHEROKEE
NC	61	MRX	CLAY
NC	62	GSP	MACON
NC	63	GSP	SOUTHERN JACKSON
NC	64	GSP	TRANSYLVANIA
NC	65	GSP	HENDERSON
NC	66	GSP	POLK
NC	67	GSP	RUTHERFORD
NC	68	GSP	CLEVELAND
NC	69	GSP	LINCOLN
NC	70	GSP	GASTON

ZONES

State	Zone #	WSO	Zone Descriptions
NC	71	GSP	MECKLENBURG
NC	72	GSP	CABARRUS
NC	73	RAH	STANLY
NC	74	RAH	MONTGOMERY
NC	75	RAH	MOORE
NC	76	RAH	LEE
NC	77	RAH	HARNETT
NC	78	RAH	WAYNE
NC	79	MHX	GREENE
NC	80	MHX	BEAUFORT
NC	81	MHX	WESTERN HYDE
NC	82	GSP	UNION
NC	83	RAH	ANSON
NC	84	RAH	RICHMOND
NC	85	RAH	SCOTLAND
NC	86	RAH	HOKE
NC	87	ILM	ROBESON
NC	88	RAH	CUMBERLAND
NC	89	RAH	SAMPSON
NC	90	MHX	DUPLIN
NC	91	MHX	LENOIR
NC	92	MHX	JONES
NC	93	MHX	CRAVEN
NC	94	MHX	PAMLICO
NC	95	MHX	CARTERET
NC	96	ILM	BLADEN
NC	97	ILM	PENDER
NC	98	MHX	ONSLow
NC	99	ILM	COLUMBUS
NC	100	ILM	BRUNSWICK
NC	101	ILM	NEW HANOVER
NC	102	AKQ	EASTERN CURRITUCK
NC	103	MHX	EASTERN DARE
NC	104	MHX	EASTERN HYDE
ND	1	BIS	DIVIDE
ND	2	BIS	BURKE
ND	3	BIS	RENVILLE
ND	4	BIS	BOTTINEAU
ND	5	BIS	ROLETTE
ND	6	BIS	TOWNER
ND	6	FGF	TOWNER
ND	7	BIS	CAVALIER
ND	7	FGF	CAVALIER
ND	8	BIS	PEMBINA
ND	8	FGF	PEMBINA
ND	9	BIS	WILLIAMS
ND	10	BIS	MOUNTRAIL
ND	11	BIS	WARD
ND	12	BIS	MCHENRY
ND	13	BIS	PIERCE
ND	14	BIS	BENSON
ND	14	FGF	BENSON
ND	15	BIS	RAMSEY
ND	15	FGF	RAMSEY
ND	16	BIS	WALSH
ND	16	FGF	WALSH
ND	17	BIS	MCKENZIE
ND	18	BIS	DUNN
ND	19	BIS	MERCER
ND	20	BIS	OLIVER
ND	21	BIS	MCLEAN
ND	22	BIS	SHERIDAN
ND	23	BIS	WELLS

ZONES

State	Zone #	WSO	Zone Descriptions
ND	24	BIS	EDDY
ND	24	FGF	EDDY
ND	25	BIS	FOSTER
ND	26	BIS	NELSON
ND	26	FGF	NELSON
ND	27	BIS	GRAND FORKS
ND	27	FGF	GRAND FORKS
ND	28	BIS	GRIGGS
ND	28	FGF	GRIGGS
ND	29	BIS	STEELE
ND	29	FGF	STEELE
ND	30	BIS	TRAILL
ND	30	FGF	TRAILL
ND	31	BIS	GOLDEN VALLEY
ND	32	BIS	BILLINGS
ND	33	BIS	STARK
ND	34	BIS	MORTON
ND	35	BIS	BURLEIGH
ND	36	BIS	KIDDER
ND	37	BIS	STUTSMAN
ND	38	BIS	BARNES
ND	38	FGF	BARNES
ND	39	BIS	CASS
ND	39	FGF	CASS
ND	40	BIS	SLOPE
ND	41	BIS	HETTINGER
ND	42	BIS	GRANT
ND	43	BIS	BOWMAN
ND	44	BIS	ADAMS
ND	45	BIS	SIOUX
ND	46	BIS	EMMONS
ND	47	BIS	LOGAN
ND	48	BIS	LA MOURE
ND	49	BIS	RANSOM
ND	49	FGF	RANSOM
ND	50	BIS	MCINTOSH
ND	51	BIS	DICKEY
ND	52	BIS	SARGENT
ND	52	FGF	SARGENT
ND	53	BIS	RICHLAND
ND	53	FGF	RICHLAND
NE	1	CYS	SIOUX
NE	2	CYS	DAWES
NE	3	CYS	BOX BUTTE
NE	4	LBF	SHERIDAN
NE	5	LBF	CHERRY
NE	6	LBF	KEYA PAHA
NE	6	OAX	KEYA PAHA
NE	7	LBF	BOYD
NE	7	OAX	BOYD
NE	8	LBF	BROWN
NE	8	OAX	BROWN
NE	9	LBF	ROCK
NE	9	OAX	ROCK
NE	10	LBF	HOLT
NE	10	OAX	HOLT
NE	11	OAX	KNOX
NE	12	OAX	CEDAR
NE	13	FSD	DIXON
NE	14	FSD	DAKOTA
NE	15	OAX	THURSTON
NE	16	OAX	ANTELOPE
NE	17	OAX	PIERCE

ZONES

State	Zone #	WSO	Zone Descriptions
NE	18	OAX	WAYNE
NE	19	CYS	SCOTTS BLUFF
NE	20	CYS	BANNER
NE	21	CYS	MORRILL
NE	22	LBF	GARDEN
NE	23	LBF	GRANT
NE	24	LBF	HOOKER
NE	25	LBF	THOMAS
NE	26	LBF	BLAINE
NE	26	OAX	BLAINE
NE	27	LBF	LOUP
NE	27	OAX	LOUP
NE	28	LBF	GARFIELD
NE	28	OAX	GARFIELD
NE	29	LBF	WHEELER
NE	29	OAX	WHEELER
NE	30	OAX	BOONE
NE	31	OAX	MADISON
NE	32	OAX	STANTON
NE	33	OAX	CUMING
NE	34	OAX	BURT
NE	35	LBF	ARTHUR
NE	36	LBF	MCPHERSON
NE	37	LBF	LOGAN
NE	38	LBF	CUSTER
NE	39	GID	VALLEY
NE	40	GID	GREELEY
NE	41	GID	NANCE
NE	42	OAX	PLATTE
NE	43	OAX	COLFAX
NE	44	OAX	DODGE
NE	45	OAX	WASHINGTON
NE	46	GID	SHERMAN
NE	47	GID	HOWARD
NE	48	GID	MERRICK
NE	49	GID	POLK
NE	50	OAX	BUTLER
NE	51	OAX	SAUNDERS
NE	52	OAX	DOUGLAS
NE	53	OAX	SARPY
NE	54	CYS	KIMBALL
NE	55	CYS	CHEYENNE
NE	56	LBF	DEUEL
NE	57	LBF	KEITH
NE	58	LBF	PERKINS
NE	59	LBF	LINCOLN
NE	60	GID	DAWSON
NE	61	GID	BUFFALO
NE	62	GID	HALL
NE	63	GID	HAMILTON
NE	64	GID	YORK
NE	65	OAX	SEWARD
NE	66	OAX	LANCASTER
NE	67	OAX	CASS
NE	68	OAX	OTOE
NE	69	LBF	CHASE
NE	70	LBF	HAYES
NE	71	LBF	FRONTIER
NE	72	GID	GOSPER
NE	73	GID	PHELPS
NE	74	GID	KEARNEY
NE	75	GID	ADAMS
NE	76	GID	CLAY

ZONES

State	Zone #	WSO	Zone Descriptions
NE	77	GID	FILLMORE
NE	78	OAX	SALINE
NE	79	GLD	DUNDY
NE	80	GLD	HITCHCOCK
NE	81	GLD	RED WILLOW
NE	82	GID	FURNAS
NE	83	GID	HARLAN
NE	84	GID	FRANKLIN
NE	85	GID	WEBSTER
NE	86	GID	NUCKOLLS
NE	87	GID	THAYER
NE	88	OAX	JEFFERSON
NE	89	OAX	GAGE
NE	90	OAX	JOHNSON
NE	91	OAX	NEMAHA
NE	92	OAX	PAWNEE
NE	93	OAX	RICHARDSON
NH	1	GYX	NORTHERN COOS
NH	2	GYX	SOUTHERN COOS
NH	3	GYX	NORTHERN GRAFTON
NH	4	GYX	NORTHERN CARROLL
NH	5	GYX	SOUTHERN GRAFTON
NH	6	GYX	SOUTHERN CARROLL
NH	7	GYX	SULLIVAN
NH	8	GYX	MERRIMACK
NH	9	GYX	BELKNAP
NH	10	GYX	STRAFFORD
NH	11	BOX	CHESHIRE
NH	12	BOX	HILLSBOROUGH
NH	13	GYX	INTERIOR ROCKINGHAM
NH	14	GYX	COASTAL ROCKINGHAM
NJ	1	PHI	SUSSEX
NJ	2	OKX	WESTERN PASSAIC
NJ	3	OKX	BERGEN
NJ	4	OKX	EASTERN PASSAIC
NJ	5	OKX	ESSEX
NJ	6	OKX	HUDSON
NJ	7	PHI	WARREN
NJ	8	PHI	MORRIS
NJ	9	PHI	HUNTERDON
NJ	10	PHI	SOMERSET
NJ	11	OKX	UNION
NJ	12	PHI	MIDDLESEX
NJ	13	PHI	WESTERN MONMOUTH
NJ	14	PHI	EASTERN MONMOUTH
NJ	15	PHI	MERCER
NJ	16	PHI	SALEM
NJ	17	PHI	GLOUCESTER
NJ	18	PHI	CAMDEN
NJ	19	PHI	BURLINGTON
NJ	20	PHI	WESTERN OCEAN
NJ	21	PHI	CUMBERLAND
NJ	22	PHI	WESTERN ATLANTIC
NJ	23	PHI	WESTERN CAPE MAY
NJ	24	PHI	EASTERN CAPE MAY
NJ	25	PHI	EASTERN ATLANTIC
NJ	26	PHI	EASTERN OCEAN
NM	1	ABQ	NORTHWEST PLATEAU / SAN JUAN EXCEPT X SW AND SE / NC MCKINLEY
NM	2	ABQ	NORTHWEST MOUNTAINS INCLUDING JEMEZ / RIO ARRIBA EXCEPT X SE / SANDUVAL EXCEPT SE AND X SW / LOS ALAMOS / NE MCKINLEY / SE SAN JUAN / X NW SANTA FE
NM	3	ABQ	UPPER RIO GRANDE VALLEY / NW SANTA FE / PART OF SE RIO ARRIBA / PART OF SE SANDUVAL
NM	4	ABQ	SANGRE DE CRISTO MOUNTAINS / TAOS / X W MORA / X SE RIO ARRIBA / NE SANTA FE / X W

ZONES

State	Zone #	WSO	Zone Descriptions
NM	5	ABQ	COLFAX / X NW SAN MIGUEL NORTHEAST HIGHLANDS / ALL BUT X W AND X SE COLFAX / ALL BUT X W MORA / C SAN MIGUEL / X NW UNION
NM	6	ABQ	HARDING
NM	7	ABQ	FAR NORTHEAST PLAINS / UNION EXCEPT X NW / X SE COLFAX
NM	8	ABQ	WESTCENTRAL MOUNTAINS / MCKINLEY EXCEPT NC AND NE / CIBOLA EXCEPT X E / N CATRON / X SW SANDUVAL / X NW BERNALILLO / X NW SOCORRO
NM	9	ABQ	MIDDLE RIO GRANDE VALLEY / X SC SANDUVAL / VALENCIA EXCEPT X E / X E CIBOLA / BERNALILLO EXCEPT E AND X NW
NM	10	ABQ	SANDIA/MANZANO MOUNTAINS / MOST OF W SANTA FE / E BERNALILLO / X SE SANDUVAL / X W TORRANCE / E VALENCIA / PART OF E SOCORRO
NM	11	ABQ	CENTRAL HIGH PLAINS/ESTANCIA VALLEY COUNTY / SE SANTA FE / W SAN MIGUEL / TORRANCE EXCEPT X W / E SOCORRO
NM	12	ABQ	CONCHAS LAKE/GUADALUPE / E SAN MIGUEL / GUADALUPE
NM	13	ABQ	QUAY
NM	14	ABQ	SOUTHWEST MOUNTAINS/UPPER GILA REGION / CATRON EXCEPT N / PART OF W SOCORRO
NM	15	ABQ	LOWER RIO GRANDE VALLEY / PART OF C AND E SOCORRO
NM	16	ABQ	LINCOLN COUNTY HIGH PLAINS/HONDO VALLEY / LINCOLN EXCEPT SC
NM	17	ABQ	CAPITAN/NORTHERN SACRAMENTO MOUNTAINS / SC LINCOLN
NM	18	ABQ	DE BACA
NM	19	ABQ	CHAVES COUNTY PLAINS / CHAVES EXCEPT X SW
NM	20	ABQ	ROOSEVELT
NM	21	ABQ	CURRY
NM	22	EPZ	SOUTHWEST MOUNTAINS/LOWER GILA REGION / X N HILDAGO / GRANT EXCEPT S / W SIERRA
NM	23	EPZ	SIERRA COUNTY LAKES REGION / SIERRA EXCEPT W
NM	24	EPZ	TULAROSA BASIN/SOUTHERN DESERT / OTERO EXCEPT NC / X E DONA ANNA
NM	25	EPZ	SOUTHERN SACRAMENTO MOUNTAINS / NC OTERO
NM	26	ABQ	GUADALUPE MOUNTAINS OF CHAVES COUNTY / X SW CHAVES
NM	27	MAF	GUADALUPE MOUNTAINS OF EDDY COUNTY / X W EDDY
NM	28	MAF	EDDY COUNTY PLAINS / EDDY EXCEPT X W
NM	29	MAF	LEA
NM	30	EPZ	SOUTHWEST DESERT/BOOTHILL / S GRANT / HIDALGO EXCEPT X N
NM	31	EPZ	SOUTHWEST DESERT MIMBRES BASIN / LUNA
NM	32	EPZ	SOUTHERN DESERT / DONA ANA EXCEPT X E
NV	1	REV	MINERAL/SOUTHERN LYON
NV	2	REV	X SW WASHOE/W CARSON CITY/NW DOUGLAS
NV	3	REV	S WASHOE T X SE & X SW/STOREY/E CARSON CITY/C&E DOUGLAS/NW LYON
NV	4	REV	PERSHING/CHURCHILL/X SE WASHOE/NC&NE LYON
NV	5	REV	NORTHERN WASHOE
NV	6	LKN	HUMBOLDT
NV	7	LKN	NORTHERN ELKO
NV	8	LKN	SOUTHWEST AND SOUTH CENTRAL ELKO
NV	9	LKN	SOUTHEAST ELKO
NV	10	LKN	RUBY MOUNTAINS/EAST HUMBOLDT RANGE
NV	11	LKN	WHITE PINE
NV	12	LKN	LANDER/EUREKA
NV	13	VEF	NORTHERN NYE
NV	14	VEF	ESMERALDA/CENTRAL NYE
NV	15	VEF	LINCOLN T SC
NV	16	VEF	NORTHEAST CLARK
NV	17	VEF	WESTERN CLARK/SOUTHERN NYE
NV	18	VEF	SC LINCOLN/NC CLARK
NV	19	VEF	WC CLARK/P X SE NYE
NV	20	VEF	C CLARK
NV	21	VEF	X SE & EC CLARK
NV	22	VEF	SOUTHERN CLARK
NY	1	BUF	NIAGARA
NY	2	BUF	ORLEANS
NY	3	BUF	MONROE
NY	4	BUF	WAYNE
NY	5	BUF	NORTHERN CAYUGA
NY	6	BUF	OSWEGO

ZONES

State	Zone #	WSO	Zone Descriptions
NY	7	BUF	JEFFERSON
NY	8	BUF	LEWIS
NY	9	BGM	NORTHERN ONEDIA
NY	10	BUF	ERIE
NY	11	BUF	GENESEE
NY	12	BUF	WYOMING
NY	13	BUF	LIVINGSTON
NY	14	BUF	ONTARIO
NY	15	BGM	YATES
NY	16	BGM	SENECA
NY	17	BGM	SOUTHERN CAYUGA
NY	18	BGM	ONONDAGA
NY	19	BUF	CHAUTAUQUA
NY	20	BUF	CATTARAUGUS
NY	21	BUF	ALLEGANY
NY	22	BGM	STEUBEN
NY	23	BGM	SCHUYLER
NY	24	BGM	CHEMUNG
NY	25	BGM	TOMPKINS
NY	26	BTV	NORTHERN ST. LAWRENCE
NY	27	BTV	NORTHERN FRANKLIN
NY	28	BTV	NORTHEAST CLINTON
NY	29	BTV	SOUTHERN ST. LAWRENCE
NY	30	BTV	SOUTHERN FRANKLIN
NY	31	BTV	SOUTHWEST CLINTON
NY	32	ALY	NORTHERN HERKIMER
NY	33	ALY	HAMILTON
NY	34	BTV	WESTERN ESSEX
NY	35	BTV	EASTERN ESSEX
NY	36	BGM	MADISON
NY	37	BGM	SOUTHERN ONEIDA
NY	38	ALY	SOUTHERN HERKIMER
NY	39	ALY	FULTON
NY	40	ALY	MONTGOMERY
NY	41	ALY	NORTHERN SARATOGA
NY	42	ALY	WARREN
NY	43	ALY	WASHINGTON
NY	44	BGM	CORTLAND
NY	45	BGM	CHENANGO
NY	46	BGM	OTSEGO
NY	47	ALY	SCHOHARIE
NY	48	ALY	WESTERN SCHENECTADY
NY	49	ALY	EASTERN SCHENECTADY
NY	50	ALY	SOUTHERN SARATOGA
NY	51	ALY	WESTERN ALBANY
NY	52	ALY	EASTERN ALBANY
NY	53	ALY	WESTERN RENSSELAER
NY	54	ALY	EASTERN RENSSELAER
NY	55	BGM	TIOGA
NY	56	BGM	BROOME
NY	57	BGM	DELAWARE
NY	58	ALY	WESTERN GREENE
NY	59	ALY	EASTERN GREENE
NY	60	ALY	WESTERN COLUMBIA
NY	61	ALY	EASTERN COLUMBIA
NY	62	BGM	SULLIVAN
NY	63	ALY	WESTERN ULSTER
NY	64	ALY	EASTERN ULSTER
NY	65	ALY	WESTERN DUTCHESS
NY	66	ALY	EASTERN DUTCHESS
NY	67	OKX	ORANGE
NY	68	OKX	PUTNAM
NY	69	OKX	ROCKLAND

ZONES

State	Zone #	WSO	Zone Descriptions
NY	70	OKX	NORTHERN WESTCHESTER
NY	71	OKX	SOUTHERN WESTCHESTER
NY	72	OKX	NEW YORK (MANHATTAN)
NY	73	OKX	BRONX
NY	74	OKX	RICHMOND (STATEN IS.)
NY	75	OKX	KINGS (BROOKLYN)
NY	76	OKX	QUEENS
NY	77	OKX	NASSAU
NY	78	OKX	NORTHWEST SUFFOLK
NY	79	OKX	NORTHEAST SUFFOLK
NY	80	OKX	SOUTHWEST SUFFOLK
NY	81	OKX	SOUTHEAST SUFFOLK
OH	1	FWA	WILLIAMS
OH	1	IWX	WILLIAMS
OH	2	CLE	FULTON
OH	2	IWX	FULTON
OH	3	CLE	LUCAS
OH	4	FWA	DEFIANCE
OH	4	IWX	DEFIANCE
OH	5	CLE	HENRY
OH	5	IWX	HENRY
OH	6	CLE	WOOD
OH	7	CLE	OTTAWA
OH	8	CLE	SANDUSKY
OH	9	CLE	ERIE
OH	10	CLE	LORAIN
OH	11	CLE	CUYAHOGA
OH	12	CLE	LAKE
OH	13	CLE	GEAUGA
OH	14	CLE	ASHTABULA
OH	15	ILN	PAULDING
OH	15	IWX	PAULDING
OH	16	ILN	PUTNAM
OH	16	IWX	PUTNAM
OH	17	CLE	HANCOCK
OH	18	CLE	SENECA
OH	19	CLE	HURON
OH	20	CLE	MEDINA
OH	21	CLE	SUMMIT
OH	22	CLE	PORTAGE
OH	23	CLE	TRUMBULL
OH	24	ILN	VAN WERT
OH	24	IWX	VAN WERT
OH	25	ILN	ALLEN
OH	25	IWX	ALLEN
OH	26	ILN	HARDIN
OH	27	CLE	WYANDOT
OH	28	CLE	CRAWFORD
OH	29	CLE	RICHLAND
OH	30	CLE	ASHLAND
OH	31	CLE	WAYNE
OH	32	CLE	STARK
OH	33	CLE	MAHONING
OH	34	ILN	MERCER
OH	35	ILN	AUGLAIZE
OH	36	CLE	MARION
OH	37	CLE	MORROW
OH	38	CLE	HOLMES
OH	39	PBZ	TUSCARAWAS
OH	40	PBZ	CARROLL
OH	41	PBZ	COLUMBIANA
OH	42	ILN	DARKE
OH	43	ILN	SHELBY

ZONES

State	Zone #	WSO	Zone Descriptions
OH	44	ILN	LOGAN
OH	45	ILN	UNION
OH	46	ILN	DELAWARE
OH	47	CLE	KNOX
OH	48	PBZ	COSHOCTON
OH	49	PBZ	HARRISON
OH	50	PBZ	JEFFERSON
OH	51	ILN	MIAMI
OH	52	ILN	CHAMPAIGN
OH	53	ILN	CLARK
OH	54	ILN	MADISON
OH	55	ILN	FRANKLIN
OH	56	ILN	LICKING
OH	57	PBZ	MUSKINGUM
OH	58	PBZ	GUERNSEY
OH	59	PBZ	BELMONT
OH	60	ILN	PREBLE
OH	61	ILN	MONTGOMERY
OH	62	ILN	GREENE
OH	63	ILN	FAYETTE
OH	64	ILN	PICKAWAY
OH	65	ILN	FAIRFIELD
OH	66	RLX	PERRY
OH	67	RLX	MORGAN
OH	68	PBZ	NOBLE
OH	69	PBZ	MONROE
OH	70	ILN	BUTLER
OH	71	ILN	WARREN
OH	72	ILN	CLINTON
OH	73	ILN	ROSS
OH	74	ILN	HOCKING
OH	75	RLX	ATHENS
OH	76	RLX	WASHINGTON
OH	77	ILN	HAMILTON
OH	78	ILN	CLERMONT
OH	79	ILN	BROWN
OH	80	ILN	HIGHLAND
OH	81	ILN	ADAMS
OH	82	ILN	PIKE
OH	83	RLX	JACKSON
OH	84	RLX	VINTON
OH	85	RLX	MEIGS
OH	86	RLX	GALLIA
OH	87	RLX	LAWRENCE
OH	88	ILN	SCIOTO
OK	1	AMA	CIMARRON
OK	2	AMA	TEXAS
OK	3	AMA	BEAVER
OK	4	OUN	HARPER
OK	5	OUN	WOODS
OK	6	OUN	ALFALFA
OK	7	OUN	GRANT
OK	8	OUN	KAY
OK	9	OUN	ELLIS
OK	10	OUN	WOODWARD
OK	11	OUN	MAJOR
OK	12	OUN	GARFIELD
OK	13	OUN	NOBLE
OK	14	OUN	ROGER MILLS
OK	15	OUN	DEWEY
OK	16	OUN	CUSTER
OK	17	OUN	BLAINE
OK	18	OUN	KINGFISHER

ZONES

State	Zone #	WSO	Zone Descriptions
OK	19	OUN	LOGAN
OK	20	OUN	PAYNE
OK	21	OUN	BECKHAM
OK	22	OUN	WASHITA
OK	23	OUN	CADDO
OK	24	OUN	CANADIAN
OK	25	OUN	OKLAHOMA
OK	26	OUN	LINCOLN
OK	27	OUN	GRADY
OK	28	OUN	MCCLAIN
OK	29	OUN	CLEVELAND
OK	30	OUN	POTTAWATOMIE
OK	31	OUN	SEMINOLE
OK	32	OUN	HUGHES
OK	33	OUN	HARMON
OK	34	OUN	GREER
OK	35	OUN	KIOWA
OK	36	OUN	JACKSON
OK	37	OUN	TILLMAN
OK	38	OUN	COMANCHE
OK	39	OUN	STEPHENS
OK	40	OUN	GARVIN
OK	41	OUN	MURRAY
OK	42	OUN	PONTOTOC
OK	43	OUN	COAL
OK	44	OUN	COTTON
OK	45	OUN	JEFFERSON
OK	46	OUN	CARTER
OK	47	OUN	JOHNSTON
OK	48	OUN	ATOKA
OK	49	OUN	PUSHMATAHA
OK	50	OUN	LOVE
OK	51	OUN	MARSHALL
OK	52	OUN	BRYAN
OK	53	OUN	CHOCTAW
OK	54	TSA	OSAGE
OK	55	TSA	WASHINGTON
OK	56	TSA	NOWATA
OK	57	TSA	CRAIG
OK	58	TSA	OTTAWA
OK	59	TSA	PAWNEE
OK	60	TSA	TULSA
OK	61	TSA	ROGERS
OK	62	TSA	MAYES
OK	63	TSA	DELAWARE
OK	64	TSA	CREEK
OK	65	TSA	OKFUSKEE
OK	66	TSA	OKMULGEE
OK	67	TSA	WAGONER
OK	68	TSA	CHEROKEE
OK	69	TSA	ADAIR
OK	70	TSA	MUSKOGEE
OK	71	TSA	MCINTOSH
OK	72	TSA	SEQUOYAH
OK	73	TSA	PITTSBURG
OK	74	TSA	HASKELL
OK	75	TSA	LATIMER
OK	76	TSA	LE FLORE
OK	77	SHV	MCCURTAIN
OR	1	PQR	CLATSOP/TILLAMOOK
OR	2	PQR	LINCOLN/W X LANE
OR	3	MFR	NW DOUGLAS/COOS/CURRY
OR	4	PQR	COLUMBIA/C & W MULTNOMAH/WASHINGTON/NW CLACKAMAS

ZONES

State	Zone #	WSO	Zone Descriptions
OR	5	PQR	YAMHILL/POLK/C & W MARION/SW CLACKAMAS
OR	6	PQR	BENTON/W & C LINN/C LANE
OR	7	MFR	DOUGLAS T NW & E
OR	8	MFR	JOSEPHINE T X SE/JACKSON T X S
OR	9	PQR	NE MULTNOMAH/N HOOD RIVER
OR	10	PDT	X N WASCO/X NW SHERMAN
OR	11	PQR	SE MULTNOMAH/C & S HOOD RIVER/E CLAKAMAS/E MARION/E LINN/E LANE
OR	12	MFR	E DOUGLAS/X W KLAMATH/X S JACKSON/X SE JOSEPHINE
OR	13	PDT	WASCO T SE & X N/W JEFFERSON
OR	14	PDT	DESCHUTES/SW CROOK
OR	15	MFR	LAKE/KLAMATH T X W
OR	16	PDT	SHERMAN T X NW/C N & X SW GILLIAM/N MORROW/NW UMATILLA
OR	17	PDT	C MORROW/WS & NC UMATILLA/S GILLIAM T X SW
OR	18	PDT	GRANT/WHEELER/CROOK T SW/E JEFFERSON/SE WASCO
OR	19	PDT	WALLOWA/UNION/E & S UMATILLA/S MORROW
OR	20	BOI	BAKER
OR	21	BOI	X NE MALHEUR
OR	22	BOI	HARNEY/MALHEUR T X NE
PA	1	CLE	NORTHERN ERIE
PA	2	CLE	SOUTHERN ERIE
PA	3	CLE	CRAWFORD
PA	4	CTP	WARREN
PA	5	CTP	MCKEAN
PA	6	CTP	POTTER
PA	7	PBZ	MERCER
PA	8	PBZ	VENANGO
PA	9	PBZ	FOREST
PA	10	CTP	ELK
PA	11	CTP	CAMERON
PA	12	CTP	NORTHERN CLINTON
PA	13	PBZ	LAWRENCE
PA	14	PBZ	BUTLER
PA	15	PBZ	CLARION
PA	16	PBZ	JEFFERSON
PA	17	CTP	CLEARFIELD
PA	18	CTP	NORTHERN CENTRE
PA	19	CTP	SOUTHERN CENTRE
PA	20	PBZ	BEAVER
PA	21	PBZ	ALLEGHENY
PA	22	PBZ	ARMSTRONG
PA	23	PBZ	INDIANA
PA	24	CTP	CAMBRIA
PA	25	CTP	BLAIR
PA	26	CTP	HUNTINGDON
PA	27	CTP	MIFFLIN
PA	28	CTP	JUNIATA
PA	29	PBZ	WASHINGTON
PA	30	PBZ	WESTMORELAND
PA	31	PBZ	GREENE
PA	32	PBZ	FAYETTE
PA	33	CTP	SOMERSET
PA	34	CTP	BEDFORD
PA	35	CTP	FULTON
PA	36	CTP	FRANKLIN
PA	37	CTP	TIOGA
PA	38	BGM	BRADFORD
PA	39	BGM	SUSQUEHANNA
PA	40	BGM	WAYNE
PA	41	CTP	NORTHERN LYCOMING
PA	42	CTP	SULLIVAN
PA	43	BGM	WYOMING
PA	44	BGM	LACKAWANNA
PA	45	CTP	SOUTHERN CLINTON

ZONES

State	Zone #	WSO	Zone Descriptions
PA	46	CTP	SOUTHERN LYCOMING
PA	47	BGM	LUZERNE
PA	48	BGM	PIKE
PA	49	CTP	UNION
PA	50	CTP	SNYDER
PA	51	CTP	MONTOUR
PA	52	CTP	NORTHUMBERLAND
PA	53	CTP	COLUMBIA
PA	54	PHI	CARBON
PA	55	PHI	MONROE
PA	56	CTP	PERRY
PA	57	CTP	DAUPHIN
PA	58	CTP	SCHUYLKILL
PA	59	CTP	LEBANON
PA	60	PHI	BERKS
PA	61	PHI	LEHIGH
PA	62	PHI	NORTHAMPTON
PA	63	CTP	CUMBERLAND
PA	64	CTP	ADAMS
PA	65	CTP	YORK
PA	66	CTP	LANCASTER
PA	67	PHI	CHESTER
PA	68	PHI	MONTGOMERY
PA	69	PHI	BUCKS
PA	70	PHI	DELAWARE
PA	71	PHI	PHILADELPHIA
PR	1	SJU	ISABELA/QUEBRADILLAS/CAMUY/MATILLO/ARECIBO/BARCELONETA/FLORIDA/MANATI/VEGA BAJA/VEGA/ALTA/CORADO/TOA BAJA/CATANO/TOA ALTA/BAYAMON/GUAYANABO/SAN JUAN/TRUJILLO ALTO/CAROLINA/LOIZA/RIO GRANDE/LUQUILLO/CAN
PR	2	SJU	FAJARDO/CEIBA/NAGUABO/HUMACAO/YABUCOA/CULEBRA/VIEQUES
PR	3	SJU	LAJAS/SAN GERMAN/SABANA GRANDE/YAUCO/GUAYANILLA/PENUELAS/PONCE/JUANA DIAZ/SANTA ISABEL/SALINAS/GUAYAMA/ARROYO/PATILLAS/MAUNABO/GUANICA
PR	4	SJU	AGUADILLA/MOCA/AGUADA/RINCON/ANASCO/MAYAGUEZ/ORMIGUEROS/CABO ROJO
PR	5	SJU	SAN SEBASTIAN/LARES/LAS MARIAS/MARICAO/ADJUNTAS/JAYUYA/CIALES/MOROVIS/COROZAL/BARRANQUITAS/COMERIO/ AGUAS BUENAS/CIDRA/CAGUAS/GURABO/SAN LORENZO/JUNCOS/LAS PIEDRAS/VILLALBA/COAMO/ALBONITA/CAYEY/NARANJI
PR	6	SJU	ST. THOMAS/ST. JOHN
PR	7	SJU	ST. CROIX
RI	1	BOX	NORTHWEST PROVIDENCE
RI	2	BOX	SOUTHEAST PROVIDENCE
RI	3	BOX	WESTERN KENT
RI	4	BOX	EASTERN KENT
RI	5	BOX	BRISTOL
RI	6	BOX	WASHINGTON
RI	7	BOX	NEWPORT
SC	1	GSP	NORTHERN OCONEE
SC	2	GSP	NORTHERN PICKENS
SC	3	GSP	NORTHERN GREENVILLE
SC	4	GSP	SOUTHERN OCONEE
SC	5	GSP	SOUTHERN PICKENS
SC	6	GSP	SOUTHERN GREENVILLE
SC	7	GSP	SPARTANBURG
SC	8	GSP	CHEROKEE
SC	9	GSP	YORK
SC	10	GSP	ANDERSON
SC	11	GSP	ABBEVILLE
SC	12	GSP	LAURENS
SC	13	GSP	UNION
SC	14	GSP	CHESTER
SC	15	CAE	LANCASTER
SC	16	CAE	CHESTERFIELD
SC	17	ILM	MARLBORO

ZONES

State	Zone #	WSO	Zone Descriptions
SC	18	CAE	MCCORMICK
SC	19	GSP	GREENWOOD
SC	20	CAE	NEWBERRY
SC	21	CAE	FAIRFIELD
SC	22	CAE	KERSHAW
SC	23	ILM	DARLINGTON
SC	24	ILM	DILLON
SC	25	CAE	EDGEFIELD
SC	26	CAE	SALUDA
SC	27	CAE	LEXINGTON
SC	28	CAE	RICHLAND
SC	29	CAE	LEE
SC	30	CAE	AIKEN
SC	31	CAE	SUMTER
SC	32	ILM	FLORENCE
SC	33	ILM	MARION
SC	34	ILM	HORRY
SC	35	CAE	BARNWELL
SC	36	CAE	ORANGEBURG
SC	37	CAE	CALHOUN
SC	38	CAE	CLARENDON
SC	39	ILM	WILLIAMSBURG
SC	40	CHS	ALLENDALE
SC	41	CAE	BAMBERG
SC	42	CHS	HAMPTON
SC	43	CHS	NORTHERN COLLETON
SC	44	CHS	DORCHESTER
SC	45	CHS	BERKELEY
SC	46	ILM	GEORGETOWN
SC	47	CHS	JASPER
SC	48	CHS	BEAUFORT
SC	49	CHS	SOUTHERN COLLETON
SC	50	CHS	CHARLESTON
SD	1	UNR	HARDING
SD	2	UNR	PERKINS
SD	3	ABR	CORSON
SD	4	ABR	CAMPBELL
SD	5	ABR	MCPHERSON
SD	6	ABR	BROWN
SD	7	ABR	MARSHALL
SD	8	ABR	ROBERTS
SD	9	ABR	WALWORTH
SD	10	ABR	EDMUNDS
SD	11	ABR	DAY
SD	12	UNR	BUTTE / EXCEPT X SW BUTTE
SD	13	UNR	MEADE CO. PLAINS / EXCEPT X SW MEADE
SD	14	UNR	ZIEBACH
SD	15	ABR	DEWEY
SD	16	ABR	POTTER
SD	17	ABR	FAULK
SD	18	ABR	SPINK
SD	19	ABR	CLARK
SD	19	FSD	CLARK
SD	20	ABR	CODINGTON
SD	20	FSD	CODINGTON
SD	21	ABR	GRANT
SD	22	ABR	HAMLIN
SD	22	FSD	HAMLIN
SD	23	ABR	DEUEL
SD	23	FSD	DEUEL
SD	24	UNR	NORTHERN BLACK HILLS / LAWRENCE EXCEPT N / LAWRENCE EXCEPT SW MEADE
SD	25	UNR	NORTHERN FOOT HILLS / N LAWRENCE / X SW BUTTE / PART OF SW MEADE
SD	26	UNR	CENTRAL FOOT HILLS / C PENNINGTON / PART OF E CUSTER

ZONES

State	Zone #	WSO	Zone Descriptions
SD	27	UNR	SOUTHERN FOOT HILLS / PART OF N FALL RIVER
SD	28	UNR	CENTRAL BLACK HILLS / W PENNINGTON / PENNINGTON
SD	29	UNR	SOUTHERN BLACK HILLS / CUSTER EXCEPT E / NC FALL RIVER
SD	30	UNR	CUSTER PLAINS / X E CUSTER
SD	31	UNR	PENNINGTON PLAINS / E PENNINGTON
SD	32	UNR	HAAKON
SD	33	ABR	STANLEY
SD	34	ABR	SULLY
SD	35	ABR	HUGHES
SD	36	ABR	HYDE
SD	37	ABR	HAND
SD	38	FSD	BEADLE
SD	39	FSD	KINGSBURY
SD	40	FSD	BROOKINGS
SD	41	UNR	FALL RIVER CO. / FALL RIVER EXCEPT N
SD	42	UNR	SHANNON
SD	43	UNR	JACKSON
SD	44	UNR	BENNETT
SD	45	ABR	JONES
SD	46	FSD	MELLETTTE
SD	46	UNR	MELLETTTE
SD	47	FSD	TODD
SD	47	UNR	TODD
SD	48	ABR	LYMAN
SD	49	FSD	TRIPP
SD	49	UNR	TRIPP
SD	50	FSD	GREGORY
SD	51	ABR	BUFFALO
SD	52	FSD	JERAULD
SD	53	FSD	SANBORN
SD	54	FSD	MINER
SD	55	FSD	LAKE
SD	56	FSD	MOODY
SD	57	FSD	BRULE
SD	58	FSD	AURORA
SD	59	FSD	DAVISON
SD	60	FSD	HANSON
SD	61	FSD	MCCOOK
SD	62	FSD	MINNEHAHA
SD	63	FSD	CHARLES MIX
SD	64	FSD	DOUGLAS
SD	65	FSD	HUTCHINSON
SD	66	FSD	TURNER
SD	67	FSD	LINCOLN
SD	68	FSD	BON HOMME
SD	69	FSD	YANKTON
SD	70	FSD	CLAY
SD	71	FSD	UNION
TN	1	MEG	LAKE
TN	2	MEG	OBION
TN	3	MEG	WEAKLEY
TN	4	MEG	HENRY
TN	5	OHX	STEWART
TN	6	OHX	MONTGOMERY
TN	7	OHX	ROBERTSON
TN	8	OHX	SUMNER
TN	9	OHX	MACON
TN	10	OHX	CLAY
TN	11	OHX	PICKETT
TN	12	MRX	SCOTT
TN	13	MRX	CAMPBELL
TN	14	MRX	CLAIBORNE
TN	15	MRX	HANCOCK

ZONES

State	Zone #	WSO	Zone Descriptions
TN	16	MRX	HAWKINS
TN	17	MRX	SULLIVAN
TN	18	MRX	JOHNSON
TN	19	MEG	DYER
TN	20	MEG	GIBSON
TN	21	MEG	CARROLL
TN	22	OHX	BENTON
TN	23	OHX	HOUSTON
TN	24	OHX	HUMPHREYS
TN	25	OHX	DICKSON
TN	26	OHX	CHEATHAM
TN	27	OHX	DAVIDSON
TN	28	OHX	WILSON
TN	29	OHX	TROUSDALE
TN	30	OHX	SMITH
TN	31	OHX	JACKSON
TN	32	OHX	PUTNAM
TN	33	OHX	OVERTON
TN	34	MRX	FENTRESS
TN	35	MRX	MORGAN
TN	36	MRX	ANDERSON
TN	37	MRX	UNION
TN	38	MRX	GRAINGER
TN	39	MRX	HAMBLEN
TN	40	MRX	NORTHWEST COCKE
TN	41	MRX	COCKE/SMOKY MOUNTAINS
TN	42	MRX	NORTHWEST GREENE
TN	43	MRX	SOUTHEAST GREENE
TN	44	MRX	WASHINGTON
TN	45	MRX	UNICOI
TN	46	MRX	NORTHWEST CARTER
TN	47	MRX	SOUTHEAST CARTER
TN	48	MEG	LAUDERDALE
TN	49	MEG	TIPTON
TN	50	MEG	HAYWOOD
TN	51	MEG	CROCKETT
TN	52	MEG	MADISON
TN	53	MEG	CHESTER
TN	54	MEG	HENDERSON
TN	55	OHX	DECATUR
TN	56	OHX	PERRY
TN	57	OHX	HICKMAN
TN	58	OHX	LEWIS
TN	59	OHX	WILLIAMSON
TN	60	OHX	MAURY
TN	61	OHX	MARSHALL
TN	62	OHX	RUTHERFORD
TN	63	OHX	CANNON
TN	64	OHX	DEKALB
TN	65	OHX	WHITE
TN	66	MRX	CUMBERLAND
TN	67	MRX	ROANE
TN	68	MRX	LOUDON
TN	69	MRX	KNOX
TN	70	MRX	JEFFERSON
TN	71	MRX	NORTHWEST BLOUNT
TN	72	MRX	BLOUNT/SMOKY MOUNTAINS
TN	73	MRX	NORTH SEVIER
TN	74	MRX	SEVIER/SMOKY MOUNTAINS
TN	75	OHX	BEDFORD
TN	76	OHX	MOORE
TN	77	OHX	COFFEE
TN	78	OHX	WARREN

ZONES

State	Zone #	WSO	Zone Descriptions
TN	79	OHX	GRUNDY
TN	80	OHX	VAN BUREN
TN	81	OHX	SEQUATCHIE
TN	82	OHX	BLEDSON
TN	83	MRX	RHEA
TN	84	MRX	MEIGS
TN	85	MRX	MCMINN
TN	86	MRX	NORTHWEST MONROE
TN	87	MRX	SOUTHEAST MONROE
TN	88	MEG	SHELBY
TN	89	MEG	FAYETTE
TN	90	MEG	HARDEMAN
TN	91	MEG	MCNAIRY
TN	92	MEG	HARDIN
TN	93	OHX	WAYNE
TN	94	OHX	LAWRENCE
TN	95	OHX	GILES
TN	96	OHX	LINCOLN
TN	97	OHX	FRANKLIN
TN	98	OHX	MARION
TN	99	MRX	HAMILTON
TN	100	MRX	BRADLEY
TN	101	MRX	WEST POLK
TN	102	MRX	EAST POLK
TX	1	AMA	DALLAM
TX	2	AMA	SHERMAN
TX	3	AMA	HANSFORD
TX	4	AMA	OCHILTREE
TX	5	AMA	LIPSCOMB
TX	6	AMA	HARTLEY
TX	7	AMA	MOORE
TX	8	AMA	HUTCHINSON
TX	9	AMA	ROBERTS
TX	10	AMA	HEMPHILL
TX	11	AMA	OLDHAM
TX	12	AMA	POTTER
TX	13	AMA	CARSON
TX	14	AMA	GRAY
TX	15	AMA	WHEELER
TX	16	AMA	DEAF SMITH
TX	17	AMA	RANDALL
TX	18	AMA	ARMSTRONG
TX	19	AMA	DONLEY
TX	20	AMA	COLLINGSWORTH
TX	21	LUB	PARMER
TX	22	LUB	CASTRO
TX	23	LUB	SWISHER
TX	24	LUB	BRISCOE
TX	25	LUB	HALL
TX	26	LUB	CHILDRESS
TX	27	LUB	BAILEY
TX	28	LUB	LAMB
TX	29	LUB	HALE
TX	30	LUB	FLOYD
TX	31	LUB	MOTLEY
TX	32	LUB	COTTLE
TX	33	LUB	COCHRAN
TX	34	LUB	HOCKLEY
TX	35	LUB	LUBBOCK
TX	36	LUB	CROSBY
TX	37	LUB	DICKENS
TX	38	LUB	KING
TX	39	LUB	YOAKUM

ZONES

State	Zone #	WSO	Zone Descriptions
TX	40	LUB	TERRY
TX	41	LUB	LYNN
TX	42	LUB	GARZA
TX	43	LUB	KENT
TX	44	LUB	STONEWALL
TX	45	MAF	GAINES
TX	46	MAF	DAWSON
TX	47	MAF	BORDEN
TX	48	MAF	SCURRY
TX	49	SJT	FISHER
TX	50	MAF	ANDREWS
TX	51	MAF	MARTIN
TX	52	MAF	HOWARD
TX	53	SJT	MITCHELL
TX	54	SJT	NOLAN
TX	55	EPZ	EL PASO
TX	56	EPZ	FAR WEST PLATEAU / HUDSPETH EXCEPT X NE
TX	57	EPZ	VAN HORN AND SALT FLAT BASIN / CULBERSON EXCEPT NE / NE HUDSPETH
TX	57	MAF	VAN HORN AND SALT FLAT BASIN / CULBERSON EXCEPT NE / NE HUDSPETH
TX	58	MAF	REEVES COUNTY AND UPPER TRANS PECOS / REEVES / NE CULBERSON
TX	59	MAF	LOVING
TX	60	MAF	WINKLER
TX	61	MAF	ECTOR
TX	62	MAF	MIDLAND
TX	63	MAF	GLASSCOCK
TX	64	SJT	STERLING
TX	65	SJT	COKE
TX	66	SJT	RUNNELS
TX	67	MAF	WARD
TX	68	MAF	CRANE
TX	69	MAF	UPTON
TX	70	MAF	REAGAN
TX	71	SJT	IRION
TX	72	SJT	TOM GREEN
TX	73	SJT	CONCHO
TX	74	MAF	DAVIS MOUNTAIN AREA / JEFF DAVIS EXCEPT W / NW BREWSTER
TX	75	MAF	PECOS
TX	76	SJT	CROCKETT
TX	77	SJT	SCHLEICHER
TX	78	SJT	SUTTON
TX	79	MAF	PRESIDIO VALLEY / X W PRESIDIO
TX	80	MAF	MARFA PLATEAU / PRESIDIO EXCEPT X W
TX	81	MAF	BIG BEND AREA / BREWSTER EXCEPT NW / W JEFF DAVIS
TX	82	MAF	TERRELL
TX	83	OUN	HARDEMAN
TX	84	OUN	FOARD
TX	85	OUN	WILBARGER
TX	86	OUN	WICHITA
TX	87	OUN	KNOX
TX	88	OUN	BAYLOR
TX	89	OUN	ARCHER
TX	90	OUN	CLAY
TX	91	FWD	MONTAGUE
TX	92	FWD	COOKE
TX	93	FWD	GRAYSON
TX	94	FWD	FANNIN
TX	95	FWD	LAMAR
TX	96	SHV	RED RIVER
TX	97	SHV	BOWIE
TX	98	FWD	HASKELL
TX	98	SJT	HASKELL
TX	99	FWD	THROCKMORTON
TX	99	SJT	THROCKMORTON

ZONES

State	Zone #	WSO	Zone Descriptions
TX	100	FWD	YOUNG
TX	101	FWD	JACK
TX	102	FWD	WISE
TX	103	FWD	DENTON
TX	104	FWD	COLLIN
TX	105	FWD	HUNT
TX	106	FWD	DELTA
TX	107	FWD	HOPKINS
TX	108	SHV	FRANKLIN
TX	109	SHV	TITUS
TX	110	SHV	CAMP
TX	111	SHV	MORRIS
TX	112	SHV	CASS
TX	113	SJT	JONES
TX	114	SJT	SHACKELFORD
TX	115	FWD	STEPHENS
TX	116	FWD	PALO PINTO
TX	117	FWD	PARKER
TX	118	FWD	TARRANT
TX	119	FWD	DALLAS
TX	120	FWD	ROCKWALL
TX	121	FWD	KAUFMAN
TX	122	FWD	VAN ZANDT
TX	123	FWD	RAINS
TX	124	SHV	WOOD
TX	125	SHV	UPSHUR
TX	126	SHV	MARION
TX	127	SJT	TAYLOR
TX	128	SJT	CALLAHAN
TX	129	FWD	EASTLAND
TX	130	FWD	ERATH
TX	131	FWD	HOOD
TX	132	FWD	SOMERVELL
TX	133	FWD	JOHNSON
TX	134	FWD	ELLIS
TX	135	FWD	HENDERSON
TX	136	SHV	SMITH
TX	137	SHV	GREGG
TX	138	SHV	HARRISON
TX	139	SJT	COLEMAN
TX	140	SJT	BROWN
TX	141	FWD	COMANCHE
TX	142	FWD	MILLS
TX	143	FWD	HAMILTON
TX	144	FWD	BOSQUE
TX	145	FWD	HILL
TX	146	FWD	NAVARRO
TX	147	FWD	FREESTONE
TX	148	FWD	ANDERSON
TX	149	SHV	CHEROKEE
TX	150	SHV	RUSK
TX	151	SHV	PANOLA
TX	152	SHV	NACOGDOCHES
TX	153	SHV	SHELBY
TX	154	SJT	MCCULLOCH
TX	155	SJT	SAN SABA
TX	156	FWD	LAMPASAS
TX	157	FWD	CORYELL
TX	158	FWD	BELL
TX	159	FWD	MCLENNAN
TX	160	FWD	FALLS
TX	161	FWD	LIMESTONE
TX	162	FWD	LEON

ZONES

State	Zone #	WSO	Zone Descriptions
TX	163	HGX	HOUSTON
TX	164	HGX	TRINITY
TX	165	SHV	ANGELINA
TX	166	SHV	SAN AUGUSTINE
TX	167	SHV	SABINE
TX	168	SJT	MENARD
TX	169	SJT	KIMBLE
TX	170	SJT	MASON
TX	171	EWX	LLANO
TX	172	EWX	BURNET
TX	173	EWX	WILLIAMSON
TX	174	FWD	MILAM
TX	175	FWD	ROBERTSON
TX	176	HGX	MADISON
TX	177	HGX	WALKER
TX	178	HGX	SAN JACINTO
TX	179	HGX	POLK
TX	180	LCH	TYLER
TX	181	LCH	JASPER
TX	182	LCH	NEWTON
TX	183	EWX	VAL VERDE
TX	184	EWX	EDWARDS
TX	185	EWX	REAL
TX	186	EWX	KERR
TX	187	EWX	BANDERA
TX	188	EWX	GILLESPIE
TX	189	EWX	KENDALL
TX	190	EWX	BLANCO
TX	191	EWX	HAYS
TX	192	EWX	TRAVIS
TX	193	EWX	BASTROP
TX	194	EWX	LEE
TX	195	HGX	BURLESON
TX	196	HGX	BRAZOS
TX	197	HGX	WASHINGTON
TX	198	HGX	GRIMES
TX	199	HGX	MONTGOMERY
TX	200	HGX	LIBERTY
TX	201	LCH	HARDIN
TX	202	EWX	KINNEY
TX	203	EWX	UVALDE
TX	204	EWX	MEDINA
TX	205	EWX	BEXAR
TX	206	EWX	COMAL
TX	207	EWX	GUADALUPE
TX	208	EWX	CALDWELL
TX	209	EWX	FAYETTE
TX	210	HGX	COLORADO
TX	211	HGX	AUSTIN
TX	212	HGX	WALLER
TX	213	HGX	HARRIS
TX	214	HGX	CHAMBERS
TX	215	LCH	JEFFERSON
TX	216	LCH	ORANGE
TX	217	EWX	MAVERICK
TX	218	EWX	ZAVALA
TX	219	EWX	FRIO
TX	220	EWX	ATASCOSA
TX	221	EWX	WILSON
TX	222	EWX	KARNES
TX	223	EWX	GONZALES
TX	224	EWX	DE WITT
TX	225	EWX	LAVACA

ZONES

State	Zone #	WSO	Zone Descriptions
TX	226	HGX	WHARTON
TX	227	HGX	FORT BEND
TX	228	EWX	DIMMIT
TX	229	CRP	LA SALLE
TX	229	EWX	LA SALLE
TX	230	CRP	MCMULLEN
TX	230	EWX	MCMULLEN
TX	231	CRP	LIVE OAK
TX	232	CRP	BEE
TX	233	CRP	GOLIAD
TX	233	EWX	GOLIAD
TX	234	CRP	VICTORIA
TX	234	EWX	VICTORIA
TX	235	HGX	JACKSON
TX	236	HGX	MATAGORDA
TX	237	HGX	BRAZORIA
TX	238	HGX	GALVESTON
TX	239	CRP	WEBB
TX	239	EWX	WEBB
TX	240	CRP	DUVAL
TX	241	CRP	JIM WELLS
TX	242	CRP	KLEBERG
TX	243	CRP	NUECES
TX	244	CRP	SAN PATRICIO
TX	245	CRP	ARANSAS
TX	246	CRP	REFUGIO
TX	247	CRP	CALHOUN
TX	247	EWX	CALHOUN
TX	248	BRO	ZAPATA
TX	249	BRO	JIM HOGG
TX	250	BRO	BROOKS
TX	251	BRO	KENEDY
TX	252	BRO	STARR
TX	253	BRO	HIDALGO
TX	254	BRO	WILLACY
TX	255	BRO	CAMERON
UT	1	SLC	NW CACHE
UT	2	SLC	NE BOX ELDER T X NE/W WEBER/DAVIS
UT	3	SLC	W SALT LAKE T X W/E TOOLE T X E
UT	4	SLC	W UTAH T X NW/P X E JUAB
UT	5	SLC	C W BOX ELDER/C W XE TOOLE/X W SALT LAKE/X NW UTAH
UT	6	SLC	P NC WEBER/P C MORGAN/P W C SUMMIT/P SC WASATCH
UT	7	SLC	RICH/CACHE T NW/P E C WEBER/MOST OF MORGAN/NW SUMMIT/NE SALT LAKE/X NE BOX ELDER
UT	8	SLC	W SUMMIT T NW/SE SALT LAKE/WASATCH X SC/E UTAH/P X E JUAB/X NW SAN PETE
UT	9	SLC	C E SUMMIT/X NE WASATCH/N DUCHESNE
UT	10	SLC	E WASATCH T X NE/S WC DUCHESNE/X NE SAN PETE/CARBON T SC/P X NE X NW EMERY
UT	11	SLC	C EC XSE DUCHESNE
UT	12	SLC	P SC CARBON/NW EMERY T X NW
UT	13	SLC	EMERY T NW X NE/C E WAYNE/P SC CARBON
UT	14	SLC	C SC SANPETE/C SEVIER
UT	15	SLC	MILLARD T X E/JUAB T X E
UT	16	SLC	BEAVER T X E/IRON T XS XE
UT	17	SLC	X NW KANE/XS XE IRON/N W WASHINGTON/NW WC GARFIELD/PIUTE/W WAYNE/SEVIER T C/X E MILLARD/S SANPETE T SC/X SE JUAB/P X NW EMERY/X E BEAVER
UT	18	SLC	NE GARFIELD/X SC X SE WAYNE/C N SAN JUAN
UT	19	SLC	SC WASHINGTON
UT	20	SLC	KANE T X NW X E/SC GARFIELD
UT	21	SLC	SW SAN JUAN/X E KANE/SE GARFIELD
UT	22	SLC	SC SE SAN JUAN
UT	23	SLC	DAGGETT/N UINTAH
UT	24	SLC	C UINTAH
UT	25	SLC	S UINTAH/N GRAND

ZONES

State	Zone #	WSO	Zone Descriptions
UT	26	SLC	C GRAND
UT	27	SLC	S GRAND
VA	1	MRX	LEE
VA	2	MRX	WISE / NORTON
VA	3	RLX	DICKENSON
VA	4	RLX	BUCHANAN
VA	5	MRX	SCOTT
VA	6	MRX	RUSSELL
VA	7	RNK	TAZEWELL
VA	8	MRX	WASHINGTON / BRISTOL
VA	9	RNK	SMYTH
VA	10	RNK	BLAND
VA	11	RNK	GILES
VA	12	RNK	WYTHE
VA	13	RNK	PULASKI / RADFORD
VA	14	RNK	MONTGOMERY
VA	15	RNK	GRAYSON
VA	16	RNK	CARROLL / GALAX
VA	17	RNK	FLOYD
VA	18	RNK	CRAIG
VA	19	RNK	ALLEGHANY / CLIFTON FORGE / COVINGTON
VA	20	RNK	BATH
VA	21	LWX	HIGHLAND
VA	22	RNK	ROANOKE / SALEM / ROANOKE
VA	23	RNK	BOTETOURT
VA	24	RNK	ROCKBRIDGE / BUENA VISTA / LEXINGTON
VA	25	LWX	AUGUSTA / STAUNTON / WAYNESBORRO
VA	26	LWX	ROCKINGHAM / HARRISONBURG
VA	27	LWX	SHENANDOAH
VA	28	LWX	FREDERICK / WINCHESTER
VA	29	LWX	PAGE
VA	30	LWX	WARREN
VA	31	LWX	CLARKE
VA	32	RNK	PATRICK
VA	33	RNK	FRANKLIN (C)
VA	34	RNK	BEDFORD / BEDFORD
VA	35	RNK	AMHERST
VA	36	LWX	NELSON
VA	37	LWX	ALBEMARLE / CHARLOTTESVILLE
VA	38	LWX	GREENE
VA	39	LWX	MADISON
VA	40	LWX	RAPPAHANNOCK
VA	41	LWX	FAUQUIER
VA	42	LWX	LOUDOUN
VA	43	RNK	HENRY / MARTINSVILLE
VA	44	RNK	PITTSYLVANIA / DANVILLE
VA	45	RNK	CAMPBELL / LYNCHBURG
VA	46	RNK	APPOMATTOX
VA	47	RNK	BUCKINGHAM
VA	48	AKQ	FLUVANNA
VA	49	AKQ	LOUISA
VA	50	LWX	ORANGE
VA	51	LWX	CULPEPER
VA	52	LWX	PRINCE WILLIAM / MANASSAS
VA	53	LWX	FAIRFAX
VA	54	LWX	ARLINGTON / ALEXANDRIA / FALLS CHURCH
VA	55	LWX	STAFFORD
VA	56	LWX	SPOTSYLVANIA / FREDERICKSBURG
VA	57	LWX	KING GEORGE
VA	58	RNK	HALIFAX / SOUTH BOSTON
VA	59	RNK	CHARLOTTE
VA	60	AKQ	PRINCE EDWARD
VA	61	AKQ	CUMBERLAND

ZONES

State	Zone #	WSO	Zone Descriptions
VA	62	AKQ	GOOCHLAND
VA	63	AKQ	HANOVER
VA	64	AKQ	CAROLINE
VA	65	AKQ	MECKLENBURG
VA	66	AKQ	LUNENBURG
VA	67	AKQ	NOTTOWAY
VA	68	AKQ	AMELIA
VA	69	AKQ	POWHATAN
VA	70	AKQ	CHESTERFIELD / COLONIAL HEIGHTS
VA	71	AKQ	HENRICO / RICHMOND
VA	72	AKQ	KING WILLIAM
VA	73	AKQ	KING AND QUEEN
VA	74	AKQ	ESSEX
VA	75	AKQ	WESTMORELAND
VA	76	AKQ	RICHMOND
VA	77	AKQ	NORTHUMBERLAND
VA	78	AKQ	LANCASTER
VA	79	AKQ	BRUNSWICK
VA	80	AKQ	DINWIDDIE / PETERSBURG
VA	81	AKQ	PRINCE GEORGE / HOPEWELL
VA	82	AKQ	CHARLES CITY
VA	83	AKQ	NEW KENT
VA	84	AKQ	GLOUCESTER
VA	85	AKQ	MIDDLESEX
VA	86	AKQ	MATHEWS
VA	87	AKQ	GREENSVILLE / EMPORIA
VA	88	AKQ	SUSSEX
VA	89	AKQ	SURRY
VA	90	AKQ	JAMES CITY / WILLIAMSBURG
VA	91	AKQ	YORK / POQUOSON
VA	92	AKQ	SOUTHAMPTON / FRANKLIN
VA	93	AKQ	ISLE OF WIGHT
VA	94	AKQ	NEWPORT NEWS
VA	95	AKQ	NORFOLK / HAMPTON / PORTSMOUTH
VA	96	AKQ	SUFFOLK
VA	97	AKQ	CHESAPEAKE
VA	98	AKQ	VIRGINIA BEACH
VA	99	AKQ	ACCOMACK
VA	100	AKQ	NORTHAMPTON
VT	1	BTV	GRAND ISLE
VT	2	BTV	FRANKLIN
VT	3	BTV	ORLEANS
VT	4	BTV	ESSEX
VT	5	BTV	CHITTENDEN
VT	6	BTV	LAMOILLE
VT	7	BTV	CALEDONIA
VT	8	BTV	WASHINGTON
VT	9	BTV	ADDISON
VT	10	BTV	ORANGE
VT	11	BTV	RUTLAND
VT	12	BTV	WINDSOR
VT	13	ALY	BENNINGTON
VT	14	ALY	WINDHAM
WA	1	SEW	SAN JUAN
WA	2	SEW	WESTERN WHATCOM
WA	3	SEW	C SKAGIT/C SNOHOMISH
WA	4	SEW	C KING/C PIERCE/X NE THURSTON
WA	5	SEW	W SKAGIT/NW SNOHOMISH
WA	6	SEW	SW SNOHOMISH
WA	7	SEW	W KING/X SE KITSAP
WA	8	SEW	W PIERCE
WA	9	SEW	ISLAND/NE JEFFERSON
WA	10	SEW	MASON T SW & NW/KITSAP T X SE/EC&SE JEFFERSON

ZONES

State	Zone #	WSO	Zone Descriptions
WA	11	SEW	THURSTON T X SE/SW MASON/C&SE GRAYS HARBOR
WA	12	SEW	S CLALLAM T X SW/C JEFFERSON/NW MASON/NE GRAYS HARBOR
WA	13	SEW	NE CLALLAM
WA	14	SEW	NC CLALLAM
WA	15	SEW	W CLALLAM/W JEFFERSON
WA	16	SEW	W GRAYS HARBOR
WA	17	SEW	C&E WHATCOM/E SKAGIT/E SNOHMISH
WA	18	SEW	E KING/E PIERCE
WA	19	PQR	E LEWIS/SKAMANIA T X S & X SW/X E COLLITZ
WA	20	PQR	E PACIFIC/W LEWIS/WAHKIAKUM
WA	21	PQR	W PACIFIC
WA	22	PQR	W COWLITZ
WA	23	PQR	X S SKAMANIA
WA	24	PDT	X S KLICKITAT
WA	25	PDT	W KITTITAS/W YAKIMA/W KLICKITAT T X SW
WA	26	PDT	E KITTITAS
WA	27	PDT	T X SE KLICKITAT
WA	28	PDT	BENTON/FRANKLIN/WALLA WALLA T SE
WA	29	PDT	N COLUMBIA/SE WALLA WALLA T X SE
WA	30	PDT	X SE WALLA WALLA/S COLUMBIA
WA	31	SEW	S GARFIELD/W ASOTIN
WA	32	SEW	WHITMAN/N GARFIELD/E ASOTIN
WA	33	SEW	GRANT/LINCOLN/ADAMS
WA	34	SEW	SPOKANE
WA	35	SEW	NE OKANOGAN/FERRY/STEVENS/PEND OREILLE
WA	36	SEW	C&SE OKANOGAN
WA	37	SEW	DOUGLAS/SE CHELAN
WA	38	SEW	W OKANOGAN/C&W CHELAN
WA	39	PQR	SW CLARK
WA	40	PQR	C LEWIS/CLARK T SW/P X SW SKAMANIA/E COWLITZ T X E
WI	1	DLH	DOUGLAS
WI	2	DLH	BAYFIELD
WI	3	DLH	ASHLAND
WI	4	DLH	IRON
WI	5	GRB	VILAS
WI	6	DLH	BURNETT
WI	7	DLH	WASHBURN
WI	8	DLH	SAWYER
WI	9	DLH	PRICE
WI	10	GRB	ONEIDA
WI	11	GRB	FOREST
WI	12	GRB	FLORENCE
WI	13	GRB	MARINETTE
WI	14	MPX	POLK
WI	15	MPX	BARRON
WI	16	MPX	RUSK
WI	17	ARX	TAYLOR
WI	18	GRB	LINCOLN
WI	19	GRB	LANGLADE
WI	20	GRB	MENOMINEE
WI	21	GRB	OCONTO
WI	22	GRB	DOOR
WI	23	MPX	ST. CROIX
WI	24	MPX	PIERCE
WI	25	MPX	DUNN
WI	26	MPX	PEPIN
WI	27	MPX	CHIPPEWA
WI	28	MPX	EAU CLAIRE
WI	29	ARX	CLARK
WI	30	GRB	MARATHON
WI	31	GRB	SHAWANO
WI	32	ARX	BUFFALO
WI	33	ARX	TREMPEALEAU

ZONES

State	Zone #	WSO	Zone Descriptions
WI	34	ARX	JACKSON
WI	35	GRB	WOOD
WI	36	GRB	PORTAGE
WI	37	GRB	WAUPACA
WI	38	GRB	OUTAGAMIE
WI	39	GRB	BROWN
WI	40	GRB	KEWAUNEE
WI	41	ARX	LA CROSSE
WI	42	ARX	MONROE
WI	43	ARX	JUNEAU
WI	43	MKX	JUNEAU
WI	44	ARX	ADAMS
WI	44	MKX	ADAMS
WI	45	GRB	WAUSHARA
WI	46	MKX	MARQUETTE
WI	47	MKX	GREEN LAKE
WI	48	GRB	WINNEBAGO
WI	49	GRB	CALUMET
WI	50	GRB	MANITOWOC
WI	51	MKX	FOND DU LAC
WI	52	MKX	SHEBOYGAN
WI	53	ARX	VERNON
WI	54	ARX	CRAWFORD
WI	55	ARX	RICHLAND
WI	55	MKX	RICHLAND
WI	56	MKX	SAUK
WI	57	MKX	COLUMBIA
WI	58	MKX	DODGE
WI	59	MKX	WASHINGTON
WI	60	MKX	OZAUKEE
WI	61	ARX	GRANT
WI	61	DVN	GRANT
WI	62	MKX	IOWA
WI	63	MKX	DANE
WI	64	MKX	JEFFERSON
WI	65	MKX	WAUKESHA
WI	66	MKX	MILWAUKEE
WI	67	MKX	LAFAYETTE
WI	68	MKX	GREEN
WI	69	MKX	ROCK
WI	70	MKX	WALWORTH
WI	71	MKX	RACINE
WI	72	MKX	KENOSHA
WV	1	PBZ	HANCOCK
WV	2	PBZ	BROOKE
WV	3	PBZ	OHIO
WV	4	PBZ	MARSHALL
WV	5	RLX	WAYNE
WV	6	RLX	CABELL
WV	7	RLX	MASON
WV	8	RLX	JACKSON
WV	9	RLX	WOOD
WV	10	RLX	PLEASANTS
WV	11	RLX	TYLER
WV	12	PBZ	WETZEL
WV	13	RLX	LINCOLN
WV	14	RLX	PUTNAM
WV	15	RLX	KANAWHA
WV	16	RLX	ROANE
WV	17	RLX	WIRT
WV	18	RLX	CALHOUN
WV	19	RLX	RITCHIE
WV	20	RLX	DODDRIDGE

ZONES

State	Zone #	WSO	Zone Descriptions
WV	21	PBZ	MARION
WV	22	PBZ	MONONGALIA
WV	23	PBZ	PRESTON
WV	24	RLX	MINGO
WV	25	RLX	LOGAN
WV	26	RLX	BOONE
WV	27	RLX	CLAY
WV	28	RLX	BRAXTON
WV	29	RLX	GILMER
WV	30	RLX	LEWIS
WV	31	RLX	HARRISON
WV	32	RLX	TAYLOR
WV	33	RLX	MCDOWELL
WV	34	RLX	WYOMING
WV	35	RLX	RALEIGH
WV	36	RLX	FAYETTE
WV	37	RLX	NICHOLAS
WV	38	RLX	WEBSTER
WV	39	RLX	UPSHUR
WV	40	RLX	BARBOUR
WV	41	PBZ	TUCKER
WV	42	RNK	MERCER
WV	43	RNK	SUMMERS
WV	44	RNK	MONROE
WV	45	RNK	GREENBRIER
WV	46	RLX	POCAHONTAS
WV	47	RLX	RANDOLPH
WV	48	LWX	GRANT
WV	49	LWX	MINERAL
WV	50	LWX	HAMPSHIRE
WV	51	LWX	MORGAN
WV	52	LWX	BERKELEY
WV	53	LWX	JEFFERSON
WV	54	LWX	PENDLETON
WV	55	LWX	HARDY
WY	1	RIW	YELLOWSTONE NATIONAL PARK MT ID / W PARK / N TETON
WY	2	RIW	NORTH ABSAROKAS / C PARK
WY	3	RIW	SOUTH ABASAROKAS / S PARK / X NW FREMONT
WY	4	RIW	CODY FOOTHILLS / PART OF E PARK
WY	5	RIW	NORTH BIG HORN BASIN / X E PARK / W BIG HORN
WY	6	RIW	TETON/MOUTAINS / TETON EXCEPT N AND SC
WY	7	RIW	JACKSON VALLEY / SC TETON
WY	8	RIW	OWL CREEK MOUNTAINS / S HOT SPRINGS
WY	9	RIW	SOUTH BIG HORN BASIN / N HOT SPRINGS / W WASHAKIE
WY	10	RIW	DUBOIS / PART OF NW FREMONT
WY	11	RIW	WIND RIVER MTNS EAST / WC FREMONT
WY	12	RIW	LANDER FOOTHILLS / C FREMONT
WY	13	RIW	WIND RIVER BASIN / NC AND E FREMONT
WY	14	RIW	GREEN MOUNTAINS / S FREMONT
WY	15	RIW	NATRONA / NATRONA EXCEPT X SE
WY	16	RIW	STAR VALLEY / W LINCOLN
WY	17	RIW	SALT RIVER RANGE / NE LINCOLN / W SUBLETTE
WY	18	RIW	KEMMERER / S LINCOLN
WY	19	RIW	WIND RIVER MOUNTAINS WEST / N AND E SUBLETTE
WY	20	RIW	UPPER GREEN RIVER BASIN / C AND SE SUBLETTE / E LINCOLN / NW SWEETWATER
WY	21	SLC	UINTA
WY	22	RIW	ROCK SPRINGS/GREEN RIVER / SW SWEETWATER
WY	23	RIW	RED DESERT / NE SWEETWATER
WY	24	RIW	FLAMING GORGE / SC SWEETWATER
WY	25	RIW	SOUTHEAST SWEETWATER
WY	26	RIW	WESTERN BIG HORN MOUNTAINS / E BIG HORN / E WASHAKIE
WY	27	RIW	SOUTHEAST BIG HORN MOUNTAINS / W JOHNSON
WY	28	RIW	EAST JOHNSON

ZONES

State	Zone #	WSO	Zone Descriptions
WY	50	CYS	NORTHERN BIG HORN MOUNTAINS / W SHERIDAN / NW JOHNSON / E BIG HORN
WY	51	CYS	SHERIDAN FOOTHILLS / E SHERIDAN
WY	52	CYS	SOUTHERN BIG HORN MOUNTAINS / SW JOHNSON / E WASHAKIE
WY	53	CYS	BUFFALO FOOTHILLS / JOHNSON EXCEPT W
WY	54	UNR	GILLETTE / N CAMPBELL
WY	55	CYS	SOUTH CAMPBELL
WY	55	UNR	SOUTH CAMPBELL
WY	56	UNR	MOORCROFT / CROOK EXCEPT E
WY	57	UNR	WYOMING BLACK HILLS / E CROOK / X NE WESTON
WY	58	UNR	WESTON / WESTON EXCEPT X NE
WY	59	CYS	CONVERSE / CONVERSE EXCEPT X S
WY	60	CYS	NIOBRARA
WY	61	CYS	SOUTHWEST CARBON
WY	62	CYS	NORTH CARBON
WY	63	CYS	SNOWY RANGE / SE CARBON / X SW ALBANY
WY	64	CYS	NORTH LARAMIE RANGE / X S CONVERSE / N ALBANY / X SE NATRONA
WY	65	CYS	LARAMIE VALLEY / WC AND SW ALBANY
WY	66	CYS	LARAMIE RANGE / SE ALBANY / W LARAMIE
WY	67	CYS	PLATTE
WY	68	CYS	GOSHEN
WY	69	CYS	CHEYENNE FOOTHILLS / C LARAMIE
WY	70	CYS	PINE BLUFFS / E LARAMIE
WY	98	BYZ	W SHERIDAN
WY	99	BYZ	E SHERIDAN



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- How El Nino affects Atlantic hurricanes
- Bill Gray's 1998 hurricane season forecast
- Practical, cost-effective ways to mitigate hurricane damage
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- New technology to help improve hurricane forecasting

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