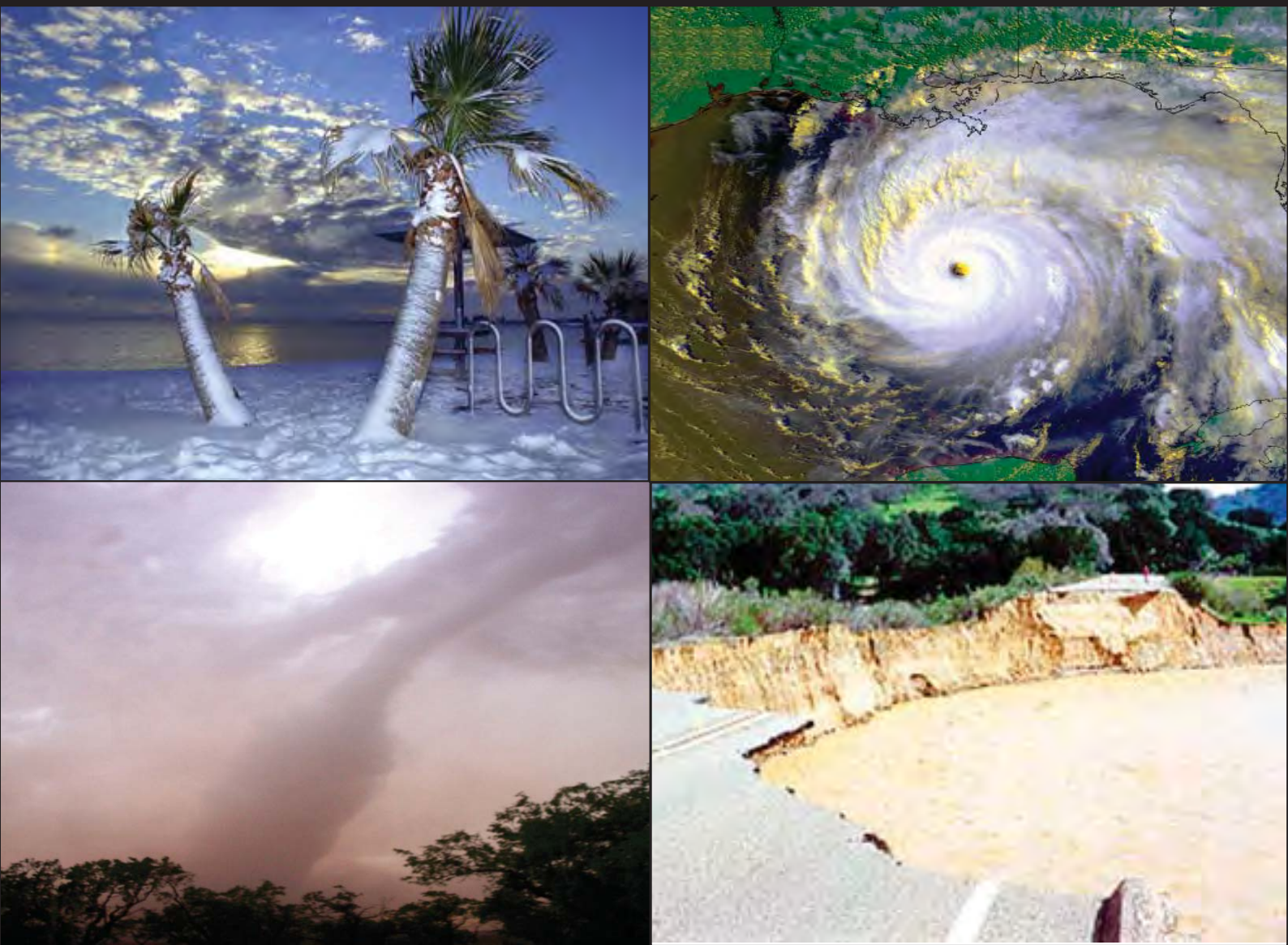


SEPTEMBER 2017  
VOLUME 59  
NUMBER 9

# STORM DATA



AND UNUSUAL WEATHER PHENOMENA  
WITH LATE REPORTS AND CORRECTIONS



**NCEI** NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE  
NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION

**Cover:** This cover represents a few weather conditions such as snow, hurricanes, tornadoes, heavy rain and flooding that may occur in any given location any month of the year. *(Photos courtesy of NCEI)*

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### **STORM DATA**

(ISSN 0039-1972)

National Centers For Environmental Information

Editor: Sherri Nave

**STORM DATA** is prepared, and distributed by the National Centers For Environmental Information (NCEI), National Environmental Satellite, Data and Information Service (NESDIS), National Oceanic and Atmospheric Administration (NOAA).

The Storm Data and Unusual Weather Phenomena narratives and Hurricane/Tropical Storm summaries are prepared by the National Weather Service. Monthly and annual statistics and summaries of tornado and lightning events resulting in deaths, injuries, and damage are compiled by the National Centers For Environmental Information (NCEI) and the National Weather Service's (NWS) Storm Prediction Center.

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

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*Mary S. Wohlgemuth*

Director,  
National Centers For Environmental Information

# Storm Data and Unusual Weather Phenomena

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

September 2017

## ALABAMA, Central

**ALZ017>021-027>  
029-037>038-043-  
047>050**

**Barbour - Blount - Calhoun - Chambers - Cherokee - Clay - Cleburne - Elmore - Etowah - Lee - Pike -  
Randolph - Russell - Talladega - Tallapoosa**

11	1100CST 1900CST			0	0	0.00K	0.00K	Tropical Storm
----	--------------------	--	--	---	---	-------	-------	----------------

Hurricane Irma made landfall on the west coast of the Florida peninsula on September 10th. The hurricane tracked northward across Florida and weakened into a tropical storm on September 11th as it moved into southwest Georgia. Tropical Storm Warnings were in effect for east central Alabama as Tropical Storm Irma approached east Alabama. Steady rains overspread the region by early morning, with breezy and gusty winds arriving south to north through the day. The highest impacts occurred east of Interstate 65 where peak wind gusts of 30 to 45 mph knocked down numerous trees, some of which blocked roadways, fell onto homes, and took out power lines. Due to the track of Irmas center, there was no tornado threat to Alabama. By the nighttime hours, winds were decreasing and Irma was downgraded to a tropical depression.

**Pike County  
3 ENE Tennille**

16	1648CST 1649CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Several trees were uprooted and power lines downed along Tennille Road.

A small cluster of thunderstorms quickly intensified during the late afternoon hours over southern Pike County, and produced wind damage. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

**Calhoun County  
Choccolocco**

19	1557CST 1558CST			0	0	0.00K	0.00K	Hail (1.00)
----	--------------------	--	--	---	---	-------	-------	-------------

**Calhoun County  
1 W Old Davisville**

19	1600CST 1601CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Several trees uprooted and fell onto a mobile home.

An upper level short wave trough moved across north Alabama during the day on September 19th. Surface based CAPE peaked between 2500 and 3000 J/KG during the afternoon. Scattered to numerous thunderstorms developed during the afternoon and early evening, and a few became severe. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

**Russell County  
Crawford**

22	1513CST 1514CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Several trees uprooted near the intersection of Laney Road and Boswell Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

**Cherokee County  
1 E Broomtown**

23	1613CST 1614CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Mobile home damaged and power lines downed near the town of Broomtown.

Isolated strong to severe thunderstorms developed in the afternoon on September 22nd and September 23rd. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## ALABAMA, North

**Morgan County  
1 W Danville**

05	1357CST			0	0			Hail (0.88)
----	---------	--	--	---	---	--	--	-------------

Nickel sized hail was reported in Danville.

**Jackson County  
1 SE Dutton**

05	1511CST			0	0			Hail (0.88)
----	---------	--	--	---	---	--	--	-------------

Nickel sized hail was reported in Dutton.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Dekalb County**

**1 E Beaty Xrds**

05 1528CST 0 0 Hail (1.00)  
Hail up the sized of quarters was reported in Ider.  
A cold front produced a few strong thunderstorms during the late afternoon hours. Two of the storms produce nickel sized hail.

### **ALZ008-010**

#### **Dekalb - Marshall**

11 1600CST  
12 2200CST 0 0 High Wind

Tropical Depression Irma moved into southwest Georgia during the afternoon and evening of the 11th. This resulted in windy conditions across northeast Alabama. North to northeast winds gusted over 35 mph in a few locations. This resulted in a few reports of trees and tree limbs being knocked down. A few hundred residents also lost power due to the downed tree limbs onto utility lines.

### **Colbert County**

**1 E (MSL)Muscle Shoals A**

19 1006CST 0 0 Thunderstorm Wind (51EG)  
A wind gust of 59 mph was reported by the ASOS at the Northwest Alabama Regional Airport.

Note: The estimated wind gust of 51 knots is equivalent to 59 mph.

### **Marshall County**

**1 SW Scant City**

19 1258CST 0 0 Thunderstorm Wind (52EG)  
Power lines were knocked down on Eddy Scant Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Marshall County**

**3 NNE Hyatt**

19 1328CST 0 0 Thunderstorm Wind (52EG)  
Two trees were knocked down in the Pleasant Grove area.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Marshall County**

**2 NE Lakeview**

19 1328CST 0 0 Thunderstorm Wind (52EG)  
Widespread power outages were reported in the Guntersville area.

Clusters of strong to severe thunderstorms developed during the late morning and early afternoon hours, beginning in northwest Alabama and moving eastward and becoming more numerous by early to mid afternoon. Winds gusted to 59 mph at Muscle Shoals, and wind damage was reported in Marshall County. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Dekalb County**

**1 WNW Crossville**

23 1735CST 0 0 Thunderstorm Wind (61EG)  
A spotter reported minor roof damage to barns in the area. Also, two oak trees were uprooted.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Dekalb County**

**1 N Lathamville**

23 1735CST 0 0 Thunderstorm Wind (61EG)  
A tree was knocked down onto a house. Side paneling of a barn was torn back.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Dekalb County**

**1 W Kilpatrick**

23 1750CST 0 0 Thunderstorm Wind (61EG)  
Trees were knocked down in a field near the intersection of Highways 68 and 168. time is estimated.

An evening thunderstorm produced wind damage in and around Crossville. Trees were uprooted and roof damage was reported. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

## ALABAMA, Southeast

### **ALZ065>069**

#### **Coffee - Dale - Geneva - Henry - Houston**

11 0400EST  
2200EST 0 0 650.0K 0.00K Tropical Storm

# Storm Data and Unusual Weather Phenomena

September 2017

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, Southeast

Hurricane Irma brought numerous impacts to the Florida Big Bend, southwest Georgia and southeast Alabama including widespread downed trees and power lines, roads blocked by trees, power outages, and trees on homes. Two people died during the event - one due to a car crash (Liberty County, FL) and another that had a heart attack (Worth County, GA). Two indirect deaths also occurred due to carbon monoxide from a generator (Taylor County, FL). While many counties across the Florida Big Bend and southwest Georgia were impacted, the greatest impacts were across the eastern portion of the area near the I-75 corridor. There were over 6.5 million customers without power in Florida, over 930,000 customers without power in Georgia, and over 45,000 customers without power in Alabama. Total damage cost for each county was estimated when figures were not available.

For southeast Alabama, Houston county reported a few trees and power lines down.

Coffee county reported several power lines and large trees down across major highways including Highway 135 South, 441 South, and 151 South. Some trees fell on structures and one farm structure collapsed.

Henry county reported numerous trees and power lines were down across the county. Two homes sustained structural damage due to fallen trees. Multiple roads were blocked with fallen trees. Approximately 1200 homes were without power.

Dale county reported several trees and power lines were down in the county. Two homes suffered minor damage due to trees falling on the roofs. Power outages were also noted in the county.

Geneva county reported trees and power lines down across the county with the county removing trees from 37 sites. In addition, on County Road 60, the roof was lost off a mobile home. The ceiling of the mobile home eventually collapsed and with rain entering the mobile home, it was a complete loss.

## ALABAMA, Southwest

### **Mobile County Mobile Bates Fld**

22	1458CST							
	1500CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)

Winds estimated at 60 damaged power poles near the Mobile Regional Airport. Dime to penny size hail was also observed at the NWS office.

Thunderstorms moved across southwest Alabama and produced small hail and gusty winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## ALASKA, Northern

### **AKZ223-225**

### **Deltana and Tanana - Denali**

05	0051AKS							
06	0500AKS			0	0	0.00K	0.00K	High Wind

Strong pressure gradient developed in channeled areas of the Alaska range on the 5th of September. A 980 Low over the Bering Sea induced the pressure gradient and associated weather front moved across the range as well.

zone 223: Peak wind gust of 57 kt (66 mph) reported at OP5 mesonet site at Fort Greely.

Zone 225: Peak wind gust of 61 kts (70 mph) reported at the State of Alaska Department of Transportation Mesonet site named Antler Creek.

Zone 226: The U.S. Army Mesonet station Edge Creek reported a wind gust to 61 kts (70 mph).

### **AKZ206**

### **North Brooks Range east of Colville River**

13	0400AKS							
	1746AKS			0	0	0.00K	0.00K	High Wind

Strong pressure gradient in the Brooks range produced winds near 60 mph in the passes on September 13th.

### **AKZ211-214**

### **Southern Seward Peninsula Coast - Yukon Delta**

18	0000AKS							
19	1800AKS			0	0	0.00K	0.00K	High Surf



# Storm Data and Unusual Weather Phenomena

September 2017

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

Strong westerly winds created high surf and minor beach erosion for the coastal areas near Emmonak. Waves and surf built to 6 to 11 feet offshore with runoff above the normal high tide line. Also high surf in Norton Sound with waves 4 to 6 feet offshore.

### **AKZ207**

#### **Chukchi Sea Coast**

30	0000AKS								
	2359AKS				0	0	0.00K	0.00K	High Surf

Strong southerly winds 25 to 40 mph with gusts to 50 mph created high surf and minor beach erosion for the coastal areas near Kivalina and Point Hope. Waves and surf built to 3 to 8 feet offshore with runoff above the normal high tide line.

## ALASKA, Southeast

### **Taiya Inlet**

#### **4 NNW Skagway**

06	2300AKS								
07	1200AKS				0	0	0.00K	0.00K	Flood

The Taiya River started a steep rise in the mid afternoon of September 6th and went above minor flood stage of 16.5 feet during the evening hours. There was about ankle deep water in the lower portions of the Chilkoot Trail within the Klondike Gold rush Historical Park near Skagway. There was a slight lull in the rain rates the water level remained above minor flood stage but leveled out in the evening hours. The rain increased in the headwaters of the basin overnight on September 6th and the Taiya River began another steep rise and went up above moderate flood stage of 17.0 feet just before midnight. The Taiya River crested at a stage of 17.78 feet around 0400AKDT and water levels started to fall as the rain rates tapered off. The river level went below minor flood stage by the mid afternoon on September 7th. There was flooding impacts along the Chilkoot Trail as the National Park Service closed the trail due to impacts associated with the high waters. The main reason for this is that trail orientation and navigation begins to become difficult and may hinder route-finding for several hundred meters. Water will be knee deep or higher in places along the lower portions of the trail. The NPS also advise against boating and other recreational water-based activities on the Taiya River.

A very strong and moist weather front moved over Southeast Alaska and produced 2 shots of moderate to heavy rainfall. Soils were already saturated from an event a day prior and the base flow of the Taiya River near Skagway remained at bankful stage. The river started to rise a few hours after the rain started in the afternoon hours of September 6th and went about moderate flood stage in the early morning hours of September 7th. The rain rates began to relax through September 7th and went back below minor flood stage in mid afternoon.

Rain amounts across the area of Skagway and in the headwaters of the Taiya River ranged from one and a half inch to two inches.

### **Taiya Inlet**

#### **3 NNW Skagway**

27	1630AKS								
28	0800AKS				0	0	0.00K	0.00K	Flood

The Taiya River continued to rise at a steep rate for 36 hours from the moderate rainfall. The river went above moderate flood stage of 17 feet in the late afternoon hours on September 27th and did not go below that threshold until the early morning of September 28th. The Chilkoot trail within the Klondike Gold Rush Historical Park near Skagway Alaska was impacted by flooding along the lower portions of the trail. The river crested at a level of 17.59 feet and in doing so produced flood waters of knee deep or higher in places. In the morning hours of the 28th the National Park Service advised boaters and other recreational water based actives on the Taiya River to be suspended until the water level went down. The water levels receded through the day on the 28th and was below flood stage by the early afternoon.

A strong atmospheric river moved over Southeast Alaska from September 26th through the 28th. There was a long southwest fetch of subtropical moisture that was pointed at the region. This stream of moisture produced moderate to heavy rain over most of the area but there was moderate flooding along the Taiya River near Skagway and impacted the Chilkoot trail. The Taiya River rose about 4 feet and went above minor flood stage at 0600AKDT on September 27 and then above moderate flood stage at 0830AKDT. The river remained above flood stage until 1100AKDT on September 28th.

48 hour rain amounts for this event over the Skagway area and in the high elevations ranged from one and one half inches to two and one quarter inches in the headwaters of the Taiya River.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **AKZ101**

#### **Anchorage Muni to Bird Creek**

06	0120AKS								
	0420AKS				0	0	0.00K	0.00K	High Wind

A strong low pressure system developed in the Gulf of Alaska and brought an occluded front onshore in the Southcentral area. The passage of the front caused warning level winds in the Anchorage area.

### **AKZ195**

#### **Pribilof Islands**

15	2205AKS								
16	0353AKS				0	0	0.00K	0.00K	High Wind

### **AKZ181**

#### **Alaska Peninsula**

16	0745AKS								
	1600AKS				0	0	0.00K	0.00K	High Wind

A low pressure system moved from the Aleutian Islands to just off the Kuskokwim Delta coast, while intensifying rapidly to 970mb. Cold air advection and a tight pressure gradient on the backside of the low brought hurricane force winds to the Bering Sea.

### **Kenai Peninsula 47 E Soldotna**

21	1304AKS								
27	0010AKS				0	0	5000.00K	0.00K	Flood

Flooding in many yards and at least one cabin along Snug Harbor Road. The lake edge is normally about another 30 feet off the deck. NWS survey crews found flooded boat launches at both Cooper Landing Boat Launch and Quartz Creek Campground Boat Launch. The public also reported flooding of various parking lots around the Cooper Landing area via Social Media.



*A picture of flood waters from the Kenai River that flooded the Cooper Landing boat launch in Soldotna, Alaska during the period of September 21st-27th, 2017 from the outburst of Snow Glacier Dammed Lake. Photo courtesy of Social Media.*

### **Wrn P.w. Snd & Kenai Mtns 10 S Moose Pass**

22	1730AKS								
27	0010AKS				0	0	1000.00K	0.00K	Flood

NWS Survey team as well as photos and reports from residents along Primrose Spur road on south end of Kenai Lake confirm several days of flooded yards and road closed by state Dept. of Transportation. Resident reported flooding on the high end of normal for this biennial flooding event.

Snow Lake, a glacier-dammed lake in the Kenai Mountains, released on September 16th. The draining of the lake caused the Snow River, Kenai Lake, and the Kenai River to rise significantly. Flow measured on the Snow River was measured to be about 15 times the normal flow expected for September. Snow glacier-dammed lake typically releases every 2 years, usually during the fall.

# Storm Data and Unusual Weather Phenomena

September 2017

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



*A picture of moose looking out over flooding along Primrose Spur Rd. on the Kenai Peninsula, Alaska from an outburst of Snow Glacier Dammed Lake during the period of September 22nd -September 27th, 2017. Photo courtesy of Ben Faust.*

## ARIZONA, Central and Northeast

### **Navajo County**

**2 E Snowflake  
8 S Woodruff**

09	1558MST							
	1600MST	0	0	0.00K	0.00K	Flash Flood		

A thunderstorm with heavy rain caused a flash flood in the normally dry Dry Silver Creek Wash. A video submitted by weather spotter showed the water to be around six feet deep.

Moisture associated with an increase in southerly winds brought showers and thunderstorms to northern Arizona. One of the thunderstorms brought heavy rain and flash flooding close to Snowflake.

### **Coconino County**

**1 ESE Page  
(PGA)Page Arpt**

14	1238MST							
	1255MST	0	0	20.00K	0.00K	Thunderstorm Wind (49MG)		

A thunderstorm produce damaging winds in the Page area. The hanger at the Page Airport was damaged. The Jet Center windows were blown out by the winds. A few trees were uprooted. The Page ASOS recorded a peak wind gust of 56 MPH at 1238 PM MST.

Multiple homes in the Champan Village area were damaged by flying debris and falling trees. Two power poles were destroyed when wind blown trees fell on them. This caused power outages in the area.

Note: The measured wind gust of 49 knots is equivalent to 56 mph.

### **Apache County**

**1 NE Sunrise Spgs  
4 ENE Ganado Greasewood Ar**

14	1315MST							
	1515MST	0	0	0.00K	0.00K	Flash Flood		

Thunderstorms with heavy rain washed mud and rocks over Navajo Route 15 between Greasewood and Ganado.

### **Coconino County**

**4 NNE Marble Canyon**

15	0000MST							
	0200MST	0	0	0.00K	0.00K	Flash Flood		

Heavy rain from thunderstorms caused flash flooding in the Paria River. The USGS gauge on the Paria River near Lees Ferry rose over four feet to over 1500 CFS.

A low pressure system moving through the region brought cooler, windy, and showers day to northern Arizona. A few thunderstorms became strong to severe.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Mohave County**

**2 N (IGM)Mojave Co Arpt** 02 1810MST 0 0 0.00K 0.00K Thunderstorm Wind (50MG)  
Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### **Mohave County**

**5 NNE Dolan Spgs** 02 1910MST  
2000MST 0 0 1.00K 0.00K Flash Flood

A vehicle was stuck in flooding on Pierce Ferry Road at Archibald Wash.

### **Mohave County**

**Kingman** 05 1815MST  
**11 NNW Dolan Spgs** 2033MST 0 0 15.00K 0.00K Thunderstorm Wind (57MG)

The peak gust was measured in Chloride. A power pole was blown down in Kingman, knocking out power to about 12,000 customers. Dense blowing dust and shingle damage were reported 11 miles NNW of Dolan Springs. Severe outflow winds eventually spread as far as Bullhead City and Tweeds Point.

Monsoon moisture pushing west and north brought another round of thunderstorms to the Mojave Desert. Note: The measured wind gust of 57 knots is equivalent to 66 mph.

### **Mohave County**

**3 SSE (IGM)Mojave Co Arpt** 08 1656MST  
1900MST 0 0 5.00K 0.00K Flash Flood

DW Ranch Road was closed from Interstate 40 to Hualapai Mountain Road due to all the washes flowing over the road.

### **Mohave County**

**23 SSE Littlefield** 08 1733MST 0 0 0.00K 0.00K Thunderstorm Wind (53MG)  
Note: The measured wind gust of 53 knots is equivalent to 61 mph.

### **Mohave County**

**4 W Golden Valley** 08 1900MST  
2030MST 0 0 2.00K 0.00K Flash Flood

Chino Dr and Shinarump Dr were closed due to flooding.

### **Mohave County**

**Willow Beach** 08 1929MST  
2130MST 0 0 1.00K 0.00K Flash Flood

Willow Beach Access Road was closed due to flooding.

### **Mohave County**

**5 E (LHU)Lake Havasu Cit** 09 1345MST  
1500MST 0 0 1.00K 0.00K Flash Flood

The intersection of Maricopa and Oro Grande was flooded and impassable.

### **Mohave County**

**1 W Getz** 09 1514MST  
1700MST 0 0 1.00K 0.00K Flash Flood

Kino Road was closed where it crosses the wash, and water flowed over Stockton Hill Road.

A strong push of monsoon moisture plus low pressure moving in from the west triggered an outbreak of thunderstorms over the Mojave Desert. Several storms produced flash flooding and severe weather.

# Storm Data and Unusual Weather Phenomena

September 2017

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

## ARIZONA, South

### Pima County

86 W Mescal

05 1514MST 0 0 0.00K 0.00K Thunderstorm Wind (52MG)  
RAWS site in Sells measured a thunderstorm wind gust of 60mph.

Scattered thunderstorms moved west across southeast Arizona. One produced a severe wind gust near Sells. Note: The measured wind gust of 52 knots is equivalent to 60 mph.

### Pima County

5 NE Sahuarita

16 1902MST 0 0 0.00K 0.00K Funnel Cloud  
1905MST

A short-lived funnel cloud was observed near the Arizona Motorplex on Los Reales Rd.

A couple of small storms formed in Santa Cruz county and moved northeast toward Tucson. One cell produced a short-lived funnel cloud just before sunset.

## ARIZONA, Southwest

### Gila County

1 W Globe

04 1639MST 0 0 0.00K 0.00K Hail (0.75)  
Thunderstorms developed over portions of southern Gila County during the afternoon hours on September 4th and one of the stronger storms produced large hail which fell in the town of Globe. A trained weather spotter in Globe measured hailstones with a diameter of three quarters of an inch at about 1439MST. No damage was reported due to the hail. A Significant Weather Advisory was in effect at the time of the large hail; no Severe Thunderstorm Warning was issued however. In addition to the hail, the storm produced heavy rain which resulted in water to the top of the curbs on the east side of Globe.

Thunderstorms developed across portions of southern Gila County during the afternoon hours on September 4th and one of the stronger storms affected the area around Globe and Claypool. The storm produced locally heavy rain over the eastern side of Globe, as is typical with monsoon thunderstorms, but it also managed to produce large hail which is less common. A trained weather spotter in Globe measured hail with a diameter of three quarters of an inch. No damage was reported due to the large hail. The hail was not large enough to meet severe criteria and no Severe Thunderstorm Warning was issued. However, a Significant Weather Advisory was issued instead, highlighting the potential for heavy rain and hail along with gusty winds.

### La Paz County

21 S Quartzsite

07 1712MST 0 0 0.00K 0.00K Thunderstorm Wind (57MG)  
Scattered thunderstorms developed over the western portion of La Paz County during the afternoon hours on September 7th and some of the stronger storms produced gusty outflow winds in excess of 60 mph. At 1712MST a mesonet weather station labeled YP010 measured a wind gust to 66 mph. The station was located 18 miles west of Palm Canyon, to the west of the Kofa Mountains, and over the southwestern portion of the county. No damage was reported due to the strong wind gust.

Scattered thunderstorms developed over the southwestern and western deserts of Arizona during the late afternoon and evening hours on September 7th. They affected both Yuma and La Paz Counties as they brought strong and gusty winds to the area along with patchy dense blowing dust. Automated weather stations in far western Yuma County, just east of the lower Colorado River Valley, measured gusts as high as 64 mph. Shortly after 1700MST another mesonet weather station west of the Kofa Mountains measured a gust to 66 mph. No damage was reported due to the strong winds. Finally, at about 1900MST a trained spotter just northeast of Tacna reported dense blowing dust that reduced visibility below one quarter of a mile in a dust storm. Note: The measured wind gust of 57 knots is equivalent to 66 mph.

## AZZ023-026

### Greater Phoenix Area - Southwest Deserts

07 1845MST 0 0 0.00K 0.00K Dust Storm  
2030MST

Scattered thunderstorms developed across portions of the south-central deserts, including the greater Phoenix metropolitan area, during the early evening hours on September 7th and some of the stronger storms generated gusty outflow winds in excess of 40 mph. The gusty winds stirred up significant amounts of dust and dirt, resulting in areas of dense blowing dust and localized dust storm conditions that affected communities from Queen Creek to Chandler to East Mesa. Visibilities ranged from one quarter mile in Chandler to about zero miles in Queen Creek, as reported by a trained spotter and broadcast media respectively. A Dust Storm Warning was issued for the area and despite the very hazardous driving conditions, no accidents or injuries were reported.

### Pinal County

6 SE Palm Spgs

07 1900MST 0 0 0.00K 0.00K Heavy Rain  
2130MST

# Storm Data and Unusual Weather Phenomena

September 2017

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

Scattered thunderstorms developed over the eastern portion of the greater Phoenix area during the early evening hours on September 8th, and some of the stronger storms produced locally heavy rain in the Apache Junction and Gold Canyon area. Peak rain rates as shown by radar and local rain gages were in excess of one inch per hour, and this was sufficient to produce areas of street flooding in Gold Canyon. At 1910MST a report was received from an amateur ham radio operator and it indicated that there was 4 inches of water across the Superstition Freeway (Highway 60) between Gold Canyon and Peralta Road. The street flooding created hazardous driving conditions but fortunately no accidents were reported. A Flood Advisory was issued shortly after the street flooding report was received.

Scattered thunderstorms developed across the eastern portion of the greater Phoenix area during the evening hours on September 8th, and some of the stronger storms produced locally heavy rains with peak rain rates in excess of one inch per hour. Heavy rains the far east valley community of Apache Junction; area washes such as the Weekes Wash began to flow heavily and shortly afterward flash flooding and flooding occurred. At about 2030MST Apache Junction Police reported that barricades were being erected at the intersection of State Route 88 and Tomahawk Road due to flash flooding. In addition, about one hour earlier several inches of water were reported to be across U.S. Highway 60 between Gold Canyon and Peralta. A Flash Flood Warning was issued for the area beginning at 1954MST and continuing through 2300MST. No accident or injuries were reported.

### Yuma County 6 ESE Fishers Lndg

07	2012MST	0	0	0.00K	0.00K	Thunderstorm Wind (51MG)
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Scattered thunderstorms developed across portions of western Yuma County during the evening hours on September 7th and some of the stronger storms produced very gusty outflow winds. At 2012MST the mesonet weather station YP017, located 5 miles east-southeast of Martinez Lake, measured a wind gust to 59 mph. The station was also located to the west of highway 95. No damage was reported due to the strong wind gust.

Note: The measured wind gust of 51 knots is equivalent to 59 mph.

### La Paz County 28 SE Cibola

07	2016MST	0	0	0.00K	0.00K	Thunderstorm Wind (56MG)
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Scattered thunderstorms developed across the western portion of La Paz County during the evening hours on September 7th and some of the stronger storms generated outflow wind gusts in excess of 60 mph. A mesonet weather station in far southern La Paz County, labeled YP013, measured a peak gust to 64 mph at 2016MST. The station was located 5 miles northeast of Martinez lake, northeast of Castle Dome Landing and west of Highway 95. No damage was reported due to the strong wind.

Scattered thunderstorms developed over the southwestern and western deserts of Arizona during the late afternoon and evening hours on September 7th. They affected both Yuma and La Paz Counties as they brought strong and gusty winds to the area along with patchy dense blowing dust. Automated weather stations in far western Yuma County, just east of the lower Colorado River Valley, measured gusts as high as 64 mph. Shortly after 1700MST another mesonet weather station west of the Kofa Mountains measured a gust to 66 mph. No damage was reported due to the strong winds. Finally, at about 1900MST a trained spotter just northeast of Tacna reported dense blowing dust that reduced visibility below one quarter of a mile in a dust storm. Note: The measured wind gust of 56 knots is equivalent to 64 mph.

### Yuma County 2 E El Pueblecito

08	1540MST	0	0	12.00K	0.00K	Thunderstorm Wind (61EG)
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Scattered thunderstorms developed in the Yuma area during the afternoon hours on September 9th, and some of the stronger storms produced gusty and damaging microburst winds estimated to be as high as 70 mph. At 1540MST an amateur radio operator reported that strong winds had downed multiple trees at the intersection of U.S. Highway 95 and Pacific Avenue. The radio operator was a ham radio trained spotter. No injuries were reported due to the downed trees.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Yuma County 2 E El Pueblecito

08	1545MST	0	0	75.00K	0.00K	Thunderstorm Wind (61EG)
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Scattered thunderstorms developed in the city of Yuma during the afternoon hours on September 8th, and one of the stronger storms produced gusty and damaging microburst winds estimated to be as high as 70 mph. According to the local APS utility company and relayed through a trained weather spotter, gusty microburst winds downed 9 power poles at the Yuma Palms Mall. Some of the downed poles trapped people in their cars; fortunately no injuries were reported.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Yuma County 2 SW El Pueblecito

08	1600MST 1730MST	0	0	0.00K	0.00K	Heavy Rain
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Scattered thunderstorms developed across the community of Yuma during the afternoon hours on September 8th, and some of the stronger storms produced locally heavy rainfall that led to an episode of street flooding in town. Rainfall rates and amounts were not extreme and flash flooding did not occur. However, at 1640MST a trained spotter reported that streets were flooded on 24th Street and Avenue B in Yuma. The street flooding presented hazardous driving conditions to motorists during the rush hour in Yuma but fortunately no accidents were reported.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ARIZONA, Southwest

Scattered thunderstorms developed in the Yuma area during the afternoon hours on September 8th and they brought typical albeit somewhat garden-variety hazards to the area. Moderate hail, heavy rain and gusty and damaging winds were all present; strong storms in Somerton produced hail with a diameter of one half inch and heavy rain in west Yuma led to street flooding. One of the strongest storms produced damaging microburst winds that downed 9 power poles at the Yuma Palms Mall and some people were trapped in their cars due to the downed poles. This occurred at 1545MST. At roughly the same time, and about one mile further east, multiple trees were reported downed as well. No injuries were reported fortunately. A Severe Thunderstorm Warning was issued shortly thereafter, at 1607MST.

### **Pinal County**

**1 NW Goldfield  
2 E Palm Spgs**

08	2000MST								
	2230MST				0	0	3.00K	0.00K	Flash Flood

Scattered thunderstorms developed east of Phoenix during the evening hours on September 8th and some of the stronger storms produced heavy rain in the area around Apache Junction. Peak rain rates as shown by radar and flood control district gages were in excess of one inch per hour, and given the flashy nature of the terrain this was sufficient to lead to an episode of flash flooding. At 2029MST the Apache Junction Police Department indicated that barricades were going up at the intersection of Tomahawk Road and State Route 88 because of the flash flooding. A Flash Flood Warning was issued for the area at 1954MST and it remained in effect until it was cancelled at 2241MST.

Scattered thunderstorms developed across the eastern portion of the greater Phoenix area during the evening hours on September 8th, and some of the stronger storms produced locally heavy rains with peak rain rates in excess of one inch per hour. Heavy rains the far east valley community of Apache Junction; area washes such as the Weekes Wash began to flow heavily and shortly afterward flash flooding and flooding occurred. At about 2030MST Apache Junction Police reported that barricades were being erected at the intersection of State Route 88 and Tomahawk Road due to flash flooding. In addition, about one hour earlier several inches of water were reported to be across U.S. Highway 60 between Gold Canyon and Peralta. A Flash Flood Warning was issued for the area beginning at 1954MST and continuing through 2300MST. No accident or injuries were reported.

### **La Paz County**

**5 SSW Harcuvar  
4 SSW Vicksburg**

08	2015MST								
	2300MST				0	0	4.00K	0.00K	Flash Flood

Thunderstorms developed across the central portion of La Paz County during the evening hours on September 8th and some of the stronger storms produced locally heavy rains with peak rain rates approaching 2 inches per hour. The intense rain led to an episode of flash flooding north of Interstate 10 and east of Quartzsite. At 2040MST a public report was received indicating that flash flooding was occurring near the intersection of Highway 60 and State Route 72. A Flash Flood Warning had been issued earlier at 2009MST and was in effect at the time of the flooding. No accidents or injuries were reported.

Thunderstorms developed across the central portion of La Paz County during the evening hours on September 8th, and some of the stronger storms produced very heavy rainfall with peak rain rates approaching 2 inches per hour. The intense rainfall led to an episode of flash flooding to the east of the town of Quartzsite and north of the Interstate 10 corridor. At 2040MST public reports indicated that there was flash flooding near the intersection of Highway 60 and State Route 72. No accidents or injuries were reported due to the flooding. A Flash Flood Warning was issued at 2009MST and remained in effect through 2300MST.

### **Maricopa County**

**1 S Guadalupe**

24	1300MST								
	1305MST				0	0	0.00K	0.00K	Dust Devil

During the early afternoon hours on September 24th, an impressive dust devil developed over the southern portions of Tempe and this was captured on camera by local broadcast media. The dust devil formed over open, dusty ground during the early afternoon on a warm day under sunny skies, and quickly formed a very impressive rotating funnel which grew several hundred feet high. The dust devil formed near the intersection of Interstate 10 and Elliot Road, at about 1300MST. The devil was captured on camera by AZ Family TV3 / CBS Channel 5. No damage occurred despite the impressive nature of the rotating funnel.

Even though high temperatures had cooled to well below 100 degrees, sunny skies combined with mid 80 degree high temperatures and modest afternoon breeziness set the stage for an impressive dust devil to develop. The dust devil developed over hot and dusty ground, and persisted for several minutes, growing to a height of several hundred feet. It was caught on camera and made it onto the local news. The dust devil formed in the southeast portion of the greater Phoenix area, over southern Tempe. No damage was reported due to the dust devil.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## ARKANSAS, Central and North Central

### **Woodruff County**

<b>1 WSW Riverside</b>	01	0000CST							
<b>1 N Cavell</b>	06	1100CST			0	0	0.00K	0.00K	Flood

Heavy rain in August led to flooding along the Cache River that continued into early September.

Heavy rain brought flooding to the Cache River at Patterson in September 2017.

## ARKANSAS, East

### **Mississippi County**

<b>2 NNE Armorel</b>	18	1610CST 1615CST			0	0		0.00K	Thunderstorm Wind (50EG)
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A trucking business had extensive structural and roof damage on Highway 137 east of Blytheville.

A weak disturbance moved through the Mid-South and interacted with a warm and unstable airmass to produce scattered afternoon showers and thunderstorms. A thunderstorm over eastern Arkansas became severe with damaging winds. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## ARKANSAS, Southeast

### **Chicot County**

<b>2 S Norcross</b>	18	1115CST			0	0	0.00K	0.00K	Funnel Cloud
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A funnel cloud occurred near Lake Village and Highway 65.

Above normal temperatures for mid-September, along with ample moisture in place over the region, brought afternoon showers and storms to the region.

## ARKANSAS, Southwest

### **Hempstead County**

<b>1 NW Bingen</b>	05	1340CST			0	0	0.00K	0.00K	Hail (1.00)
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Quarter size hail fell in the Bingen community.

### **Hempstead County**

<b>2 W Doyle</b>	05	1350CST			0	0	0.00K	0.00K	Hail (1.25)
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Half dollar size hail fell a few miles east of Nashville.

### **Miller County**

<b>2 WNW Mandeville</b>	05	1515CST			0	0	0.00K	0.00K	Hail (1.50)
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Pictures of large hail just smaller than golfballs that fell in the Sugar Hill area of North Texarkana, were posted on several local TV media Facebook pages.

### **Miller County**

<b>2 WNW (TXK)Texarkana Arpt</b>	05	1515CST			0	0	0.00K	0.00K	Hail (1.25)
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Pictures of half dollar size hail that fell in Texarkana, were posted on several local TV media Facebook pages.

An upper level trough of low pressure shifted east from the Ohio Valley southwest across the Midwest and Central/Southern Plains during the late morning hours of September 5th. The accompanying cold front moved into Southwest Arkansas and extreme Northeast Texas during the mid and late afternoon, before moving into North Louisiana during the evening. Moderate instability developed along and ahead of the front, with increasing frontal convergence yielding scattered to numerous showers and thunderstorms during the late afternoon and evening across Southwest Arkansas and North Louisiana, where large scale forcing was strongest ahead of the trough. Some of these storms became severe, resulting in various reports of large hail across portions of Hempstead and Miller Counties. These storms began to diminish by early evening as cooler and drier air began to spill south in wake of the frontal passage.

## CALIFORNIA, Extreme Southeast

### **CAZ033**

### **Imperial County except the Lower Colorado River Valley**

07	1530PST 1700PST				0	0	0.00K	0.00K	Dust Storm
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# Storm Data and Unusual Weather Phenomena

September 2017

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

Scattered monsoon thunderstorms developed across the northern Baja California mountains as well as far northwest Mexico, during the late afternoon hours on September 7th and they generated very strong and gusty outflow winds in excess of 50 mph. The strong winds spread to the north and into portions of Imperial County, moving across the Interstate 8 corridor and into the Imperial Valley. The strong wind stirred up significant amounts of dust, dirt and sand which led to patchy dust storm conditions. Visibility lowered to zero miles in a dust storm in the town of Seeley at about 1520PST. A Dust Storm Warning was issued due to the dense blowing dust; fortunately no accidents or injuries were reported as a result of the very hazardous driving conditions.

### **Imperial County 4 E Calexico**

08	1300PST	0	0	200.00K	0.00K	Thunderstorm Wind (61EG)
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Very strong thunderstorms developed across the higher terrain of northern Baja during the early afternoon hours, and then moved north into south-central Imperial County. Some of the storms generated gusty and damaging microburst winds estimated to be as high as 70 mph. According to a local emergency manager, at 1300PST gusty winds blew down 20 to 23 power poles along Carr Road, approximately 4 miles east of the town of Calexico and just north of the Mexican border. This caused the road to become closed from California Highway 7 to Barbara Worth Road.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Imperial County 1 E Calipatria**

08	1300PST	0	0	200.00K	0.00K	Thunderstorm Wind (61EG)
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Thunderstorms developed across the central portion of Imperial County during the early afternoon hours and they moved quickly to the north, producing strong gusty and damaging outflow winds which impacted portions of the Imperial Valley as well as the town of Calipatria. According to local emergency managers, at 1300PST gusty microburst winds estimated to be as high as 70 mph blew down 23 power poles in the town of Calipatria. The poles were downed on Young Road, near Highway 111. No injuries were reported due to the downed poles.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Imperial County 2 S Meloland**

08	1300PST	0	0	2.00K	0.00K	Thunderstorm Wind (52EG)
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Thunderstorms with gusty damaging winds developed across the central portion of Imperial County during the early afternoon hours on September 8th and some of the stronger storms affected the Imperial Valley including the area around the town of Holtville. At 1300PST, gusty winds estimated to be at least 60 mph blew down a tree near the intersection of Barbara Worth Road and Interstate 8. The downed tree was about 4 miles southwest of the town of Holtville. This was reported by the California Highway Patrol.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Imperial County 3 E Calexico 4 WSW Bonds Corner**

08	1315PST 1600PST	0	0	5.00K	0.00K	Flash Flood
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A line of thunderstorms developed across central Imperial County during the early afternoon hours and some of the stronger storms produced very heavy rainfall which impacted areas from the Imperial Valley south to the Mexican Border. Peak rain rates were in excess of 2 inches per hour and led to episodes of flash flooding. At 1339PST a local emergency manager reported significant flooding on California Highway 98 to the east of Calexico and west of Highway 7. A Flash Flood Warning was in effect at the time of the flooding; it was issued at 1316PST and remained in effect through 1600PST.

### **Imperial County 2 W Date City 2 SSE Holtville**

08	1315PST 1600PST	0	0	0.00K	0.00K	Flash Flood
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Scattered to numerous thunderstorms developed across the central portion of Imperial County during the afternoon hours and some of the storms produced very heavy rainfall with peak rain rates in excess of 2 inches per hour. The intense rains led to episodes of flash flooding, some of which affected the Imperial Valley and areas around the town of Holtville. According to the California Highway Patrol, at 1358PST, flash flooding occurred about 2 miles southeast of Holtville, to the northeast of Bonds Corner Road. No injuries were reported. A Flash Flood Warning was in effect at the time of the flooding.

### **Imperial County 2 WSW Meloland**

08	1330PST 1600PST	0	0	100.00K	0.00K	Flash Flood
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# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CALIFORNIA, Extreme Southeast

Scattered to numerous thunderstorms developed across the central portion of Imperial County during the afternoon hours on September 8th, and some of the stronger storms produced very heavy rainfall with peak rain rates in excess of 2 inches per hour. The intense rain led to episodes of flash flooding in the Imperial Valley, including the town of Holtville. According to a local emergency manager, heavy rain caused excessive flow in area canals, and one canal was breached near the intersection of Meloland and Evan Hewes roads. As the canal breached, flash flooding occurred which inundated nearby homes. The flooded homes were located about 4 miles west of Holtville. A Flash Flood Warning was in effect at the time of the flooding. No injuries were reported.

### Imperial County 1 N Niland

08	1340PST	0	0	40.00K	0.00K	Thunderstorm Wind (56EG)
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Scattered thunderstorms developed across portions of central Imperial County during the afternoon hours on September 8th, and some of the stronger storms produced gusty and damaging outflow winds which impacted the town of Niland located to the north of the Imperial Valley. At 1340PST a local emergency manager reported that gusty winds estimated to be as high as 65 mph blew down 5 power poles. The downed poles were located along Highway 111 in Niland. Power in town was reported to be out due to the downed poles. A Severe Thunderstorm Warning was in effect at the time of the damage; it was issued at 1323PST.

A long north to south oriented line of thunderstorms developed during the early afternoon hours on September 8th; it ran from the Baja spine northward through central Imperial County and into eastern Riverside County. The individual storms moved rather quickly to the north and most of the storms in the line were very strong, producing gusty damaging microburst winds along with intense rainfall which led to multiple episodes of flash flooding. Much of the damage and flooding occurred from the Imperial Valley south to the Mexican border. For example, just north of the Mexican border and east of Calexico, 23 power poles were downed on Carr Road. Further north, in the town of Calipatria, 23 power poles were downed on Young Road at about 1300PST. Flash flooding occurred in the vicinity of the town of Holtville; about 4 miles west of town a canal was breached resulting in the flooding of nearby homes. Multiple Flash Flood and Severe Thunderstorm Warnings were issued during the afternoon. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Riverside County 8 SW Desert Center

08	1345PST 1700PST	0	0	5.00K	0.00K	Flash Flood
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Scattered to numerous thunderstorms developed across portions of eastern Riverside county, mainly east of Joshua Tree National Park, during the afternoon hours on September 8th. Some of the stronger storms produced very heavy rainfall with peak rain rates in excess of 2 inches per hour. The intense rains led to episodes of flash flooding that primarily affected the Interstate 10 corridor west of Desert Center and through Chiriaco Summit. At 1405PST the California Highway Patrol reported that Interstate 10 was flooded eastbound at Red Cloud. About forty five minutes later at 1450PST the California Highway Patrol reported that Interstate 10 was flooded at Chiriaco Summit. A Flash Flood Warning was then issued but was not in effect when these flooding reports occurred. Fortunately no accidents or injuries occurred as a result of the flash flooding.

### Riverside County 16 NE Eagle Mtn

08	1400PST 1700PST	0	0	25.00K	0.00K	Flash Flood
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Scattered to numerous thunderstorms developed across portions of eastern Riverside County during the afternoon hours on September 8th, and some of them produced very heavy rains with peak rain rates in excess of 2 inches per hour. The intense rains led to flash flooding in locations to the east of Joshua Tree National Park, along Highway 177 across the far north portion of the county and near the intersection of Highway 62. As of about 1600PST, multiple reports were received from the California Highway Patrol of debris and mud near the intersection of Highway 177 and Highway 62. The reports also indicated multiple cars and trucks stuck in a nearby wash. The intersection was closed as a result of the flooding. A Flash Flood Warning was not in effect at this time. Radar indicated that most of the significant, flash flood producing rains had occurred well to the south of this intersection, closer to Interstate 10 and communities such as Eagle Mountain. It is most likely that the heavy rain to the south of the flooded intersection flowed through various washes towards the north and in a roundabout fashion the floodwaters eventually reached the intersection of highways 177 and 62 and caused the flash flooding and debris over the roads.

Scattered to numerous thunderstorms developed over portions of eastern Riverside County during the afternoon hours on September 8th and some of the stronger storms produced very heavy rainfall with peak rain rates in excess of 2 inches per hour as shown by local radar. The intense rainfall led to episodes of flash flooding, especially along the Interstate 10 corridor from west of Desert Center westbound past Chiriaco Summit. The California Highway Patrol reported at least 2 locations where flooding was occurring across Interstate 10; fortunately no accidents were reported due to the very hazardous driving conditions. Flash Flood Warnings were issued at times during the afternoon due to the high risk of flooding.

## CAZ032

### Riverside County Eastern Deserts

08	1430MST 1600MST	0	0	0.00K	0.00K	Dust Storm
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# Storm Data and Unusual Weather Phenomena

September 2017

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

Scattered thunderstorms developed across portions of eastern Riverside County during the afternoon hours on September 8th; most of the storms formed across areas to the east of Joshua Tree National Park and west of the lower Colorado River Valley. The stronger storms produced gusty outflow winds over 40 mph which overspread the lower deserts, picking up dust and dirt and generating areas of dense blowing dust and sand. For the most part visibilities were above 1 mile, but in some locales visibilities lowered to one quarter mile or below signifying dust storm conditions. For the most part the blowing dust occurred over open desert but there was a report at 1435PST from a trained spotter who indicated that a dust storm was occurring along Interstate 10 to the west of the Blythe airport. A Dust Storm Warning was then issued for eastern Riverside County from 1440PST through 1600PST. Despite the very hazardous driving conditions on Interstate 10 due to the dust storm, no accidents were reported.

### Imperial County

14 WNW Picacho  
14 NE Glamis

09	0900PST								
	1130PST				0	0	3.00K	0.00K	Flash Flood

Scattered thunderstorms developed over the eastern portion of Imperial County during the morning hours on September 9th, and some of the stronger storms produced locally heavy rains with peak rain rates in excess of one inch per hour. Much of the heavy rain fell over open country, but some of the intense rain fell along Highway 78, between Glamis and Palo Verde. At 1000PST, local law enforcement reported that Highway 78 was closed west of Ogilby Road due to flash flooding and radar indicated that over 2 inches had fallen in the area at the time of the flooding. A Flash Flood Warning had been issued at 0837PST for the area and the warning remained in effect through about 1136PST. Despite the flash flooding, no accidents were reported.

Thunderstorms developed across the eastern portion of Imperial County during the morning hours on September 9th and some of the stronger storms produced locally heavy rains with peak rain rates well in excess of one inch per hour. Most of the rain fell over open country and did not pose an impact, but some of the heavy rain managed to fall across roads such as Highway 78 between Palo Verde and Glamis, leading to localized flash flooding. At 1000PST local law enforcement reported that flash flooding had resulted in the closure of Highway 78 west of Ogilby Road; a Flash Flood Warning had been issued earlier in the morning and was in effect at the time of the flooding.

### Riverside County

2 NNW Blythe  
5 NNE Mesaville

09	1015PST								
	1315PST				0	0	75.00K	0.00K	Flash Flood

Scattered thunderstorms developed along the lower Colorado River Valley during the morning hours on September 9th, and some of the stronger storms produced locally heavy rainfall which affected areas around the town of Blythe. Peak rain rates were in excess of one inch per hour and were sufficient to cause an episode of flash flooding. According to local law enforcement, at 1023PST U.S. Highway 95 was closed about 7 miles north of Blythe due to flash flooding. Water was reported to be 3 feet deep in the road and 2 water rescues were needed as a result of the flooding. Fortunately no injuries were reported in association with the water rescues. A Flash Flood Warning had been issued prior to the flash flooding; it was issued at 1014PST and was in effect until 1315PST.

Scattered thunderstorms developed across far eastern Riverside County during the morning hours on September 9th; some of the strongest storms focused along the lower Colorado River valley and they produced locally heavy rains with peak rain rates in excess of one inch per hour. The intense rainfall led to an episode of flash flooding near the town of Blythe; shortly after 1000PST local law enforcement reported that Highway 95 north of Blythe was closed due to the flash flooding. Water was reported to be 3 feet deep in the road and 2 water rescues were performed north of Blythe due to the flash flooding. No injuries were reported in association with the water rescues. A Flash Flood Warning was issued less than 30 minutes prior to the flash flooding.

## CALIFORNIA, North Central

### Shasta County

2 NNW Hat Creek

06	1600PST								
	1605PST				0	0	0.00K	0.00K	Hail (0.88)

Nickel size hail, strong gusty wind and lightning strikes reported. Event time estimated by radar.

### Amador County

3 WSW Kirkwood

08	1525PST								
	1530PST				0	0	0.00K	0.00K	Hail (1.00)

Hail stones accumulated on Highway 88, as large as an inch in diameter.

Afternoon thunderstorms with large hail developed in the mountains and foothills.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### CAZ069

#### West Slope Northern Sierra Nevada

21	0900PST								
22	0000PST				2	0	0.00K	0.00K	Winter Weather

An unusually cold storm system brought accumulating snow to the Sierra, impacting travel and closing seasonal passes.  
M?Unknown

### CAZ018

#### Carquinez Strait and Delta

23	1300PST								
	1700PST				0	0	2.0M		Wildfire

Building high pressure over the area brought drying northerly winds to the area, creating critical fire weather conditions.

## CALIFORNIA, Northeast

### CAZ073

#### Mono

01	0000PST								
11	2359PST				0	0			Wildfire

Thunderstorms with limited rainfall produced many lightning strikes leading to several new wildfire starts in northwest Nevada and far eastern California on the 29th of August. The Slinkard Fire which started in late August was not 100% contained until early September.

### El Dorado County

#### 1 NW South Lake Tahoe

08	1405PST								
	1415PST				0	0			Hail (0.88)

Public reported nickel size hail via Facebook.

### El Dorado County

#### 4 SSE Meeks Bay

08	1425PST								
	1435PST				0	0			Hail (1.00)

Ranger at DL Bliss State Park reported quarter size hail accumulating up to a half inch on ground.

A deep area of low pressure over western California allowed shortwave troughs to lift through the Great Basin, enhancing thunderstorm development on the 8th. The strongest storms produced hail greater than 3/4 inch in diameter.

## CALIFORNIA, South Central

### CAZ096-097

#### South Sierra Mountains - Tulare County Mountains

01	0000PST								
15	1300PST				0	11	0.00K	0.00K	Wildfire

The Railroad Fire started on the afternoon of August 29, 2017, west of Highway 41, 8.75 miles north of Oakhurst, just south of Yosemite National Park near the community of Sugar Pine. The fire spread rapidly in dry brush. Highway 41 between Oakhurst and the south entrance of Yosemite National Park was closed in both directions for about a week with several small communities evacuated, including Tenaya Lodge that serves visitors to Yosemite. The fire burned 12,407 acres before being contained on September 15, 2017. Cost of containment was \$20.8 million. There were 17 structures destroyed, including a historic locomotive that wasnt being used, as well as a passenger car, snowplow, side dump car and refrigerator car that were attached to it that were part of the Yosemite Mountain Sugar Pine Railroad. More than 200 wooden railroad ties also burned. The fire also burned into the Nelder Grove of Giant Sequoia trees.

### CAZ089>094

#### East Central San Joaquin Valley - South Sierra Foothills - Southeast San Joaquin Valley - Southwest San Joaquin Valley - Tulare County Foothills - West Central San Joaquin Valley

01	1000PST								
03	2000PST				0	0	0.00K	0.00K	Excessive Heat

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CALIFORNIA, South Central

A persistent large upper ridge centered over the Great Basin provided the area with an extended period of much warmer than normal temperatures between August 26 and September 3. High temperatures ranged mainly from 106 to 112 degrees at many locations each day between August 26 and September 3 across the San Joaquin Valley, the southern Sierra foothills and the Kern County Deserts while morning lows ranged from the mid 70's to the lower 80's.

### Tulare County 5 E Lodgepole

03	1130PST								
	1230PST			0	3	0.00K	0.00K	Lightning	

A family of three were struck by lightning and injured while wilderness backpacking at Sequoia National Park.

A northwest surge of tropical moisture during the Labor Day weekend produced strong thunderstorms over the Kern County Mountains during the late afternoon of September 3. These thunderstorms produced heavy rain which caused flash flooding in the Frazier Park and Pine Mountain Club areas. The thunderstorms spread northward through the San Joaquin Valley along an outflow boundary which also produced wind gusts between 40 and 50 mph and blowing dust which reduced visibility to near zero.

### CAZ093

#### South Sierra Foothills

03	1206PST								
13	1800PST			0	0		0.00K	Wildfire	

Two fires started within a short time of each other on the afternoon of September 3, 2017, both in the foothills of the Sierra Nevada. The Mission fire began 2 miles east of North Fork in Madera county and burned 1035 acres and destroyed three residences and damaged 4 other structures before being contained on September 13, 2017. The Peak fire began 9 miles southeast of Mariposa in Mariposa county and burned 680 acres and destroyed 2 structures before being contained on September 9, 2017. The cause of both fires is unknown.

### Kern County Pumpkin Center

03	1614PST			0	0	0.00K	0.00K	Debris Flow	
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California Highway Patrol reported road flooding and debris due to heavy rainfall near Compagnoni St. and Taft Highway in Castle Ranch.

### Kern County 1 SE Weed Patch

03	1619PST			0	0	10.00K	0.00K	Thunderstorm Wind (43EG)	
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California Highway Patrol reported power lines were downed by thunderstorm winds across the northbound lanes of State Route 184 near Sunset Blvd 3 miles south of Lamont.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kern County 1 E Oil Jct

03	1629PST			0	0	1.00K	0.00K	Thunderstorm Wind (35EG)	
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California Highway Patrol reported a tree down on State Route 204 due to strong winds 4NW Bakersfield.

Note: The estimated wind gust of 35 knots is equivalent to 40 mph.

### Kern County 1 ENE Venola

03	1631PST			0	0	0.00K	0.00K	Debris Flow	
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California Highway Patrol reported a mud slide and road flooding due to heavy rainfall on southbound State Route 99 just north of White Ln. in Bakersfield.

### Kern County 2 E Oil Center

03	1631PST			0	0	1.00K	0.00K	Thunderstorm Wind (35EG)	
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California Highway Patrol reported several tree branches down on State Route 178 due to strong thunderstorm winds in East Bakersfield.

Note: The estimated wind gust of 35 knots is equivalent to 40 mph.

### Kern County 7 WSW Claraville

03	1631PST			0	0	1.00K	0.00K	Thunderstorm Wind (35EG)	
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California Highway Patrol reported tree branches downed from thunderstorm wind gusts 13 ENE Keene.

Note: The estimated wind gust of 35 knots is equivalent to 40 mph.

### Kern County 1 W Kern City

03	1645PST			0	0	0.00K	0.00K	Debris Flow	
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California Highway Patrol reported a mud slide in the right lane of State Route 99 at Ming Ave. to State Route 58 in Bakersfield.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Kern County

**3 SE Calders Corner** 03 1652PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported power lines downed across Stockdale Highway west of Rosedale from strong thunderstorm winds.  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kern County

**4 NNE Tupman** 03 1708PST 0 0 50.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported downed power poles and power lines near Interstate 5 just south of Stockdale Highway 1SE of Buttonwillow. The downed power lines caused brush fires.  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kern County

**1 N Pumpkin Center** 03 1721PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
Received a public report through Social Media that showed a building under construction damaged by thunderstorm wind gusts near State Route 99 and Berkshire Rd. in Bakersfield.  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kern County

**1 E (BFL)Meadows Field Ap** 03 1724PST 0 0 10.00K 0.00K Thunderstorm Wind (35EG)  
California Highway Patrol reported a downed tree from thunderstorm winds on Airport Dr. and West China Grade loop in Bakersfield.  
Note: The estimated wind gust of 35 knots is equivalent to 40 mph.

### Kern County

**1 SSW Lamont** 03 1734PST 0 0 0.00K 0.00K Debris Flow  
California Highway Patrol reported flooding and debris on San Emidio St. in Lamont.

### Tulare County

**1 E Pixley** 03 1748PST 0 0 1.00K 0.00K Thunderstorm Wind (35EG)  
California Highway Patrol reported a large tree branch downed by thunderstorm wind gusts in the right lane of State Route 99 near East Court Ave. in Pixley.  
Note: The estimated wind gust of 35 knots is equivalent to 40 mph.

### Kern County

**8 NNW McKittrick** 03 1808PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported downed power lines from thunderstorm wind gusts across the roadway on Lost Hills Rd. near Lokern Rd. 1NW McKittrick.  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kern County

**1 SE Venola** 03 1817PST 0 0 50.00K 0.00K Debris Flow  
1917PST  
California Highway Patrol reported State Route 99 was closed in both directions for about an hour due to power poles downed by thunderstorm wind gusts and a mud slide onto the road near Panama Lane in Bakersfield.

### CAZ091-092

#### Southeast San Joaquin Valley - Southwest San Joaquin Valley

03 1830PST 0 0 12.0K 0.00K Dust Storm  
1858PST

### Kern County

**1 NNW Delano** 03 1902PST 0 0 0.00K 0.00K Debris Flow  
California Highway Patrol reported road flooding and mud debris near Cecil Ave. and State Route 99 in Delano.

### CAZ092

#### Southeast San Joaquin Valley

03 1902PST 0 0 33.0K 0.00K Dust Storm  
A northwest surge of tropical moisture during the Labor Day weekend produced strong thunderstorms over the Kern County Mountains during the late afternoon of September 3. These thunderstorms produced heavy rain which caused flash flooding in the Frazier Park and Pine Mountain Club areas. The thunderstorms spread northward through the San Joaquin Valley along an outflow boundary which also produced wind gusts between 40 and 50 mph and blowing dust which reduced visibility to near zero.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## CALIFORNIA, South Central

### Kern County

#### Inyokern

09 1415PST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Nine trees were reported blown down in Inyokern from a thunderstorm downburst.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Kern County

#### 6 SW Ridgecrest

09 1500PST 0 0 0.00K 0.00K Flash Flood  
1613PST

California Highway Patrol reported flash flooding on South Brown Rd between Wiknich Rd. and U.S. Highway 395 south of Inyokern. South Brown Rd. was closed due to the flooding.

### Kern County

#### 1 E Garlock

09 1619PST 0 0 0.00K 0.00K Flash Flood  
1717PST

California Highway Patrol reported closure of Redrock-Randsburg Rd. between State Route 14 and U.S. Highway 395 due to flash flooding and debris on the road.

A cut off upper low drifting slowly southward off the central California coast pulled up a surge of sub-tropical moisture which produced thunderstorms and flash flooding in the Kern County Deserts on the afternoon of September 9.

### Tulare County

#### 2 SSW Camp Nelson

11 1530PST 0 0 0.00K 0.00K Hail (0.88)  
A Weather Service forecaster providing onsite support at the Pier Fire reported penny sized hail at Pierpoint Springs.

### Kings County

#### 1 NE Corcoran

11 1628PST 0 0 0.00K 0.00K Hail (0.88)  
Public report of nickel sized hail in Corcoran.

### Kings County

#### 1 NE Corcoran

11 1628PST 0 0 50.00K 0.00K Thunderstorm Wind (61EG)  
Public report in Corcoran of Thunderstorm winds producing damage to a house and snapping several trees. Beams from a wood fence were snapped from concrete support and shingles were blown off of a roof.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Kings County

#### 2 SSW Hanford Blair Arpt

11 1642PST 0 0 100.00K 0.00K Thunderstorm Wind (52EG)  
Media report of a dairy farm south of Hanford having several barns with extensive roof damage from thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Tulare County

#### 1 SSE Tipton

11 1647PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported several trees down on northbound State Route 99 just south of the State Route 190 interchange.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kings County

#### 1 SE Armona

11 1652PST 0 0 1.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported tree debris on State Route 198 near Hanford-Armona Rd.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kings County

#### 1 S Hanford

11 1653PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported a fence blew onto State Route 198 near 11th Ave in Hanford.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kings County

#### 2 SSE Armona

11 1655PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported a tree fell onto a vehicle near the intersection of 13th Ave. and Houston Ave. near Hanford.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Kings County

#### 2 S Hanford Blair Arpt

11 1658PST 0 0 8.00K 0.00K Thunderstorm Wind (52EG)  
California Highway Patrol reported 8 telephone poles were downed on Jackson Ave. near 9th Ave. south of Hanford.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Kings County

#### Short Acres

11 1700PST 0 0 1.00K 0.00K Thunderstorm Wind (43EG)  
Report received on social media of damage to outdoor furniture in Hanford near the intersection of Peralta Way and Monroe Dr.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Fresno County

#### 8 W Caruthers

11 1723PST 0 0 50.00K 0.00K Thunderstorm Wind (61EG)  
Broadcast Media report of a chicken barn blown down by thunderstorm downburst outflow winds.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Fresno County

#### 3 NE Kerman Bland Arpt

11 1733PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported power lines downed by thunderstorm winds on West Manning Ave. to the west of Raisin City.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Fresno County

#### 1 ESE Camden

11 1747PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported a downed power line and a downed tree on East St. at the intersection of Wood Ave.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Fresno County

#### 1 N Mendota

11 1800PST 0 0 30.00K 0.00K Thunderstorm Wind (61EG)  
Media posted video showing 30 power lines downed in Mendota from a microburst.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Fresno County

#### 5 WSW Firebaugh

11 1815PST 0 0 0.00K 0.00K Thunderstorm Wind (51MG)  
The APRS station 5WSW Firebaugh reported a 59 mph wind gust from a thunderstorm.

Note: The measured wind gust of 51 knots is equivalent to 59 mph.

### Fresno County

#### 4 SW Raisin City

11 1820PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported power lines in the road on Westlawn Ave. near the intersection of Nebraska Ave.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Fresno County

#### 5 SW Firebaugh Arpt

11 1844PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported power lines downed in the roadway on West Jerrold Ave. near West Bullard Ave near Firebaugh.

Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Kings County

#### 1 E Short Acres

11 1900PST 0 0 10.00K 0.00K Lightning  
A report of lightning striking a house near Hanford High School was reported on social media.

### Kings County

#### 2 W Hardwick

11 1928PST 0 0 10.00K 0.00K Thunderstorm Wind (43EG)  
California Highway Patrol reported large tree limbs on the road on Maple Ave. between Excelsior Blvd. and Lewiston Ave near Hardwick.

The persistent cut off upper low remained situated off the central California coast and continued to pull tropical moisture northward into central California. Some deep tropical moisture associated with a fairly strong upper level shortwave pushed into central California on September 11 and produced a severe thunderstorm outbreak during the afternoon and evening. Numerous reports of downburst winds exceeding 60 mph were reported and the impacts from these thunderstorms included downed power lines, damage to roofs; and large objects being knocked over and damaged. Rainfall amounts were generally a quarter of an inch or less with a few locations in the Southern Sierra Nevada and Tehachapi Mountains receiving between a quarter inch and a half inch of rain. Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
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## CALIFORNIA, South Central

### Tuolumne County

4 SE Tuolumne Meadows	13	1600PST 1700PST			0	0	0.00K	0.00K	Debris Flow
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A Yosemite National Park employee reported a rock slide over Park Road near Hetch Hetchy.

### Kern County

(BFL) Meadows Field Ap	13	2043PST 2154PST			0	0	0.00K	0.00K	Heavy Rain
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The ASOS at Meadows Field in Bakersfield measured half an inch of rainfall between 2143 PST and 2254 PST on September 13. The rain produced localized street flooding and set a new daily record for September 13.

The upper level low which had remained off the California coast for several days finally moved inland across Southern California on September 13 and produced enough instability over central California during the late afternoon for strong thunderstorms to develop over Yosemite National Park. One cell produced pea sized hail which accumulated to an inch in depth while flash flooding was reported in Hetch Hetchy. Meanwhile, an isolated thunderstorm in Bakersfield produced half an inch of rainfall in about one hour which set a new daily record.

### CAZ095

#### Kern County Mountains

	18	2327PST			0	0	0.00K	0.00K	High Wind
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### CAZ095-098-099

#### Indian Wells Valley - Kern County Mountains - Southeast Kern County Desert

	19	0226PST 1420PST			0	0	0.00K	0.00K	High Wind
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A dry upper trough and associated cold front pushed southward through Central California on September 19. This system produced strong wind gusts along indicator ridge tops and below the passes in the Kern County Mountains and Deserts.

### CAZ095

#### Kern County Mountains

	20	2127PST			0	0	0.00K	0.00K	High Wind
	21	0132PST			0	0	0.00K	0.00K	High Wind

### Mariposa County

1 S Foresta	21	0300PST 0517PST			0	0	0.00K	0.00K	Debris Flow
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National Park Service employees at Yosemite National Park reported a rock slide at Dog Rock that closed State Route 140 2 miles east of El Portal due to large boulders on the road.

### CAZ097-098

#### Indian Wells Valley - Tulare County Mountains

	21	0510PST 2026PST			0	0	0.00K	0.00K	High Wind
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A cold and moist upper low which originated in the Gulf of Alaska pushed into California on September 21 bringing widespread precipitation, increased winds and much cooler than normal temperatures to the area. Winds picked up across the area again on the evening of September 20 and continued through the afternoon of September 21 with the strongest observed gusts being observed at the indicator ridge top sites in the Kern County Mountains. In addition, widespread precipitation impacted to area on the 21st with several locations in the San Joaquin Valley measuring a few tenths of an inch of rainfall while several locations in the Southern Sierra Nevada from Yosemite Park southward to Fresno County picked up between an inch and an inch and a half of liquid precipitation. The precipitation fell as snow above 11000 feet during the early morning hours of the 21st. the snow level lowered to around 7000 feet in Yosemite Park by late morning. Tuolumne Meadows measures three inches of new snowfall while State Route 120 through Tioga Pass was shut down due to accumulating snow.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Inyo County**

**1 E (BIH) Bishop Arpt** 03 1423PST 0 0 0.00K 0.00K Thunderstorm Wind (50MG)  
Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### **San Bernardino County**

**1 E Yucca Vly Arpt** 03 1452PST 1630PST 0 0 10.00K 0.00K Flash Flood

Roads were washed out just northeast of Yucca Valley.  
Monsoon moisture pushing west and north brought another round of thunderstorms to the Mojave Desert and Owens Valley.

### **San Bernardino County**

**9 ESE Bush** 07 1531PST 1730PST 0 0 2.00K 0.00K Flash Flood

Highway 62 was flooded and impassable at mile marker 62.

### **San Bernardino County**

**1 ENE (NXP) Mcaf Twentynine** 08 1426PST 1800PST 0 0 65.00K 0.00K Flash Flood

A large amount of water and debris crossed Highway 62 at Ironage Road. One semi and multiple other vehicles became stuck. The highway also flooded in places farther east, and was closed from Godwin Road to Highway 177 for three days for repairs.

### **Inyo County**

**4 WNW Tecopa** 08 1536PST 1700PST 0 0 1.00K 0.00K Flash Flood

Highway 127 was flooded at Old Spanish Trail.

### **San Bernardino County**

**4 SE Desert City** 08 1706PST 2000PST 0 0 20.00K 0.00K Flash Flood

Nipton Road was closed at Ivanpah Road due to flooding and large rocks in the road. Approximately 12 vehicles were stuck between flooded washes. The road was closed until morning. This event continued into Nevada.

### **San Bernardino County**

**2 WNW Vidal Jct Arpt** 08 1953PST 2130PST 0 0 2.00K 0.00K Flash Flood

Highway 95 was closed due to flooding and debris in the road.

### **San Bernardino County**

**2 W Hayden Station  
2 ESE Kelso** 09 1337PST 1530PST 0 0 1.00K 0.00K Flash Flood

Kelso Cima Road was closed from Morning Star Mine Road to Kelbaker Road due to flooding.

A strong push of monsoon moisture plus low pressure moving in from the west triggered an outbreak of thunderstorms over the Mojave Desert. Several storms produced flash flooding and severe weather.

### **Inyo County**

**2 SW Park Vlg** 11 1630PST 1640PST 0 0 50.00K 0.00K Thunderstorm Wind (87EG)

Thunderstorm winds blew the roof off one building, damaged five other roofs, and blew windows out of four vehicles.

An upper level low pressure system lingered near the California coast, helping to force isolated thunderstorms over the Mojave Desert. A couple of storms produced severe weather. Note: The estimated wind gust of 87 knots is equivalent to 100 mph.



# Storm Data and Unusual Weather Phenomena

September 2017

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

**CAZ043-048-050-554**

**Orange County Inland - San Bernardino County Valley/The Inland Empire - San Diego County Coasts - San Diego County Valleys**

01	1100PST 1600PST				0	0	0.00K	0.00K	Excessive Heat
02	1100PST 1600PST				0	0	0.00K	0.00K	Excessive Heat

**CAZ048-050**

**San Bernardino County Valley/The Inland Empire - San Diego County Valleys**

02	1100PST 1600PST				0	0	0.00K	0.00K	Excessive Heat
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A strong upper level ridge of high pressure over the Great Basin and weak offshore flow brought a heat wave to the region during the end of August and early September. The hottest temperatures west of the mountains occurred on the 1st-3rd September. San Diego Unified School District closed more than 70 schools early on the 1st due to the excessive heat. A flex alert (requesting electricity conservation) issued in late August continued through September 3rd.

**Riverside County  
2 SSW Thousand Palms**

07	1550PST 1620PST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Downburst winds from a thunderstorm toppled several trees at the Children's Discovery Museum in Rancho Mirage, CA, the irrigation system was also damaged.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

**Riverside County  
Palm Desert**

07	1600PST				0	0	10.00K	0.00K	Lightning
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A lightning strike struck a palm tree, catching the tree and a residence on fire.

**San Diego County  
2 SE Ocotillo Wells**

07	1700PST 1900PST				0	0	5.00K	0.00K	Flash Flood
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A state park ranger reported water up to 6 feet deep and 100 yards wide near the intersection of Salt Wash and Cutacross Trail. An additional photo from twitter showed minor road damage at Highway 78 and Fault Wash near Ocotillo Wells.



*A picture of angry flood waters that surged through Fault Wash in San Diego County, California on September 7th, 2017. Photo courtesy of Kent Miller.*

# Storm Data and Unusual Weather Phenomena

September 2017

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

### San Diego County 6 NNE Desert Lodge

07	1815PST 1845PST			0	0	15.00K	0.00K	Flash Flood
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Flash flooding washed out the shoulder of the S22 (Borrego Salton Seaway) near Borrego Springs.

### Riverside County (TRM)Thermal Arpt

08	1715PST 1800PST			0	0	5.00K	0.00K	Thunderstorm Wind (54MG)
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The ASOS at Jacqueline Cochran Regional Airport in Palm Springs reported a 62 mph wind gust between 1740 and 1746 PST. Multiple large trees and a fence were also toppled near the airport. Radar indicated the potential for additional severe gusts between 1730 and 1800 PST.

Note: The measured wind gust of 54 knots is equivalent to 62 mph.

### San Diego County 2 E Ocotillo Wells

08	1730PST 1800PST			0	0			Thunderstorm Wind (52EG)
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A state park ranger reported strong outflow winds from a thunderstorm with estimate peak gusts of 60 mph.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### San Diego County 37 NNE Warner Spgs

09	0600PST			0	0	5.00K	0.00K	Lightning
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A lightning strike knocked out power to 1000 customers in Palm Springs.

### San Diego County 9 NNW Borrego Spgs

09	1500PST 1630PST			0	0	0.00K	0.00K	Flash Flood
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A mix of water and debris flowing through the normally dry Coyote Wash was reported around 1500 PST, by 1515 PST several inches of water and debris were flowing near Canyon Entrance dirt road and the Citrus Groves.

### Riverside County 1 ESE Palm Spgs

09	1545PST 1615PST			0	0	15.00K	0.00K	Thunderstorm Wind (48MG)
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Strong downburst winds from a thunderstorm produced a 55 mph wind gust at Palm Springs International Airport. Winds may have been stronger elsewhere in the city. Southern California Edison reported 1000 power outages.

Note: The measured wind gust of 48 knots is equivalent to 55 mph.

### Riverside County 3 S (PSP)Palm Spgs Arpt

09	1600PST 1800PST			0	0	400.00K	0.00K	Flash Flood
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A 1-3 ft wall of water and debris surged through the Safari Mobile Home Park in Palm Springs. Multiple homes were damaged, Santa Monica Street was filled with debris and several residents were stranded in their homes.

# Storm Data and Unusual Weather Phenomena

September 2017

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

## CALIFORNIA, Southwest



*A picture of debris deposited by a flash flood that rumbled through Safari Mobile Home Park in Palm Springs, California on September 9th, 2017. Photo courtesy of KIMR.*

### **Riverside County**

<b>2 WSW (PSP)Palm Spgs Arpt</b>	09	1600PST							
		1800PST			0	0	100.00K	0.00K	Flash Flood

Palm Springs High School suffered major flood damage for the second time in a month. A total of 31 classrooms were flooded.

### **Riverside County**

<b>2 S Palm Spgs</b>	09	1615PST							
<b>5 WSW Cathedral City</b>		1815PST			0	0	1.00M	0.00K	Flash Flood

The second intense thunderstorm of the day rolled over Palm Canyon and Palm Springs producing a daily rainfall record. Intense runoff through Palm Canyon Creek and the Whitewater River resulted in a closure of Cathedral Canyon Road and a swiftwater rescue and closure at Golf Club Drive. South Araby Drive was also closed. Other sections of the city were inundated with standing water and street flooding. Numerous homes suffered flood damage, cars were water logged and streets covered in debris.

The month picked up where August left off, with an active monsoon pattern bringing periods of showers and thunderstorms to the mountains and deserts. The storms were confined to the deserts where intense isolated strong/severe thunderstorms on the 7th, 8th and 9th produced damage and impacts. Flash flooding was especially intense in Palm Springs and Cathedral City on the 9th, where structures throughout the city were flooded and roads were covered in debris. At Palm Springs High School 31 classrooms were inundated. Major flood damage also occurred at the Safari Mobile Home Park. Palm Springs set a daily record with 1.19 inches of rainfall. Many trees were toppled on September 8th when 62 mph winds occurred at Thermal Airport.

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## CALIFORNIA, Southwest



A picture of crews working to remove mud and debris from South Araby Drive after flash flooding in Palm Springs, California on September 11th, 2017. Photo courtesy of Anjila Lebsock.

### CAZ057

#### Santa Ana Mountains and Foothills

25	1300PST								
27	2300PST				0	0	1.0M		Wildfire

The canyon fire began shortly after 1300 PST on the 25th near Highway 91 in Orange County. The fire spread rapidly due to dry fuel conditions and very low humidity, and fire fighting efforts were hindered by a transition from light Santa Ana Winds to onshore flow. This initially pushed the fire into the foothills before sending it back eastward toward Corona. By 2100 PST on the 25th the fire was estimated at 1700+ acres and was threatening residences. Winds calmed over the ensuing days and the fire was quickly contained at 2662 acres. The cause of the wildfire was determined to be a roadside flare.

### CAZ043

#### San Diego County Coasts

27	0300PST								
	0600PST				0	0	50.0K	0.00K	Dense Fog
28	0200PST								
	0300PST				0	0	0.00K	0.00K	Dense Fog

### CAZ043-552

#### Orange County Coastal - San Diego County Coasts

28	0500PST								
	0630PST				0	0	120.0K	0.00K	Dense Fog

### CAZ043-552

#### Orange County Coastal - San Diego County Coasts

29	0200PST								
	1800PST				0	0	0.00K	0.00K	Dense Fog

In the wake of a weak trough of low pressure an upper level ridge built in over Southern California. This warming aloft compressed the marine layer along the coast. The result was night and morning dense fog over the coastal waters and within 2-4 miles of the coast, some of which lingered into the early afternoon along the beaches.

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## CALIFORNIA, Upper

### CAZ080

#### Western Siskiyou County

01	0000PST								
30	0330PST				0	0	0.00K	0.00K	Wildfire

The Eclipse Complex, also known as the CA-KNF-006098 Complex, included the Oak, Cedar, Fourmile, Young, and Clear fires. All were started by lightning, the earliest starting on 7/25/17 at around 12:45 PM PDT. As of the last report at 03:30 PST on 09/30/17, the fires collectively covered 78698 acres and was 51 percent contained. 44.8 million dollars had been spent on firefighting efforts.

### CAZ084-085

#### Modoc County - Northeast Siskiyou and Northwest Modoc Counties

21	0100PST								
	0700PST				0	0	0.00K	0.00K	Frost/Freeze

The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to parts of northern California.

### CAZ080-084-085

#### Modoc County - Northeast Siskiyou and Northwest Modoc Counties - Western Siskiyou County

22	0100PST								
	0700PST				0	0	0.00K	0.00K	Frost/Freeze

The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to many parts of northern California.

### CAZ084-085

#### Modoc County - Northeast Siskiyou and Northwest Modoc Counties

23	0100PST								
	0800PST				0	0	0.00K	0.00K	Frost/Freeze

The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to many parts of northern California.

## CALIFORNIA, West South Central

### CAZ547

#### Los Angeles County San Fernando Valley

01	1400PST								
09	1700PST				0	0	0.00K	0.00K	Wildfire

In early September, the La Tuna fire ignited in the San Fernando Valley. The fire scorched 7,194 acres, making it the largest wildfire in the city of Los Angeles in 50 years. Five homes were destroyed by the fire.

### Santa Barbara County 1 S Santa Barbara

03	1354PST								
	1400PST				0	2	0.00K	0.00K	Thunderstorm Wind (70MG)

A severe thunderstorm generate damaging microburst winds across the city of Santa Barbara. Thunderstorm wind gusts up to 80 MPH were reported. With such strong winds, widespread significant damage was reported, including many trees being uprooted. Along San Pascual Street, a high voltage power line was knocked down, resulting in major burn injuries for one male. At Stearns Wharf, numerous boats were washed ashore and one teenage female was injured.

Note: The measured wind gust of 70 knots is equivalent to 81 mph.

### Los Angeles County 4 SW Hi Vista (PMD)Palmdale Arpt

03	1356PST								
	1418PST				0	0	0.00K	0.00K	Thunderstorm Wind (53MG)

Severe thunderstorm wind gusts were reported across the Antelope Valley. The RAWS sensor at Saddleback Butte reported thunderstorm wind gusts of 61 MPH while the ASOS at Palmdale Airport reported thunderstorm wind gusts up to 58 MPH.



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## CALIFORNIA, West South Central

Monsoonal moisture brought severe thunderstorms and flash flooding to parts of Southern California. In the city of Santa Barbara, a thunderstorm microburst generated 80 MPH wind gusts which resulted in significant damage in the city as well as the harbor. In the Antelope Valley, severe thunderstorm wind gusts up to 61 MPH were reported. Note: The measured wind gust of 53 knots is equivalent to 61 mph.

## CALIFORNIA, Western

### CAZ006-509

#### San Francisco - San Francisco Peninsula Coast

01	1300PST								
	1600PST				9	0	0.00K	0.00K	Excessive Heat

A strong upper level ridge brought widespread hot temperatures to the Bay Area leading up to and through Labor Day Weekend. Numerous daily and monthly records were broken as well as a few all time record max temperatures. Six Bay Area residents died as a result of the heat. ??Unknown, ??Unknown, ??Unknown, M90Unknown, F95Unknown, M79Unknown

### CAZ509-513-530

#### San Francisco Peninsula Coast - Santa Clara Valley Including San Jose - Southern Monterey Bay and Big Sur Coast

11	0100PST				0	0	0.00K	0.00K	Strong Wind
	0337PST								

#### San Mateo County Sharp Park

11	0649PST				0	0	0.00K	0.00K	Lightning
	0654PST								

Lightning strike caused damage to a residence on Tablot Ave in Pacifica.

#### Santa Cruz County 5 N Watsonville

11	1526PST				0	0	0.00K	0.00K	Hail (0.25)
	1531PST								

Pea sized hail reported by spotter near Watsonville.

#### San Mateo County 1 WNW Half Moon Bay Arpt

11	1700PST				0	0	0.00K	0.00K	Lightning
	1705PST								

News report from KRON showed lightning struck a tree in San Mateo County on Pearl Ave causing a tree to crash into and damage a home.

### CAZ512

#### Santa Cruz Mountains

11	1730PST				0	0	0.00K	0.00K	Wildfire
	2230PST								

#### San Francisco County 1 WNW San Francisco

11	1736PST				0	0	0.00K	0.00K	Lightning
	1741PST								

Trained spotter reported lightning.

#### San Mateo County 1 NW Daly City

11	1746PST				0	0	0.00K	0.00K	Hail (0.25)
	1756PST								

Social media post on twitter from the public reports small hail as well as lightning near San Francisco.

#### San Mateo County 1 NE Daly City

11	1746PST				0	0	0.00K	0.00K	Lightning
	1748PST								

Social media post on twitter from the public reports small hail as well as lightning near San Francisco.

# Storm Data and Unusual Weather Phenomena

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## CALIFORNIA, Western

### CAZ512-517

### Santa Cruz Mountains - Santa Lucia Mountains and Los Padres National Forest

11	1800PST 2230PST			0	0	0.00K	0.00K	Wildfire
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### San Francisco County 3 NE San Francisco

11	2018PST 2048PST			0	0	0.00K	0.00K	Flood
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Roadway flooding at 455 8th St.

### San Francisco County 8 SSE Ocean View

11	2030PST 2032PST			0	0	0.00K	0.00K	Lightning
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News article from SF Gate reports that an airline worker was nearly struck by lightning at San Francisco International Airport <http://www.sfgate.com/news/bayarea/article/Airline-Worker-Nearly-Struck-By-Lightning-Monday-12191284.php>.

A disturbance rotating around an upper level low west of San Diego brought thunderstorm activity to the Bay Area on September 11. Widespread reports of lightning were received along with a few small hail reports and strong wind gusts. It has been reported that there were over 40,000 lightning strikes across the Central Coast of California during this event. Several brush fires were also ignited due to lightning strikes.

## COLORADO, Central and Northeast

### Weld County 2 N Firestone

15	2145MST			0	0	0.00K	0.00K	Hail (0.75)
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A strong thunderstorm produced dime size hail near Firestone.

### Arapahoe County 4 W Peoria

17	1548MST			0	0			Thunderstorm Wind (50EG)
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Strong winds gusts snapped small tree branches.  
A strong dust devil developed briefly on the leading edge of gust front. Minor tree damage was observed. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## COLORADO, East Central

### Kit Carson County 7 N Peconic

14	1700MST			0	0	0.00K	0.00K	Hail (1.00)
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Mostly pea to dime size hail fell. There were a few quarter size hail stones that fell.

A thunderstorm produced hail up to quarter size northeast of Burlington.

## COLORADO, South Central and Southeast

### El Paso County 2 NW Falcon

09	1345MST 1349MST	0.28	50	0	0	0.00K	0.00K	Tornado (EF0)
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The two brief landspouts caused no known damage from which the NWS could assign an EF-scale rating.

A boundary served as the catalyst for two closely spaced landspouts to develop northwest of Falcon.

### Las Animas County 5 SE Ville Green

17	1451MST 1456MST			0	0	0.00K	0.00K	Hail (1.50)
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A severe storm produced hail up to ping pong ball size.

### Otero County Cheraw

23	0730MST 0735MST			0	0	0.00K	0.00K	Hail (0.88)
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A strong storm produced hail up to the size of nickels.

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## COLORADO, South Central and Southeast

### **Bent County**

<b>1 W Las Animas</b>	30	1528MST 1533MST			0	0	0.00K	0.00K	Hail (1.75)
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### **Bent County**

<b>1 W Las Animas</b>	30	1534MST 1539MST			0	0	0.00K	0.00K	Hail (0.75)
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A severe storm produced hail up to the size of golfballs.

## COLORADO, West

### **COZ005**

### **Upper Yampa River Basin**

01	0515MST 0615MST			0	0	0.00K	0.00K	Dense Fog
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Residual low level moisture in the wake of a departing upper level disturbance allowed dense fog to form in the Upper Yampa River Basin.

### **Mesa County**

<b>7 NW (GJT)Walker Arpt</b>	04	1650MST 1700MST			0	0	10.00K	0.00K	Thunderstorm Wind (52MG)
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A strong microburst snapped several power poles in the desert north of Grand Junction where the outflow winds were most intense. Over 5200 homes were without power for almost two hours. A pickup truck received minor damage from the downed power lines. The ASOS weather station at the Grand Junction Regional Airport measured wind gusts to 60 mph from the winds that flowed out beyond the main microburst impact area where the winds were likely stronger.

Showers and thunderstorms across the area produced strong outflow winds enhanced by a dry low level air mass. Note: The measured wind gust of 52 knots is equivalent to 60 mph.



*A picture showing one of several power poles snapped off by a microburst in the desert just north of Grand Junction, Colorado on September 4th, 2017 that resulted in a widespread power outage. Photo courtesy of Grand Junction Daily Sentinel.*

### **Mesa County**

<b>5 NW Mack</b>	14	1400MST 1415MST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)
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A peak thunderstorm wind gust of 60 mph was measured by a trained spotter near Mack.

Note: The measured wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Rio Blanco County 20 ESE Rangely Arpt

14	1515MST 1535MST				0	0	0.00K	0.00K	Thunderstorm Wind (58MG)
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A peak thunderstorm wind gust of 67 mph was measured by the Pinto RAWS automated weather station between Rangely and Meeker.

A jet stream flow at the base of a Pacific disturbance which moved through the region enhanced thunderstorm development which resulted in some storms that produced strong outflow winds. Note: The measured wind gust of 58 knots is equivalent to 67 mph.

### COZ014

#### Upper Gunnison River Valley

19	0000MST 0700MST				0	0	0.00K	0.00K	Frost/Freeze
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A cold air mass filtered into the region behind a departing upper level trough and associated cold front. This resulted in temperatures that dropped below freezing across most of the Upper Gunnison River Valley.

### COZ003

#### Roan and Tavaputs Plateaus

21	0915MST 2300MST				0	0	0.00K	0.00K	High Wind
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Strong winds ahead of a cold front were enhanced by 110 knot upper level jetstream winds which partially mixed down to the surface.

### COZ009-013

#### Flattop Mountains - Grand and Battlement Mesas

23	0300MST 0200MST				0	0	0.00K	0.00K	Winter Weather
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A cold front and associated strong jet stream flow pushed through western Colorado and brought high elevation snow to some northern and central mountain areas of western Colorado.

### COZ002

#### Central Yampa River Basin

24	2300MST								
25	0730MST				0	0	0.00K	0.00K	Frost/Freeze

### COZ005-008-020> 022

#### Animas River Basin - Central Colorado River Basin - Four Corners/Upper Dolores River Basin - Paradox Valley/Lower Dolores River Basin - Upper Yampa River Basin

25	0000MST 0730MST				0	0	0.00K	0.00K	Frost/Freeze
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Clearing skies behind a departing closed upper low resulted in temperatures that to plummeted to below freezing across much of western Colorado.

### COZ019

#### Southwestern San Juan Mountains

27	1300MST 2000MST				0	0	0.00K	0.00K	Winter Weather
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A low pressure system moved over the region and produced significant snowfall at high elevations in the southwest San Juan Mountains.

### COZ006-011-017

#### Central Gunnison and Uncompahgre River Basin - Grand Valley - Uncompahgre Plateau and Dallas Divide

28	0500MST 0945MST				0	0	0.00K	0.00K	Dense Fog
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An area of low pressure that produced a little rain and also dropped temperatures resulted in areas of dense fog which formed in a few valleys within western Colorado.

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## COLORADO, West

### **Archuleta County 4 ENE Lonetree**

30 1140MST 0 0 20.00K 0.00K Lightning  
Lightning struck the Oak Brush communications site and damaged law enforcement communications equipment.

A strong thunderstorm in Archuleta County produced a number of cloud-to-ground lightning strikes, with at least one that resulted in property damage.

### **COZ010**

#### **Gore and Elk Mountains/Central Mountain Valleys**

30 2100MST  
2359MST 0 0 0.00K 0.00K Winter Weather

A cold front associated with a strong and moist upper level disturbance produced significant snowfall in the some central mountain areas of western Colorado.

## CONNECTICUT, Northwest

### **Litchfield County 1 SE Flanders**

05 1604EST 0 0 Thunderstorm Wind (50EG)  
A tree and a wire were reported down.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Litchfield County 1 NNW Goshen**

05 1609EST 0 0 Hail (1.00)  
Estimated quarter-size hail was reported via Facebook.

### **Litchfield County 1 NE West Torrington**

05 1618EST 0 0 Thunderstorm Wind (50EG)  
Wires were reported down on Horele Boulevard.  
A cold front interacted with a warm and humid airmass to produce several clusters of thunderstorms on September 5. A few of these storms became severe in northwestern Connecticut with wind damage and large hail reported. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## CONNECTICUT, Southern

### **Fairfield County Brook Field**

05 1834EST 0 0 7.00K Thunderstorm Wind (56EG)  
Numerous trees and power lines were reported down in Brookfield.

An approaching cold front triggered an isolated severe thunderstorm in Fairfield County. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **New London County Groton**

06 0852EST 0 0 10.00K Thunderstorm Wind (56EG)  
Multiple trees were reported down over the western and middle sections of the town. Including a tree falling into a building at 1 Crouch Street, trees down across Eastern Point Road, and a utility pole and wires down on Thames Street.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **New London County 1 N Ridgewood**

06 0852EST 1 1 15.00K Thunderstorm Wind (56EG)  
Multiple trees were reported down along Pequot Avenue (just south of New London), including one tree falling onto a car, killing one person and injuring another. There was also minor damage to windows to one building. M65VE

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **New London County Ledyard Center**

06 0901EST 0 0 5.00K Thunderstorm Wind (56EG)  
Multiple trees were reported down throughout town.  
A passing cold front triggered isolated severe thunderstorms, which impacted New London County. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.



# Storm Data and Unusual Weather Phenomena

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

September 2017

## DELAWARE

### Sussex County 1 S Fenwick Is

06 1755EST 0 0 0.00K 0.00K Flood  
Route 1 and Lighthouse Road was closed due to high water. Vehicles were partially submerged but occupants were able to get safely out of the vehicle on their own.  
A slow moving cold front produced heavy showers with embedded thunderstorms. This was the second and heaviest day of rainfall across Sussex County, Delaware. Rainfall amounts ranged from 1.08 inches 4 miles southwest of Lewes, DE to 4.01 inches 7 miles east of Selbyville, DE.

### DEZ003-004

#### Delaware Beaches - Inland Sussex

19 1930EST  
20 0045EST 0 0 0.00K 0.00K Coastal Flood

Moderate coastal flooding affected Sussex County with the evening high tide on Tuesday, September 19. Widespread roadway flooding was reported in the communities along tidal waters and many roads were closed.

## FLORIDA, East Central

### St. Lucie County 1 W Ft Pierce Nelson Arp 1 SW Ft Pierce Beach

10 0200EST  
0400EST 0 0 30.00M 0.00K Flash Flood

Prior to the direct impacts from approaching Hurricane Irma, rain bands streamed onshore from the Atlantic and produced between 6 and 11 inches of rain in less than 4 hours during the very early morning hours, affecting much of Ft. Pierce. A Weather Underground site measured 10.46 inches. Numerous roadways quickly flooded and became impassible, with nearly 4 feet of standing water in front of the Ft. Pierce Police Station on US Highway 1. Water breached several homes, including on El Rancho Drive and near 25th Street and Virginia Avenue. One family needed to be rescued from their flooded home due to rising water.

### FLZ059

#### St. Lucie

10 0600EST 0 0 25.0M 0.00K Tropical Storm  
11

### Brevard County

#### 1 E Melbourne Beach

10 0819EST 0.2 50 0 0 2.00K Tornado (EF0)

Based on a NWS storm survey, a waterspout moved onshore Melbourne Beach near Avenue B, causing minor damage to the second floor of two homes. The brief EF-0 tornado with winds estimated at 70 to 80 mph continued inland and dissipated just west of Highway A1A. DI2, DOD2, LB-EXP.

### FLZ059

#### St. Lucie

10 1000EST  
2000EST 0 0 0.00K 0.00K Storm Surge/Tide

### Brevard County

#### Palm Bay

10 1000EST  
1002EST 1.33 75 0 0 0.00K Tornado (EF1)

Based on a NWS storm survey, a waterspout that developed on the Indian River moved onshore and damaged several residences on Worth Court in Palm Bay, including a waterfront home whose second floor was removed and carried downwind. The EF-1 tornado (estimated 100 to 110 mph) continued across US-1, causing minor roof damage to a university building. The tornado then impacted over a dozen mobile homes within Palm Bay Estates, several of which were heavily damaged or destroyed. The tornado continued west, just to the north of Turkey Creek, damaging many trees and several additional homes before moving through a school campus before dissipating near the Harris Corporation. DI2, DOD6, LB-EXP.

### Brevard County

#### 1 NNE Indialantic 1 ENE Melbourne Vlg

10 1024EST  
1026EST 1.21 75 0 0 0.00K Tornado (EF1)

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## FLORIDA, East Central

A NWS storm survey revealed that a waterspout moved onshore the barrier island in Indianalantic near Highway A1A and 1st Avenue. The EF-1 tornado (winds estimated 90-100 mph) removed part of the roof of a beachfront condo and carried it across the highway, where it landed on a bank. The tornado then weakened as it traveled west-northwest, producing damage to trees and roof shingles and soffits of several homes along a narrow path across the barrier island, exiting to the Indian River near Cedar Lane and West Riveria Boulevard. DI5, DOD3, LB.

### **FLZ064**

#### **Martin**

10	1200EST								
	1800EST				0	0	0.00K	0.00K	Storm Surge/Tide

### **FLZ041-047-054-058-064**

#### **Brevard - Indian River - Inland Volusia - Martin - Okeechobee**

10	1400EST								
11	0400EST				0	0	524.8M	0.00K	Tropical Storm

### **Brevard County 1 NNW Mims**

10	1648EST								
	1650EST	1.55	125	0	0		0.00K		Tornado (EF2)

Based on a NWS storm survey, a tornado developed just west of the intersection of Brockett Road and Hammock Road in Mims. The tornado snapped many trees and partially removed the roof from a mobile home on Brockett Road (strong EF-1 strength), then moved through a wooded area before reaching near the north end of Nab Street and the east end of Benson Court. A pickup truck near the corner of Benson Court and Lisa Drive rolled about 30 feet west into the fence of an adjacent yard. The tornado strengthened to EF-2 intensity with estimated wind speeds of 115 to 125 mph as it affected homes on Kilbee Street, Turnbull Road, and Brevard Road. Numerous homes were impacted and several were left uninhabitable due to severe roof damage. A number of trees were snapped and uprooted as the tornado continued west northwest across Old Dixie Highway. The tornado dissipated shortly after crossing US Highway 1 near Roosevelt Road. DI2, DOD6, EXP. DI27, DOD4, EXP.

### **Brevard County 2 NW Mims**

10	1700EST								
	1701EST	0.48	60	0	0		0.00K		Tornado (EF1)

Based on a NWS storm survey, an EF-1 tornado, with estimated wind speeds between 90 to 95 mph, snapped and uprooted several trees as it developed near Old Dixie Highway in Mims. The tornado continued across US Highway 1 and the northern portion of the Northgate Mobile Home and RV Park, damaging over a dozen homes, several of which experienced partial roof removal. In addition, several power poles snapped in the development and one landed on a home. The tornado also rolled several unoccupied RV's onto their sides, which were being stored in a parking lot between US Highway 1 and the mobile home park. DI28, DOD3, EXP; DI24, DOD4, LB; DI3, DOD3, EXP.

### **FLZ045-053**

#### **Orange - Osceola**

10	1700EST								
11	1000EST				0	0	210.0M	0.00K	Tropical Storm

### **Lake County 1 NNW Turpentine 2 WNW Umatilla**

10	1728EST								
	1730EST	3.84	500	0	0		0.00K		Tornado (EF1)

A NWS storm survey revealed an EF-1 tornado with estimated wind speeds between 95 and 100 mph developed near East 8th Avenue in Umatilla, uprooting and snapping several trees in an open field. The tornado moved toward a residential neighborhood between East 8th Avenue and East Collins Street and peeled back the roofs from several homes and uprooted numerous trees. Damage continued into North Lake Community Park where a scoreboard was toppled and three power poles were snapped. The tornado moved across Lake Pearl and into the Olde Mill RV resort where it destroyed approximately ten recreational vehicles and damaged at least 25 others. The tornado continued west toward downtown Umatilla and damaged the roofs of the Umatilla Inn, an elementary school, and a home on Babb Road. DI24, DOD4, LB-EXP; DI28, DOD4, LB-EXP; DI3, DOD7, LB.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### FLZ054

#### Indian River

10	1800EST 2300EST				0	0	0.00K	0.00K	Storm Surge/Tide
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### FLZ044-046

#### Lake - Seminole

10	1800EST				0	0	579.7M	0.00K	Tropical Storm
11	1100EST								

### FLZ047

#### Brevard

10	1900EST 2300EST				0	0	0.00K	0.00K	Storm Surge/Tide
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### Indian River County 1 WNW Fellsmere

10	2000EST 2115EST				0	0	50.00K	0.00K	Flash Flood
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Excessive rainfall from Hurricane Irma produced flash flooding in Fellsmere. Indian River County Sheriffs and Fellsmere Police rescued 12 people from flood waters and transported them in a high-water vehicle to the nearby Fellsmere Elementary School evacuation shelter, which was also surrounded by high water and impassible.

### FLZ041

#### Inland Volusia

10	2000EST								
11	0200EST				0	0	0.00K	0.00K	Storm Surge/Tide

### Brevard County (COF)Patrick Afb

10	2004EST 2005EST	1.23	50	0	0		0.00K		Tornado (EF1)
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Based on a NWS storm survey, a waterspout moved onshore from the Atlantic and caused tornado damage as it continued across the barrier island, affecting Patrick Air Force Base. The EF-1 tornado (estimated 85 to 95 mph) removed the roof from a small building east of Highway A1A, then produced minor to moderate damage to several storage buildings, mainly in the form of partial loss of roof coverings and broken glass in some east and north facing windows. Several, large steel CONEX storage containers within the tornado path were rolled 100+ feet downwind (northwest). Damage also occurred to antennas mounted on free standing towers and to some small trees and shrubs. The tornado then weakened as it approached the Banana River. DOD23, DI2, EXP-UB; DOD25, DI1, EXP.

### Volusia County 1 NNW Ormond Beach

10	2004EST 2005EST	0.78	175	0	0		0.00K		Tornado (EF1)
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Based on a NWS storm survey, a waterspout moved onshore from the Halifax River near Dix Avenue and North Beach Street in Ormond Beach, causing tree damage and minor siding and shingle damage to a few two story homes. The tornado continued inland and produced strong EF-1 damage (estimated 100 to 110 mph) to several homes and trees near the intersection of Hernandez Avenue, North Ridgewood Avenue and Rosewood Avenue. Several homes sustained major roof damage. The tornado then downed trees and produced debris impact at the Ormond Beach Fire Station 93 and damaging the roofs of two commercial buildings near US Highway 1 and Wilmette Avenue. The tornado dissipated just west of US Highway 1. DI2, DOD6, LB-EXP.

### Brevard County 1 NW Bonaventure

10	2014EST 2015EST	0.3	60	0	0		0.00K		Tornado (EF1)
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A NWS storm survey confirmed that a waterspout moved onshore along Rockledge Drive near River Woods Drive in Rockledge and produced EF-1 tornado damage (winds estimated 95-105 mph) along a short track. Approximately six homes sustained significant roof damage and numerous trees were snapped or uprooted. A portion of one roof was removed and at least one other home had a portion of its metal roof peeled back. Several homes adjacent to the area of most significant damage also experienced a lesser degree of shingle damage. At least one screen patio was destroyed, several others were damaged and some fences were blown over and carried downwind. DI2, DOD4, EXP; DI27, DOD4, EXP.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Brevard County

4 NE Indianola	10	2048EST							
3 ENE Sharpes		2050EST	3.36	60	0	0		0.00K	Tornado (EF1)

A NWS storm survey confirmed that a tornado formed on North Merritt Island within or southeast of The Savannahs subdivision, producing strong EF-1 damage (winds estimated 100-110 mph) to numerous homes on Savannahs Trail. Over a dozen homes sustained significant shingle damage and approximately six pool screen enclosures were destroyed. Numerous trees were snapped. The tornado continued northwest and crossed East Hall Road near Leilani Lane, producing tree and minor roof damage to a few homes. The tornado then traveled through the southern portion of the Island Lakes Mobile Home Park at EF-1 strength (estimated winds of 95 to 105 mph) and impacted over 25 mobile homes. Several mobile homes were destroyed and many others sustained moderate to major damage (the neighborhood was nearly completed evacuated for Hurricane Irma). The tornado then weakened, but toppled the steeple at the Orsino Baptist Church, after crossing North Courtney Boulevard. Tree damage and minor roof damage occurred along the remainder of the path until the Indian River was reached. DI2, DOD4, EXP; DI3, DOD6, LB-EXP; DI24, DOD4, LB.

### Brevard County

1 WSW Scottsmeer	10	2100EST							
2 NW Lake Poinsett	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 15 inches, resulting in areas of urban and poor drainage flooding. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. See the separate entry for the more serious (flash) flooding which impacted portions of Port St. John, north Merritt Island and Rockledge.

### Indian River County

Sebastian	10	2100EST							
7 WSW Blue Cypress Lake	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 15 inches, resulting in areas of urban and poor drainage flooding, especially across the southern portion of the county. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. See the separate entry for the more significant (flash) flooding which affected the Fellsmere area.

### Lake County

5 W Lady Lake	10	2100EST							
1 WSW Altoona	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 12 inches, resulting in areas of urban and poor drainage flooding. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed.

### Okeechobee County

11 NW Ft Drum	10	2100EST							
2 NNE Basinger	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 14 inches, resulting in areas of urban and poor drainage flooding. Many roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. The heaviest rain and most significant impacts occurred over the northeast portion of the county, in the Ft. Drum area.

### Orange County

3 WSW Walt Disney World	10	2100EST							
14 ESE Wewahatchee	11	0400EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 7 and 18 inches, resulting in areas of urban and poor drainage flooding. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. The highest rain totals occurred over the northern portion of the county, however the most significant impacts occurred within Orlo Vista. Heavy rain and associated run-off caused Lake Venus and two adjacent retention ponds to gradually overflow, flooding several hundred homes within the surrounding community. Over 200 residents were rescued by National Guard and Orange County Fire Rescue personnel as rising water began to enter their homes during the early morning hours of September 11. Two-to-three feet of water reportedly breached some homes adjacent to the lake and ponds. This area in a 10-year floodplain.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Osceola County**

13 WSW Yeehaw Jct	10	2100EST							
9 WNW Shingle Creek	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 12 inches, resulting in areas of urban and poor drainage flooding. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed.

### **St. Lucie County**

Ft Pierce Nelson Arp	10	2100EST							
	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 12 inches, resulting in areas of urban and poor drainage flooding. Many roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. More significant (flash) flooding occurred farther north across the county, including Ft. Pierce (see separate flash flood entry).

### **Seminole County**

Sanford	10	2100EST							
1 NNW Osceola Park	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 10 and 13 inches, resulting in areas of urban and poor drainage flooding. Numerous roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed. The most impacted areas occurred within Altamonte Springs, Casselberry, Longwood and Sanford.

### **Volusia County**

Seville	10	2100EST							
2 W Deltona	11	0200EST			0	0	0.00K	0.00K	Flood

Rainbands associated with Hurricane Irma produced rainfall totals between 8 and 12 inches, resulting in areas of urban and poor drainage flooding. Many roadways were impacted by significant levels of standing water and many retention ponds reached capacity or overflowed, especially across the inland portions of the county.

### **Brevard County**

3 SSW (TIX)Space Cntr Exec	10	2130EST							
3 SSW Cocoa West		2245EST			0	0	100.00K	0.00K	Flash Flood

Flash flooding affected many locations within central and north Brevard County due to 8-12 inches of rain with isolated totals up to 15 inches which occurred in 12-18 hours. Heavy rain which fell during the morning and afternoon set the stage for flash flooding during the evening when several additional inches of rain occurred. US Highway 1 at Fay Boulevard in Port St. John became impassable, as did portions of North Courtney Parkway near the 3100 block, and at/on Hall Road, West Cristafulli Road, Horseshoe Bend and Lucas Road in north Merritt Island. South Courtney Parkway at Cone Road also became impassable and water was reported up to mailboxes in Rockledge. Many areas experienced standing water at/above 3 feet above ground level and water approached or entered several homes.

Hurricane Irma moved northward over the far western Florida peninsula between the afternoon of September 10 and the morning of September 11 at Category 1-2 strength. During the closest point of approach to east-central Florida during the early morning hours of September 11, rain bands associated with the inner core elongated west-to-east and lifted through northwest Osceola County, Lake County and western Orange County. Due to the large size of the wind field, a long duration of damaging tropical storm force winds with gusts to hurricane force was experienced across all of east-central Florida. There were no direct hurricane-related fatalities, however 10 indirect fatalities occurred during the evacuation and recovery phases of the hurricane. Preliminary damage estimates across east central Florida exceeded \$1.3 billion.

A storm surge of 2-3 feet affected the coast of Martin, St. Lucie and Indian River Counties, and 3-4 feet of storm surge impacted the coast of Brevard and Volusia Counties. Moderate to major beach erosion occurred along the entire east-central Florida coastline. Water levels rose within the coastal lagoon system generally rose between 1 and 3 feet (although locally up to 4.5 feet within a few constricted areas of the lagoon, primarily within north Brevard and Volusia Counties) due to coastal surge and run-off from heavy rain and slow drainage to the Atlantic through the inlets. River flooding caused to enter some homes adjacent to the Halifax River, primarily in Ormond Beach, Holly Hill and north Daytona Beach. Many docks and boat houses along the Indian, Banana and Halifax Rivers were damaged from the combination of high water and wave action.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## FLORIDA, East Central

Rainfall totals of 10-15 inches were widespread across east-central Florida. The highest totals occurred in a swath from northern St. Lucie County to far southern Indian River County, where accumulations reached 15 to nearly 22 inches. A significant portion of this rain fell during the early morning hours of September 10 as excessive rain bands trained onshore ahead of the main rain area associated with Hurricane Irma. Flooding entered several homes and many roadways became impassible. Hurricane rain bands also resulted in flooding of homes and roadways in many other areas later on September 10, including Fellsmere (Indian River County) where a dozen people were rescued from flood waters and north Merritt Island (Brevard County) where water approached or entered several homes. During the early morning hours of September 11, flooding breached several hundred homes and resulted in the rescue of 200 residents in Orlo Vista (Orange County) when a lake and adjacent retention ponds overflowed.

Widespread heavy rain fell within the St. Johns River basin and caused the entire river (from Cocoa in Brevard County to Astor in Lake County) to reach flood stage. The Astor area was the first to reach flood stage during the afternoon of September 10, then Cocoa very early on September 11 and Lake Harney that evening, Deland very early on September 12 and Sanford very late on September 14. All points along the river eventually reached moderate to major flood stage, impacting adjacent homes, structures, property and roadways. The river remained in flood for well over one month.

Ten tornadoes were confirmed, including eight within Brevard County (one EF-0, six EF-1, and one EF-2), one in Volusia County (EF-1) and one in Lake County (EF-1). Additional tornadoes likely occurred, however it was impossible to distinguish weak, short track tornado damage from the overall widespread, background wind damage of similar velocities.

### Indian River County 1 SSE Cummings

29	1902EST	0	0	0.50K	0.00K	Thunderstorm Wind (52EG)
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A cluster of thunderstorms moved onshore from the Atlantic and spread inland, affecting the town of Sebastian. On Gilbert Street, some homes lost shingles and a fence was blown town. Nearby on Canal Circle, a home experienced minor roof damage and several surrounding homes lost some shingles.

A cluster of thunderstorms which moved onshore and affected northeast Indian River County produced isolated wind damage to a few homes in the town of Sebastian. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## FLORIDA, Extreme Southern

### FLZ076>078

#### Monroe/Lower Keys - Monroe/Middle Keys - Monroe/Upper Keys

09	0930EST					
10	1630EST	2	40		0.00K	Hurricane

### FLZ076-078

#### Monroe/Lower Keys - Monroe/Upper Keys

09	2100EST					
11	1600EST	0	0		0.00K	Storm Surge/Tide

### FLZ077

#### Monroe/Middle Keys

10	0000EST	2	0		0.00K	Storm Surge/Tide
11						

Hurricane Irma made landfall over the Lower Florida Keys as a category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale, with the eye crossing directly over Cudjoe Key. Due to the large radius of hurricane-force winds, destructive hurricane-force winds and storm surge impacts all of the Florida Keys. Extensive damage to residences, businesses, electric, water and communications utilities resulted. The eye of Hurricane Irma moved ashore in the Lower Florida Keys over Cudjoe Key at 9:10 am EDT Sunday, September 10, with a minimum central pressure of 929 mb and maximum sustained winds near 115 knots (130 mph). The highest sustained winds in the Lower Florida Keys were measured at 61 knots (70 mph) at the Key West Harbor, with a peak measured gusts at 120 mph at the Key Deer National Wildlife Refuge and a private residence on Big Pine Key. Storm survey evidence estimated the highest 3-second wind gusts on Big Pine Key and Scout Key, at 150 to 160 mph. Maximum storm surge in the Lower Florida Keys was measured at 5 to 8 feet from Sugarloaf Key through Duck Keys, with total water height reaching a maximum of 5 to 6 feet above ground level in eastern Big Pine Key, and wave wash marks up to 20 feet above mean high water along Long Beach Road on the south side of Big Pine Key. Rainfall totals of 6 to 12 inches were measured at available rain gauges, with a maximum of 12.54 inches at the Key Deer Wildlife Refuge on Big Pine Key. A total of 10 fatalities were attributed in the Florida Keys attributed to Irma, 4 directly related to hurricane impacts. More than 40 direct injuries were officially totaled across the entire Florida Keys. More than 1300 vessels were damaged or destroyed, requiring removal from the coastal waters. Additional information on number of residences and businesses damaged or destroyed is pending. Financial damage estimates are also pending as costs related to business loss and community recovery are continuing to accrue. M?OT



# Storm Data and Unusual Weather Phenomena

September 2017

September 2017									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>FLORIDA, Northeastern</b>									
<b>Alachua County</b>									
Archer	01	1111EST			0	0	1.00K	0.00K	Thunderstorm Wind (45EG) Power lines were blown down at 17500 SW Archer Road. The cost of damage was estimated for the event to be included in Storm Data. Note: The estimated wind gust of 45 knots is equivalent to 52 mph.
<b>Duval County</b>									
Cedar Hills	01	1244EST			0	0	0.50K	0.00K	Lightning A home was struck by lightning. No fire observed at time of report. Cost of damage unknown but estimated for Storm Data.
<b>Duval County</b>									
1 W Duval	01	1310EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Several trees were blown down near the UF Health Center. The time of damage was based on radar.  Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Duval County</b>									
1 ESE Cosmo	01	1312EST			0	0	0.00K	0.00K	Hail (0.75) Penny size hail was observed.
<b>Duval County</b>									
1 W Duval	01	1316EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Power lines were blown down on Woodland Drive. The time of damage was based on radar.  Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Duval County</b>									
1 N Duval	01	1316EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Power lines were blown down near Castleberry Road and Hollings Street. The time of damage was based on radar.  Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Duval County</b>									
1 W Dunn Creek	01	1320EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Power lines were blown down on Dunn Creek Road. The time of damage was based on radar.  Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Duval County</b>									
1 N Duval	01	1320EST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG) An off-duty NWS employee estimated wind gusts of 60 mph. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
<b>Marion County</b>									
1 N Ocala	01	1400EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Power lines were blown down at the intersection of NE 9th Street and NE 8th Avenue. The time of damage was based on radar.  Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Marion County</b>									
2 NW Montague	01	1405EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Power lines were blown down at the intersection of SE 14th Street and SE 25th Avenue. The time of damage was based on radar. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>St. Johns County</b>									
2 SSE Moultrie	01	1421EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) A power line was blown down at Cacique Drive. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>St. Johns County</b>									
2 N St Augustine Beach	01	1435EST			0	0	0.50K	0.00K	Lightning A roof fire was observed near Pope Road and Lee Drive due to a lightning strike. The cost of damage was unknown but estimated for use in Storm Data.
<b>Putnam County</b>									
2 E Georgetown	01	1512EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG) Winds damaged trees along Driftwood Lane. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
<b>FLORIDA, Northeastern</b>										
<b>Flagler County</b>										
<b>Flagler Beach</b>	01	1630EST			0	0	0.00K	0.00K	Heavy Rain	
	An observer measured 1.96 inches of rainfall in 90 minutes.									
<b>Nassau County</b>										
<b>2 SE Hedges</b>	01	2215EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
	Trees were blown down along Wilson Neck. Roads were blocked by fallen debris and at least one home had a tree fall onto it. The time of damage was based on radar.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Nassau County</b>										
<b>1 SE Yulee</b>	01	2215EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
	Trees and power lines were blown down along Miner Road near Hickory Village. Some homes had roof damage. The time of damage was based on radar.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Nassau County</b>										
<b>Hedges</b>	01	2215EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
	Trees and power lines were blown down near the intersection of Harts Road and Airplane Lane. Some structural damage was reported to the roofs. The time of damage was based on radar imagery.									
	Strong SW steering flow pushed the dominant west coast sea breeze across the region through the day. The sea breezes converged along toward the Atlantic in the afternoon, with a few strong to severe storms that produced wind damage and localized heavy rainfall. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Gilchrist County</b>										
<b>4 NW Bell</b>	04	1500EST			0	0	0.00K	0.00K	Funnel Cloud	
	The Florida Fish and Wildlife reported a funnel cloud east of the Suwanee River south of the County Road 340 bridge.									
	Diurnal convection produced a brief funnel cloud.									
<b>St. Johns County</b>										
<b>4 N South Ponte Vedra Bc</b>	08	0000EST 1939EST			0	0	0.00K	0.00K	Heavy Rain	
	A broadcast meteorologist reported 5.06 in Nocatee.									
<b>St. Johns County</b>										
<b>2 NW Palm Vly</b>	08	1930EST			0	0	0.00K	0.00K	Flood	
	About 1 foot of standing water was reported along North Rosco Blvd in Ponte Vedra.									
	A frontal boundary was stalled across central Florida with strong high pressure wedge axis north of the region across central Georgia. An inverted trough axis strengthened onshore convergence and focused strong gusty ENE winds and waves of locally heavy rainfall along portions of the NE Florida coast. Flooding started to occur during the evening of Sept. 8th across portions of St. Johns county due to training, heavy rainfall, and winds increased along the St. Johns, Duval, and Glynn county coasts after 9 pm that evening with sustained speeds increasing to 30-35 mph and gusts of 40-45 mph.									
<b>FLZ025-033-038-124-125</b>	<b>Coastal Duval - Coastal Nassau - Duval - Flagler - St. Johns</b>									
	10 11	0521EST 1215EST			0	0	0.00K	0.00K	Tropical Storm	
<b>Bradford County</b>										
<b>1 SSW Starke</b>	10	0935EST			0	0	0.00K	0.00K	Flood	
<b>1 NNE Lincoln City</b>	A report via social media showed Alligator Creek in Starke coming up to the bridge level at Laura Street. This was occurring at the same time that the creek gauge measuring major flooding status just downstream at U.S. Highway 301.									
<b>FLZ022-030&gt;032-035</b>	<b>Baker - Bradford - Clay - Columbia - Gilchrist - Union</b>									
	10 11	0935EST 1100EST			0	0	4.0M	0.00K	Tropical Storm	

# Storm Data and Unusual Weather Phenomena

September 2017

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

### St. Johns County

2 SSW Vilano Beach  
1 N Moultrie Jct

10	1240EST								
	1245EST	1.2	50	0	0		0.00K		Tornado (EF1)

This tornado passed the northern side of Castillo de San Marcos and uprooted 2 trees before strengthening to EF1 and moving toward Huguenot Cemetery. Multiple trees were uprooted and snapped in the cemetery. The tornado continued moving west in the vicinity of Orange Street before dissipating just before reaching Highway 1. This tornado likely began as a water spout offshore.

### St. Johns County

1 N Vilano Beach  
2 W Araquey

10	1850EST								
	1856EST	4.99	200	0	0		0.00K		Tornado (EF1)

This tornado may have initiated as a water spout that moved onshore at Vilano Beach. Minimal damage was reported in Vilano Beach with greater tree damage discovered west of Vilano Beach where a few trees were snapped and uprooted. Roof damage was reported on 5th Avenue near Vilano Beach. Multiple trees were damaged and there was minor roof damage observed along Jackson and North Blvds. The tornado then crossed Highway 1 and caused additional tree and roof damage from 4th Street toward Porter Road before dissipating in the 12 Mile Swamp Conservation Area. Radar indicated a tornado debris signature. This tornado had peak winds of 85-100 mph.



A picture showing EF-1 tornado damage in Vilano Beach located in St. John's County, Florida on September 10th, 2017. Photo courtesy of NWS.

## FLZ036-040

### Alachua - Marion

10	2115EST								
11	1100EST			0	0		0.00K		Tropical Storm

### Putnam County

1 W Palatka Kay Arkin Ar

10	2249EST			0	0	0.00K	0.00K		Flash Flood
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A nursing home was being flooded. Patients had to be evacuated to a nearby hospital.

## FLZ030

### Union

10	2300EST								
11	1100EST			0	0		0.00K		Tropical Storm

### Flagler County

1 S Marineland

10	2320EST								
	2330EST	4.12	200	0	0		0.00K		Tornado (EF0)

This tornado touchdown in northern Flagler county just south of Marineland. Damage was limited to trees. Structural damage was not reported. A tornado debris signature was detected along the path. The tornado remained over the Pellicer Creek Conservation Area before dissipating just west of Interstate 95.

# Storm Data and Unusual Weather Phenomena

September 2017

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

## FLORIDA, Northeastern

### Duval County

#### 2 ESE Marietta

10 2353EST 0 0 0.00K 0.00K Flash Flood  
A social media post showed standing water in a home off of Ellis Road near the Murray Hill area of Jacksonville.

### St. Johns County

#### 2 NNW Summer Haven

11 0015EST 1.2 300 0 0 0.00K 0.00K Tornado (EF2)  
0020EST

Significant structural damage occurred at Summer House vacation rentals in Crescent Beach. There were definitive signs of circulation in the debris field. Tree damage extended inland to A1A. The tornado appeared to dissipate over the Intracoastal Waterway. Peak winds were estimated at 110-130 mph.



*A picture of the Summerhouse Condo vacation rentals' damage from an EF-2 tornado in Crescent Beach, Florida on September 11th, 2017. Photo courtesy of NWS.*

### FLZ037

#### Putnam

11 0055EST 0 0 0.00K 0.00K Tropical Storm  
1100EST

### Nassau County

#### 2 NNW Fernandina Beach 2 NNW Becker

11 0125EST 10.69 100 0 0 0.00K 0.00K Tornado (EF0)  
0135EST

This weak tornado touched down on the northern end of Amelia Island and tracked west across open marsh areas. Damage was limited to trees and shrubs and damage was not reported. The path width was estimated at 100 yards as the circulation tracked generally over open marsh land then dissipated over rural marsh land. There was a clear tornado debris signature on radar.

### Nassau County

#### 2 ENE Hedges 1 S Fernandina Beach Arp

11 0125EST 5.95 100 0 0 0.00K 0.00K Tornado (EF0)  
0130EST

Another tornado developed south of the northern Amelia Island Island tornado at the same time. This tornado touched down just south of Fernandina Beach and tracked westward with damage limited to trees and shrubs. The tornado dissipated over marsh areas. A tornado debris signature was noted on radar. Damage was not reported.

### Flagler County

#### 1 WNW Palm Coast 11

0213EST 0 0 0.00K 0.00K Flash Flood  
Waist deep water was reported along Emerson Drive in Palm Coast.

# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<b>FLORIDA, Northeastern</b>									
<b>Duval County</b> 2 S Simpson Yard	11	0335EST			0	0	0.00K	0.00K	Flash Flood
	Water was covering the Interstate 10 ramps at Cassat Avenue.								
<b>Duval County</b> 1 SE Neptune Beach	11	0346EST			0	0	0.00K	0.00K	Flash Flood
	Water was flooding 3rd Street near Pita Pit in Jacksonville Beach with additional flooding reports just west on 5th Street.								
<b>Duval County</b> 2 WNW (NZC)Nas Cecil Fld	11	0400EST			0	0	0.00K	0.00K	Flash Flood
	Yellow Water Creek was overflowing and cover Normandy Blvd. The road was closed.								
<b>Nassau County</b> 1 NNE Hilliard Hilliard Airpark	11	0600EST			0	0	0.00K	0.00K	Flash Flood
	Water was covering streets and approaching homes. Picture relayed via social media.								
<b>St. Johns County</b> Sampson Church 6 WNW Palm Vly	11	0615EST 0700EST			0	0	0.00K	0.00K	Flash Flood
	At 715 am, the broadcast media reported that the east bound lanes of State Road 210 were closed at the Interstate 95 interchange due to flooded roads. At 7:52 am, the public reported that multiple cars were stalled in flood waters on Lane Avenue, just north of Interstate 10 in Jacksonville. At 8 am, an NWS employee reported that water was flowing over Lem Turner.								
<b>Columbia County</b> 1 N Lake City	11	0630EST 0735EST			0	0	0.00K	0.00K	Flash Flood
	Flash flooding images were relayed via social media in Lake City city by the public around 7:30 am. At 8:35 am, the 911 County Dispatch in Baker county relayed to NWS Jacksonville that they had received multiple reports of flash flooding in Macclenny and across other more rural areas of the county.								
<b>Alachua County</b> 2 ESE Arredonda Micanopy	11	0700EST 1130EST			0	0	0.00K	0.00K	Flash Flood
	Flooding rainfall started to impact Gainesville around 8 am when multiple reports of flooded streets were reported to local law enforcement. At 9 am, law enforcement reported NW 34th Street about 1 mile NW of the University of Florida was closed from NW 8th Avenue to Radio Road due to flooding. At 912 am, West University Blvd was closed from 20th Street to 38th Street due to flooding from Hogtown Creek, about 1 mile WNW of the University of Florida. At 913 am, one law enforcement patrol car was lost due to flooding at Hogtown Creek. Another vehicle could not be reached. At 1020 am, Lake Alice was flooding over Museum Road and the road had to be closed. At 1037 am, a road was washed out about 5 miles SSE of Brooker, on 21st Street off of 156th Avenue. At 1202 pm, SE Wacahoota Road collapsed, about 2 miles NW of Micanopy. At 1208 pm, about 4 miles SW of Waldo, water was over the road at Waldo Road and State Road 24. At 1230 pm, Turkey Creek was overflowed and over the bridge on NW Creek Drive, about 4 miles ESE of Alachua.								
<b>Duval County</b> 3 NW Bowden 2 S Jacksonville	11	0950EST			0	0	0.00K	0.00K	Flash Flood
	Historic river and fresh water flooding was reported in San Marco. Pumps under water. Water in homes. Water rescues from swift water rescue teams occurred.								
<b>St. Johns County</b> 1 SW Switzerland	11	1358EST			0	0	0.00K	0.00K	Flash Flood
	Multiple swift water rescues were conducted by law enforcement due to river flooding.								

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## FLORIDA, Northeastern

Hurricane Irma's eye passed west of the local forecast area, with the region on the storm's turbulent east side. Widespread tropical storm force winds with gusts to hurricane force were felt across much of the area, with the strongest winds surging up the Florida east coast during the pre-dawn hours of Sept. 11th. Extensive tree and power line damage occurred across the local area from the winds. One of the greatest local impacts exacerbated by Irma's rainfall and storm surge was river flooding. Prior to Irma's arrival, a local nor'easter developed 3 days prior, with strong onshore flow pumping water into the St. Johns River basin. Elevated water levels of 1-2 ft above normal tidal departure were already ongoing for several tidal cycles before Irma's surge and rainfall. The nor'easter also brought localized heavy rainfall bands, with some areas near the coast realizing 4-6 inches in 24 hrs the days prior to Irma. In addition, precursor conditions to the nor'easter included an above average rainfall across the region during the summer months. Major, historic river flooding was forecast along Black Creek and the Sante Fe a week prior to Irma. Realized river values along the St. Johns surpassed prior record levels set by Hurricane Dora in 1964, during low tide the morning of Sept. 11th. The St. Johns River basin continued to rise with the combination of trapped tides due to the nor'easter, astronomically high tides heading into the spring tide season, storm surge of up to 5 ft in some areas, fresh water rainfall of 7-11 inches, and strong southerly winds pushing the water across the basin on the east side of Irma. Historic river flooding occurred across much of NE Florida Sept 11th through the following week as water levels were slow to funnel out of the St. Johns basin. Coastal infrastructure that was already weakened about 1 year ago due to Hurricane Matthew suffered the most damage from Irma's storm surge.

### Alachua County 3 SSW Arredonda

15	1746EST	0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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The public estimated a wind gust of 60 mph.  
An isolated severe thunderstorm developed along the sea breezes across the Suwanee River Valley that produced severe wind gusts near Archer. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### FLZ124

#### Coastal Nassau

24	1600EST	2	1	0.00K	0.00K	Rip Current
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High and rough surf contributed to more frequent rip currents with a high risk of rip currents in effect. M49IW

## FLORIDA, Northwest

FLZ008>019-026>  
029-034-107>108-  
112-114>115-118-  
127>128-134

Bay - Calhoun - Coastal Bay - Coastal Dixie - Coastal Franklin - Coastal Gulf - Coastal Jefferson - Coastal Taylor - Coastal Wakulla - Coastal Walton - Dixie - Franklin - Gadsden - Gulf - Holmes - Jackson - Jefferson - Lafayette - Leon - Liberty - Madison - North Walton - South Walton - Taylor - Wakulla - Washington

10 11	2200EST	0	0	27.64M	0.00K	Tropical Storm
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Hurricane Irma brought numerous impacts to the Florida Big Bend, southwest Georgia and southeast Alabama including widespread downed trees and power lines, roads blocked by trees, power outages, and trees on homes. Two people died during the event - one due to a car crash (Liberty County, FL) and another that had a heart attack (Worth County, GA). Two indirect deaths also occurred due to carbon monoxide from a generator (Taylor County, FL). While many counties across the Florida Big Bend and southwest Georgia were impacted, the greatest impacts were across the eastern portion of the area near the I-75 corridor. There were over 6.5 million customers without power in Florida, over 930,000 customers without power in Georgia, and over 45,000 customers without power in Alabama. Total damage cost for each county was estimated when figures were not available.

Dixie county experienced trees and power lines down across the county. Roughly 40 to 50 homes sustained major damage with 55 suffering minor damage.

Leon county experienced tropical storm force wind gusts for approximately 8 hours. The highest wind gust recorded was 55 mph at the Tallahassee International Airport. The highest recorded sustained wind was 43 mph at the FSU WeatherSTEM site. Numerous trees and power lines were downed across the county. At the peak, approximately 70,000 customers were without power. There were 200 obstructions cleared from roadways. There were 88 homes that sustained some level of damage with one house destroyed, 4 sustaining major damage, and 29 sustaining minor damage. There were 11 shelters that hosted 3,000 people including local residents and evacuees from other parts of the state. FSU, FAMU, and TCC were closed for 6 days. County public schools were closed for 4 days.

In Taylor county, damage was primarily to trees and power lines with a few trees on houses causing damage. Three homes sustained major damage and two homes sustained minor damage. There were 10,941 power outages with some not restored for 6 days. There were blow out tides but no surge flooding. Two indirect fatalities occurred due to carbon monoxide from a generator.

In Washington county, there were a few trees and power lines downed. One tree blocked traffic on I-10 at mile marker 124.

In Liberty county, there were downed trees and power lines, but minimal to no damage to structures. There were 250 residents housed in shelters. Five car crashes during the event resulted in one fatality.

In Wakulla county, U.S. Highway 98 was blocked from SR267 to SR363 because of downed trees. A total of 98 trees were felled with 50 of those entangled in lines. All 98 downed trees were blocking roadways or presented a danger to traffic on roadways. Three trees fell on structures and two on vehicles. There were 8700 power outages and 317 evacuated to shelters. There were 10 homes damaged in total with 6 having major damage and 1 destroyed.



# Storm Data and Unusual Weather Phenomena

September 2017

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

## FLORIDA, Northwest

In Lafayette county, there were numerous trees and power lines down across the county with extensive damage to transmission and feeder lines resulting in power loss to 100 percent of county residents and businesses. Two residential structures were destroyed with three others sustaining major damage and nine sustaining minor damage.

In Madison county, trees and power lines were down across the county, two of which blocked traffic on I-10 at mile marker 253 and 246. Two roofs were damaged due to trees. A total of 12 homes were damaged, 3 of which sustained major damage.

In Jackson county, numerous trees and power lines were blown down and blocking roads. Two homes sustained major damage from falling trees.

In Bay county, 55 people were sheltered. Sporadic power outages occurred due to downed trees. Minor damage was sustained to one county fire station.

In Calhoun county, downed trees and power lines occurred with sporadic power outages, but there were no road closures or major structural damage reported.

In Franklin county, there were several trees downed with some damaging homes along with several power outages.

In Jefferson county, there were several trees downed with one falling on a home and three on cars. Barns, fences, and farms were damaged.

In Holmes county, there were a few trees and power lines downed. There were 35 evacuees from outside the county that were housed in shelters.

In Gulf county, a few trees and power lines were down across the county with around 2,000 people without power.

## FLORIDA, Southern

### **FLZ075**

#### **Mainland Monroe**

09	0600EST								
10	2000EST				0	0			Hurricane

### **Broward County 2 ESE Miramar**

09	0710EST								
	0711EST	0.1	50	0	0				Tornado (EF1)

NWS storm survey determined an area of enhanced tree damage along SW 172 Avenue between Memorial Hospital and Miramar Regional Park was the result of a tornado. Sections of trees were completely ripped apart.

### **FLZ073-174**

#### **Far South Miami-Dade County - Inland Miami-Dade**

09	0800EST								
10	2100EST				0	0			Hurricane

### **FLZ074-173**

#### **Metropolitan Miami-Dade - Miami-Dade**

09	0900EST								
10	2100EST				0	0			255.245M Tropical Storm

### **Collier County 2 W Ochopee**

09	1120EST								
	1123EST	0.25	50	0	0				Tornado (EF1)

NWS storm survey determined damage including leaning wood power poles along US 41 and SR 29 were due to a tornado. Time estimated by radar.

### **FLZ072-172**

#### **Coastal Broward - Metro Broward**

09	1200EST								
10	2200EST				1	0			Tropical Storm

### **FLZ069-070**

#### **Coastal Collier - Inland Collier**

09	1600EST								
11	0600EST				0	0	222.5M		Hurricane

# Storm Data and Unusual Weather Phenomena

September 2017

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

### FLZ068-168

#### Coastal Palm Beach - Palm Beach

09	1700EST								
11	0200EST				0	0	300.0M		Tropical Storm

### Broward County

2 ENE Ft Lauderdale  
1 S Oakland Park

09	1735EST								
	1739EST	1.93	100	0	0				Tornado (EF0)

During a NWS storm survey for Hurricane Irma evidence was found of a discontinuous track of a tornado from Fort Lauderdale Beach to Wilton Manors. Multiple trees were damaged along the path.

### Miami-Dade County

3 SSW (HST)Homestead Afb

09	1820EST								
	1822EST	0.5	75	0	0				Tornado (EF0)

A tornado was reported by a member of the public around Homestead Motor Speedway.

### FLZ071

#### Inland Broward

09	2200EST								
10	2100EST			0	0	0.00K	0.00K		Tropical Storm

### FLZ067

#### Inland Palm Beach

10	0500EST								
11	0200EST			0	0				Tropical Storm

### Broward County

1 NNW Miramar

10	0640EST								
	0642EST	0.25	50	0	0				Tornado (EF1)

NWS storm survey determined a tornado in the Chapel Trail neighborhood near NW 196 Avenue north of Pines Boulevard. Several trees ripped apart with roof tile damage. Damage pattern suggested rotation. Time estimated via radar.

### FLZ063-066

#### Glades - Hendry

10	0700EST								
11	0500EST			0	0				Tropical Storm

### FLZ069-168-172-173

#### Coastal Broward - Coastal Collier - Miami-Dade - Palm Beach

10	0930EST								
	2300EST			0	0		0.00K		Storm Surge/Tide

### Glades County

1 SE Palmdale  
7 WSW Moore Haven

10	2100EST								
14	1000EST			0	0	50.00K	0.00K		Flood

Glades County Emergency Management reported the closure of State Road 29 due to flooding from State Road 78 halfway up to Palmdale, as well as State Road 78 east from State Road 29 to U.S. 27. Extensive sheet flow flooding affected western and southern Glades County to Muse and the Hendry County line. Also, flooding from Fisheating Creek affected the campground adjacent to U.S. 27 in Palmdale.

Rainfall amounts of 8 to 12 inches were widespread across the area, with estimates of 16 to 20 inches over parts of western Glades County.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## FLORIDA, Southern

### Hendry County 6 NW Denaud

10	2100EST							
14	1000EST				0	0	20.00K	0.00K Flood

Extensive sheet flow' flooding caused by heavy rain from Hurricane Irma affected parts of Hendry County. A total of 9 to 11 inches of rain fell in the area during a 48-hour period leading up to and through the event. Estimated amounts of up to 16 inches or higher may have fallen in parts of Hendry County. No major roads were affected, however many properties remained under water for days.

Major Hurricane Irma made landfall in Southwest Florida on Marco Island as a Category 3 hurricane around 330 PM EDT on September 10th. The storm traveled north through southwest Florida through the evening. Effects from Irma were felt across South Florida from September 9th through September 11th. Irma had reached Category 5 strength and a minimum central pressure of 914 MB east of the Bahamas, maintaining Category 5 intensity until landfall along the north coast of Cuba on September 9th. Irma made its first Florida landfall in the Lower Florida Keys early on September 10th as a Category 4 hurricane.

The strength and size of Hurricane Irma allowed for impacts to be felt across all of South Florida. Irma brought widespread wind damage, heavy rainfall and storm surge to all areas. Hurricane-force sustained wind were measured in much of Collier County, as well as far southern and inland Miami-Dade County, with the possibility of additional hurricane-force sustained wind in more isolated areas over the remainder of South Florida where widespread tropical storm force sustained wind occurred. Gusts to hurricane force were felt over all of South Florida, with the maximum measured wind gust of 142 mph in Naples in Collier County. Widespread tree damage and some structural damage occurred across all of South Florida, with most structural damage on the minor side.

Irma brought a significant storm surge on both coasts of South Florida. Storm surge of 6 to 8 feet was observed in the Everglades City and Goodland areas of Collier County, with 3 to 5 feet from Marco Island to Naples. Along the east coast, observed storm surge values of 4 to 6 feet were noted along Biscayne Bay from south of Miami to Homestead, and 2 to 4 feet elsewhere along the east coast from Key Biscayne to Palm Beach.

Hurricane Irma brought widespread rainfall and some flooding across the region. From the period between 8 AM EDT September 9th and 8 AM EDT September 11th, 8 to 15 inches of rain were measured over interior portions of Southwest Florida, with estimated amounts of 16 to 20 inches in southwestern Hendry County. This rainfall near the end of a wet summer led to significant flooding over these areas. 5 to 10 inches of rain were noted elsewhere across South Florida, with areas of minor to moderate flooding.

32 deaths were attributed to Irma in southern Florida, all but one indirect. The only direct death was an 86-year-old man who was knocked down by a gust of wind while opening the front door of his home in Broward County. Most of the deaths occurred during cleanup after the storm, as well as several as a result of carbon monoxide poisoning from misuse of generators. Initial and incomplete damage estimate across the area is estimated to be around \$800 million, but in all likelihood will be much higher once damage assessments are completed. \$222.5 million in damage came in from Collier County, and about \$300 million from Palm Beach County. About \$255 million came from the agricultural community in Miami-Dade County.

Total number of people who were at county evacuation shelters were as follows: Miami-Dade County - 31,092, Palm Beach County - 17,263, Collier County - 17,040, Broward County - 17,000, Hendry County - 3,000

Total number of customers without power were as follows: Miami-Dade County - 888,530, Broward County - 689,000, Palm Beach County - 566,240, Collier County - 197,630, Hendry County - 9,700, Glades County - 1,670.

### Miami-Dade County 10 W Pennsuco

19	1650EST				0	0	0.00K	0.00K	Funnel Cloud
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Multiple reports from the public and photos on social media reported a funnel cloud in northern Miami-Dade County west of US-27.

Sea breeze driven showers and thunderstorms were prevalent throughout the afternoon and evening hours. One of these storms along a colliding boundary was able to produce a funnel cloud in Miami Dade County.

### Collier County 4 ESE East Naples

29	1700EST								
	2200EST				0	0	10.00K	0.00K	Flood

The Collier County Sheriffs Office reported multiple intersections in the Lely area closed due to flooding. Two to three feet of standing water in the roadways with vehicles stranded was reported throughout the area, including the following locations: St. Andrews Boulevard at Warren Street, Rattlesnake Hammock Road from US 41 to Hawaii Boulevard, and Pebble Beach Boulevard and Big Springs Drive.

A mid to upper level trough associated with a low centered over the northeast Gulf waters combined with the western edge of the Atlantic high. This brought southerly flow and deep tropical moisture from the Caribbean and southeastern Gulf of Mexico to Florida. This allowed for moderate to heavy rainfall across portions of Collier county leading to flooding of roadways.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Hillsborough County

#### 2 SSE Nowatney

01 1530EST 0 0 50.00K 0.00K Lightning  
Hillsborough County Emergency Management officials reported damage to an apartment building that was likely caused by a lightning strike. A total of 38 residents were displaced because of the fire. No injuries were reported.

### Levy County

#### 2 ENE Gulf Hammock

01 1845EST 0 0 1.00K 0.00K Thunderstorm Wind (45EG)  
The Levy County 911 call center reported a tree had fallen on power lines near SE 42 Court and County Road 326. Time was estimated by radar.  
Note: The estimated wind gust of 45 knots is equivalent to 52 mph.

### Charlotte County

#### 1 WSW Charlotte Harbor

01 1909EST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A WeatherFlow station near Port Charlotte measured a peak wind gust of 60 mph, 52 knots.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Pinellas County

#### 1 SSE Saint Petersburg Beach

01 2036EST 0 1 0.00K 0.00K Lightning  
A 16 year old was struck by lightning in Saint Pete Beach. He was transported to a local hospital and later released.  
Afternoon thunderstorms continuing into the evening produced areas of heavy rain, gusty winds and numerous lightning strikes. One individual on the beach was struck by lightning while portions of the Tampa Bay Area had flooding issues when heavy rain fell over already saturated ground.

### FLZ149

#### Coastal Pasco

08 2300EST  
11 0900EST 0 0 7.0M 0.00K Hurricane

### FLZ056-061-160-162-165-260-262-265

#### Coastal Charlotte - Coastal Lee - Coastal Sarasota - De Soto - Hardee - Highlands - INLAND CHARLOTTE - Inland Lee - Inland Sarasota

10 0500EST  
11 0900EST 1 0 716.65M 226.2M Hurricane

### Hardee County

#### 1 NNW Wauchula

10 0759EST  
0801EST 0.03 50 0 0 40.00K 0.00K Tornado (EF1)

Roof damage and downed power poles were found in Wauchula along US Highway 17. An NWS storm survey crew had difficulty differentiating tornado damage from the surrounding hurricane damage, but given that the initial damage report was received well before the tropical storm and hurricane force winds arrived, it was determined that a brief tornado more than likely touched down. Time was estimated from radar.

### FLZ052-151-155-251-255

#### Coastal Hillsborough - Coastal Manatee - Inland Hillsborough - Inland Manatee - Polk

10 0800EST  
11 0900EST 1 0 101.23M 145.5M Hurricane

### Polk County

#### Lakeland McCollum Ar

10 1019EST  
1021EST 0.59 50 0 0 20.00K 0.00K Tornado (EF2)

An NWS storm survey crew found 7 wood power poles snapped halfway up along Old Polk City Road, hinting at a strong rotation just aloft of the surface. Winds were estimated at 115 MPH/EF-2. Timing of the tornado touchdown was estimated from radar.

### FLZ050

#### Pinellas

10 1100EST  
11 0900EST 0 0 594.45M 0.00K Hurricane

# Storm Data and Unusual Weather Phenomena

September 2017

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

### FLZ162

### Coastal Charlotte

10	1200EST						
12	0000EST	0	0	20.0M	0.00K	Storm Surge/Tide	

### De Soto County

#### 1 ENE Bunker

#### 1 S Lansing

10	1800EST								
28	1200EST				0	0	1.00M	0.00K	Flood

Heavy rains from Hurricane Irma caused the Peace River at Arcadia to rise above flood stage on the 10th, with flooding continuing through the 28th. The water level crested at 19.20 feet on the 15th, 3.20 feet above the major flooding threshold. This marks the third highest crest in history for the Peace River at Zolfo Springs.

On the nearby Horse Creek, flooding began on the 10th at the river gage near Arcadia, and continued through the 22nd. The water level crested at 17.07 feet on the 11th, 1.07 feet above the major flood stage. This marks the 5th highest flood stage on record for the Horse Creek near Arcadia.

The waters were reported to have flooded homes in the River Acres neighborhood, as well as the Peace River Campground. The flood damage cost is unknown, but was guessed to be around \$1 million.

### Hillsborough County

#### 3 SE Gulf City

10	1800EST								
16	1200EST				0	0	2.00M	0.00K	Flood

Heavy rains from Hurricane Irma caused the Little Manatee River at Wimauma to rise above flood stage on the 10th, with flooding continuing through the 16th. The water level crested at 17.69 feet on the 12th, 0.69 feet above the major flooding threshold.

The flood waters entered several mobile homes on 32nd and 33rd streets in Ruskin. Flood damage to homes was estimated at \$2 million.

### Lee County

#### 1 N Bonita Spgs

10	1800EST								
13	0000EST				0	0	500.00M	0.00K	Flood

Heavy rains from Hurricane Irma on the 10th and 11th cause water levels to rise on the Imperial River in southern Lee county to rise, resulting in flooding of hundreds of homes in Imperial Bonita Estates and the surrounding areas.

Flood damage from Irma in Lee County was roughly estimated at \$500 million.

## FLZ043-142-148-242-248-249

### Coastal Citrus - Coastal Hernando - Inland Citrus - Inland Hernando - Inland Pasco - Sumter

10	2000EST								
11	0900EST				0	0	28.88M	7.9M	Tropical Storm

### FLZ139-239

### Coastal Levy - Inland Levy

11	0100EST								
	0900EST				0	0	260.0K	0.00K	Tropical Storm

### Hernando County

#### 1 SE Croom

#### 3 S Rital

11	0600EST								
30	0000EST				0	0	5.00M	0.00K	Flood

Heavy rains from Hurricane Irma caused the Withlacoochee River at Trilby to rise above flood stage on the 11th, with flooding continuing through the rest of the month. The water level crested at 17.67 feet on September 21st, 1.17 feet above the major flooding threshold. This marks the 5th highest river crest on record for the Withlacoochee River at Trilby.

Farther upstream on the Withlacoochee River, flooding begin at Croom on the 13th and continued through the rest of the month. The river level crested at 11.27 feet on the 22nd, 0.47 feet above the moderate flood stage.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## FLORIDA, West Central

The flood waters entered numerous homes, with Hernando County reporting that 4000 residents were impacted by the flooding. Flood damage to homes was estimated at \$5 million.

### Hillsborough County 3 E Bloomingdale

11	0600EST							
18	1200EST			0	0	2.00M	0.00K	Flood

Heavy rains from Hurricane Irma caused the Alafia River at Lithia to rise above flood stage on the 11th, with flooding continuing through the 18th. The water level crested at 22.79 feet on the 12th, 3.79 feet above the major flooding threshold. This marks the 5th highest crest in history for the Alafia River at Lithia. The flood waters entered several homes in near Lithia Pinecrest Road. Flood damage to homes was estimated at \$2 million.

### Pasco County 1 ESE Elfers

11	0600EST							
18	1200EST			0	0	460.00K	0.00K	Flood

Heavy rains from Hurricane Irma caused the Anclote River at Elfers to rise above flood stage on the 11th, with flooding continuing through the 18th. The water level crested at 24.87 feet on the 12th, 0.87 feet above the major flooding threshold. The flood waters entered several homes in the Anclote River Estates and Anclote River Acres neighborhoods. Flood damage to homes was estimated at \$460,000.

### Hardee County 2 SE Torrey 1 NE Wauchula

12	0600EST							
24	1200EST			0	0	1.64M	0.00K	Flood

Heavy rains from Hurricane Irma caused the Peace River at Zolfo Springs to rise above flood stage on the 12th, with flooding continuing through the 24th. The water level crested at 23.85 feet on the 13th, 1.85 feet above the major flooding threshold. This marks the third highest crest in history for the Peace River at Zolfo Springs. The waters were reported to have flooded the Little Charlie Creek RV Park near Wauchula. Flood damage to homes was estimated at \$1.64 million.

### Hillsborough County 2 N Clarkwild

12	1200EST			0	0	2.00M	0.00K	Flood
19								

Heavy rains from Hurricane Irma caused the Hillsborough River at Morris Bridge to rise above flood stage on the 12th, with flooding continuing through the 20th. The water level crested at 34.66 feet on the 14th, 0.66 feet above the moderate flooding threshold. This marks the highest crest in history for the Hillsborough River at Morris Bridge. The flood waters entered mobile homes in the Pine Ridge Estates neighborhood. Flood damage to homes was estimated at \$2 million.

Monetary losses do not include insured losses. Fatalities are preliminary until the Florida Medical Examiner releases the official information. This document will be updated once released.

Hurricane Irma made landfall on Marco Island as a Category 3 hurricane on the afternoon of the 10th and traveled north through southwest Florida through the morning of the 11th. Prior to making landfall in southwest Florida, Irma had previously reached Category 5 strength and made landfalls in Cuba and the Florida Keys. At it's peak, Irma had a central pressure of 914 mb.

The maximum storm surge in southwest Florida was 3.88 feet in Fort Myers at midnight EST on the 11th. Subtracting the astronomical tide of 0.04 feet, the maximum storm tide was calculated from the tide gauge as 3.28 feet MHHW at 2:36 PM EST on the 11th. Farther north, the storm surge was generally less than 3 feet. Due to the track making landfall south of the area then moving north and parallel but inland of the coast, strong offshore flow north of the eye produced in even stronger negative storm surge before the positive surge in most areas as water was pushed away from the coast.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured				

## FLORIDA, West Central

Rain from Irma started to accumulate over southwest Florida and interior parts of west central Florida on the morning and afternoon of the 10th, with most of the area seeing the highest rain totals during the early morning hours of the 11th. The rain then largely ended by mid morning on the 11th. Most of the area saw rainfall accumulations of 5-10 inches, with some isolated spots seeing totals of over 15 inches. The highest rain total reported was 18.65 inches at the home weather station D1496 in Beverly Hills in Citrus County. The widespread heavy rain caused significant river flooding issues across west central and southwest Florida, with major flooding being observed at points on the Withlacoochee, Anclote, Hillsborough, Alafia, Little Manatee, and Peace Rivers as well as the Horse Creek.

The collective effects of Hurricane Irma in west central and southwest Florida during the period of September 10 and 11 resulted in 2 direct fatalities, 14 indirect fatalities, an estimated \$2.2 billion in property damage (adding individual assistance claims and public assistance claims, not including the cost of debris removal and emergency protective measures when known), and \$379 million in crop damage. A total of 509 homes and businesses were destroyed, 5,589 had major damage, 18,834 sustained minor damage, and 61,920 were affected by Hurricane Irma in west central and southwest Florida.

### County-by-County Impacts

**Lee County** - In inland portions of Lee county, the highest wind reported from Hurricane Irma was a gust to 77 knots at the ASOS at Southwest Florida International Airport during the late afternoon on the 10th. Rainfall was generally around 5 inches or greater, with the highest rain total being 11.59 inches at a mesonet site at the waste plant on Buckingham Road in Fort Myers. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines, while heavy rain also causing flood damage to many homes. Lee County Emergency Management reported that 92 homes or businesses were destroyed by Irma, 2088 sustained major damage, 1721 had minor damage, and an additional 20426 were affected throughout Lee County. The total property damage from Irma in Lee County was estimated at \$826.28 million in individual damage assessments, of which, \$163.14 million was estimated to be caused by wind damage in inland portions of Lee County. Additionally, crop damage to citrus plants in Lee County was roughly estimated at \$9.6 million. In coastal portions of Lee county, the highest wind reported from Hurricane Irma was a gust to 73 knots at the ASOS at Fort Myers Page Field during the late afternoon on the 10th. Rainfall was generally around 4 inches or greater, with the highest rain total being 10.60 inches at the ASOS at Fort Myers Page Field. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines, while heavy rain also caused flood damage to numerous homes. Lee County Emergency Management reported that 92 homes or businesses were destroyed by Irma, 2088 sustained major damage, 1721 had minor damage, and an additional 20,426 were affected throughout Lee County. The maximum storm surge was 3.88 feet in Fort Myers at midnight EST on the 11th. Subtracting the astronomical tide of 0.04 feet, the maximum storm tide was calculated from the tide gauge as 3.28 feet MHHW 1436EST on the 11th. The total damage from Irma in Lee County was estimated at \$826.28 million in individual assistance assessments, of which, \$163.14 million was estimated to be caused by wind damage in coastal portions of Lee County. There was one direct fatality reported in Bonita Springs, when a 74 year old man fell down stairs near his home on the 11th. Due to the hurricane conditions, paramedics were not able to reach him for several hours, and he died on the 16th.

**Charlotte County** - In coastal portions of Charlotte County, the highest wind reported from Hurricane Irma was a gust to 64 knots at the ASOS at Punta Gorda Airport during the early evening on the 10th. Rainfall was generally around 5 inches or greater, with the highest rain total being 8.08 inches at the CoCoRaHS station FL-CH-13 in Port Charlotte. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Charlotte County Emergency Management reported that 5 homes or businesses sustained major damage and an additional 200 were affected by hurricane Irma throughout Charlotte County. The total property damage from Irma in Charlotte County was estimated at \$23 million, including \$3 million in individual assistance claims, and \$20 million in public assistance claims including for debris removal and emergency protective measures. An estimated \$2.9 million was caused by wind damage in coastal portions of Charlotte County. Emergency management reported that sea walls collapsed when water left the Charlotte Harbor during the negative storm surge ahead of the storm, causing an estimated \$20 million in damage. Timing was estimated by using the nearby tide gauge in Fort Myers, where the negative surge bottomed out at around -4 feet MLLW at around 1800EST on the 10th, then surged to a positive surge of just over 3 feet at about 0500EST on the 11th, before slowly receding through the rest of the day. Charlotte county emergency management reported that the negative surge caused sea walls to collapse, causing an estimated \$20 million in public assistance claims. In inland portions of Charlotte County, winds from Hurricane Irma were estimated to be around 60 to 70 knots based on surrounding observations. Rainfall was generally around 5 inches or greater, with the highest rain total being 9.76 inches at mesonet station at Whidden Properties (WHID) near the eastern border of Charlotte County. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Charlotte County Emergency Management reported that 5 homes or businesses sustained major damage and an additional 200 were affected by hurricane Irma throughout Charlotte County. The total property damage from Irma in Charlotte County was estimated at \$23 million, including \$3 million in individual assistance claims, and \$20 million in public assistance claims including for debris removal and emergency protective measures. An estimated \$100,000 of that damage was caused by wind damage in inland portions of Charlotte County. Additionally, crop damage to citrus plants in Charlotte County was roughly estimated at \$15.9 million.

**Sarasota County** - In coastal portions of Sarasota County, the highest wind reported from Hurricane Irma was a gust to 70 knots at the home weather station AP859 in Sarasota during the evening on the 10th. Rainfall was generally around 4 inches or greater, with the highest rain total of 10.32 inches at the CWOP station C7986 in Laurel. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Sarasota Emergency Management reported that 4 homes sustained major damage, 10 had minor damage, and 438 were affected. The total property damage from Irma in Sarasota County was estimated at \$10.73 million, including \$2.47 million in individual assistance claims and \$8.26 million in public assistance claims. In inland portions of Sarasota County, winds from Hurricane Irma were estimated to be around 60 to 70 knots using surrounding observations. Additionally, crop damage to citrus plants in Sarasota County was roughly estimated at \$2.2 million.

# Storm Data and Unusual Weather Phenomena

September 2017

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

Manatee County - In coastal portions of Manatee County, winds from Hurricane Irma were estimated to be around 60 to 70 knots based on surrounding observations. The highest wind gust reported in coastal Manatee County was 61 knots at the ASOS at Sarasota Bradenton International Airport. Rainfall was generally around 5 inches or greater, with the highest rain total being 6.86 inches at the GOES station LWDF1 in Lake Ward. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Manatee County Emergency Management reported that 14 homes or businesses were destroyed, 170 sustained major damage, 196 had minor damage, and an additional 2061 were affected by hurricane Irma throughout Manatee County. The total damage from Irma in Manatee County was estimated at \$18.3 million in individual assistance claims, of which, \$15.3 million was estimated to be caused by wind damage in coastal portions of Manatee County. One direct fatality was reported in Manatee County when an 89 year old man told his wife he was going out to secure their boat to their dock during the storm and was later found unresponsive in the canal. In inland portions of Manatee County, winds from Hurricane Irma were estimated to be around 60 to 70 knots based on surrounding observations. Rainfall was generally around 4 inches or greater, with the highest rain total being 6.65 inches at the HADS station MKHF1. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Manatee County Emergency Management reported that 14 homes or businesses were destroyed, 170 sustained major damage, 196 had minor damage, and an additional 2061 were affected by hurricane Irma throughout Manatee County. The total property damage from Irma in Manatee County was estimated at \$18.3 million in individual assistance claims, of which, \$3 million was estimated to be caused by wind damage in inland portions of Manatee County. Additionally, crop damage to citrus plants in Manatee County was roughly estimated at \$23.5 million.

DeSoto County - The wind gusts from Hurricane Irma were estimated to be around 60 to 70 knots based on surrounding observations. Rainfall was generally around 6 inches or greater, with the highest rain total being 11.34 inches at the CoCoRaHS station FL-DS-1 in Arcadia. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Additional damage occurred due to the high rain totals causing flooding on the Peace River and the Horse Creek. The total property damage from DeSoto County is unknown at this time. Additionally, crop damage to citrus plants in DeSoto County was roughly estimated at \$71 million.

Hardee County - The highest wind reported from Hurricane Irma was a gust to 69 knots at the Hardee County Emergency Operations Center in Wauchula. Rainfall was generally around 6 inches or greater, with the highest rain total being 10.58 inches at a mesonet station in Zolfo Springs. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Hardee County Emergency Management reported that 10 homes or businesses were destroyed by Irma, 20 sustained major damage, 71 had minor damage, and an additional 59 were affected. Additional damage occurred due to the high rain totals causing flooding on the Peace River. An EF-1 tornado was also found to have briefly touched down in Wauchula along US Highway 17 causing roof and power pole damage. The total property damage from Hardee County was estimated at \$3.32 million, of which, \$1.64 million was estimated to be caused by wind damage. Additionally, crop damage to citrus plants in Hardee County was roughly estimated at \$57.5 million.

Highlands County - The highest wind reported from Hurricane Irma was a (3 second average) gust to 85 knots at Archbold Bio Station during the evening on the 10th. Elsewhere, the AWOS in Sebring registered a 5 second average gust to 75 knots. Rainfall was generally around 5 inches or greater, with the highest rain total being 10.31 inches at the CoCoRaHS station FL-HL-13 in Sebring. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Highlands County Emergency Management reported that 144 homes or businesses were destroyed by Irma, 963 sustained major damage, 2408 had minor damage, and an additional 9623 were affected. The total property damage from Highlands County was estimated at \$360 million in individual assistance claims, most of which was estimated to be caused by wind damage. Additionally, crop damage to citrus plants in Highlands County was roughly estimated at \$70 million. There were four indirect fatalities from Irma in Highlands County. On the 9th, a 55 year old man fell off a ladder in Lake Placid while preparing his home. The man hit his head and died at a Tampa hospital on the 10th. A 56 year old man in Sebring collapsed while trimming trees on the 12th and died. The medical examiner determined that heart disease was the primary cause of death. A 62 year old man was found dead in his garage in Sebring on the 15th with a generator in the on position and out of gas. The medical examiner determined he died of carbon monoxide poisoning. A 23 year old man was electrocuted and died while trimming trees and clearing storm debris in Sebring on the 26th.

Polk County - The highest wind reported from Hurricane Irma was a gust to 75 knots at the APRS station AR663 near Bartow. Rainfall was generally around 6 inches or greater, with the highest rain total being 17.61 inches at the CWOP station E1114 in Davenport. The wind resulted in damage to numerous homes and businesses, as well as knocking over trees and power lines. Most notably, the wind removed a 7 story tall section of facade from the Winter Haven Senior Living Center. Polk County Emergency Management reported that 96 homes or businesses were destroyed by Irma, 1604 sustained major damage, 7710 had minor damage, and an additional 18537 were affected. The total property damage from Polk County was estimated at \$69 million in public assistance claims, including from debris removal and emergency protective measures, most of which coming from wind damage. Additionally, crop damage to citrus plants in Polk County was roughly estimated at \$93.5 million. One tornado was found to have touched down near Old Polk City Road near Lakeland, causing EF2 damage. Three indirect fatalities were reported in Polk County from Irma. A 7 year old girl died from carbon monoxide poisoning on the 13th in Lakeland due to a gas generator being run indoors. A 63 year old man died in Winterhaven on the 13th while conducting post hurricane work on his home. The medical examiner listed the primary cause of death as heart disease. A 77 year old died in Lakeland on the 17th after he fell while staying at a hurricane shelter.

# Storm Data and Unusual Weather Phenomena

September 2017

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

Hillsborough County - In coastal portions of Hillsborough County, the highest winds reported from Hurricane Irma was a gust to 79 knots at the WeatherFlow station XEGM at Egmont Key. Rainfall was generally around 5 inches or greater, with the highest rain total being 16.18 inches at the CWOP site D3252 in Tampa. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Hillsborough County Emergency Management reported that 41 homes or businesses were destroyed, 130 sustained major damage, 166 had minor damage, and an additional 93 were affected by hurricane Irma throughout Hillsborough County. The track of Irma resulted in a much stronger negative surge north of the eye, causing extremely low water levels. A couple of manatees got beached in the mud, and there was a lot of media coverage showing people walking out into the dry part of the bay to rescue them. No significant damage was reported from either the negative surge or the weak positive surge. The total damage from Irma in Hillsborough County was estimated at \$19.95 million, including \$17.86 million in individual assistance claims and \$2.09 million in public assistance claims, of which, \$7 million was estimated to be caused by wind damage in coastal portions of Hillsborough County. Three indirect fatalities were reported in Hillsborough County from Hurricane Irma. A 55 year old man in Town N' Country was trimming a damaged tree with a chainsaw when a branch fell on the chainsaw, causing it to kick upward and strike him in the neck. A 60 year old man fell from a ladder in Tampa while cutting branches and died on the 14th. A 61 year old man also died on the 14th while cleaning up yard debris when a branch knocked the ladder out from under him, causing him to fall to the ground. In inland portions of Hillsborough County, winds from Hurricane Irma were estimated to be around 60-70 knots based on surrounding observations. Rainfall was generally around 6 inches or greater, with the highest rain total 7.62 inches at the COOP site PLCF1 in Plant City. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Hillsborough County Emergency Management reported that 41 homes or businesses were destroyed, 130 sustained major damage, 166 had minor damage, and an additional 93 were affected by hurricane Irma throughout Hillsborough County. Heavy rains across the area also resulted in widespread river flooding, with rising water levels damaging houses on the Hillsborough River, the Alafia River, and the Little Manatee River in Hillsborough County. The total damage from Irma in Hillsborough County was estimated at \$19.95 million, including \$17.86 million in individual assistance claims and \$2.09 million in public assistance claims, of which, \$6.95 million was estimated to be caused by wind damage in inland portions of Hillsborough County. Additionally, crop damage to citrus plants in Hillsborough County was roughly estimated at \$28.5 million.

Pinellas County - In Pinellas County, the highest winds reported from Hurricane Irma was a gust to 77 knots at Pier 60 Park. Rainfall was generally around 4 inches or greater, with the highest rain total 5.98 inches at the the GOES station BTRF1 in Tarpon Springs. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. Pinellas County Emergency Management reported that 77 homes or businesses were destroyed, 533 sustained major damage, 5761 had minor damage, and an additional 11,935 were affected by hurricane Irma throughout Pinellas County. The track of Irma resulted in a much stronger negative surge north of the eye, causing extremely low water levels in the Tampa Bay. No significant damage was reported from either the negative surge or the weak positive surge. The total damage from Irma in Pinellas County was estimated at \$594.45 million, including \$588.08 million in individual assistance claims and \$6.37 million in public assistance claims, most of which was caused by wind damage. One indirect fatality was reported in Pinellas County from Hurricane Irma. A 53 year old man was repairing cable lines in Feather Sound on the 16th when he fell 20 feet from a ladder. The medical examiner ruled that heart disease was a contributing factor.

Pasco County - In coastal portions of Pasco County, winds from Hurricane Irma were estimated to be 60-70 knots based on surrounding observations. Rainfall was generally around 4 inches or greater, with the highest rain total 6.83 inches at the GOES site LWOF1 near Port Richey. The wind resulted in damage to numerous homes, as well as knocking over trees and power lines. The total damage from Irma in Pasco County was estimated at \$860,000 in public assistance claims, including debris removal and emergency protective measures, of which, \$200,000 was estimated to be caused by wind damage in coastal portions of Pasco County. One indirect fatality was reported in Port Richey on the 8th when a 69 year old man evacuating ahead of Irma crashed into a tree. In Inland Pasco County, winds from Hurricane Irma were estimated to be around 40-60 knots, with the highest wind reported was a gust to 48 knots at the WeatherFlow station XLLOL in Land O' Lakes. Rainfall was generally around 6 inches or greater, with the highest rain total being 9.64 inches at the GOES station WRCF1 in Richland. The wind resulted in damage to numerous homes and businesses, as well as knocking over trees and power lines. The non-insured property damage in Pasco County was estimated at \$10,303,487, including for debris removal and emergency protective measures. Additionally, crop damage to citrus plants in Pasco County was roughly estimated at \$7.3 million.

Hernando County - In coastal portions of Hernando County, winds from Hurricane Irma were estimated to be around 34 to 50 knots, with the highest wind reported being a gust to 36 knots at the WeatherFlow station XWKI in Weeki Wachee. Rainfall was generally around 5 inches or greater, with the highest rain total being 10.31 inches at a mesonet station near the Withlacoochee River at Trilby. The wind resulted in damage to numerous homes and businesses, as well as knocking over trees and power lines. Hernando County Emergency Management reported that 26 homes or businesses were destroyed by Irma, 45 sustained major damage, 103 had minor damage, and an additional 112 were affected. The total damage from Hernando County was estimated at \$6.1 million, including \$800,000 in individual assistance claims, and \$5.3 million in public assistance claims. Roughly \$500,000 of that was estimated to be caused by wind damage in coastal portions of Hernando County. In inland portions of Hernando County, winds from Hurricane Irma were estimated to be around 34 to 50 knots based on surrounding observations. Rainfall was generally around 6 inches or greater. The wind resulted in damage to numerous homes and businesses, as well as knocking over trees and power lines. Hernando County Emergency Management reported that 26 homes or businesses were destroyed by Irma, 45 sustained major damage, 103 had minor damage, and an additional 112 were affected throughout the county. The total property damage in Hernando County was estimated at \$6.1 million, including \$800,000 in individual assistance claims and \$5.3 million in public assistance claims. Roughly \$600,000 of that was estimated to be caused by wind damage in inland portions of Hernando County. Additionally, crop damage to citrus plants in Hernando County was roughly estimated at \$600,000.

# Storm Data and Unusual Weather Phenomena

September 2017

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

**Citrus County** - In coastal portions of Citrus County, winds from Hurricane Irma were estimated to be around 40 to 60 knots based on surrounding observations. Rainfall was generally around 5 inches or greater. The wind knocked over numerous trees and power lines throughout the county. The total damage from Hurricane Irma in Citrus County was estimated at \$5.9 million in public assistance claims, including debris removal and emergency protective measures, roughly half of which was estimated to be for wind damage in coastal Citrus County. In inland portions of Citrus County, winds from Hurricane Irma were estimated to be around 40-60 knots, with the highest wind reported being a gust to 56 knots at the CWOP station D1496 in Beverly Hills. Rainfall was generally around 6 inches or greater, with the highest rain total being 18.65 inches at the CWOP station D1496 in Beverly Hills. The wind resulted knocked over numerous trees and power lines. The total damage from Hurricane Irma in Citrus County was estimated at \$5.9 million in public assistance claims, including debris removal and emergency protective measures, roughly half of which was estimated to be for wind damage in inland Citrus County.

**Sumter County** - Winds from Hurricane Irma were estimated to be tropical storm force around 40-60 knots, with the highest wind reported being a gust to 53 knots at the CWOP station D5322 in The Villages. Rainfall was generally around 8 inches or greater, with the highest rain total being 11.34 inches at a mesonet station in Compressco. The wind resulted in damage to numerous homes and businesses, as well as knocking over trees and power lines. Sumter County Emergency Management reported that 5 homes or businesses were destroyed by Irma, 27 sustained major damage, and 688 had minor damage. The total damage in Sumter County was estimated at \$19 million, which included \$5 million in individual assistance claims, and \$14 million in public assistance claims including debris removal and emergency protective measures.

**Levy County** - In coastal portions of Levy County, winds from Hurricane Irma were estimated to be around 34 to 50 knots, with the highest wind reported being a gust to 48 knots at the RAWs station SWNF1 near Yellow Jacket. Rainfall was generally around 4 inches or greater, with the highest rain total being 6.33 inches at a mesonet station in Yankeetown. The wind knocked down trees and power lines throughout the county. The total damage in Levy County was estimated at \$260,000 in public assistance claims, including debris removal and emergency protective measures, half of which was estimated to be caused by wind damage in coastal Levy County. In inland portions of Levy County, winds from Hurricane Irma were estimated to be around 34 to 50 knots based on surrounding observations. Rainfall was generally around 5 inches or greater, with the highest rain total being 7.92 inches at the CoCoRaHS site FL-LV-9 in Chiefland. The wind knocked down numerous trees and power lines. The total damage in Levy County was estimated at \$260,000 in public assistance claims, including debris removal and emergency protective measures, half of which was estimated to be caused by wind damage in inland Levy County.

## GEORGIA, East Central

### **Burke County**

3 SW Waynesboro

11	0000EST					
12	0800EST	0	0			Heavy Rain

A total rainfall amount of 6.67 inches was measured 3.3 miles SW of Waynesboro.

### **Columbia County**

Appling

11	0000EST					
12	0800EST	0	0			Heavy Rain

NWS LARC near Appling measured a total rainfall amount of 5.00 inches.

### **McDuffie County**

Thmson McDuffee Arpt

11	0000EST					
12	0800EST	0	0			Heavy Rain

AWOS unit at Thomson McDuffie Co Airport measured a total of 5.37 inches of rain.

### **Richmond County**

(AGS)Bush Fld August

11	0000EST					
12	0800EST	0	0			Heavy Rain

ASOS unit at Augusta GA Bush Field Airport measured a total rainfall amount of 4.11 inches.

### **Richmond County**

Augusta Daniel Arpt

11	0000EST					
12	0800EST	0	0			Heavy Rain

ASOS unit at Augusta GA Daniel Field Airport measured a total rainfall amount of 3.92 inches.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## GEORGIA, East Central

### GAZ064-077

### Burke - Columbia - Richmond

11	0800EST 1415EST			0	0			High Wind
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### GAZ077

### Burke

11	1433EST			0	0	0.1K	0.1K	Strong Wind
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### GAZ064

### Columbia

11	1535EST 1540EST			0	0			High Wind
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Irma made landfall in south Florida as a category 4 hurricane on Sunday, September 10th, then moved north up the Florida peninsula during the day and night while gradually weakening. Irma weakened to Tropical Storm status while over north Florida Monday morning September 11th, and shifted NW over SW Georgia and into Alabama through Monday night while weakening to a Depression. Copious rainfall amounts associated with the cyclone occurred across the Central Savannah River Area (CSRA) of GA and the Midlands of SC, which generally fell from late Sunday night, through Monday and Monday night the 11th, and into the early morning hours of Tuesday the 12th. In addition, the pressure gradient between the cyclone to our SW, and high pressure to our north, provided strong wind gusts over the region as well which downed numerous trees. The strongest wind gusts occurred Monday afternoon Sept 11th.

### Richmond County

#### 1 ESE Augusta

22	1340EST 1344EST			0	0			Hail (1.00)
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Dime to quarter size hail reported by the public. Report relayed via adjacent NWS office.

Daytime heating allowed isolated severe thunderstorms to develop in the afternoon, which produced hail.

## GEORGIA, Lower

### Brantley County

#### Schlatterville

01	1710EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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Trees were blown down along Schlatterville Road. The time of damage was based on radar.

Strong SW steering flow pushed the dominant west coast sea breeze across the region through the day. The sea breezes converged along toward the Atlantic in the afternoon, with a few strong to severe storms that produced wind damage and localized heavy rainfall. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### GAZ136-150>152-154-163>164-166

### Brantley - Charlton - Clinch - Coastal Camden - Coastal Glynn - Pierce - Ware - Wayne

10	1000EST							
11	1200EST			0	0	0.00K	0.00K	Tropical Storm

### Brantley County

#### 4 ESE Shea

#### 2 SSE Nahunta

11	0700EST			0	0	0.00K	0.00K	Flash Flood
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Multiple roads were closed across Brantley county due to flash flooding.

### Brantley County

#### 7 S Atkinson

#### 3 SSE Shea

11	0800EST			0	0	0.00K	0.00K	Flash Flood
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Multiple roads were closed across Brantley county due to flash flooding.



# Storm Data and Unusual Weather Phenomena

September 2017

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, Lower

Hurricane Irma's eye passed west of the local forecast area, with the region on the storm's turbulent east side. Widespread tropical storm force winds with gusts to hurricane force were felt across much of the area, with the strongest winds surging up the Florida east coast during the pre-dawn hours of Sept. 11th. Extensive tree and power line damage occurred across the local area from the winds. One of the greatest local impacts exacerbated by Irma's rainfall and storm surge was river flooding. Prior to Irma's arrival, a local nor'easter developed 3 days prior, with strong onshore flow pumping water into the St. Johns River basin. Elevated water levels of 1-2 ft above normal tidal departure were already ongoing for several tidal cycles before Irma's surge and rainfall. The nor'easter also brought localized heavy rainfall bands, with some areas near the coast realizing 4-6 inches in 24 hrs the days prior to Irma. In addition, precursor conditions to the nor'easter included an above average rainfall across the region during the summer months. Major, historic river flooding was forecast along Black Creek and the Sante Fe a week prior to Irma. Realized river values along the St. Johns surpassed prior record levels set by Hurricane Dora in 1964, during low tide the morning of Sept. 11th. The St. Johns River basin continued to rise with the combination of trapped tides due to the nor'easter, astronomically high tides heading into the spring tide season, storm surge of up to 5 ft in some areas, fresh water rainfall of 7-11 inches, and strong southerly winds pushing the water across the basin on the east side of Irma. Historic river flooding occurred across much of NE Florida Sept 11th through the following week as water levels were slow to funnel out of the St. Johns basin. Coastal infrastructure that was already weakened about 1 year ago due to Hurricane Matthew suffered the most damage from Irma's storm surge.

## GEORGIA, North and Central

### **Chattooga County** 1 SSW Cloudland 2 NE Summerville

05	1420EST								
	1440EST			0	0	4.00K			Thunderstorm Wind (50EG)

The Chattooga County Emergency Manager reported a few trees and power lines blown down from highway 48 near Cloudland to Highway 27 north of Summerville.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Pickens County** 1 WNW Ruden

05	1645EST								
	1700EST			0	0	5.00K			Thunderstorm Wind (50EG)

The Pickens County 911 center reported trees and power lines blown down around Old Federal Road, McEntire Place and N. Main Street in Jasper.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Cherokee County** 1 N Suttalee 3 W Mica

05	1705EST								
	1725EST			0	0	8.00K			Thunderstorm Wind (50EG)

The Cherokee County Emergency Manager reported trees and power lines blown down across the western and northern portions of the county. Some locations include Fincher Road near Oakwind Parkway, around the intersections of Hornage Road with Bethany Road and Howell Bridge Road, and around Revis Mountain Road and Revis Mountain Parkway.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Dawson County** Dawsonville 1 SW Lumpkin

05	1740EST								
	1755EST			0	0	20.00K			Thunderstorm Wind (55EG)

The Dawson County 911 center reported numerous reports of trees and power lines blown down across the city of Dawsonville extending east and southeast to around the intersection of Highways 53 and 19. A sign was blown off of an overpass on Highway 19 and struck a vehicle, no injuries were reported.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Fulton County** Union City

05	1810EST								
	1820EST			0	0	4.00K			Thunderstorm Wind (50EG)

The Fulton County 911 center reported large tree limbs and power lines blown down in the 7000 block of Goodson Road.

Thunderstorms developing along a cold front that pushed into north Georgia during the afternoon produced isolated reports wind damage across northwest and north-central Georgia. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## GEORGIA, North and Central

**GAZ001>009-011>  
016-019>025-027-  
030>039-041>062-  
066>076-078>086-  
089>098-102>113**

**Baldwin - Banks - Barrow - Bartow - Bibb - Bleckley - Butts - Carroll - Catoosa - Chattahoochee - Chattooga - Cherokee - Clarke - Clayton - Cobb - Coweta - Crawford - Crisp - Dade - Dawson - De Kalb - Dodge - Dooly - Douglas - Emanuel - Fannin - Fayette - Floyd - Forsyth - Gilmer - Glascock - Gordon - Greene - Gwinnett - Hall - Hancock - Haralson - Harris - Heard - Henry - Houston - Jackson - Jasper - Jefferson - Johnson - Jones - Lamar - Laurens - Lumpkin - Macon - Madison - Marion - Meriwether - Monroe - Montgomery - Morgan - Murray - Muscogee - Newton - North Fulton - Oconee - Oglethorpe - Paulding - Peach - Pickens - Pike - Polk - Pulaski - Putnam - Rockdale - Schley - South Fulton - Spalding - Stewart - Sumter - Talbot - Taliaferro - Taylor - Telfair - Toombs - Towns - Treutlen - Troup - Twiggs - Union - Upson - Walker - Walton - Warren - Washington - Webster - Wheeler - White - Whitfield - Wilcox - Wilkes - Wilkinson**

11	0400EST 2300EST			2	5	28.515M		Tropical Storm
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### Gordon County

**3 WSW Hunts Corner  
1 ESE Echota**

11	2300EST							
13	0600EST			0	0	0.00K	0.00K	Flash Flood

Numerous roads became flooded the evening of September 11th, 2017. The roadways remained closed overnight and through much of the day on September 12th, 2017. 12 roads were closed across Gordon County.

On the morning of August 30th Tropical Storm Irma developed rapidly over the eastern Atlantic Ocean, just west of the Cape Verde Islands. Tropical Irma quickly strengthened as it moved west, reaching hurricane strength by the morning of August 31st. Hurricane Irma continued to move steadily westward across the Atlantic Ocean, intensifying to category 4 storm on the Saffir-Simpson scale as it approached the northern Leeward Islands of the Lesser Antilles on September 4th. By the morning of the September 5th Hurricane Irma had reached category 5 and remained so into the morning of September 8th as it moved through the northern Antilles and approached the Bahamas. Irma continued moving west northwest as a category 4 storm before turning north over the Florida Straits, and crossing the Florida Keys on the 9th and 10th. Hurricane Irma made landfall over southwest Florida as a category 4 storm during the evening of the 10th and travelled north northwest through western Florida before weakening to a category 1 hurricane as it crossed into southwest Georgia the afternoon of September 11th. Tropical Storm Irma crossed southwest Georgia through the day of the 11th before weakening to a tropical depression over north Alabama early on the morning of the 12th. Tropical storm strength winds produced widespread damage across central and north Georgia through the day of September 11th and into the early morning hours of the 12th. Isolated flash flooding associated with Tropical Storm Irma was reported as well.

### Dodge County

**2 W Dubois  
2 SW Gresston**

21	1725EST 1745EST			0	0	5.00K		Thunderstorm Wind (50EG)
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The Dodge County 911 center reported trees blown down from Hardy Road near Dubois Church Road to Gresston Baptist Road near Hardy Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Telfair County

**1 W Milan**

21	1725EST 1735EST			0	0	1.00K		Thunderstorm Wind (45EG)
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The Telfair County 911 center reported a tree blown down in Milan near Highway 280.

Note: The estimated wind gust of 45 knots is equivalent to 52 mph.

### Pulaski County

**3 WNW Finleyson**

21	1835EST 1845EST			0	0	20.00K		Thunderstorm Wind (55EG)
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The Pulaski County 911 center reported multiple trees and power lines blown down around the intersection of Highway 257 with Folds/Noble Road. One home sustained damage from a falling tree, no injuries were reported.

An unseasonably warm air mass over the region combined with a series of weak upper-level waves to produce isolated severe thunderstorms across portions of central Georgia. Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### Johnson County

**1 E Wrightsville**

22	1423EST 1433EST			0	0			Hail (1.00)
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The Johnson County Emergency Manager reported quarter size hail along Highway 319 1/2 mile outside of Wrightsville.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## GEORGIA, North and Central

### **Upson County**

**1 N Paynes Mill**

22 1705EST  
1715EST 0 0 Hail (1.00)

The public reported quarter size hail in Thomaston.

### **Bibb County**

**2 WNW Terra Cotta**

22 1713EST  
1723EST 0 0 0.50K Thunderstorm Wind (45EG)

The Bibb County 911 center reported a tree blown down on Mikado Avenue on the south side of Macon.

Note: The estimated wind gust of 45 knots is equivalent to 52 mph.

### **Crawford County**

**5 ESE Sandy Point**

**5 NE Lee Pope**

22 1740EST  
1810EST 0 0 6.00K Thunderstorm Wind (50EG)

The Crawford County 911 center reported several trees blown down from around the intersection of Marshall Mill Road and Pottery Road to around the intersection of Walton Road and Union Church Road.

An persistent, unseasonably warm air mass over the region combined with a series of weak upper-level waves to produce isolated severe thunderstorms across portions of central Georgia. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## GEORGIA, Northeast

**GAZ010-017-026-028>029**

### **Elbert - Franklin - Habersham - Hart - Rabun - Stephens**

11 0900EST  
2100EST 0 0 60.0K 0.00K High Wind

As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over northeast Georgia. Although gusts only occasionally exceeded 50 mph in these areas, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more.

## GEORGIA, Southeast

**GAZ141**

### **Coastal McIntosh**

11 0100EST  
1600EST 0 0 967.0K 0.00K Storm Surge/Tide

**GAZ140**

### **Inland McIntosh**

11 0500EST  
1700EST 0 0 966.0K 0.00K Tropical Depression

**GAZ141**

### **Coastal McIntosh**

11 0500EST  
1700EST 0 0 967.0K 0.00K Tropical Storm

**GAZ116-137**

### **Inland Bryan - Long**

11 0600EST  
1800EST 0 0 650.0K 0.00K Tropical Depression

**GAZ117>119**

### **Coastal Bryan - Coastal Chatham - Inland Chatham**

11 0600EST  
1800EST 0 0 10.45M 0.00K Tropical Storm

# Storm Data and Unusual Weather Phenomena

									September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b><u>GEORGIA, Southeast</u></b>									
<b>Mcintosh County</b> <b>2 SSW Darien</b>	11	0645EST							
		1400EST			0	0	25.00K	0.00K	Flash Flood
		Local broadcast media reported flash flooding from heavy rainfall associated with Hurricane Irma. Pictures showed several structures submerged due to flood waters on Highway 17 south of Darien. Water was nearly up to the windows on one structure.							
<b>GAZ087-099-114</b>		<b>Bulloch - Candler - Jenkins - Tattnall</b>							
	11	0700EST							
		2000EST			0	0	1.55M	0.00K	Tropical Depression
<b>GAZ118-139</b>		<b>Coastal Chatham - Coastal Liberty - Inland Chatham</b>							
	11	0900EST							
		1500EST			0	0	12.9M	0.00K	Storm Surge/Tide
<b>Chatham County</b> <b>1 SSE Burnside</b> <b>1 ENE Beaulieu</b>	11	1300EST							
		1500EST			0	0	25.00K	0.00K	Flash Flood

Chatham County Emergency Management reported 11 people and 2 dogs were rescued from a home on Beaulie Farm Bend.

Irma first developed into a tropical storm on August 30th about 420 miles west of the Cabo Verde Islands, and within 24 hours strengthened into a hurricane. Irma continued to intensify and became a major hurricane over the eastern Atlantic on September 1st. After undergoing a brief period of weakening on September 2nd, Irma once again strengthened into a major hurricane on September 3rd and maintained major hurricane status through September 10th when it made landfall on the southwest Florida coast. During this extended period as a major hurricane, Irma set numerous intensity records for a hurricane in the Atlantic basin. Maximum sustained winds reached 185 mph, making Irma the strongest storm on record to exist in the Atlantic Ocean outside of the Caribbean and Gulf of Mexico. Also, Irmas 185 mph maximum sustained winds are tied for the second strongest maximum winds all time in an Atlantic hurricane. The minimum central pressure reached during Irmas life cycle was 914 mb which is the lowest pressure on record by an Atlantic hurricane outside of the western Caribbean and Gulf of Mexico. Furthermore, Irma maintained Category 5 status for 3 consecutive days which is the longest on record for an Atlantic hurricane. Irma stayed on a general westward track through September 5th when it began a gradual turn to the west-northwest. On this west-northwestward track, Irma eventually skirted along the north coast of Cuba on September 9th before turning northward toward Florida on September 10th. Irma officially made landfall at Marco Island, FL at 3:35 pm September 10 as a Category 3 hurricane. Following landfall, Irma tracked to the north-northwest and eventually the northwest as it progressed up the western side of the Florida peninsula. Irma steadily weakened during this time and was downgraded to a tropical storm near the big bend of Florida at 8:00 am on September 11th. Through the rest of September 11th, Irma tracked to the northwest into southern Georgia and widespread impacts occurred across the Southeast.

Despite the fact that the center of Irma tracked well to the west of the southeast Georgia and southeast South Carolina region, it still caused significant impacts due to heavy rainfall, strong winds, tornadoes, and storm surge. Feeder bands around Irma continuously moved onshore on September 11th and produced very heavy rainfall rates with rainfall totals generally ranging from 3 to 9 inches. The peak storm total rainfall of 9.07 was recorded by a CoCoRaHS observer near Beaufort, SC. Daily record rainfall totals for September 11th were recorded at all 3 climate sites in the area: 5.51 at the Charleston International Airport (KCHS), 4.53 at Downtown Charleston (KCXM), and 4.74 at the Savannah-Hilton Head International Airport (KSAV). This widespread heavy rain resulted in several reports of flash flooding with water entering homes and businesses. Wind damage produced numerous power outages across the region with some damage to structures and numerous downed trees. The strongest winds were confined to coastal locations, but frequent gusts into the 40-50 mph range occurred well inland. The maximum sustained wind recorded was 59 mph by the Weatherflow site on the Folly Beach Pier (XFOL) and the maximum wind gust recorded was 76 mph by the Weatherflow site near Beaufort (XBUF). One fatality and 1 injury occurred from trees falling on homes and across roadways in southeast South Carolina. The entire southeast Georgia and southeast South Carolina coast was impacted by storm surge generally ranging from 3 to 6 feet. This storm surge produced numerous reports of 4 to 6 feet of inundation above ground level, mainly along the southeast South Carolina coast. A peak surge of 4.87 feet occurred at the Charleston Harbor tide gauge at 2:00 pm while a peak surge of 5.63 feet occurred at the Fort Pulaski tide gauge at 5:42 am. Significant beach erosion occurred at area beaches with widespread damage to docks and piers all along the coast, as well as numerous reports of inundated roadways.

According to data received from the Georgia Emergency Management Agency, total damages from Irma in southeast Georgia were \$29,150,000. This includes \$20,000,000 in Chatham County, \$2,900,000 in Liberty County, \$2,900,000 in McIntosh County, \$900,000 in Bryan County, \$900,000 in Bulloch County, \$300,000 in Effingham County, \$250,000 in Candler County, \$200,000 in Evans County, \$200,000 in Jenkins County, \$200,000 in Long County, \$200,000 in Screven County, and \$200,000 in Tattnall County. However, it should be noted that no explicit reports of damage from Irma were received from Effingham, Evans, or Screven counties. As such, no events were recorded in Storm Data for these counties. For all other counties, the total dollar damage amounts were divided equally across all Tropical Depression, Tropical Storm, and Storm Surge/Tide events.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## GEORGIA, Southwest

GAZ120>131-142>  
148-155>161

**Baker - Ben Hill - Berrien - Brooks - Calhoun - Clay - Colquitt - Cook - Decatur - Dougherty - Early - Grady - Irwin - Lanier - Lee - Lowndes - Miller - Mitchell - Quitman - Randolph - Seminole - Terrell - Thomas - Tift - Turner - Worth**

10 2200EST 0 0 34.015M 20.0M Tropical Storm  
11

Hurricane Irma brought numerous impacts to the Florida Big Bend, southwest Georgia and southeast Alabama including widespread downed trees and power lines, roads blocked by trees, power outages, and trees on homes. Two people died during the event - one due to a car crash (Liberty County, FL) and another that had a heart attack (Worth County, GA). Two indirect deaths occurred due to carbon monoxide from a generator (Taylor County, FL). While many counties across the Florida Big Bend and southwest Georgia were impacted, the greatest impacts were across the eastern portion of the area near the I-75 corridor. There were over 6.5 million customers without power in Florida, over 930,000 customers without power in Georgia, and over 45,000 customers without power in Alabama. Total damage cost for each county was estimated when figures were not available.

Seminole county reported \$150,000 in damage to structures, trees, and power lines. There were 42 evacuated locals and 74 evacuees from Florida.

Mitchell county reported 200 trees downed onto roadways and power lines. There was little known property damage. However, agricultural damage may have been significant to pecans and cotton.

Colquitt county reported 200 trees downed and many power lines downed resulting in road closures. Some trees fell on homes and one tree fell on a car. Half of the city of Moultrie lost power.

Lowndes county reported over 500 trees downed with 34 homes damaged and 60,000 customers without power. More than 5,000 pecan trees were destroyed. There was approximately 25,000 CY of vegetative debris on public and private property. The total estimated property losses were around \$9 million. Agricultural losses due to the pecan trees was estimated around \$12.5 million based on one pecan tree being values at around \$2500.

Tift county reported many trees and power lines downed and blocking roads including U.S. Highway 19.

Early county reported a peak wind gust of 63 mph at the EMA office.

Dougherty county reported widespread trees and power lines downed in the Albany area with many power outages and blocked roads. One tree fell on a car in the Shoreham apartment complex.

Worth county reported widespread trees and power lines down with damage to roofs and vehicles reported. Some large oak trees were among the trees toppled by the storm. A man died of a heart attack while sheltering in a homemade shelter. A sustained wind of 42 mph with a peak gust to 70 mph was measured at the EMA office.

Lanier county reported trees and power lines down across the county including a few large oak trees. Five trees were down on homes. The county sheltered 97 people.

Berrien county reported trees down across the county with power outages. There was one report of structural damage. In the city of Nashville, trees fell onto two residences causing significant roof damage.

Turner county reported trees and power lines down with roofs blown off several homes. Several barns were also blown down.

Decatur county reported trees and power lines down with Faceville Highway blocked.

Lee county reported many trees down across the county. Trees fell onto or into several mobile homes. Downed power lines blocked U.S. Highway 19. The city of Smithville had no potable water for a period of time from Monday into Tuesday.

Thomas county reported numerous traffic signals out. Downed trees on power lines left 750 residents without power.

Terrell county reported several power lines and large trees downed, damaging several homes. At least one home in Dawson was severely damaged by a large pecan tree.

Quitman county reported trees and power lines downed across the county. The estimated damage to the county was \$15,000.

Randolph county reported widespread trees and power lines down across the county. Forty percent of the county was without power. A two story house caught on fire from a downed tree on a line.

Miller county reported numerous trees and power lines down throughout the county. One house and one outbuilding fire occurred due to downed power lines.

Baker county reported trees and power lines down across the county. Approximately 2,400 people lost power.

Grady county reported more than 225 trees and power lines down across the county. Seven to eight homes sustained minor damage due to falling trees. Approximately 11,000 people were without power. A voluntary evacuation was ordered for mobile homes and approximately 550 people in the county evacuated.

Irwin county reported numerous trees and power lines down across the county. Eight homes sustained minor structural damage due to fallen trees. Approximately 70 people evacuated from their mobile homes. There was one indirect injury from the storm as one lineman was electrocuted.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## GEORGIA, Southwest

Cook county reported trees and power lines down across the county that resulted in 26 road closures. These impacts lasted 4 to 5 days. Approximately 15 homes were damaged due to fallen trees. School in the county was closed for the whole week.

Brooks county reported widespread trees down across the county. Several homes were damaged, including 2 with major damage. Several roads were washed out. Power outages lasted 4 to 5 days across the county with several thousand power outages. There were 150 people sheltered in the county.

Calhoun county reported numerous trees and power lines down across the county. There were 250 power outages lasting a couple of days. A comfort station was set up for people in mobile homes to stay at during the storm, and 70 people stayed at the comfort center. Ten homes sustained structural damage due to wind or fallen trees. One business in Arlington lost its roof due to wind.

## HAWAII

**HIZ013-021-024>  
027**

**Big Island Interior - Big Island North and East - Kohala - Leeward Haleakala - Molokai Leeward - South Big Island**

01	0000HST						
30	2359HST	0	0	0.00K	0.00K	Drought	

Dry conditions continued to affect parts of Hawaii. Most areas were in the D2 category of severe drought, but small areas of the Big Island were D3, or extreme drought.

**HIZ001>003-005>  
006-012>014-016-  
018>021-023>026**

**Big Island North and East - Kahoolawe - Kauai Leeward - Kauai Windward - Kohala - Kona - Lanai Makai - Leeward Haleakala - Maui Central Valley - Maui Leeward West - Molokai Leeward - Molokai Windward - Niihau - Oahu South Shore - South Big Island - Waianae Coast - Windward Haleakala**

01	0700HST						
03	1000HST	0	0	0.00K	0.00K	High Surf	

A swell from the southern hemisphere generated surf of 6 to 9 feet along the south-facing shores of all the islands. There were no reports of significant property damage or injuries.

**Hawaii County**  
**1 SW Waikoloa Village**  
**1 E Captain Cook**

01	2320HST						
02	0427HST	0	0	0.00K	0.00K	Heavy Rain	

Localized instability triggered heavy downpours over portions of leeward Big Island. The precipitation caused small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

**Hawaii County**  
**2 NNW Puuanahulu**  
**3 ENE Captain Cook**

09	1853HST						
	2116HST	0	0	0.00K	0.00K	Heavy Rain	

Evening showers fell over parts of leeward Big Island. The downpours produced ponding on roadways, and small stream and drainage ditch flooding. There were no reports of significant property damage or injuries.

**Honolulu County**  
**1 WSW Punaluu**  
**Woodlawn**

11	1500HST						
	1631HST	0	0	0.00K	0.00K	Heavy Rain	

With a light wind regime, sea breeze conditions helped generate heavy showers over sections of Oahu, Kauai, and the Big Island. The rainfall produced small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

**HIZ019**

**Maui Central Valley**

12	0200HST						
30	2359HST	0	0	0.00K	0.00K	Drought	

Dry conditions developed over a small area in Maui's Central Valley. Severe drought, or the D2 level, was the result.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Kauai County

1 NE Wailua	14	1319HST							
1 SE Kalaheo		1610HST			0	0	0.00K	0.00K	Heavy Rain

### Hawaii County

1 NW Kealahou	14	1441HST							
5 S Kona Village Resort		1708HST			0	0	0.00K	0.00K	Heavy Rain

With a light wind regime, sea breeze conditions helped generate heavy showers over sections of Oahu, Kauai, and the Big Island. The rainfall produced small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

### HIZ019-024

#### Maui Central Valley - South Big Island

21	0515HST								
25	0200HST				0	0	0.00K	0.00K	Wildfire

A blaze charred 1645 acres of mainly dry brush in the Kau District on the Big Island of Hawaii. The fire did not threaten any homes or other structures, and its cause was not determined. No significant injuries were reported.

A fire burned about 100 acres of dry brush east of Kahului on the Valley Isle of Maui. The blaze began off the side of Haleakala Highway near North Firebreak Road and spread to a fallow sugar cane field. The cause of the fire was unknown. It did not threaten any homes or other structures, and there were no serious injuries reported.

A blaze scorched 215 acres of dry brush near Poipu on Kauai. The fire damaged heavy machinery, trucks, and other equipment stationed at a green waste base-yard. The cause of the fire was under investigation. There were no reports of significant injuries.

Another fire blackened about 100 acres of dry brush and other vegetation on the cliffs of Makana mountain on the North Shore of Kauai. The area was between Haena State Park and Limahuli Gardens. A fire-throwing ceremony to honor the long-distance voyaging vessel Hokulea was suspected in starting the blaze. No serious injuries or property damage were reported.

### Hawaii County

3 WSW Waikoloa Village	23	2043HST							
4 NW Kamuela		2243HST			0	0	0.00K	0.00K	Heavy Rain

An area of heavy showers developed over leeward Kohala on the Big Island of Hawaii. The precipitation caused ponding on roadways, and small stream and drainage ditch flooding. No significant property damage or injuries were reported.

### HIZ002

#### Kauai Windward

24	1245HST								
25	0015HST				0	0	20.0K	0.00K	Wildfire
25	2000HST								
27	1700HST				0	0	0.00K	0.00K	Wildfire

A blaze charred 1645 acres of mainly dry brush in the Kau District on the Big Island of Hawaii. The fire did not threaten any homes or other structures, and its cause was not determined. No significant injuries were reported.

A fire burned about 100 acres of dry brush east of Kahului on the Valley Isle of Maui. The blaze began off the side of Haleakala Highway near North Firebreak Road and spread to a fallow sugar cane field. The cause of the fire was unknown. It did not threaten any homes or other structures, and there were no serious injuries reported.

A blaze scorched 215 acres of dry brush near Poipu on Kauai. The fire damaged heavy machinery, trucks, and other equipment stationed at a green waste base-yard. The cause of the fire was under investigation. There were no reports of significant injuries.

Another fire blackened about 100 acres of dry brush and other vegetation on the cliffs of Makana mountain on the North Shore of Kauai. The area was between Haena State Park and Limahuli Gardens. A fire-throwing ceremony to honor the long-distance voyaging vessel Hokulea was suspected in starting the blaze. No serious injuries or property damage were reported.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### HIZ003

#### Kauai Leeward

26	0200HST								
30	2359HST				0	0	0.00K	0.00K	Drought

A small portion of leeward Kauai, lacking sustaining rainfall, deteriorated to the D2 status of severe drought in the Drought Monitor.

### HIZ013-021-024>027

#### Big Island Interior - Big Island North and East - Kohala - Leeward Haleakala - Molokai Leeward - South Big Island

01	0000HST								
30	2359HST				0	0	0.00K	0.00K	Drought

Dry conditions continued to affect parts of Hawaii. Most areas were in the D2 category of severe drought, but small areas of the Big Island were D3, or extreme drought.

### HIZ001>003-005>006-012>014-016-018>021-023>026

#### Big Island North and East - Kahoolawe - Kauai Leeward - Kauai Windward - Kohala - Kona - Lanai Makai - Leeward Haleakala - Maui Central Valley - Maui Leeward West - Molokai Leeward - Molokai Windward - Niihau - Oahu South Shore - South Big Island - Waianae Coast - Windward Haleakala

01	0700HST								
03	1000HST				0	0	0.00K	0.00K	High Surf

A swell from the southern hemisphere generated surf of 6 to 9 feet along the south-facing shores of all the islands. There were no reports of significant property damage or injuries.

### Hawaii County

1 SW Waikoloa Village  
1 E Captain Cook

01	2320HST								
02	0427HST				0	0	0.00K	0.00K	Heavy Rain

Localized instability triggered heavy downpours over portions of leeward Big Island. The precipitation caused small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

### Hawaii County

2 NNW Puuanahulu  
3 ENE Captain Cook

09	1853HST								
	2116HST				0	0	0.00K	0.00K	Heavy Rain

Evening showers fell over parts of leeward Big Island. The downpours produced ponding on roadways, and small stream and drainage ditch flooding. There were no reports of significant property damage or injuries.

### Honolulu County

1 WSW Punaluu  
Woodlawn

11	1500HST								
	1631HST				0	0	0.00K	0.00K	Heavy Rain

With a light wind regime, sea breeze conditions helped generate heavy showers over sections of Oahu, Kauai, and the Big Island. The rainfall produced small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

### HIZ019

#### Maui Central Valley

12	0200HST								
30	2359HST				0	0	0.00K	0.00K	Drought

Dry conditions developed over a small area in Maui's Central Valley. Severe drought, or the D2 level, was the result.

### Kauai County

1 NE Wailua  
1 SE Kalaheo

14	1319HST								
	1610HST				0	0	0.00K	0.00K	Heavy Rain

### Hawaii County

1 NW Kealahou  
5 S Kona Village Resort

14	1441HST								
	1708HST				0	0	0.00K	0.00K	Heavy Rain

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## HAWAII

With a light wind regime, sea breeze conditions helped generate heavy showers over sections of Oahu, Kauai, and the Big Island. The rainfall produced small stream and drainage ditch flooding, and ponding on roadways. No serious injuries or property damage were reported.

### HIZ019-024

#### Maui Central Valley - South Big Island

21	0515HST							
25	0200HST			0	0	0.00K	0.00K	Wildfire

A blaze charred 1645 acres of mainly dry brush in the Kau District on the Big Island of Hawaii. The fire did not threaten any homes or other structures, and its cause was not determined. No significant injuries were reported.

A fire burned about 100 acres of dry brush east of Kahului on the Valley Isle of Maui. The blaze began off the side of Haleakala Highway near North Firebreak Road and spread to a fallow sugar cane field. The cause of the fire was unknown. It did not threaten any homes or other structures, and there were no serious injuries reported.

A blaze scorched 215 acres of dry brush near Poipu on Kauai. The fire damaged heavy machinery, trucks, and other equipment stationed at a green waste base-yard. The cause of the fire was under investigation. There were no reports of significant injuries.

Another fire blackened about 100 acres of dry brush and other vegetation on the cliffs of Makana mountain on the North Shore of Kauai. The area was between Haena State Park and Limahuli Gardens. A fire-throwing ceremony to honor the long-distance voyaging vessel Hokulea was suspected in starting the blaze. No serious injuries or property damage were reported.

### Hawaii County

3 WSW Waikoloa Village  
4 NW Kamuela

23	2043HST							
	2243HST			0	0	0.00K	0.00K	Heavy Rain

An area of heavy showers developed over leeward Kohala on the Big Island of Hawaii. The precipitation caused ponding on roadways, and small stream and drainage ditch flooding. No significant property damage or injuries were reported.

### HIZ002

#### Kauai Windward

24	1245HST							
25	0015HST			0	0	20.0K	0.00K	Wildfire
25	2000HST							
27	1700HST			0	0	0.00K	0.00K	Wildfire

A blaze charred 1645 acres of mainly dry brush in the Kau District on the Big Island of Hawaii. The fire did not threaten any homes or other structures, and its cause was not determined. No significant injuries were reported.

A fire burned about 100 acres of dry brush east of Kahului on the Valley Isle of Maui. The blaze began off the side of Haleakala Highway near North Firebreak Road and spread to a fallow sugar cane field. The cause of the fire was unknown. It did not threaten any homes or other structures, and there were no serious injuries reported.

A blaze scorched 215 acres of dry brush near Poipu on Kauai. The fire damaged heavy machinery, trucks, and other equipment stationed at a green waste base-yard. The cause of the fire was under investigation. There were no reports of significant injuries.

Another fire blackened about 100 acres of dry brush and other vegetation on the cliffs of Makana mountain on the North Shore of Kauai. The area was between Haena State Park and Limahuli Gardens. A fire-throwing ceremony to honor the long-distance voyaging vessel Hokulea was suspected in starting the blaze. No serious injuries or property damage were reported.

### HIZ003

#### Kauai Leeward

26	0200HST							
30	2359HST			0	0	0.00K	0.00K	Drought

A small portion of leeward Kauai, lacking sustaining rainfall, deteriorated to the D2 status of severe drought in the Drought Monitor.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **IDZ010**

### **Eastern Lemhi County**

15	0600MST 2300MST			0	0	0.00K	0.00K	Heavy Snow
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After a hot start to September, a cold weather system brought widespread low elevation rain and snow accumulations above 6000 feet across the Northern Rockies impacting back-country hunters, wildfire crews and travel across mountain passes. The large degree of change coupled with the somewhat unseasonable timing of this event produced greater than normal impacts.

24	0400MST 0800MST			0	0	0.00K	0.00K	Frost/Freeze
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Sub-freezing temperatures were reported in the Salmon area which is the largest population center in Lemhi County, Idaho.

## IDAHO, Northwest

### **IDZ001>004-026> 027**

### **Central Panhandle Mountains - Idaho Palouse - Lewis and Southern Nez Perce - Lewiston Area - Northern Panhandle - Southwest and West Kootenai**

04	1000PST							
08	0600PST			0	0	0.00K	0.00K	Dense Smoke

Smoke from numerous regional wildfires in Canada, Montana, Washington and Idaho fumigated north Idaho from September 4th through the 8th. Air Quality sensors throughout north Idaho recorded Unhealthy and Very Unhealthy readings during much of this period, with local reports of Hazardous air quality. Public Health Advisories were issued by state authorities to limit outdoor exposure and activities. A weak cold front on the 8th brought enough wind to ventilate the region and partially clear the smoke from the area.

## IDAHO, Southeast

### **Lincoln County 8 N Shoshone**

30	1445MST 1500MST			0	0	0.00K	0.00K	Funnel Cloud
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A thunderstorm north of Shoshone created a funnel cloud at around 3:45 PM MDT on September 30th with photographs of the funnel provided by a Twin Falls television meteorologist.

A thunderstorm north of Shoshone created a funnel cloud at around 3:45 PM MDT on September 30th with photographs of the funnel provided by a Twin Falls television meteorologist.

## ILLINOIS, Central

### **Sangamon County 2 N Beamington**

04	1538CST 1543CST			0	0	0.00K	0.00K	Hail (0.88)
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### **Sangamon County 2 SSE Toronto**

04	1540CST 1545CST			0	0	0.00K	0.00K	Hail (1.00)
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### **Macon County Mt Zion**

04	1626CST 1631CST			0	0	0.00K	0.00K	Hail (1.25)
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### **Macon County Mt Zion**

04	1626CST 1631CST			0	0	0.00K	0.00K	Hail (1.00)
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### **Macon County Long Creek**

04	1628CST 1633CST			0	0	0.00K	0.00K	Hail (1.00)
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# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Champaign County** **1 N Sidney**

04	1650CST 1655CST			0	0	0.00K	0.00K	Hail (0.75)
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A cold front triggered scattered strong to severe thunderstorms across portions of central Illinois during the late afternoon and early evening of September 4th. The storms were mainly concentrated along the I-72 corridor from Springfield to Champaign. Hail as large as half-dollars was reported in Mt. Zion in Macon County.

## ILLINOIS, South

### **Franklin County** **Thompsonville**

04	2120CST			0	0	0.00K	0.00K	Hail (1.00)
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### **Williamson County** **Spillertown**

04	2140CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Saline County** **Galatia**

04	2142CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Saline County** **Carriers Mills**

04	2220CST			0	0	0.00K	0.00K	Hail (0.88)
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### **Alexander County** **Olive Branch**

05	0410CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Pulaski County** **3 E Villa Ridge**

05	0425CST			0	0	0.00K	0.00K	Hail (1.25)
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Clusters of thunderstorms organized along a strong cold front as it moved southeast across southern Illinois. Some of the storms produced hail, including a few reports of large hail. The atmosphere remained moderately unstable through the early morning hours. Winds aloft increased with the approach of a strong 500 mb shortwave trough from the northwest.

### **ILZ075-080-084-088-092**

### **Alexander - Franklin - Jackson - Jefferson - Perry - Union**

14	0500CST 0800CST			0	0	0.00K	0.00K	Dense Fog
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Widespread dense fog blanketed parts of southern Illinois during the early morning hours. Visibility was reduced to one-quarter mile or less. The dense fog was mainly along and west of Interstate 57, including Mount Vernon and Cairo. The dense fog occurred on the back side of high pressure over the Appalachian Mountains. A light south wind flow of humid air contributed to the dense fog.

### **Jackson County** **1 W Carbondale**

18	1933CST			0	0			Hail (1.75)
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A report of golf ball size hail in west Carbondale was relayed by a local television station.

### **Jackson County** **3 ESE Murphysboro**

18	1937CST			0	0	0.00K	0.00K	Hail (1.00)
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### **Jackson County** **De Soto**

18	1951CST			0	0	0.00K	0.00K	Hail (1.00)
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An isolated severe thunderstorm produced large hail in the Carbondale area. The storm occurred in a moist and moderately unstable air mass ahead of a weak 500 mb shortwave over the Plains.

## ILLINOIS, Southwest

### **Macoupin County** **4 W Standard City**

04	1608CST 1614CST			0	0	0.00K	0.00K	Hail (1.50)
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### **Macoupin County** **1 SSW Macoupin Station**

04	1645CST			0	0	0.00K	0.00K	Hail (1.75)
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Golfball sized hail was reported at Beaver Dam State Park.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm	September 2017
					Killed	Injured				

## ILLINOIS, Southwest

### Montgomery County Litchfield Muni Arpt

04 1715CST 0 0 0.00K 0.00K Thunderstorm Wind (50MG)  
Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### Macoupin County 1 N Bunker Hill

04 1727CST  
1733CST 0 0 0.00K 0.00K Hail (2.00)

### Madison County Wood River

04 1759CST 0 0 0.00K 0.00K Hail (0.88)

### Madison County Wood River

04 1805CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds caused minor damage to a store as debris was blown around, including shopping carts.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### St. Clair County 1 WNW Lebanon

04 1845CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds blew down several power lines around town.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Clinton County Trenton

04 1847CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds blew down two trees blocking a road in the city.

Strong cold front moved south across forecast area, triggering numerous thunderstorms. Some of the storms were severe producing large hail and damaging winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## INDIANA, Central

### Howard County 6 WSW Kappa Corner

04 1825EST 0 0 1.00K 0.00K Thunderstorm Wind (52EG)  
A tree was reported down across County Road 1250 West due to damaging thunderstorm wind gusts. Report was relayed via Twitter.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Delaware County 1 NNW Muncie

04 2005EST  
2007EST 0 0 0.00K Hail (0.75)

### Randolph County 2 SE Windsor

04 2040EST 0 0 Thunderstorm Wind (52EG)  
An estimated 60 mph thunderstorm wind gust was observed in this location.

A northeast to southwest oriented band of showers and thunderstorms pushed east southeast through northern portions of central Indiana during the evening hours of September the 4th. A couple storms within the band produced damaging wind and small hail. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## INDIANA, Northeast

### Kosciusko County 1 E Enchanted Hills

19 0500EST  
0501EST 0 0 75.00K 0.00K Lightning

Residents of a home on the northeast side of Lake Wawasee reported a loud crack around 6 am EDT during a thunderstorm. Shortly after, smoke was noted and the residents evacuated. Fire spread across much of the home with the greatest damage in the second story and garage areas. Damage is estimated at around \$75,000.

An area of non-severe thunderstorms moved across northern Indiana during the early morning hours of the 19th. A few of the storms produced frequent lightning that struck at least one home.

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm	
IOWA, Central										
Crawford County 5 SSE Vail	15	0535CST			0	0	20.00K	0.00K	Thunderstorm Wind (50EG)	
	Damage was done to outbuildings and trees on the farmstead. A few storms occurred through the early morning hours on the 15th with one storm producing some wind damage to a farmstead in eastern Crawford County. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Adair County Fontanelle	16	2145CST								
	17	0100CST			0	0	0.00K	0.00K	Heavy Rain	
Public reported heavy rainfall of 3.30 inches storm total. A fairly typical cold frontal passage moved through Iowa during the evening of the 16th and into the 17th of September. The antecedent conditions were generally temperatures in the mid to upper 70s, dew points in the upper 60s, resulting in MUCAPE values in the 1000-2000 J/kg range, and effective bulk shear values under 30 kts. The setup called for and resulted in relatively progressive storms with the cold front ushering them through, but with flow parallel to the front, storms were able to train over areas for a short while. No severe weather was reported, but heavy rainfall did occur.										
Wapello County 2 NE Rutledge	20	2145CST								
	21	0328CST			0	0	0.00K	0.00K	Heavy Rain	
A personal weather station on the SW side of Ottumwa recorded heavy rainfall of 5.30 inches.										
Wapello County 2 NE Rutledge	20	2145CST								
	21	0533CST			0	0	0.00K	0.00K	Heavy Rain	
Personal weather station recorded heavy rainfall of 6.08 inches on the SW side of Ottumwa.										
Wapello County 1 SW Ottumwa	20	2145CST								
	21	0520CST			0	0	0.00K	0.00K	Heavy Rain	
River gage along the Des Moines river measured heavy rainfall of 6.20 inches.  During the day of the 20th, a cold front made its way southward through Iowa before stalling out during the evening of the 20th/early morning hours of the 21st. No severe weather occurred, but with an unstable MUCAPE environment of 1000-2000 J/kg low level jet initiated storms trained over the same area for a number of hours. The areas the received the heaviest rainfall ran west to east from roughly Albia to Ottumwa and Fairfield.										
Dallas County 2 WSW De Soto	25	1230CST 1900CST			0	0	0.00K	0.00K	Heavy Rain	
	Public reported storm total heavy rainfall of 2.60 inches between Earlham and De Soto.									
Webster County 1 S Dayton	25	1300CST 1930CST			0	0	0.00K	0.00K	Heavy Rain	
	Public reported storm total heavy rainfall of 3.00 inches.									
Polk County 1 NW Clive	25	1315CST 1930CST			0	0	0.00K	0.00K	Heavy Rain	
	Public reported storm total heavy rainfall of 3.50 inches near 128th and Meredith in Urbandale.									
Polk County Polk City	25	1330CST 1930CST			0	0	0.00K	0.00K	Heavy Rain	
	Public reported storm total heavy rainfall of 3.47 inches.									



# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Dallas County** **2 S Hadden Hill**

25	1415CST 2000CST			0	0	0.00K	0.00K	Heavy Rain
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Trained spotter reported storm total heavy rainfall of 2.10 inches.

### **Polk County** **Oralabor**

25	1415CST 1930CST			0	0	0.00K	0.00K	Heavy Rain
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Public reported storm total heavy rainfall of 2.50 inches on the west side of Ankeny.

### **Polk County** **1 E Alleman**

25	1430CST 1930CST			0	0	0.00K	0.00K	Heavy Rain
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Public reported storm total heavy rainfall of 2.60 inches.

### **Madison County** **1 NE St Charles**

25	1500CST 1900CST			0	0	0.00K	0.00K	Heavy Rain
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Public reported heavy rainfall of 2.00 inches.

### **Hardin County** **2 E Iowa Falls**

25	1521CST			0	0	10.00K	0.00K	Thunderstorm Wind (56EG)
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Public reported wind damage in and near Iowa Falls, including tree branches and power pole damage. This is a delayed report. Time and location estimated based on radar.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Butler County** **Clarksville**

25	1600CST 2145CST			0	0	0.00K	0.00K	Heavy Rain
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Public reported storm total heavy rainfall of 2.84 inches.

A slow moving cold front worked its way across Iowa from northwest to southeast from the 24th through the 26th. With its slow moving nature, it was a decent setup for areas to see repeated rounds of rainfall. While the convective environment was not overly conducive for severe weather, a cluster of storms near Iowa Falls was able to produce damaging winds for a short period of time. Otherwise, the overall setup produced training storms and heavy rainfall thanks to the slow moving front, unstable air mass, and mean winds flowing parallel to the front. A number of locations received in excess of 3 inches of rainfall.

## IOWA, East Central and Southeast

### **Scott County** **1 SE Blue Grass**

20	1841CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Scott County** **2 NNW Davenport**

20	1902CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Scott County** **2 NNW Davenport**

20	1936CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A local state official reported a large tree down on Kirkwood Blvd. Time of the event was estimated using radar.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Scott County** **4 WSW Davenport Arpt** **1 NE Credit Island**

21	0044CST 0344CST			0	0	0.00K	0.00K	Flash Flood
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Local law enforcement reported vehicles stalled due to water up to the doors at the intersections of Fairmount and Locust Streets, and Clark and Denison Streets.

A cold front passed across the region replacing record warm and moist air. Thunderstorms produced by the cold front produced isolated severe storms of damaging winds, hail and locally heavy rainfall and flash flooding.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **IAZ011**

### **Allamakee**

12	0600CST								
30	2359CST				0	0	0.00K	0.00K	Drought

Persistent below normal precipitation since July 2017 allowed severe drought conditions to develop across portions of northeast Iowa, including Allamakee County. These conditions continued into October 2017.

### **IAZ010**

### **Winneshiek**

19	0600CST								
30	2359CST				0	0	0.00K	0.00K	Drought

Persistent below normal precipitation since July 2017 allowed severe drought conditions to expand across portions of northeast Iowa. By late September, the drought conditions also covered a portion of northeast Winneshiek County. These conditions continued into October 2017.

## KANSAS, East

### **Jefferson County 1 E McLouth**

16	2135CST								
	2136CST				0	0			Hail (1.00)

### **Ottawa County 1 W Culver**

18	1643CST								
	1644CST				0	0			Hail (1.75)

### **Ottawa County 1 W Culver**

18	1643CST								
	1644CST				0	0			Thunderstorm Wind (56EG)

Reports of tree limbs down. Sizes were unknown. Wind gust was estimated.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Ottawa County 4 ENE Culver**

18	1645CST								
	1646CST				0	0			Hail (0.88)

An abnormally benign weather pattern in September resulted in only a few severe weather reports during mid-September.

## KANSAS, Extreme Southeast

### **Cherokee County 1 W Columbus**

16	1645CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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There were small tree limbs blown down in Columbus.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Cherokee County 1 N Weir**

16	1652CST				0	0	2.00K	0.00K	Thunderstorm Wind (52EG)
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There was a couple of trees and some power lines blown down in Weir.

An isolated severe storm produced a couple reports of wind damage. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## KANSAS, Northwest

### **Rawlins County McDonald**

13	1430CST				0	0	0.00K	0.00K	Hail (0.88)
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### **Rawlins County McDonald**

13	1430CST				0	0	3.00K	0.00K	Thunderstorm Wind (74EG)
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A power line was blown down and three six inch diameter tree limbs, along with several smaller limbs, were broken off. At the baseball field, the roof of one of the dugouts was blown off and landed about a block away.

A thunderstorm over McDonald produced nickel size hail and damaged some structures in town from the straight-line winds. Note: The estimated wind gust of 74 knots is equivalent to 85 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

									September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b><u>KANSAS, Northwest</u></b>									
<b>Norton County</b> <b>10 NNE Reager</b>	15	1905CST			0	0	0.00K	0.00K	Hail (0.88)
	Hail up to nickel size was reported northeast of Norcatur.								
<b><u>KANSAS, Southeast</u></b>									
<b>Elk County</b> <b>14 NNE Longton</b>	16	1417CST 1419CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Also had half inch diameter hail with the wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
<b>Wilson County</b> <b>Fredonia</b>	16	1433CST 1434CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	Several trees were blown down in town. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
<b>Neosho County</b> <b>1 W (CNU)Johnson Arprt Ch</b>	16	1451CST 1453CST			0	0	0.00K	0.00K	Thunderstorm Wind (51MG)
	Note: The measured wind gust of 51 knots is equivalent to 59 mph.								
<b>Neosho County</b> <b>1 SE Chanute</b>	16	1454CST 1456CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Wind ranged between 50 and 60 mph. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
<b>Chautauqua County</b> <b>Sedan</b>	16	1500CST 1505CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	Widespread tree limbs some up to 8 inches in diameter were blown down across town. Once utility pole was leaning over and several chain link fences were damaged by the falling tree limbs. Some windows were blown out of the businesses downtown.  Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
<b>Chautauqua County</b> <b>4 WSW Hale</b>	16	1510CST 1512CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	Three 18 to 24 inch trees were blown down. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
<b>Chautauqua County</b> <b>Chautauqua</b>	16	1512CST 1514CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	An 8 inch diameter tree limb was blown down. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
<b>Chautauqua County</b> <b>Chautauqua</b>	16	1512CST 1514CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	An 8 inch diameter tree limb was blown down. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								

# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>KANSAS, Southeast</b>									
<b>Allen County</b> 1 NNE Iola	16	1515CST 1517CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
A power pole was blown down on the northeast side of town. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									
<b>Montgomery County</b> 6 S Elk City	16	1524CST 1526CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
Winds were estimated by a trained spotter. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Montgomery County</b> 1 NE Havana	16	1526CST 1528CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)
The wind gusts ranged from 70 TO 80 mph. Report came from a broadcast media partner in Kansas City via social media. Note: The estimated wind gust of 70 knots is equivalent to 81 mph.									
<b>Labette County</b> 1 S Parsons	16	1610CST 1612CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
Winds were estimated by a trained spotter. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Labette County</b> 1 WSW Parsons	16	1616CST 1618CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
Power lines were blown down on the west side of town. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									
<b>Mcpheerson County</b> 4 NE Inman	16	1911CST 1912CST			0	0	0.00K	0.00K	Hail (1.00)
<b>Marion County</b> 5 NW Durham	16	1911CST 1912CST			0	0	0.00K	0.00K	Hail (0.75)
<b>Allen County</b> Moran	17	0700CST 0701CST			0	0	0.00K	0.00K	Heavy Rain
Rain fall amount over the previous 24 hours.									
<b>Labette County</b> 1 W Mound Vly	17	0915CST 1302CST			0	0	0.00K	0.00K	Flood
Water was reported to be running across Highway 160.									
<b>Montgomery County</b> Coffeyville Arpt	18	0600CST 0601CST			0	0	0.00K	0.00K	Heavy Rain
Rain fall amount for the previous 24 hours. Winds up to 80 mph moved across southern Kansas causing damage to trees and power lines. A few hail reports were also noted.									

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Lincoln County** **3 N Beverly**

18	1615CST 1617CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Estimated wind gust ranged between 50 and 60 mph.

A high wind report was reported as the storm moved across the county. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Saline County** **1 WSW Salina**

18	1840CST 1841CST			0	0	0.00K	0.00K	Hail (1.50)
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Winds up to 80 mph moved across southern Kansas causing damage to trees and power lines. A few hail reports were also noted.

### **Sedgwick County** **1 N Clearwater**

25	1232CST 1234CST			0	0	0.00K	0.00K	Thunderstorm Wind (57MG)
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The gust was measured by an in-house weather station.

Note: The measured wind gust of 57 knots is equivalent to 66 mph.

### **Sedgwick County** **3 NNE (ICT)Wichita Arpt**

25	1245CST 1247CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A 4-inch diameter limb was blown down.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Sedgwick County** **3 NNE (ICT)Wichita Arpt**

25	1245CST 1246CST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)
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No damage was reported.

On the afternoon of the 25th, a severe thunderstorm produced 60-70 mph winds in Sedgwick County, more specifically Clearwater and 3 miles west of downtown Wichita where tree damage resulted. Note: The measured wind gust of 52 knots is equivalent to 60 mph.

### **Reno County** **3 ESE Sylvia**

25	1826CST							
26	0953CST			0	0	0.00K	0.00K	Flood

Olcott Rd. was closed between Red Rock and Longview Rds due to high water.

### **Kingman County** **2 N Nashville**

25	1939CST 1940CST			0	0	0.00K	0.00K	Heavy Rain
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This was the storm total to this point. Though not reported, flooding should have occurred. The threat for additional heavy rains was likely over.

On the evening of the 25th, a few thunderstorms produced locally torrential rains in Reno and Kingman Counties. In extreme Southwest Kingman County, 5.10 inches were measured 3 miles north of Nashville. The only flooding that was reported occurred in far Western Reno County, but it's likely that flooding also occurred in Western Kingman County as well.

## KANSAS, Southwest

### **Finney County**

1 ESE (GCK)Garden City Arpt	01	2110CST			0	0		Hail (1.00)
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### **Stevens County** **2 NW Hugoton**

01	2115CST			0	0	0.00K	0.00K	Thunderstorm Wind (48MG)
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An upper level ridge built over the Rockies. Near the surface, a ridge of high pressure extending from the great lakes into Colorado moved slightly northward and this shifted the winds from the northeast to the southeast by the afternoon. A few thunderstorms developed bringing just a few severe reports. Note: The measured wind gust of 48 knots is equivalent to 55 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Morton County 2 N Elkhart

22 1809CST 0 0 Hail (0.75)  
Winds were gusting to 50 MPH as the hail fell.  
A strong upper level low that moved into the western United states continued to trek eastward into the Northern Rockies. Meanwhile, an upper level ridge remained centered over the Southern Plains. Weak disturbances around the periphery of the upper level low helped to produce isolated thunderstorms across the far southwest counties.

### Ellis County 1 NW Ellis

24 0720CST 0 0 0.00K 0.00K Heavy Rain  
25  
Rainfall of 4.75 inches fell during the previous 24 hours.  
A cold front in the wake of a passing upper level short wave trough helped to produce scattered thunderstorms late in the morning.

### Scott County 6 SSW Grigston

24 1740CST 0 0 Hail (0.75)

### Scott County 7 E Shallow Water

24 1744CST 0 0 Hail (1.00)  
Most of the hail was smaller than quarter sized.

### Scott County 7 E Shallow Water

24 1744CST 0 0 Thunderstorm Wind (59MG)  
Note: The measured wind gust of 59 knots is equivalent to 68 mph.

### Scott County 1 SW Grigston

24 1745CST 0 0 Thunderstorm Wind (52EG)  
Dime sized hail fell during the wind.  
Unstable air with MLCAPE of around 1500 J/kg and effective bulk shear of around 40 knots was enough to help storms become severe around sunset. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Pratt County 1 NW Preston

25 1238CST 0 0 0.00K 0.00K Flash Flood  
1638CST  
Water was around six inches over local roads.

### Pratt County 1 N Preston

25 1410CST 0 0 0.00K 0.00K Flash Flood  
1810CST  
Water was over highway 61 and water was entering three homes with water encroaching on the 4th home.

### Barber County 7 WSW Medicine Lodge

25 1420CST 0 0 0.00K 0.00K Flood  
2320CST  
Water was reported over a few of the roads.

### Barber County 1 W Medicine Lodge

25 1509CST 0 0 0.00K 0.00K Flood  
2309CST  
There was significant street flooding.

### Pratt County 3 E Preston

25 1800CST  
26 0830CST 0 0 0.00K 0.00K Heavy Rain  
Rainfall of 6.40 inches was reported during the previous 24 hours.

A cold front in the wake of a passing upper level short wave trough helped to produce scattered thunderstorms late in the morning.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Simpson County**

**1 N Neosho**

01 0107CST 0 0 0.00K 0.00K Flash Flood  
Local law enforcement reported that Kentucky Highway 100 at mile marker 16 was closed due to high water over the bridge.

### **Logan County**

**2 NW Auburn**

01 0242CST 0 0 0.00K 0.00K Flash Flood  
Local law enforcement reported Highway 103 near Lashley Road near Auburn was impassable due to high water.

### **Simpson County**

**2 E Highland  
Franklin Whak Arpt**

01 0306CST 0 0 0.00K 0.00K Flash Flood  
Local law enforcement reported that Highway 100 east of I-65 to the Allen County line was closed due to high water. Highway 383 also had multiple closures. Numerous county road bridges were closed due to high water as well.

### **Simpson County**

**1 W Franklin**

01 0518CST 0 0 0.00K 0.00K Flash Flood  
The Simpson County Emergency Manager reported numerous roads closed with other roads impassable due to high water. The Simpson County Schools were closed due to flooding.

### **Hart County**

**1 E Horse Cave**

01 0615CST 0 0 10.00K 0.00K Flash Flood  
The Hart County Emergency Manager reported that a water rescue was performed in Horse Cave after a vehicle stalled out in flood waters.

### **Barren County**

**2 SE Glasgow**

01 0652CST 0 0 10.00K 0.00K Flash Flood  
State officials reported that one water rescue was performed along Burkesville Road near Siloam Road.

### **Barren County**

**1 N Glasgow**

01 0715CST 0 0 10.00K 0.00K Flash Flood  
The Barren County Emergency Manager reported a car was submerged in flood waters on Shamrock Court.

### **Logan County**

**2 WSW Russellville**

01 0715CST 0 0 10.00K 0.00K Flash Flood  
State officials reported a water rescue and evacuation took place from a duplex on Emerson Bypass.

### **Metcalf County**

**1 W Edmonton**

01 0730CST 0 0 0.00K 0.00K Flash Flood  
Metcalf officials reported several roads closed due to flooding.

### **Logan County**

**1 S Halo**

01 0740CST 0 0 10.00K 0.00K Flash Flood  
State officials reported a water rescue of a person trapped in a vehicle on Stevenson Mill Road.

### **Metcalf County**

**1 W Edmonton**

01 0830CST 0 0 0.00K 0.00K Flash Flood  
An animal shelter had to be evacuated due to rising flood water.

Powerful and slow moving Hurricane Harvey made landfall along the Texas Gulf Coast as a Category 4 hurricane. After the storm stalled along the coast, producing extreme and unprecedented amounts of rainfall along the Texas and Louisiana coasts that resulted in catastrophic flooding in the Houston metro area. The system then lifted toward the Tennessee and lower Ohio River Valleys on Friday September 1. Heavy rain spread across central Kentucky with amounts ranging from 4 to 6 inches. There were localized amounts of 7 to 8 inches across Warren, Barren, Allen, Simpson, and Logan counties. Many roads became flooded with high water and there were reports of high water rescues performed.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Todd County**

<b>2 WSW Guthrie</b>	01	0347CST							
<b>3 S South Zion</b>		1200CST			0	0	350.00K	0.00K	Flash Flood

Flash flooding in Guthrie prompted evacuations on several residential streets. Homes began flooding before sunrise. Rescue boats were brought in from Muhlenberg County to assist with evacuations. Over 20 homes and businesses were flooded in the Guthrie area. Six of the homes were uninhabitable after sustaining major damage. Three to four feet of water covered the low-lying neighborhood that was evacuated. Standing water over Highways 181 and 171 slowed traffic, but the roads were passable. All county schools were closed due to flooding. A storm total rainfall of 7.81 inches was reported at the Kentucky mesonet site five miles southwest of Elkton. Most of this rain fell in a 24-hour period. A Cocorahs (Community Collaborative Rain, Hail, and Snow) network observer in Guthrie measured 7.10 inches.

### **Muhlenberg County**

<b>Paradise</b>	03	0500CST							
	05	2100CST			0	0	0.00K	0.00K	Flood

Minor flooding occurred on the Green River. Low-lying woods and fields were inundated.

The remnants of Hurricane Harvey brought heavy rainfall and flooding to parts of the Pennyryle region of western Kentucky. The hurricane made landfall near Corpus Christi, Texas on August 28th. The storm produced catastrophic flooding over southeast Texas, where it became nearly stationary. The center of Harvey eventually moved northeast through the Tennessee Valley as a tropical depression. Several bands of heavy rain moved north from Tennessee through Todd and Muhlenberg Counties in Kentucky. Around 8 inches of rain fell in southern Todd County. Minor flooding occurred on the Green River in Muhlenberg County.

### **McCracken County**

<b>3 WNW Lamont</b>	05	0500CST							
		0505CST			0	0	0.00K	0.00K	Hail (1.25)

Quarter to half-dollar size hail fell in extreme western McCracken County near the Ballard County line.

### **Christian County**

<b>2 N Hopkinsville</b>	05	0802CST			0	0	0.00K	0.00K	Hail (0.75)
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Isolated thunderstorms accompanied a strong cold front as it moved southeast across the lower Ohio Valley. The strongest storm produced a short swath of large hail west of Paducah. The atmosphere remained moderately unstable through the early morning hours. Winds aloft increased with the approach of a strong 500 mb shortwave trough from the northwest.

## LOUISIANA, Northwest

### **Union Parish**

<b>5 WNW Bernice</b>	05	1630CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A tree was blown down in the Weldon community.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Union Parish**

<b>3 NNW Farmerville</b>	05	1645CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A tree was blown down on Denton Road near Farmerville.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Caddo Parish**

<b>1 NE Mooringsport</b>	05	1653CST			0	0	0.00K	0.00K	Hail (1.00)
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Quarter size hail fell in Mooringsport.

### **Union Parish**

<b>4 SW Farmerville Arpt</b>	05	1705CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
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Trees and power lines were blown down on Moseley Bluff Road near Highway 15 near the Boy Scout Camp.  
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Union Parish**

<b>3 NW Rocky Branch</b>	05	1715CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A tree was blown down on Hodge Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## LOUISIANA, Northwest

### **Caddo Parish 2 SE La Chute**

05 1803CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)  
A privacy fence was blown down and some tin was removed from an outbuilding roof at the Caddo Parish's Sheriff's Regional Training Academy in extreme Southeast Caddo Parish southeast of Caspiana.

An upper level trough of low pressure shifted east from the Ohio Valley southwest across the Midwest and Central/Southern Plains during the late morning hours of September 5th. The accompanying cold front moved into Southwest Arkansas and extreme Northeast Texas during the mid and late afternoon, before moving into North Louisiana during the evening. Moderate instability developed along and ahead of the front, with increasing frontal convergence yielding scattered to numerous showers and thunderstorms during the late afternoon and evening across Southwest Arkansas and North Louisiana, where large scale forcing was strongest ahead of the trough. Some of these storms became severe, resulting in downed trees and power lines across portions of Northwest and Northcentral Louisiana. These storms began to diminish by mid to late evening as cooler and drier air began to spill south in wake of the frontal passage. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

## LOUISIANA, Southwest

### **Cameron Parish 7 SW Sabine Lake**

01 0000CST  
07 2359CST 0 0 0.00K 0.00K Flood

Water covered most secondary roads in southwest Cameron Parish as flood water from Harvey drained toward the gulf. Water depth in some locations was around waist deep and kept residents away from their homes during the first week of September. Shallow water also covered portions of highway 82 near Holly Beach and between Johnson Bayou and Port Arthur.

Run-off from heavy rain over Southeast Texas caused the Sabine River to spill over into Cameron Parish. Several secondary roads were flooded keeping residents out of their homes during the first week of the month.

## MAINE, North

### **Penobscot County Glenburn**

05 1855EST 0 0 Thunderstorm Wind (52EG)  
Several trees were toppled or snapped around town by wind gusts estimated at 60 mph. The time is estimated.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Penobscot County Old Town**

05 1900EST 0 0 Hail (1.00)  
Some hail possibly larger than an inch. The time is estimated.

### **Penobscot County Old Town**

05 1910EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees were toppled or snapped around town by wind gusts estimated at 60 mph. Power lines were also downed. The time is estimated.

Thunderstorms developed during the late afternoon and evening of the 5th in advance of a slow moving cold front. An isolated severe thunderstorm produced damaging winds during the evening. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Aroostook County 3 SW Allagash**

27 1805EST 0 0 Thunderstorm Wind (52EG)  
Several trees were toppled south of the Allagash Gate by wind gusts estimated at 60 mph. The time is estimated.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Aroostook County 2 ESE Mc Nally**

27 1844EST 0 0 Thunderstorm Wind (52EG)  
Several trees were toppled along Route 11 near Soucy Hill by wind gusts estimated at 60 mph. The time is estimated.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Penobscot County 11 W Augustine Pond Arpt**

27 1850EST 0 0 Thunderstorm Wind (52EG)  
Several trees were toppled near the Matagamon Wilderness Campground by wind gusts estimated at 60 mph.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Aroostook County 3 SW Masardis

27 1900EST 0 0 Thunderstorm Wind (52EG)  
Two trees were toppled along Route 11...between Masardis and Oxbow...by wind gusts estimated at 60 mph. The time is estimated.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Aroostook County New Sweden

27 1905EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees were toppled along a trail near New Sweden by wind gusts estimated at 60 mph. The time is estimated.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Aroostook County New Sweden

27 1906EST 0 0 Thunderstorm Wind (52EG)  
Three trees were toppled around town by wind gusts estimated at 60 mph. The time is estimated.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Aroostook County 2 NNW North Lyndon

27 1910EST 0 0 Thunderstorm Wind (52EG)  
Several trees were toppled on to power lines by wind gusts estimated at 60 mph.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Aroostook County 2 E Connor

27 1915EST 0 0 Thunderstorm Wind (52EG)  
At least 18 trees were toppled or snapped on the grounds of the Limestone Country Club by wind gusts estimated at 60 mph.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Aroostook County 1 N Bridgewater

27 1935EST 0 0 Thunderstorm Wind (52EG)  
A tree was toppled on to power lines by wind gusts estimated at 60 mph.

A strong cold front crossed the region during the evening of the 27th. Thunderstorms developed during the late afternoon and evening in the unseasonably warm humid airmass in advance of the front. Several of the thunderstorms became severe producing damaging winds during the evening. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## MAINE, South

### Oxford County East Hiram

05 1605EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
1610EST  
A severe thunderstorm downed trees and wires on Route 113 at the Baldwin/Hiram town line.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cumberland County 1 W Naples

05 1610EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
1615EST  
A severe thunderstorm downed a tree on State Park Road in Naples.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Androscoggin County 1 E Auburn

05 1630EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
1635EST  
A severe thunderstorm downed power lines on Switzerland Road in Auburn.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Androscoggin County** **1 SSW Howes Corner**

05	1745EST 1750EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed trees on Pleasant Pond Road in Howes Corner.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Somerset County** **1 N Fairfield**

05	1820EST 1825EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed a tree on West Street in Fairfield.

A cold front was approaching the area from the northwest during the afternoon of September 5th. A high shear, low CAPE environment was in place ahead of the front. As instability built during the afternoon, strong low- to mid-level winds mixed down to the ground in stronger cells. Numerous reports of wind damage occurred with these storms. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## MARYLAND, Central

### **Washington County** **Clear Spg**

05	1420EST			0	0			Thunderstorm Wind (50EG)
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A few trees and wires were down in Clear Spring.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Washington County** **1 W Spickler**

05	1421EST			0	0			Thunderstorm Wind (50EG)
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Five power poles were down and snapped.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Washington County** **1 S (HGR)Hagerstown Rgnl**

05	1428EST			0	0			Thunderstorm Wind (55MG)
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A wind gust of 63 mph was reported at the Hagerstown Airport.

Note: The measured wind gust of 55 knots is equivalent to 63 mph.

### **Frederick County** **1 NW Harmony Grove**

05	1517EST			0	0			Thunderstorm Wind (50EG)
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A tree was down along Hayward Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Frederick County** **2 NW New Market**

05	1526EST			0	0			Thunderstorm Wind (50EG)
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A tree was down along Yeagertown Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Montgomery County** **1 ENE Goshen**

05	1609EST			0	0			Thunderstorm Wind (50EG)
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Woodfield road was closed due to a tree down.

A cold front passes through the area. A southerly flow ahead of the boundary led to an unstable atmosphere. Stronger upper-level winds caused deeper shear profiles. The shear profiles combined with lift from the front and an unstable atmosphere to cause some storms to become severe. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## **MDZ017**

### **St. Mary`s**

20	1235EST 1507EST			0	0			Coastal Flood
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21	0042EST 0322EST			0	0			Coastal Flood
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An onshore flow led to moderate tidal flooding at Straits Point in St Marys County.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Bristol County

#### South

06 1000EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
At 10 AM EST, an amateur radio operator reported a tree down on a car on Tuttle Street in Fall River.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Plymouth County

#### 1 N Hanover

06 1020EST 0 0 1.00K 0.00K Lightning  
At 1020 AM EST, an amateur radio operator reported a tree down due to a lightning strike on Highfield Lane in Norwell.

### Norfolk County

#### 1 WNW Holbrook

06 1020EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
At 1020 AM EST, an amateur radio operator reported a tree down in Holbrook...on Weston Avenue at the intersection with Union Street.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Norfolk County

#### 1 NNW South Weymouth

06 1024EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
At 1024 AM EST, an amateur radio operator reported a tree down in the road near the Stop and Shop store in Braintree.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Middlesex County

#### 1 WSW Cambridge

06 1034EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
At 1034 AM EST, an amateur radio operator reported a tree down on a car between Howard Street and Western Avenue in Cambridge.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Essex County

#### 1 SSW Lawrence

06 1045EST  
1430EST 0 0 0.00K 0.00K Flood

At 1045 AM EST, Parker Street in Lawrence was reported flooded and impassable between Merrimack and Market Streets. At 11 AM EST, the intersection of Salem Street and South Union Street was reported flooded and impassable. The Community Cooperative Rain Hail and Snow observer in Andover reported a storm total rainfall of 2.18 inches.

### Barnstable County

#### 2 NE Newtown

#### 1 ESE Marstons Mills Arpt

06 1105EST  
1400EST 0 0 0.00K 0.00K Flood

At 1105 AM EST, Race Lane in West Barnstable was reported flooded and impassable. At 1109 AM the intersection of state routes 6A and 132 in West Barnstable was flooded and nearly impassable. Total storm rainfall in West Barnstable, as reported by the Community Collaborative Rain Hail and Snow Network, was 2.91 inches.

### Essex County

#### Lawrence

06 1124EST  
1430EST 0 0 0.00K 0.00K Flood

At 1124 AM EST, an amateur radio operator reported a car trapped in flood waters behind Partham Elementary School in Lawrence. The Automated Surface Observation System platform at Lawrence Airport recorded a storm total rainfall of 2.62 inches.

### Barnstable County

#### 1 NNW West Dennis

06 1350EST  
1700EST 0 0 0.00K 0.00K Flood

At 150 PM EST, State Route 28 in West Dennis near the Marina Bay Club Condominiums was flooded and impassable. The Community Collaborative Rain Hail Snow observer in South Dennis reported storm total rainfall of 3.57 inches.

A cold front stalled over Southern New England on Wednesday the 6th with several waves of low pressure moving up along the front. The cold front then moved offshore Wednesday night. Thunderstorms moved across parts of Eastern Massachusetts during Wednesday producing damaging winds and heavy downpours.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Suffolk County

#### Boston

14	1746EST 1748EST			0	0	25.00K	0.00K	Thunderstorm Wind (57EG)
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At 546 PM EST, an amateur radio operator reported two trees down on Belden Street in the Upham's Corner section of Boston. Also, two trees were down on Hamlet Street including one down on three cars. A tree was down on Willis Street. A tree was down on wires on Taft Street.

Note: The estimated wind gust of 57 knots is equivalent to 66 mph.

### Suffolk County

#### 1 WSW (BOS)Logan Intl Arpt

14	1746EST			0	0	0.00K	0.00K	Thunderstorm Wind (57MG)
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At 546 PM EST, the Automated Surface Observation System platform at Logan International Airport in East Boston reported a wind gust to 66 MPH.

Note: The measured wind gust of 57 knots is equivalent to 66 mph.

### Suffolk County

#### 1 SSW Boston

#### 1 NNE Grove Hall

14	1807EST 2100EST			0	0	25.00K	0.00K	Flood
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At 607 PM EST Columbia Road near Ceylon Street and Hamilton Street In Boston was flooded and impassable. Four cars were trapped in flood waters.

### Essex County

#### 1 ENE South Lawrence

15	1655EST 2000EST			0	0	10.00K	0.00K	Flood
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At 455 PM EST, an amateur radio operator reported Chickering Road at State Route 114 in South Lawrence was flooded. A car nearby on Halsey Street was trapped in flood waters. At 524 PM EST a car was disabled in street flooding at Cutler Avenue and Chickering Road. Grafton Street was flooded and impassable.

The remnants of Hurricane Irma moved across Southern New England on Thursday the 14th, bringing scattered showers and a few thunderstorms. A few showers and thunderstorms brought damaging winds and heavy downpours.

## MAZ005-007-013-017>023

## Barnstable - Dukes - Eastern Essex - Eastern Plymouth - Northern Bristol - Southeast Middlesex - Southern Bristol - Southern Plymouth - Western Middlesex - Western Norfolk - Western Plymouth

20	0520EST							
22	1720EST			0	0	263.0K	0.00K	Tropical Storm

## MAZ012-015-024

## Nantucket - Southern Worcester - Suffolk

21	0400EST							
22	2247EST			0	0	74.0K	0.00K	Tropical Storm

Named storm Jose formed over the Tropical Atlantic, moving west and growing to become a Major Hurricane. Jose passed north of the Leeward Islands, then turned on a northward path north of the Dominican Republic. As he moved north, Jose diminished to a Tropical Storm during Tuesday the 19th and then stalled about 150 miles southeast of Nantucket. The storm then slowly drifted south by Friday the 22nd and started to dissipate.

Jose brought strong wind gusts and heavy downpours, primarily to the islands and south coasts of Massachusetts. Rainfall reached about 6 inches on Nantucket, wind gusts reached 62 mph at Nantucket and Aquinnah, and storm surge brought minor coastal flooding to parts of Nantucket.

### Essex County

#### 1 WSW Carletonville

30	0505EST 0905EST			0	0	4.00K	0.00K	Flood
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At 505 AM EST, an amateur radio operator reported cars trapped in flood waters on Pope Street in Salem. At 515 AM EST, Pope Street was officially closed due to flooding.

### Essex County

#### 1 NNE East Saugus

#### Lynn

30	0524EST 1000EST			0	0	100.00K	0.00K	Flash Flood
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# Storm Data and Unusual Weather Phenomena

September 2017

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

In Lynn at 530 AM EST, Boston Street was flooded and impassable at Stetson Street. A car was trapped in flood waters at the intersection of Boston and Bridge Streets. At 536 AM EST, a car was trapped in flood waters at Lynn Commons; people in the car needed to be rescued. At 542 AM EST multiple cars were trapped in flood waters at the intersection of Boston Street and Cottage Street; the road was closed. Also multiple cars were trapped in flood waters at Washington and Johnson Streets. At 550 AM EST, Western Avenue, Liberty Street, and North Common Street were closed due to flooding. At 555 AM EST Alley Street was flooded and impassable. At 558 AM EST, a car was trapped in flooding on Commercial Street at Fenwick Street. At 649 AM EST, multiple cars were trapped in flood waters on Monroe, New Park, and Federal Streets as well as Western Avenue. At 8 AM EST, Ainsworth Place at Boston Road experienced flooding into buildings. An amateur radio operator in Lynn reported a storm total of 3.79 inches of rain.

### **Essex County**

#### **1 W Lynn**

30	0535EST	0	0	0.00K	0.00K	Hail (1.00)
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At 535 AM EST, one-inch diameter hail was reported in Lynn.

### **Suffolk County**

#### **2 NW Winthrop**

30	0701EST 1000EST	0	0	25.00K	0.00K	Flood
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At 701 AM EST in Winthrop, an apartment basement was flooding on Putnam Street. At 712 AM EST, a car was trapped in flood waters on Crest Avenue. At 720 AM EST a portion of Walden Street and adjacent parking lot were flooded and impassable. At 735 AM EST, Governors Drive was flooded. At 750 AM EST, a basement was flooded on Bank Street. At 820 AM EST, basement flooding was also reported on Veterans Road. An amateur radio operator reported a storm total rainfall of 2.58 inches in Winthrop.

### **Suffolk County**

#### **2 E Revere**

#### **1 NNW Winthrop**

30	0720EST 1100EST	0	0	25.00K	0.00K	Flood
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At 720 AM EST in Revere, a car was trapped in one foot of flooding on State Route 1A near the East Boston line. At 742 AM EST, amateur radio reported a flooded basement on Curtis Road. At 747 AM EST, three cars were reported trapped in flood waters on the Revere Beach Parkway.

### **Barnstable County**

#### **1 SW Falmouth Hgts**

30	0730EST 0740EST	0	0	0.00K	0.00K	Funnel Cloud
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At 730 AM EST in Falmouth, the Cape Cod Times reported two cold air funnel clouds over Falmouth Harbor.

### **Suffolk County**

#### **1 S Revere**

30	0748EST 1100EST	0	0	0.00K	0.00K	Flood
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At 748 AM EST in Chelsea, the intersection of Stockton Street and Eastern Avenue was closed due to flooding.

### **Suffolk County**

#### **1 ENE Chelsea**

#### **1 N (BOS)Logan Intl Arpt**

30	0749EST 1100EST	0	0	40.00K	0.00K	Flood
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At 749 AM EST in the Orient Heights section of Boston, multiple basements on Ashley and Bennington Streets were flooded and the backyards had 3 to 4 feet of water.

### **Norfolk County**

#### **Wollaston**

30	0915EST 1300EST	0	0	10.00K	0.00K	Flood
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At 915 AM EST, the Wollaston MBTA (Rapid Transit) Station in Quincy was flooded. At 920 AM EST, the intersection of Centre Street and Vernon Street was flooded and impassable. At 925 AM EST, Cedar Street was flooded and impassable. The Automated Surface Observation System platform in Milton reported a storm total rainfall of 2.44 inches.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Norfolk County**

<b>1 NNW Milton</b>	30	0930EST 1230EST			0	0	0.00K	0.00K	Flood
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At 930 AM EST in Milton, Lincoln Street at Brook Road was closed due to flooding.

Low pressure raced east from the Great Lakes bringing showers and isolated thunderstorms to Southern New England on the morning of Saturday the 30th. Several of the showers in Eastern Massachusetts contained locally heavy downpours, and one contained large hail. This brought several reports of flooding in Boston and the North Shore.

## MICHIGAN, East

### **Bay County**

<b>1 NE Pinconning</b>	04	1327EST			0	0	0.00K	0.00K	Hail (1.00)
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### **Bay County**

<b>4 SW Pinconning</b>	04	1405EST			0	0	0.00K	0.00K	Hail (0.75)
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### **Washtenaw County**

<b>3 ENE Dover</b>	04	1630EST			0	0	0.00K	0.00K	Hail (1.25)
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### **Washtenaw County**

<b>3 ENE Dover</b>	04	1630EST			0	0	0.00K	0.00K	Hail (1.00)
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### **Oakland County**

<b>2 SE Milford</b>	04	1630EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A power pole was blown over, along with 3 inch diameter trees limbs down.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Livingston County**

<b>2 WSW Rushton</b>	04	1635EST			0	0	0.00K	0.00K	Hail (1.00)
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### **Oakland County**

<b>3 SW South Lyon</b>	04	1637EST			0	0	0.00K	0.00K	Hail (2.00)
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### **Macomb County**

<b>1 N Sterling Hgts</b>	04	1703EST			0	0	0.00K	0.00K	Hail (0.75)
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### **Monroe County**

<b>1 SE Dundee</b>	04	1730EST			0	0	12.00K	0.00K	Lightning
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Lightning struck a barn full of hay, causing a fire which engulfed the structure.

### **Lenawee County**

<b>5 E Ogden Center</b>	04	1750EST			0	0	0.00K	0.00K	Hail (1.00)
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### **Wayne County**

<b>2 NW Woodhaven</b>	04	1759EST			0	0	0.00K	0.00K	Hail (0.75)
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A strong cold front moved through southeast Michigan during the late afternoon hours, producing several reports of large hail.

### **Genesee County**

<b>1 NW Brent Creek</b>	21	1516EST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A large tree was reported blown down.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Shiawassee County**

<b>1 N Vernon</b>	21	1613EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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Multiple 6 to 8 inch diameter trees reported down.  
A couple of severe thunderstorms developed just west of Flint. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Charlevoix County 1 SSW East Jordan**

04	1026EST 1031EST				0	0	0.00K	0.00K	Hail (0.88)
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A broken line of thunderstorms crossed northern Michigan at around midday. One storm produced hail.

### **MIZ016**

### **Emmet**

22	1540EST 1550EST				0	0	2.0K	0.00K	High Wind
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A gust front associated with long-decayed thunderstorms over upper Michigan, crossed into northern lower Michigan late in the afternoon of the 22nd. Wind gusts of 35 to 50 mph were common. One report of wind damage was received.

## MICHIGAN, Upper

### **Gogebic County 1 E Hurley**

22	0935CST 0939CST				0	0	0.50K	0.00K	Thunderstorm Wind (50EG)
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The Gogebic County Sheriff reported a tree down across a road just southeast of Ironwood. Time of the report was estimated from radar.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Gogebic County 8 ENE Marenisco**

22	1010CST 1014CST				0	0	1.00K	0.00K	Thunderstorm Wind (55EG)
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Local law enforcement reported power lines down and trees across the road 8 miles ENE of Marenisco.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Houghton County 2 SW Stanwood**

22	1021EST 1025EST				0	0	0.00K	0.00K	Hail (0.75)
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The spotter four miles southeast of Redridge reported penny sized hail.

### **Houghton County Laurium**

22	1037EST 1040EST				0	0	0.00K	0.00K	Hail (1.00)
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A trained spotter in Laurium reported hail up to the size of quarters.

### **Houghton County 1 SSE Centennial Hgts**

22	1040EST 1044EST				0	0	0.00K	0.00K	Hail (0.75)
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There was a public report of one half to three quarter inch diameter hail at Centennial Heights near Calumet.

### **Houghton County 8 SE Tamarack**

22	1045EST 1050EST				0	0	0.00K	0.00K	Hail (0.88)
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A trained spotter six miles southwest of Gay reported pea to nickel sized hail.

### **Iron County**

### **2 WSW Stambaugh City Arpt**

22	1120CST 1125CST				0	0	2.00K	0.00K	Thunderstorm Wind (55EG)
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There were reports of snapped power poles and several medium to large diameter trees downed. Downed trees blocked Baumgartner road in the Stambaugh Township.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Iron County**

**3 NE Scott Lake**

22	1140CST 1147CST			0	0	3.00K	0.00K	Thunderstorm Wind (56EG)
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There were multiple trees downed with widespread tree debris at the George Young Golf Course several miles southeast of Iron River. These reports were a combination of public and broadcast media.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Baraga County**

**7 ESE Nestoria**

22	1150EST 1155EST			0	0	0.00K	0.00K	Hail (0.88)
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A spotter just northwest of Michigamme reported mainly pea to dime sized hail with a few stones the size of nickels.

### **Marquette County**

**3 WNW Austin**

22	1316EST 1320EST			0	0	1.00K	0.00K	Thunderstorm Wind (50EG)
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Local law enforcement reported power lines down three miles northwest of Gwinn.

During the morning hours, a line of strong to severe thunderstorms developed west of Upper Michigan and continued to track eastward throughout the morning and early afternoon hours. This line of strong to severe storms brought nickel to quarter size hail and strong wind gusts that snapped power poles and medium to large size trees. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## MINNESOTA, Central and South Central

### **Hennepin County**

**1 NE Tonka Bay**

04	1530CST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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A few boats on Lake Minnetonka were capsized due to an intense outflow boundary from thunderstorms in Hennepin County.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Waseca County**

**1 E Janesville**

04	1635CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A large tree was blown over in the city of Janesville.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Steele County**

**1 N Owatonna**

04	1655CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
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Several power poles were blown down in the city of Owatonna.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Steele County**

**1 NE Owatonna**

04	1655CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
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Several trees, up to 24 inches in diameter, were uprooted at the Brooktree Golf Course in Owatonna.

A line of strong thunderstorms that developed across central Minnesota during the early afternoon of Monday, September 4th, quickly moved southward over east central and southern Minnesota. An outflow boundary was generated from earlier thunderstorms in eastern Minnesota, and surged southward ahead of this line of stronger storms. The interaction between the outflow boundary and a line of strong thunderstorms, produced isolated wind damage around Owatonna and Janesville. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Stevens County**

**1 NE Morris**

19	2252CST			0	0	0.00K	0.00K	Hail (1.00)
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### **Stevens County**

**1 N Morris**

19	2254CST 2258CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)
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Dozens of trees were damaged, shingled were blown off a house, a flag pole was bent, antennas were damaged on a radio tower, and a pump station at a co-op was blown over. There were also scattered trees down in the city of Morris. Based on radar, it is possible that this may have been tornado damage, but the report came in days later and by that time, the damage had been cleaned up and therefore a damage survey was not conducted.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Douglas County 4 S Brandon

19 2313CST 0 0 0.00K 0.00K Thunderstorm Wind (63EG)  
About one dozen trees were broken or uprooted at two farms south of Brandon. A barn at the northern end of the damage lost part of its roof as wind got in through an open door. It appeared the damage was due to a downburst.

Note: The estimated wind gust of 63 knots is equivalent to 72 mph.

### Douglas County 1 NE Brandon 2 NNW Leaf Vly

19 2318CST  
2322CST 0 0 0.00K 0.00K Thunderstorm Wind (65EG)

Dozens of trees were broken or uprooted from the area just north of Brandon to Leaf Valley Township. It appeared the damage was definitely due to a downburst, with a divergent pattern at Devils Lake.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Chippewa County 1 SW Montevideo

19 2318CST  
2320CST 2.12 100 0 0 0.00K 0.00K Tornado (EF0)

This tornado began on the Chippewa County side of the Minnesota River, just east of the Montevideo golf course. It moved east-northeast across the south side of Montevideo. Most of the damage was to trees, but siding and shingles were taken off a few homes and the Montevideo Community Center.

### Chippewa County 2 S Montevideo

19 2322CST  
2323CST 0.11 80 0 0 0.00K 0.00K Tornado (EF1)

This tornado uprooted or snapped dozens of trees south of Montevideo and just east of the Minnesota River.

### Swift County 2 NNW Murdock 9 ESE Swift Falls

19 2328CST  
2338CST 10.68 550 0 0 1.50M 0.00K Tornado (EF1)

A tornado touched down in a corn field northwest of Murdock and moved northeast. The first structure that was hit was a church, which lost part of its roof. Along the way, the tornado destroyed corn fields, knocked down or broke many trees, and blew apart six empty grain bins that were ready for harvest. Three machine or equipment storage sheds were also destroyed and the roof of a restaurant was partially torn off. The tornado then moved into Kandiyohi County (see separate entry).

### Swift County Swift Falls

19 2330CST 0 0 0.00K 0.00K Hail (1.25)

### Swift County 2 ENE Swift Falls

19 2330CST  
2332CST 0 0 0.00K 0.00K Hail (2.50)

Hail fell on the northeast side of Camp Lake, just before the tornado hit.

### Swift County 2 SSW Swift Falls

19 2330CST  
2331CST 0 0 0.00K 0.00K Thunderstorm Wind (65EG)

A few trees were damaged, a weak 4-legged metal tower was tipped over, and a shed was blown over. This area may have been an earlier beginning point of the Camp Lake tornado, but damage was too scant to be certain, and therefore this damage has been listed as thunderstorm wind damage.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Swift County 2 SE Swift Falls

19 2331CST 0 0 0.00K 0.00K Thunderstorm Wind (63EG)  
About six evergreen trees were tipped over. Based on a storm survey, it was determined that this was due to rear flank downdraft winds, with the Camp Lake tornado about two-thirds mile to the north.

Note: The estimated wind gust of 63 knots is equivalent to 72 mph.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## MINNESOTA, Central and South Central

### Swift County

<b>1 SE Swift Falls</b>	19	2332CST 2334CST	2.4	880	0	0	0.80M	0.00K	Tornado (EF1)
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A tornado touched down southwest of Camp Lake, where it hit some trees at a farmstead. It then moved across fields, damaging or destroying corn fields. It partially tore the roof off a turkey barn before hitting homes along the east side of Camp Lake. It was here that an observer reported his flag was blowing hard from the northwest as tennis ball size hail hit, then the flag suddenly switched and was blowing from the southeast while the hail continued, then from the southwest when the tornado moved in. One modular home had windows blown in, a porch blown away, and its roof was uplifted to the point where driving rain got into much of the house. The tornado then hit an abandoned farm, rolling a mobile home and destroying several outbuildings before moving into Pope County (see separate entry).

### Pope County

<b>4 SSW Gilchrist</b>	19	2334CST 2339CST	6.8	880	0	0	0.50M	0.00K	Tornado (EF1)
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A tornado touched down near Camp Lake in Swift County and then moved into Pope County, where it destroyed two machine sheds and several other outbuildings. The tornado tore through many fields, damaging or destroying much corn. It finally dissipated just after crossing State Highway 104, just before reaching Johanna Lake.

### Kandiyohi County

<b>1 WNW Sunburg</b>	19	2338CST 2339CST	1.91	550	0	0	100.00K	0.00K	Tornado (EF1)
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A tornado moved out of Swift County and into northwestern Kandiyohi County. It knocked down trees, damaged crops, and destroyed two machine sheds at a farm.

### Pope County

<b>5 ESE Gilchrist 7 SE Terrace</b>	19	2339CST 2341CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)
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About two hundred trees were broken or uprooted due to the rear flank downdraft that accompanied the Camp Lake tornado. This damage was one to two miles southeast of the dissipation point of the tornado.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### Chippewa County

<b>1 N Clara City</b>	19	2341CST			0	0	0.00K	0.00K	Thunderstorm Wind (51MG)
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Note: The measured wind gust of 51 knots is equivalent to 59 mph.

### Pope County

<b>6 ESE Terrace 7 SE Sedan</b>	19	2341CST 2343CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)
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A couple dozen trees were blown down or broken. Damage was scant, and therefore the storm survey was unable to determine if this was downburst or the continuation of the Camp Lake tornado. Radar data suggest it was probably downburst winds in the wake of the tornado.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Stearns County

<b>3 WSW Belgrade</b>	19	2346CST 2347CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)
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A few dozen trees were damaged, the roof of an open sided shed was blown off, and several corn fields were damaged. This area may have been an earlier beginning point of the Belgrade tornado, but damage was too scant to be certain, and therefore this damage has been listed as thunderstorm wind damage.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### Stearns County

<b>2 NNE Brooten</b>	19	2347CST 2348CST			0	0	0.00K	0.00K	Thunderstorm Wind (69EG)
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About two dozen trees were damaged, a house lost a portion of its roof, siding was peeled away, and corn fields sustained some damage. This area may have been an earlier beginning point of the tornado that tracked from west to northeast of Elrosa, but damage was too scant to be certain, and therefore this damage has been listed as thunderstorm wind damage.

Note: The estimated wind gust of 69 knots is equivalent to 79 mph.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## MINNESOTA, Central and South Central

### Stearns County Belgrade

19 2348CST 0 0 0.00K 0.00K Thunderstorm Wind (63EG)  
Dozens and possibly more than 100 trees were felled in Belgrade, just to the south of a tornado. A storm survey determined this was due to rear flank downdraft winds associated with the Belgrade tornado.

Note: The estimated wind gust of 63 knots is equivalent to 72 mph.

### Stearns County Belgrade

19 2348CST 1.16 330 0 0 0.00K 0.00K Tornado (EF0)  
2349CST

A tornado knocked down several dozen trees, with some landing on cars and sheds. One tree landed on a mobile home. The tornado also destroyed a storage building (the building had been moved from another location and was still in the process of being made ready for business when the tornado came and blew it across the road).

### Stearns County 4 NE Brooten

19 2349CST 0 0 0.00K 0.00K Thunderstorm Wind (65EG)  
About 20 trees were broken about 2/3 mile to the southeast of a tornado that was west of Elrosa. The tree damage was deemed to be due to rear flank downdraft winds.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Stearns County 4 WSW Elrosa 2 W Greenwald

19 2349CST 8.18 360 0 0 0.00K 0.00K Tornado (EF1)  
2356CST

A tornado touched down on the edge of a corn field and moved east-northeast, missing the city of Elrosa by less than a mile. However, it hit several farms, including one where several metal sheds were destroyed. The tornado also knocked down or uprooted many trees and also severely damaged crops, especially corn that was ready for harvest.

### Stearns County 1 E Elrosa 1 SW Greenwald

19 2354CST 0 0 500.00K 0.00K Thunderstorm Wind (65EG)  
2356CST

A large shed lost part of its roof, a grain bin was dented in, other outbuildings were damaged, a few dozen trees were broken, and a few cornfields were damaged. This was all southeast of a tornado that tracked from west to northeast of Elrosa, and was deemed to be due to rear flank downdraft winds.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Stearns County 3 W Greenwald 1 NE Melrose

19 2355CST  
20 0001CST 0 0 1.00M 0.00K Thunderstorm Wind (68EG)

Hundreds of trees, possibly over one thousand, were blown down across a broadening swath from northeast of Elrosa to Melrose. Numerous corn fields and other crops were also damaged. A storm survey determined this was due to downburst winds associated with a dissipating tornado and then downstream from the dissipated tornado. A building that was under construction was completely blown apart, and a commercial building lost part of its roof. Other sheds and outbuildings at farms also had some damage.

Note: The estimated wind gust of 68 knots is equivalent to 78 mph.

### Todd County 2 WNW Burtrum 3 NE Pillsbury

20 0004CST 6.75 440 0 0 0.00K 0.00K Tornado (EF1)  
0011CST

A tornado touched down on the east side of Big Swan Lake, where a few trees were downed. As the tornado moved northeast, it hit a number of lake homes and cabins, causing roof damage to several. As the tornado reached the community of Pillsbury on the northeast side of Long Lake, a boat and attached dock were blown westward into the lake. Dozens of trees, including some two feet in diameter, were blown down or snapped. A home was shifted off its foundation by several inches. Another home sustained minor damage to the roof and had some windows blown in. The tornado continued beyond Pillsbury, moving across open fields and woods, and dissipated just as it reached the Todd/Morrison County line.

# Storm Data and Unusual Weather Phenomena

									September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b><u>MINNESOTA, Central and South Central</u></b>									
<b>Stearns County</b>									
3 SSE St Rosa	20	0006CST							
2 W St Francis		0009CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)
About two dozen trees and numerous corn fields were blown down. Based on a storm survey, it was determined that this area was hit with downburst winds. A small part of the roof from a turkey farm was blown off.									
Note: The estimated wind gust of 65 knots is equivalent to 75 mph.									
<b>Morrison County</b>									
1 SE Swanville	20	0009CST							
		0012CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
Several dozen trees and a few corn fields were damaged in far western Morrison County, probably due to downburst or rear flank downdraft winds associated with the end of the Pillsbury tornado.									
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
<b>Kandiyohi County</b>									
7 NE Lake Lillian	20	0015CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)
Several trees and large branches were broken.									
Note: The estimated wind gust of 70 knots is equivalent to 81 mph.									
<b>Stearns County</b>									
1 SE Avon	20	0020CST			0	0	0.00K	0.00K	Hail (0.88)
<b>Morrison County</b>									
2 SW Bowlus	20	0021CST			0	0	0.00K	0.00K	Hail (1.00)
<b>Mille Lacs County</b>									
2 NNW Vineland	20	0055CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
Several trees and power lines were blown down north of Vineland.									
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									
<b>Stearns County</b>									
1 SW Waite Park	20	0056CST			0	0	0.00K	0.00K	Hail (0.88)
<b>Mille Lacs County</b>									
4 NW Vineland	20	0102CST			0	0	0.00K	0.00K	Hail (1.75)
<b>Stearns County</b>									
Sartell	20	0102CST			0	0	0.00K	0.00K	Hail (1.00)
<b>Hennepin County</b>									
1 NE Bloomington	20	0140CST			0	0	0.00K	0.00K	Hail (0.88)
A strong and potent upper level disturbance, combined with a cold front sweeping across the eastern Dakotas, fired a line of severe thunderstorms that moved eastward into western Minnesota toward midnight. This line of storms continued to progress east-northeast across southern and central Minnesota, which produced fast-moving tornadoes, severe measured wind gusts, and hail as large as tennis balls. This line slowly weakened as it moved into far eastern Minnesota, with general, non-severe thunderstorms as the line progressed into west central Wisconsin after 3 am.									
<b>Mille Lacs County</b>									
1 NE Wahkon	22	0430CST			0	0	0.00K	0.00K	Hail (1.50)
<b>Wright County</b>									
1 NW Rockford	22	0700CST			0	0	0.00K	0.00K	Hail (0.88)
Several thunderstorms developed along an elevated core of strong instability in west central, and central Minnesota during the early morning of Friday, September 22nd. These storms tracked along a line from north of Alexandria, to Mora, Minnesota. Most of the storms were non-severe and produced up to nickel size hail and gusty winds of 40 to 50 mph. However, one of the storms became severe and produced severe hail north of Mora. Other storms developed farther to the south, but remained non-severe and produced an occasional penny size hail stone.									
<b>Chippewa County</b>									
2 WSW Watson	22	2055CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
Several trees were blown down near Watson.									
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Swift County**

**1 SE Murdock** 22 2115CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)  
 Numerous trees were blown down in the city of Murdock. Some of the trees were one foot in diameter. Due to several of the trees knocking down power lines, a large portion of Murdock lost power.

A line of storms that developed in eastern South Dakota, moved northeast into west central Minnesota and produced wind gusts of 40 to 55 mph across Lac Qui Parle County. As the storms moved into Chippewa and Swift counties, a few severe wind gusts caused damage near Watson and Murdock. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Kandiyohi County**

**Sunburg** 24 1513CST 0 0 0.00K 0.00K Hail (0.88)

### **Stearns County**

**Brooten** 24 1525CST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
 A few small trees of <6 inches in diameter and limbs down on the south side of Brooten.

Clusters of strong thunderstorms developed during the late afternoon of 9/24/17. A Tornado Warning was issued for a low-topped supercell over Pope and Stearns Counties. A storm chaser reported strong low level rotation, but no tornado. Thunderstorm wind damage did occur. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## MINNESOTA, Northeast

### **St. Louis County**

**Kelly Lake** 02 1323CST 0 0 Hail (0.75)

### **Cook County**

**1 NNE Lutsen** 02 1647CST 0 0 Hail (0.75)  
 Strong thunderstorms moved across portions of Cook and St. Louis Counties producing penny sized hail.

### **Itasca County**

**3 WSW Grand Rapids Arpt** 03 1948CST 0 0 Hail (1.00)  
 A severe thunderstorm moved across Itasca County producing 1 sized hail in the town of Grand Rapids.

### **St. Louis County**

**2 ESE Nett Lake** 14 1500CST 0 0 Hail (1.75)

### **St. Louis County**

**1 E Crane Lake** 14 1500CST 0 0 Hail (2.00)

### **St. Louis County**

**2 ESE Nett Lake** 14 1501CST 0 0 Hail (1.75)

### **Itasca County**

**1 NW Effie** 14 1512CST 0 0 Hail (0.88)

### **St. Louis County**

**2 SW Britt** 14 1634CST  
 1648CST 0 0 Hail (1.75)

### **St. Louis County**

**1 S Embarrass** 14 1708CST 0 0 Hail (0.75)

### **St. Louis County**

**Biwabik** 14 1710CST 0 0 Hail (1.00)

### **St. Louis County**

**4 N Makinen** 14 1714CST  
 1719CST 0 0 Hail (1.00)

### **St. Louis County**

**1 N Central Lakes** 14 1733CST 0 0 Thunderstorm Wind (50EG)  
 A few trees measuring three to four inches in diameter were knocked down and blocked the south bound side of United States Highway 53 near Murphy Lake Road.  
 Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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, Northeast

<b>St. Louis County Central Lakes</b>	14	1735CST			0	0			Hail (0.75)
<b>St. Louis County 1 SE Makinen</b>	14	1735CST			0	0			Hail (1.00)
<b>St. Louis County Central Lakes</b>	14	1738CST			0	0			Hail (1.50)
<b>St. Louis County 3 N Markham</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood County Road 338 south of Town Line Road was closed due to flooding over the road.
<b>St. Louis County Central Lakes</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood Water was over the roadway at Old Highway 53.
<b>St. Louis County 3 SSE Makinen</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood County Road 607/331 was closed east of Long Lake Road due to flooding.
<b>St. Louis County 3 SE Polo</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood County State Aid Highway 99 was closed from Town Line Road north to County Road 343 due to flooding from Water Hen Creek.
<b>St. Louis County 4 SSE Polo</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood County Road 344 south of Town Line Road was closed due to flooding of Water Hen Creek.
<b>St. Louis County 4 NNW Markham</b>	14	2200CST			0	0	0.00K	0.00K	Flash Flood Flooding of the Water Hen Creek closed traffic access to Wilson Road.

Severe thunderstorms that moved across northeast Minnesota produced up to hen egg sized hail, damaging winds, and heavy rainfall that caused flooding.

## MNZ037

### Southern St. Louis/Carlton

15	1400CST			0	0				Dense Fog An elderly woman drowned when she drove into Island Lake after missing a curve in dense fog.
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### Crow Wing County 1 S Baxter

20	0031CST			0	0				Thunderstorm Wind (56EG) Several pine and oak trees with diameters larger than twelve inches were knocked down along Minnesota Highway 210 two miles west of the intersection with Minnesota 371. An oak tree also fell across a home on the south end of White Sand lake.
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Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Cass County 1 SSW Lake Shr

20	0035CST			0	0				Thunderstorm Wind (52EG) Several trees were knocked down along the lake shore area. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
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### Crow Wing County (P39)Pequot Lakes

20	0037CST			0	0				Thunderstorm Wind (52EG) Multiple trees were knocked down along with nearby power lines.
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Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Crow Wing County 2 ENE Niswaa

20	0038CST			0	0				Thunderstorm Wind (52EG) Multiple trees were blown down. The largest tree was 20 inches in diameter.
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Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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, Northeast

### Crow Wing County

#### 1 E Jenkins

20 0039CST 0 0  
Multiple trees were knocked down on County Road 145.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50EG)

### Crow Wing County

#### Pequot Lakes Arpt

20 0042CST 0 0  
Multiple trees were knocked down along with nearby power lines.  
  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50EG)

### Crow Wing County

#### 3 NE Jenkins

20 0043CST 0 0  
Note: The measured wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50MG)

### Crow Wing County

#### 2 ENE Cross Lake

20 0045CST 0 0  
Multiple trees were knocked down along with nearby power lines.  
  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50EG)

### Crow Wing County

#### 2 NE Manhattan Beach

20 0048CST 0 0  
Multiple trees were knocked down along with nearby powers lines.  
  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50EG)

### Cass County

#### 2 SE Inguadona

20 0052CST 0 0  
Multiple trees were knocked down on County Road 7 in Trelipe Township.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

### Crow Wing County

#### 5 E Pine Center

20 0053CST  
0058CST 0 0

Hail (1.75)

### Cass County

#### 3 ENE Brevik

20 0056CST 0 0  
Multiple trees were knocked down on County Road 8 in Boy Lake Township.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

### Cass County

#### 1 W Boy River

20 0100CST 0 0  
Multiple trees were knocked down on County Road 63 in Boy River Township.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

### Cass County

#### 1 SE Bena

20 0103CST 0 0  
Multiple trees were knocked down.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

Thunderstorm Wind (50EG)

### Aitkin County

#### 4 SSW Malmo

20 0115CST 0 0  
Several trees were uprooted. A large tree branch landed on a car.  
  
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

Thunderstorm Wind (56EG)

### Itasca County

#### 1 SE Marcell

20 0124CST 0 0  
Several trees were knocked down along Minnesota 38.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Itasca County

10 NW Bennett

20 0131CST 0 0 Thunderstorm Wind (52EG)  
Several trees were knocked down along Minnesota State Highway 65 near Buck Lake.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Pine County

1 W Ellson

20 0135CST 0 0 Thunderstorm Wind (50EG)  
A few trees were knocked down along County Road 41 near Willow River.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### St. Louis County

1 S Hibbing

20 0142CST 0 0 Thunderstorm Wind (56EG)  
Several large trees were knocked down with some falling onto a house, damaging its chimney and siding.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Carlton County

1 SSE Kettle River

20 0143CST 0 0 Thunderstorm Wind (52EG)  
A few trees measuring 10 inches in diameter were knocked down along Minnesota 27 by the intersection with Minnesota 73.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Carlton County

1 SE Cloquet

20 0203CST 0 0 Thunderstorm Wind (52EG)  
A 12 to 18 inch diameter tree branch was knocked down partially blocking Grant Avenue.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### St. Louis County

Spruce

20 0206CST 0 0 Thunderstorm Wind (52EG)  
Several trees were knocked down blocking Old Mesabi Road in Clinton Township.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Pine County

2 SSE Sturgeon Lake

20 0208CST 0 0 Hail (0.88)

### St. Louis County

3 ESE Jones

20 0222CST 0 0 Thunderstorm Wind (50EG)  
A tree was knocked down blocking the crossing of Eshquaguma Country Road and Vermilion Trail.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### St. Louis County

1 SW Duluth Hgts

20 0222CST 0 0 Thunderstorm Wind (52EG)  
A few tree branches measuring 5 to 6 inches in diameter were knocked down.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### St. Louis County

1 E Soudan

20 0224CST 0 0 Thunderstorm Wind (52EG)  
A tree was knocked down blocking Minnesota 169 in Breitung Township.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### St. Louis County

4 WNW Babbitt

20 0242CST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
A tree was knocked down blocking the roadway at Highway 21 and Shaver Road.

A series of severe thunderstorms moved across portions of northeast Minnesota. The storms caused very gusty winds that led to numerous reports of blown down trees blocking roads and bringing down nearby power lines. A few buildings were also damaged by downed trees. Severe hail was also reported. Preliminary damage estimates across Cass County were at \$64,000 which included \$45,000 damage sustained by Crow Wing Power, city of Lake Shore with \$10,000, Loon Lake Township at \$5,000 and Fairview Township at \$4,000. Minnesota Governor Mark Dayton authorized \$351,000 to both Cass and Crow Wing Counties for recovery efforts. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b><u>MINNESOTA, Northeast</u></b>										
<b>Itasca County</b>										
10 SSW Blackberry	22	0221CST			0	0			Thunderstorm Wind (50EG)	
Several large tree branches were knocked down.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Itasca County</b>										
7 SSW Blackberry	22	0225CST			0	0			Thunderstorm Wind (56EG)	
A barn was damaged by severe thunderstorms winds that blew off its cupola and stripped its siding.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Crow Wing County</b>										
1 SSE Brainerd	22	0356CST			0	0			Thunderstorm Wind (52EG)	
A few trees were knocked down within the city with widespread tree damage across portions of Crow Wing County.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Crow Wing County</b>										
Garrison	22	0407CST			0	0			Thunderstorm Wind (50EG)	
A few trees were knocked down and partially blocking Minnesota Highway 169.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Crow Wing County</b>										
Ft Ripley	22	0420CST			0	0			Hail (0.88)	
<b>Cass County</b>										
1 E Osnawa	22	0420CST			0	0			Thunderstorm Wind (50EG)	
A few trees were knocked down blocking Minnesota Highway 87 west of Backus.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Crow Wing County</b>										
2 ENE Cross Lake	22	0433CST			0	0			Thunderstorm Wind (52EG)	
Multiple trees were knocked down along with nearby power lines.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Aitkin County</b>										
1 E Giese	22	0503CST			0	0			Thunderstorm Wind (52EG)	
A few trees were knocked down along Minnesota Highway 18 between McGrath and Finlayson.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Cass County</b>										
1 S Remer Muni Arpt	22	0506CST			0	0			Thunderstorm Wind (52EG)	
A few blown down trees were blocking the road.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Carlton County</b>										
1 NW Kettle River	22	0508CST			0	0			Thunderstorm Wind (50EG)	
Four trees were knocked down.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Carlton County</b>										
1 S Kettle River	22	0512CST			0	0			Thunderstorm Wind (50EG)	
A few trees were knocked along Minnesota Highway 73 west of Moose Lake.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Pine County</b>										
3 SW Ellson	22	0515CST			0	0			Hail (1.00)	
<b>St. Louis County</b>										
4 NNE Gowan	22	0536CST			0	0			Thunderstorm Wind (52EG)	
A few trees were knocked down onto nearby power lines.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										

# Storm Data and Unusual Weather Phenomena

September 2017

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

<b>St. Louis County</b> <b>Alborn</b>	22	0555CST			0	0			Thunderstorm Wind (52EG) Multiple trees were knocked down onto nearby power lines. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
<b>St. Louis County</b> <b>1 NW Bayview</b>	22	0600CST			0	0			Thunderstorm Wind (50EG) Trees and power lines were blown down. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>St. Louis County</b> <b>1 E Hermantown</b>	22	0602CST			0	0			Thunderstorm Wind (50EG) A 9 diameter healthy poplar tree was blown down. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>St. Louis County</b> <b>1 SW (DLH)Duluth Intl Arp</b>	22	0613CST			0	0			Thunderstorm Wind (53MG) The wind speed was recorded by the ASOS station at the Duluth International Airport.  Note: The measured wind gust of 53 knots is equivalent to 61 mph.
<b>St. Louis County</b> <b>1 NW Arnold</b>	22	0614CST			0	0			Thunderstorm Wind (50EG) Trees and power lines were blown down. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Cook County</b> <b>8 WSW Marais</b>	22	0747CST			0	0			Thunderstorm Wind (50EG) A few trees were blown down along Minnesota Highway 61 by mile marker 100.  Severe thunderstorms developed across portions of northeast Minnesota the evening of the 21st of September and continued across the region into the early morning hours of the 22nd. Several large trees were knocked down along with nearby powerlines. A cupola was blown off of a bar and hail as large as an inch fell. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.
<b>Crow Wing County</b> <b>4 SE Brainerd</b>	24	1528CST			0	0			Thunderstorm Wind (52EG) Numerous tree branches varying in diameter from six to eight inches were knocked down. In addition, a few pine trees were stripped of their needles. A strong thunderstorm moved across Crow Wing County producing damaging winds gusts outside of the city of Brainerd. Several large tree branches were knocked down along with pine trees having their needles stripped. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## MINNESOTA, Northwest

<b>Hubbard County</b> <b>3 N Dorset</b>	04	1110CST			0	0			Hail (1.00) The hail fell at the Vegabond village campground.
<b>Hubbard County</b> <b>4 SE Dorset</b>	04	1120CST			0	0			Hail (1.00) The hail fell at Big Stony Lake.
<b>Hubbard County</b> <b>1 N Dorset</b>	04	1120CST			0	0			Hail (1.75)
<b>Marshall County</b> <b>2 WSW Thief Lake</b>	04	1145CST			0	0			Hail (0.75) The hail fell on the north side of Thief Lake.
<b>Polk County</b> <b>2 NW Burwell</b>	04	1147CST			0	0			Hail (0.88) Dime to nickel sized hail was reported.
<b>Otter Tail County</b> <b>4 NNW Battle Lake Muni Arp</b>	04	1204CST			0	0			Hail (0.75) The hail fell just off highway 78.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Polk County**

#### **East Grand Forks**

04 1235CST 0 0 Hail (1.00)  
Dime to quarter sized hail was reported.

### **Beltrami County**

#### **Puposky**

04 1250CST 0 0 Hail (1.00)  
Dime to nickel sized hail fell, along with a few quarter sized hailstones.

### **Becker County**

#### **1 S Detroit Lakes Arpt**

04 1433CST 0 0 Thunderstorm Wind (50MG)  
The peak wind was measured at the Detroit Lakes airport.  
Morning surface heating, cold temperatures aloft, and an upper level disturbance, combined to produce afternoon showers and thunderstorms. These storms produced numerous hail and gusty wind reports. Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### **Becker County**

#### **4 N Osage**

14 1928CST 0 0 Hail (1.00)  
Nickel to quarter sized hail fell.

### **Becker County**

#### **5 E Osage**

14 1949CST 0 0 Hail (1.00)

### **Hubbard County**

#### **2 SE Dorset**

14 2040CST 0 0 Hail (1.00)  
The hail fell at Fifth Crow Wing Lake.  
By the early evening of September 14th, a stationary boundary had set up along a line from Elbow Lake to Wadena. A few severe thunderstorms formed north of this boundary, in the Park Rapids area.

### **Norman County**

#### **4 NNE Lockhart**

19 1850CST  
1853CST 1.37 100 0 0 2.00K 2.00K Tornado (EF1)

This tornado began in Norman County, Minnesota, about three miles north-northeast of Lockhart. It tracked about a mile in Norman County, before it crossed into Polk County, where it continued about another three miles. The tornado ended at 701 PM CST, just past the community of Beltrami, Polk County. Peak winds were estimated at 105 mph.

### **Polk County**

#### **3 S Beltrami**

19 1853CST  
1901CST 3.2 100 0 0 50.00K 3.00K Tornado (EF1)

This tornado began in Norman County, about three miles north-northeast of Lockhart, at 650 PM CST. As it crossed into Polk County, about 653 PM CST, debris from the tornado broke windows in a vehicle. The tornado then snapped trees in and around the community of Beltrami and dismantled a metal wrapped pole shed. Peak winds were estimated at 105 mph.

### **Polk County**

#### **3 ESE Union Lake**

19 1940CST 0 0 Thunderstorm Wind (74EG)  
Trees were blown down at a farmstead, some being uprooted.  
Note: The estimated wind gust of 74 knots is equivalent to 85 mph.

### **Red Lake County**

#### **3 S Brooks**

19 1950CST 0 0 Thunderstorm Wind (52EG)  
Numerous four to six inch diameter tree branches were broken down in shelterbelts across southern Poplar River Township. A nearby MNDOT RWIS mesonet station also lost power.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Polk County**

#### **1 NNW Fosston Muni Arpt**

19 1959CST 0 0 Thunderstorm Wind (55MG)  
The AWOS at the Fosston airport measured the wind gust from the southwest. Shelterbelts in adjacent portions of Brandsvold Township had broken oak branches commensurate with these wind speeds.

Note: The measured wind gust of 55 knots is equivalent to 63 mph.

### **Polk County**

#### **4 W Olga**

19 2015CST 0 0 Thunderstorm Wind (61EG)  
Several trees were blown down with large tree limbs scattered about.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## MINNESOTA, Northwest

Late in the afternoon of September 19th, a frontal boundary pushed into the Devils Lake to Jamestown (ND) corridor. Due to fairly extensive cloud cover throughout the day, late afternoon temperatures only ranged in the low 60s over the Devils Lake region, to the lower 70s over southeast North Dakota into west central Minnesota. Even though temperatures remained on the cool side, a strong moisture surge occurred. Cloud cover decreased somewhat over southeast North Dakota during the late afternoon, where thunderstorms flared up south of Jamestown. As this large thunderstorm cell moved into southwest Barnes County (ND), it produced a tornado near Litchville. This cell evolved into a larger storm complex, which moved east-northeast through the evening. This storm complex produced large hail, strong winds, and a second tornado along the Norman/Polk (MN) county border in Minnesota. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **MNZ004**

#### **Kittson**

19	2030CST	0	0	8.0K	High Wind
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As thunderstorms passed to the south and east, strong sustained winds developed over Kittson County, in what is known as a wake low. Several mesonet sensors measured the sustained period of strong winds.

### **Becker County Cormorant**

19	2155CST	0	0	Thunderstorm Wind (56EG)
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Many large tree branches and power lines were blown down around Cormorant Lake, resulting in localized power outages.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Mahnomen County 8 S Naytahwaush**

19	2240CST	0	0	Thunderstorm Wind (56EG)
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Numerous large tree branches and power lines were blown down around Tulaby Lake and Elbow Lake, resulting in localized power outages.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Grant County 1 S Elbow Lake**

19	2254CST	0	0	Thunderstorm Wind (52EG)
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A few large tree branches were blown down around town. The peak wind measured at the Elbow Lake airport was 54 mph.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Otter Tail County Henning**

19	2325CST	0	0	Thunderstorm Wind (52EG)
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A few four to six inch diameter tree branches were blown down in groves and shelterbelts across east central Henning Township.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Otter Tail County 1 SSW Parkers Prairie**

19	2330CST	0	0	Thunderstorm Wind (56EG)
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Numerous trees were blown down around town. At least one tree fell on a house.

Late in the afternoon of September 19th, a frontal boundary pushed into the Devils Lake to Jamestown (ND) corridor. Due to fairly extensive cloud cover throughout the day, late afternoon temperatures only ranged in the low 60s over the Devils Lake region, to the lower 70s over southeast North Dakota into west central Minnesota. Even though temperatures remained on the cool side, a strong moisture surge occurred. Cloud cover decreased somewhat over southeast North Dakota during the late afternoon, where thunderstorms flared up south of Jamestown. As this large thunderstorm cell moved into southwest Barnes County (ND), it produced a tornado near Litchville. This cell evolved into a larger storm complex, which moved east-northeast through the evening. This storm complex produced large hail, strong winds, and a second tornado along the Norman/Polk (MN) county border in Minnesota. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Grant County 1 N Wendell**

22	0214CST	0	0	Hail (1.00)
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The hail fell with very heavy rain.

### **Grant County 3 WSW Ashby**

22	0230CST	0	0	Hail (1.00)
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The hail fell along Interstate 94 near the Otter Tail County line.

### **Otter Tail County 1 SW Wrightstown**

22	0310CST	0	0	Hail (1.25)
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A few quarter to half dollar sized hail fell along with very heavy rain.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Polk County**

**5 NNW Northland**

22 1945CST 0 0 Thunderstorm Wind (56EG)  
A few trees and power lines were blown down.  
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Marshall County**

**Warren**

22 1954CST 0 0 Thunderstorm Wind (52EG)  
A large limb was snapped off a tree.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Marshall County**

**1 S Espelie**

22 2005CST 0 0 Hail (1.25)  
Nickel to half dollar sized hail fell.

### **Beltrami County**

**6 W Carmel**

22 2015CST 0 0 Hail (1.00)

### **Marshall County**

**1 S Newfolden**

22 2026CST 0 0 Thunderstorm Wind (52EG)  
A large tree limb was blown down.  
During the early morning hours of September 22nd, a complex of thunderstorms moved from the far southern Red River Valley, east-northeast to the Wadena, Minnesota area. These storms dropped large hail. Then, during the early evening of September 22nd, an area of surface low pressure was located just northwest of Fargo, North Dakota, with a stationary boundary extending out to the east, toward Fosston and Bemidji, Minnesota. A strong low level jet helped storms fire to the north and east of the surface features, mainly from Grand Forks County in North Dakota, up toward Marshall County in Minnesota. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## MINNESOTA, Southeast

### **MNZ096**

### **Houston**

19 0600CST  
30 2359CST 0 0 0.00K 0.00K Drought

Persistent below normal precipitation since July 2017 allowed severe drought conditions to develop across a small portion of southeast Minnesota, including Houston County. These conditions continued into October 2017.

## MINNESOTA, Southwest

### **Pipestone County**

**5 SSW Ihlen**

19 2244CST 0 0 0.00K 0.00K Thunderstorm Wind (70EG)  
Trees were downed at Jasper, MN Cemetery.  
Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### **Rock County**

**1 NE Ash Creek**

19 2255CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Large tree downed.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Rock County**

**1 SW Beaver Creek**

19 2255CST 0 0 0.00K 0.00K Thunderstorm Wind (50MG)  
Remote Minnesota DOT sensor at Beaver Creek.  
Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### **Rock County**

**1 SE Luverne Arpt**

19 2302CST 0 0 0.00K 0.00K Thunderstorm Wind (59MG)  
Note: The measured wind gust of 59 knots is equivalent to 68 mph.

### **Lyon County**

**Balaton**

19 2311CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)  
Trees downed.  
Widespread thunderstorms first developed in central South Dakota and moved into the west central portion of Minnesota during the late evening hours and produced strong winds. The strong winds caused localized damage to trees. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Nobles County**

**1 NNE Rushmore**

24 1429CST 0 0 0.00K 0.00K Thunderstorm Wind (52MG)  
Measured by Minnesota DOT remote weather sensor.  
Strong winds were a result of a small cluster of storms moving along the Iowa/Minnesota border late in the afternoon. Note: The measured wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## MISSISSIPPI, Central

### MSZ031

### Lowndes

01 0100CST 0 0 5.0K 0.00K Strong Wind  
The remnants of Hurricane Harvey moved across the ArkLaMiss region on August 30th and 31st and brought gusty winds and rain to the region. As Harvey decreased to a depression on the 31st, gusty winds still remained across portions of the region into the early parts of September. This resulted in some downed trees outside of any shower activity.

### Lowndes County College

05 1515CST 0 0 5.00K 0.00K Thunderstorm Wind (50EG)  
Powerlines were blown down.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Hinds County 1 N Clinton

05 1757CST 0 0 8.00K 0.00K Thunderstorm Wind (39EG)  
A few small trees were blown down due to outflow winds that moved through ahead of an approaching line of storms.  
  
Note: The estimated wind gust of 39 knots is equivalent to 45 mph.

### Attala County 1 SSE Wamba 2 NW Kosciusko

05 1820CST 0 0 4.00K 0.00K Flash Flood  
2030CST  
  
Street flooding occurred in Kosciusko.  
A early season cold front moved through the region, ushering in cooler and drier air into the ArkLaMiss region. Some storms were strong to severe with damaging winds and locally heavy rain resulting in flash flooding.

### Forrest County 3 SSW Macedonia

19 1436CST 0 0 2.00K 0.00K Thunderstorm Wind (48EG)  
Outdoor home security camera captured video of a pine tree branch being snapped by straight line winds in association with a microburst. Other trees were reported down in the subdivision as well. This occurred in the Trailwood subdivision in Petal.  
  
Above normal temperatures for mid-September, along with ample moisture in place over the region, brought afternoon showers and storms to the region. Some of these storms had gusty winds. Note: The estimated wind gust of 48 knots is equivalent to 55 mph.

### Webster County Dancy

23 1558CST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
A few one foot diameter pine trees were snapped along Gilbert Hill Road one half mile west of MS Highway 15. One of the fallen trees damaged a utility trailer.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Smith County 4 NNW Sylvaena

23 1641CST 0 0 0.50K 0.00K Thunderstorm Wind (43EG)  
A six inch diameter tree was snapped near CR 128.  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

### Covington County 1 S Gandisi

23 1707CST 0 0 75.00K 0.00K Thunderstorm Wind (60EG)  
Microburst winds caused very localized damage in Seminary which included a peeled back portion of the post office roof, a few trees blown down near the post office, minor shingle damage on a nearby home, and an uprooted two to three foot diameter pine tree near the high school. Trees and debris were blown to the southwest, consistent with straight line wind damage.  
  
Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### Covington County 5 NNE Gandisi

23 1710CST 0 0 15.00K 0.00K Lightning  
Lightning started a fire in a stand of trees near MS Highway 588 and Abercrombie-Knight Road northeast of Seminary.

### Lamar County 1 SE Purvis

23 1710CST 0 0 20.00K 0.00K Thunderstorm Wind (43EG)  
Several sections of an awning were damaged at Purvis High School.  
  
Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Lamar County

#### 4 NW Talowah

23 1720CST 0 0 20.00K 0.00K Thunderstorm Wind (50EG)  
A power pole was blown down along Little Black Creek Road southwest of Purvis. Several trees were also blown down in the surrounding area between Purvis and Baxterville.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Covington County

#### 1 NE Ora

23 1745CST 0 0 5.00K 0.00K Thunderstorm Wind (50EG)  
A few trees were blown down along Salem Church Road north of Collins.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Covington County

#### 4 WNW Williamsburg

23 1802CST 0 0 5.00K 0.00K Thunderstorm Wind (50EG)  
A few trees were blown down along Dan Easterling Road west of Collins.  
Scattered strong to severe thunderstorms developed across eastern portions of Mississippi on the afternoon of September 23. The strongest thunderstorms produced small hail and a few microbursts which caused damage to trees and buildings. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## MISSOURI, East

### St. Charles County

#### 3 WNW Weldon Spg 1 N Defiance

04 1800CST  
1810CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)  
Thunderstorm winds blew a large tree down onto power lines on Henning Road. Also, another tree was blown down onto the roadway just north of Defiance.  
Strong cold front moved south across forecast area, triggering numerous thunderstorms. Some of the storms were severe producing large hail and damaging winds. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### MOZ063

#### St. Louis

11 1530CST  
1630CST 2 0 0.00K 0.00K Heat  
Temperatures were near normal with a high of 79 degrees at St. Louis Lambert International Airport. M1VE

## MISSOURI, Northwest

### Grundy County

#### 3 E Trenton Arpt

16 1630CST  
1633CST 0 0 Thunderstorm Wind (52EG)  
A 6 inch tree limb was down, and a powerline was down near Trenton.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Livingston County

#### 1 NNE Chillicothe Arpt

16 1635CST  
1638CST 0 0 Thunderstorm Wind (56EG)  
A chicken coop was blown over and a section of fence was blown 100 yards in the neighbor's yard.  
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Linn County

#### 3 WSW Shelby

16 1650CST  
1653CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A pole barn was damaged near Purdin.  
On the evening of September 16, a strong storm moved through the Chillicothe area. There was some damage to a chicken coop and a pole barn in the area, with estimated 60 to 70 mph winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.



# Storm Data and Unusual Weather Phenomena

September 2017

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

**MOZ076-086-100-  
107>111**

**Bollinger - Butler - Cape Girardeau - Carter - Perry - Ripley - Scott - Stoddard - Wayne**

14	0500CST 0800CST				0	0	0.00K	0.00K	Dense Fog
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Widespread dense fog blanketed most of southeast Missouri during the early morning hours. Visibility was reduced to one-quarter mile or less. The dense fog was over most of southeast Missouri with the exception of the extreme southeast counties of Mississippi and New Madrid. The dense fog occurred on the back side of high pressure over the Appalachian Mountains. A light south wind flow of humid air contributed to the dense fog.

**Cape Girardeau County  
Jackson**

18	2326CST				0	0	0.00K	0.00K	Hail (1.00)
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An isolated severe thunderstorm produced large hail in Cape Girardeau County. The storm occurred in a moist and moderately unstable air mass ahead of a weak 500 mb shortwave over the Plains.

## MISSOURI, Southwest

**Miller County  
1 E Iberia**

04	1901CST				0	0	0.00K	0.00K	Hail (0.88)
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An isolated strong storm produced a report of hail.

**Barton County  
3 ESE Lamar Muni Arpt**

16	1725CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Pictures from social media indicated a tree blown down at least a foot in diameter south of Lamar.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

**Jasper County  
1 ENE Jasper**

16	1730CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Pictures from social media showed tree limbs blown down and broken near Jasper.

An isolated severe storm blew down a tree and some tree limbs. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

**Howell County  
West Plains**

24	1755CST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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A roof of a business was destroyed in downtown West Plains. Several awnings were also destroyed. A large tree was blown down. There were numerous tree limbs blown down on power lines. A localized microburst was likely the cause of the wind damage.

An isolated severe storm caused wind damage. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## MONTANA, Central

**MTZ008-014-052**

**Beaverhead - Jefferson - North Rocky Mountain Front - Southern Lewis and Clark**

15	0707MST 1245MST				0	0	0.00K	0.00K	Winter Storm
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A deep upper-level trough and embedded low pressure center moved southeastward from the Gulf of Alaska. Ahead of this system, isentropic lift generated widespread precipitation. This included accumulating snow in the mountains, especially above 6000 feet MSL. Greater snow amounts were realized in the Central and Southwest Montana mountains compared to farther north.

## MONTANA, East

**MTZ016>027-059-  
061>062**

**Central and Southeast Phillips - Central and Southern Valley - Daniels - Dawson - Eastern Roosevelt - Garfield - McCone - Northern Phillips - Northern Valley - Petroleum - Prairie - Richland - Sheridan - Western Roosevelt - Wibaux**

01 30	0000MST 2359MST				0	0	0.00K	0.00K	Drought
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Although September was the first month in quite a while in which many locations received normal or above normal precipitation, this was not enough to offset the several months of record drought. Drought conditions persisted through the month.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### MTZ017

#### Central and Southern Valley

01	0600MST								
05	1600MST				0	0	0.00K	0.00K	Wildfire

Persistent dry conditions contributed to the start of a wildfire on the morning of the 1st on the Charles M Russell National Wildlife Refuge in Valley County near Fort Peck Lake. The fire was brought under control by the afternoon of the 5th after burning 1,261 acres.

## MONTANA, South

### MTZ067

#### Absarokee/Beartooth Mountains

14	2100MST								
16	0400MST				0	0	0.00K	0.00K	Winter Storm

### MTZ068

#### Crazy Mountains

15	0000MST								
16	0600MST				0	0	0.00K	0.00K	Winter Storm

The seasons first winter storm impacted the Crazy and Absaroka/Beartooth Mountains. Snowfall amounts were around 10 inches. This was more of an impact given the Beartooth Highway was still open for the season and it was the seasons first snowfall.

### MTZ067

#### Absarokee/Beartooth Mountains

20	2100MST								
23	0100MST				0	0	0.00K	0.00K	Winter Storm

### MTZ034-039-041-056-066-068

#### Beartooth Foothills - Crazy Mountains - Eastern Carbon - Northern Stillwater - Northern Sweet Grass - Red Lodge Foothills

21	0830MST								
22	0900MST				0	0	0.00K	0.00K	Winter Storm

The seasons first winter storm occurred across the Beartooth/Absaroka foothills and adjacent plains. The coldest air of the season ushered in high temperatures in the 30s and 40s. This combined with a moist, upslope flow, brought accumulating snow to portions of the Billings Forecast area. Trees were fully foliated, so the heavy, wet snow resulted in numerous downed tree limbs which also resulted in downed power lines.

## MONTANA, West

### MTZ004

#### Lower Clark Fork Region

13	2100MST								
14	0200MST				2	1	1.0K	0.00K	Heavy Snow

A large trough with a subtropical moisture feed brought heavy snow to the mountains of western Montana. Interstate 90 was closed for a period due to the snow. M5TE

### MTZ006

#### Bitterroot/Sapphire Mountains

14	2100MST								
16	0000MST				0	0	0.00K	0.00K	Heavy Snow

### MTZ007

#### Butte/Blackfoot Region

15	0000MST								
16	0800MST				0	0	0.00K	0.00K	Heavy Snow

After a hot start to September, a cold weather system brought widespread low elevation rain and snow accumulations above 6000 feet across the Northern Rockies impacting backcountry hunters, wildfire crews and travel across mountain passes. The large degree of change coupled with the somewhat unseasonable timing of this event produced greater than normal impacts.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### MTZ001

#### Kootenai/Cabinet Region

15	0400MST 0800MST				0	0	0.00K	0.00K	Frost/Freeze
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A calm and clear night brought temperatures down into the middle to upper 20s across northwest Montana which contributed to the first damaging freeze.

### MTZ003

#### Flathead/Mission Valleys

17	0400MST 0700MST				0	0	0.00K	0.00K	Frost/Freeze
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An unseasonably cold air-mass combined with clear conditions created freezing conditions in the Flathead Valley.

### MTZ005

#### Missoula/Bitterroot Valleys

23	0500MST 0730MST				0	0	0.00K	0.00K	Frost/Freeze
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Temperatures dipped below freezing in the Missoula and Bitterroot Valleys for the first time during Fall 2017.

24	0200MST 0730MST				0	0	0.00K	0.00K	Frost/Freeze
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Temperatures dipped to below freezing across western Montana.

## NEBRASKA, Central

### Keith County

#### 2 ESE Paxton

12	2130MST				0	0			Thunderstorm Wind (52EG)
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An empty semi trailer was blown off the road by decaying thunderstorms. Blowing dust was also reported.

Decaying thunderstorms cause wind damage. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Garden County

#### 9 SW Oshkosh

16	0000MST				0	0			Hail (1.00)
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Isolated severe thunderstorms developed across portions of the panhandle and north central Nebraska to the northwest of a stationary front.

### Keya Paha County

#### 1 NE Burton

19	1950CST				0	0			Hail (1.00)
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### Keya Paha County

#### 3 W Mills

19	2002CST				0	0			Hail (1.75)
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An Isolated Thunderstorm developed along a cold front. The storm became severe but quickly moved northeast into South Dakota.

### Custer County

#### 3 WNW Sargent

22	1528CST				0	0			Thunderstorm Wind (61EG)
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Three power poles reported downed.

An Isolated thunderstorm caused winds damage in Custer county. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

## NEBRASKA, East

### Boone County

#### 2 S Albion

15	2005CST				0	0			Hail (0.88)
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Nickel size hail fell from a thunderstorm south of Albion.

Thunderstorms developed over central and eastern Nebraska along a northeast to southwest frontal boundary during the evening of the 15th. One thunderstorm in Boone County produced up to nickel size hail south of Albion.

### Jefferson County

#### 3 S Reynolds

16	2205CST				0	0			Hail (1.25)
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Hail up to half dollar size fell from a storm south of Reynolds. Vehicles were damaged by the large hail.

Thunderstorms developed along a cold front moving southeast across Nebraska and Iowa on the evening of September 16th. An isolated severe storm developed in northeast Kansas and moved into Jefferson County and produced up to half dollar size hail south of Reynolds that damaged vehicles.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Saunders County**

#### **1 S Yutan**

24 1342CST 0 0 Thunderstorm Wind (61EG)  
A camper was flipped over by damaging thunderstorm winds just south of Yutan.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Douglas County**

#### **1 N Valley**

24 1354CST 0 0 Thunderstorm Wind (50EG)  
There was shingle damage to a home in the Valley Shores subdivision in Valley. In addition, outdoor furniture was blown around as well. The event was isolated as there was no damage to other homes in the same housing subdivision.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Platte County**

#### **2 ESE Columbus**

24 1435CST 0 0 Hail (1.25)  
Half dollar size hail fell just east of Columbus.

### **Platte County**

#### **2 SE Brandts Arpt**

24 1440CST 0 0 Hail (1.50)  
Ping Pong Ball size hail fell east of Columbus.

### **Platte County**

#### **2 SE Brandts Arpt**

24 1440CST 0 0 Thunderstorm Wind (61EG)  
A semi trailer, u-haul trailers, and a power pole were blown over by damaging thunderstorm winds.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### **Colfax County**

#### **6 N Richland**

24 1448CST 0 0 Hail (1.75)  
Hail up to golfball size fell north of Richland. Crops and tree leaves were stripped due to the large hail.

### **Colfax County**

#### **1 S Howells**

24 1512CST 0 0 Hail (0.75)  
Penny size hail was reported just south of Howells.  
A northeast to southwest orientated stationary front over eastern Nebraska was the focus for the development of isolated severe thunderstorms on the afternoon of the 24th. Trees were blown down by damaging wind in the Columbus area. The same storm produced hail up to golfball size which stripped trees and damaged crops. Another isolated storm produced wind damage at Yutan and also near Valley.

## NEBRASKA, South Central

### **Buffalo County**

#### **Elm Creek**

15 1630CST  
2030CST 0 0 0.00K 0.00K Heavy Rain

Rainfall amounts between 3.5 and 4 inches fell in Elm Creek, resulting in some minor street flooding in town.

### **Dawson County**

#### **Overton**

15 1740CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)  
Wind gusts were estimated to be near 65 MPH. The wind was accompanied by pea size hail.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Dawson County**

#### **1 NNW Overton**

15 1800CST  
1801CST 0 0 25.00K 150.00K Hail (1.25)

### **Buffalo County**

#### **Elm Creek**

15 1840CST  
1845CST 0 0 25.00K 150.00K Hail (1.25)

### **Buffalo County**

#### **2 SE Amherst**

15 1930CST 0 0 0.00K 0.00K Hail (0.88)

# Storm Data and Unusual Weather Phenomena

September 2017									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>NEBRASKA, South Central</b>									
<b>Buffalo County</b> 3 ESE Amherst 4 N Riverdale	15	1937CST 1942CST			0	0	200.00K	3.00M	Hail (1.50)
									Hail ranged in size from quarters to ping pong balls.
<b>Buffalo County</b> 3 ESE Amherst 3 ESE Riverdale	15	1937CST 1940CST			0	0	200.00K	3.00M	Thunderstorm Wind (52EG)
									Wind gusts were estimated to be near 60 MPH and was accompanied by hail up to the size of ping pong balls.
									Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
<b>Buffalo County</b> 3 NNW Elm Creek	15	1945CST			0	0	0.00K	0.00K	Hail (1.00)
<b>Buffalo County</b> 6 N Riverdale	15	1953CST			0	0	0.00K	0.00K	Hail (0.88)
<b>Kearney County</b> 1 N Axtell	15	2046CST			0	0	0.00K	0.00K	Hail (0.88)
									A few storms produced severe hail a possibly a couple severe wind gusts on this Friday afternoon and evening. The first couple storms formed southwest of Holdrege between 3 and 4 PM CST. These storms were joined by other small storms as they moved northeast over the following hour, between Lexington and Holdrege. Between 5 and 7 PM CST, other storms formed along an axis from Norton, KS to O'Neill, NE. Among the original storms, cell mergers occurred over northwest Phelps County, southeast Dawson County, and extreme western Buffalo County, forming a multicell cluster oriented from southwest to northeast. New cells formed to the southwest with cells repeatedly training over this area through 9 PM CST. A spotter estimated 3.5 to 4 inches of rain in Elm Creek. From 6 to 8 PM CST, these storms produced hail in several locations from Overton into western Buffalo County, between Amherst and Riverdale. The largest of this hail was 1.5 inches in diameter. A couple spotters estimated winds of 60 to 65 mph. Several new, small storms formed further to the south between 8 and 9 PM CST, and as they moved northeast, they expanded to the east-southeast to near Geneva. As this occurred, all of the storms lifted northeast, bringing an end to where thunderstorms occurred earlier in the evening. These storms were not severe, except for one storm that briefly produced hail up to the size of nickels in Kearney County, around 845 PM CST. During the previous night, a strong cool front moved into Nebraska and became quasi-stationary from southwest to northeast across the state. This front remained stationary throughout the day, and then it slowly inched to the southeast during the evening. The training storms may have been a direct result of the slow movement of this front. In the upper-levels, a longwave trough was over the western U.S., with a ridge over the East. Winds were from the southwest over the Central Plains. When the initial storms developed, surface temperatures were in the lower 90s, with dewpoints in the upper 50s to near 60. Mid-level lapse rates were poor, but MLCAPE was still between 1000 and 2000 J/kg. Effective deep layer shear was 25 to 30 kts.
<b>NEBRASKA, West</b>									
<b>Kimball County</b> Kimball	15	2230MST 2233MST			0	0	0.00K	0.00K	Hail (1.25)
									Half dollar size hail was observed at Kimball.
<b>Cheyenne County</b> Sidney	15	2321MST 2325MST			0	0	0.00K	0.00K	Hail (1.00)
									Quarter size hail was observed at Sidney.
<b>Cheyenne County</b> Sidney	15	2325MST 2328MST			0	0	0.00K	0.00K	Hail (1.25)
									Half dollar size hail was observed at Sidney.
<b>Cheyenne County</b> 8 N Lodgepole	15	2350MST 2355MST			0	0	0.00K	0.00K	Hail (1.00)
									Quarter size hail covered the ground north of Lodgepole.
									Thunderstorms produced large hail over Cheyenne and Kimball counties.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Eureka County 14 WSW Eureka

04	1439PST 1445PST				0	0	0.00K	0.00K	Thunderstorm Wind (53MG)
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A thunderstorm wind gust of 61 mph was recorded at the Combs Canyon RAWS.

A thunderstorm produced a wind gust to 61 mph at the Combs Canyon RAWS. Note: The measured wind gust of 53 knots is equivalent to 61 mph.

### White Pine County Baker

06	1345PST 1350PST				0	0		0.00K	Thunderstorm Wind (61EG)
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Thunderstorm winds knocked down power lines in Baker. Power was out through the night.

Thunderstorm winds downed power lines in Baker. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### White Pine County 11 ENE Lund

07	1527PST 1535PST				0	0	0.00K	0.00K	Thunderstorm Wind (73MG)
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A thunderstorm produced a wind gust to 84 mph at the Cattle Camp RAWS. Note: The measured wind gust of 73 knots is equivalent to 84 mph.

### Lander County 6 NE Peterson Station

12	1430PST 1600PST				0	0	1.00K	0.00K	Flash Flood
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The Lander county sheriff's office reported flash flooding on state route 722 near Elkhorn Canyon Road. Damages are estimated.

The Lander county sheriff's office reported flash flooding along state route 722 near Elkhorn Canyon Road.

### Lander County 1 WSW Battle Mtn

14	1750PST 1800PST				0	0	5.00K	0.00K	Thunderstorm Wind (55EG)
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Thunderstorm winds partially blew off a roof on a mobile home in Battle Mountain. Damages are estimated.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### Elko County 1 E Elko

14	2014PST 2020PST				0	0	4.00K	0.00K	Thunderstorm Wind (55EG)
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Thunderstorm winds blew power and telephone lines down. Damages are estimated.

Thunderstorm winds partially blew off the roof on a mobile home in Battle Mountain and downed some power and telephone lines in Elko. Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

## NVZ034-035

### Ruby Mountains/east Humboldt Range - White Pine

21	0100PST 1900PST				0	0	0.00K	0.00K	Heavy Snow
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An early season winter-like storm brought heavy snow to portions of eastern Nevada. Significant tree damage was reported in Ely and Ruth due to the heavy wet snow. In the Ruby Mountains up to 2 feet of snow was reported.

## NEVADA, South

### NVZ020

### Las Vegas Valley

02	0000PST								
06	2359PST				2	0	0.00K	0.00K	Heat

Four people in the Las Vegas Valley died of heat related causes. M62OU, M38OU, F78PH, M46PS

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b>NEVADA, South</b>										
<b>Clark County</b>										
1 ESE Cottonwood Lndg	02	1831PST 1845PST			0	0	0.00K	0.00K	Thunderstorm Wind (47MG)	
Thunderstorms produced strong winds near Cottonwood Cove. A man was killed when he became entangled in the mooring line of a house boat and dragged under the water.										
Monsoon moisture pushing west and north brought another round of thunderstorms to the Mojave Desert. Note: The measured wind gust of 47 knots is equivalent to 54 mph.										
<b>Lincoln County</b>										
Hiko	07	1719PST 1830PST			0	0	1.00K	0.00K	Flash Flood	
A 200-300 yard stretch of Highway 318 was flooded at Hiko.										
A strong push of monsoon moisture plus low pressure moving in from the west triggered an outbreak of thunderstorms over the Mojave Desert with a few thunderstorms over the southern Great Basin. Several storms produced flash flooding and severe weather.										
<b>NVZ020</b>										
<b>Las Vegas Valley</b>										
	08	0000PST								
	11	2359PST			2	0	0.00K	0.00K	Heat	
Three people in the Las Vegas Valley died of Heat related causes. F26OU, F62PH, M74PH										
<b>Clark County</b>										
13 SSE Roach 1 S Searchlight	08	1706PST 2100PST			0	0	5.00K	0.00K	Flash Flood	
Nipton Road was closed to Highway 95 due to flooding. This event continued into California.										
<b>Clark County</b>										
5 NE Searchlight Arpt Cottonwood Lndg	08	1815PST 2000PST			0	0	1.00K	0.00K	Flash Flood	
Cottonwood Cove Road was closed due to flooding.										
<b>Clark County</b>										
6 S Nelson	09	1257PST 1300PST			0	0	0.00K	0.00K	Funnel Cloud	
A funnel cloud was photographed between Searchlight and Nelson Landing.										
A strong push of monsoon moisture plus low pressure moving in from the west triggered an outbreak of thunderstorms over the Mojave Desert with a few thunderstorms over the southern Great Basin. Several storms produced flash flooding and severe weather.										
<b>Clark County</b>										
6 W Las Vegas N Air Term	13	1918PST 1932PST			0	0	0.00K	0.00K	Thunderstorm Wind (62MG)	
Winds gusted to 63 mph one mile SE of Lone Mountain and 71 mph two miles NNW of Centennial Hills.										
Note: The measured wind gust of 62 knots is equivalent to 71 mph.										
<b>Clark County</b>										
7 WSW Las Vegas N Air Term	13	1926PST 1941PST			0	0	10.00K	0.00K	Lightning	
Lightning struck at least two homes and started 10 tree fires.										
An upper level low pressure system lingered near the California coast, helping to force isolated thunderstorms over the Mojave Desert. A couple of storms produced severe weather.										



# Storm Data and Unusual Weather Phenomena

September 2017

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

### NVZ004

#### Western Nevada Basin and Range

01	0000PST								
12	2359PST				0	0			Wildfire

Thunderstorms with limited rainfall produced many lightning strikes leading to several new wildfire starts in northwest Nevada and far eastern California on the 29th of August. The Tohakum 2 Fire which started in late August was not 100% contained until early September.

### Washoe County

#### 1 N (RNO)Cannon Arpt Ren

05	1450PST								
	1455PST				0	0			Thunderstorm Wind (57MG)

An outflow from a line of thunderstorms produced a 57-knot peak gust at the KRNO ASOS. Airport observers also noted that visibility dropped to 3 statute miles south of the northward-moving gust front.

Note: The measured wind gust of 57 knots is equivalent to 66 mph.

### Pershing County

#### (LOL)Derby Fld Lovel

05	1630PST								
	1635PST				0	0			Thunderstorm Wind (59MG)

A strong thunderstorm located near Lovelock Airport produced a wind gust of 59 knots.

Showers and thunderstorms developed each afternoon September 5th/6th as an upper-level area of low pressure off the California coast slowly moved into the Great Basin. Some of these thunderstorms produced strong wind gusts and hail. Note: The measured wind gust of 59 knots is equivalent to 68 mph.

### Washoe County

#### 4 S Incline Vlg

13	1451PST								
	1515PST	2.01	50	0	0				Tornado (EF0)

North Lake Tahoe Fire Protection District reported a confirmed tornado/waterspout a mile off the northeastern shore of Lake Tahoe near Sand Harbor, Nevada. The position of the tornado was estimated based on a video and terrain features. Numerous other spotter photos also showed a well-defined spray ring on the water surface of Lake Tahoe. The tornado was determined to be an EF-0 as no damage was reported. This tornado was associated with a supercell thunderstorm.



A picture showing a waterspout/tornado on Lake Tahoe near the shore of Sand Harbor, Nevada in Washoe County on September 13th, 2017. The picture was taken from Crystal Bay, Nevada looking towards Sand Harbor, Nevada. Photo courtesy of Tia Rancourt, North Lake Tahoe Fire Protection District.

### Lyon County

#### 14 SE Mason

13	1510PST								
	1515PST				0	0			Funnel Cloud

# Storm Data and Unusual Weather Phenomena

September 2017

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

## NEVADA, West

United States Forest Service employee reported a confirmed funnel cloud near the Rafter 7 Ranch. The funnel cloud was also photographed by Nevada Creeks and Communities at an event at Rafter 7 Ranch. The position was estimated based on the observation from the USFS employee.

Strong Thunderstorms developed over the Eastern Sierra and Northwestern Nevada on the afternoon of September 13th as an upper-level area of low pressure moved over south-central California.



*A picture showing a confirmed funnel cloud that was spotted southwest of Yerington, Nevada during the afternoon of September 13th, 2017. Photo courtesy of Nevada Creeks and Communities/Rafter 7 Ranch.*

### Douglas County 3 N Zephyr Cove

21	1429PST								
	1434PST	0.44	20	0	0				Tornado (EF0)

A citizen reported a confirmed tornado/waterspout that formed two brief spin-ups on Lake Tahoe near Cave Rock, Nevada. The position of the tornado was estimated based on pictures and terrain features. The tornado was determined to be an EF-0 as no damage was reported. This tornado was non-supercellular in nature.

Showers and isolated thunderstorms developed along a surface trough beneath an upper-level area of low pressure on September 21st.



*A picture showing a waterspout/tornado on Lake Tahoe near the shore of Cave Rock, Nevada on September 21st, 2017. Photo courtesy of KTVN Channel 2 News.*

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Cheshire County

#### 1 S West Chesterfield

05	1530EST 1535EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed trees and power lines on Old Ferry Road near Cross Road in West Chesterfield.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cheshire County

#### 1 SE Westmoreland

05	1535EST 1540EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed trees in Westmoreland.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cheshire County

#### 1 S Spofford

05	1545EST 1550EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed trees in Spofford near Chesterfield Gorge.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Merrimack County

#### 1 NW Horses Corners

05	1715EST 1720EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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A severe thunderstorm downed trees and power lines on Josiah Bartlett Road in Horse Corners.

A cold front was approaching the area from the northwest during the afternoon of September 5th. A high shear, low CAPE environment was in place ahead of the front. As instability built during the afternoon, strong low- to mid-level winds mixed down to the ground in stronger cells. Numerous reports of wind damage occurred with these storms. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## NEW JERSEY, South and Northwest

### NJZ024

#### Eastern Cape May

03	1150EST 1350EST			2	0			Rip Current
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Hany Mohamed, a 35 year old male from Middletown PA (Dauphin County), drowned in the ocean at Learning Avenue in Wildwood NJ on Sunday, September 3rd. He apparently ventured out to save his two children who, after playing near a sandbar, were taken into deeper waters. Beach patrol lifeguards entered the water at about 12:50 pm to rescue the children in distress. Once back at shore, it was discovered that Mohamed was missing. Surfers at the beach near Rambler Avenue in Wildwood Crest (the next town south of Wildwood) located Mohamed's body floating in the water about 2:50 pm. Wildwood Crest lifeguards retrieved the body and tried to revive him until Wildwood Crest Rescue officials arrived. Mohamed was taken to Cape Regional Medical Center where he was pronounced dead. M35IW

### Atlantic County

#### 1 NW Buena

06	0653EST			0	0			Hail (0.75)
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Marble sized hail was reported in Buena from thunderstorms which moved from south to north through the area during the morning hours of the 6th.

An impulse riding along a nearly stationary cold front oriented from north to south across the Garden State produced showers and thunderstorms early on the 6th.

### Morris County

#### Morristown

16	1730EST			0	0	0.00K	0.00K	Flood
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Flooding on I-287 Southbound at exits 35 and 36 forced lane closures. Start time estimated.

### Morris County

#### (MMU)Morristown Muni

16	1730EST			0	0	0.00K	0.00K	Heavy Rain
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Heavy rain showers lead to localized urban and poor drainage flooding during the evening of Saturday, September 16th. A HADS Sensor near Birch Hills measured a two-hour rainfall total of 1.84 inches.

A series of disturbances in the jet stream and a weak surface trough lead to sufficient lift within a tropical air mass to produce slow moving, heavy rain showers across portions of New Jersey. This lead to localized urban and poor drainage flooding during the evening of Saturday, September 16th.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **NJZ014-025**

### **Eastern Atlantic - Eastern Monmouth**

19	0950EST 1824EST			0	0				High Surf
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Hurricane Jose meandered offshore for several days. Portions of our area saw high surf coastal flooding and tropical storm force winds.

### **NJZ020-022>027**

### **Eastern Atlantic - Eastern Cape May - Eastern Ocean - Southeastern Burlington - Western Atlantic - Western Cape May - Western Ocean**

19	1930EST								
20	0045EST			0	0	0.00K	0.00K		Coastal Flood

Moderate coastal flooding affected the New Jersey counties of Ocean, southeastern Burlington, Atlantic and Cape May with the evening high tide on Tuesday, September 19. Widespread roadway flooding was reported in the communities along tidal waters and many roads were closed.

### **NJZ014**

### **Eastern Monmouth**

20	1400EST			2	0	0.00K	0.00K		Rip Current
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A female was caught in a rip current off Asbury Park, New Jersey, and passed away the following day. F42IW

## NEW MEXICO, Central and North

### **San Miguel County**

(LVS)Las Vegas Airport

14	1959MST 2003MST			0	0	0.00K	0.00K		Thunderstorm Wind (52MG)
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Peak wind gust to 60 mph at Las Vegas.

An upper level trough approaching the Four Corners region forced stronger southwest winds aloft over New Mexico. This was the first significant departure from the monsoon flow pattern since much earlier in the summer. Remnant moisture across the area combined with afternoon heating and instability to produce showers and storms near the higher terrain. These storms moved quickly northeast into nearby valleys and plains during the late afternoon and evening hours. A storm near Las Vegas produced a brief severe wind gusts up to 60 mph. Note: The measured wind gust of 52 knots is equivalent to 60 mph.

### **Union County**

19 NE Des Moines

17	1815MST 1816MST			0	0	0.00K	0.00K		Hail (0.75)
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A back door frontal boundary sagged southwest across eastern New Mexico and recharged low level moisture westward to the east slopes of the central mountain chain. Meanwhile, an upper level speed max shifted quickly northeast across the state and interacted with instability along the frontal boundary. Showers and storm erupted over the eastern plains and became strong to locally severe, mainly over the northeast plains. The largest hail report was from Union County where pennies fell 20 miles northeast of Des Moines.

### **Curry County**

1 NNW Clovis

22	1441MST 1443MST			0	0	0.00K	0.00K		Thunderstorm Wind (55MG)
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Peak wind gust to 63 mph at Barry Elementary.

Southwest flow developed over New Mexico as an upper level trough began deepening over the western United States. A dry slot within the base of the upper trough generated windy conditions across much of the state. A dry line that set up over extreme eastern New Mexico generated a broken line of thunderstorms around the Caprock region. A fast-moving storm that shifted across Curry County produced a peak wind gust to 63 mph at Barry Elementary School. Other locations across Clovis also picked up small hail and heavy rainfall. Note: The measured wind gust of 55 knots is equivalent to 63 mph.

### **Quay County**

2 SSW Endee

23	1930MST 1932MST			0	0	0.00K	0.00K		Thunderstorm Wind (54MG)
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Peak wind gust to 62 mph at Endee.

Moisture surged northward into eastern New Mexico as a potent upper level low pressure system deepened over the western United States. A large mass of rain with numerous thunderstorms developed over eastern New Mexico during the early morning hours then shifted northeast across the region through the afternoon. Very heavy rainfall, small hail, and gusty winds impacted much of the eastern plains well into the night. A mesonet site within eastern Quay County reported a 62 mph wind gust from one of the stronger storms. Note: The measured wind gust of 54 knots is equivalent to 62 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Roosevelt County

#### Portales

25	1500MST								
26	0600MST				0	0	0.00K	0.00K	Heavy Rain

Thunderstorms with torrential rainfall produced 24-hour rainfall amounts between 4 and 5 inches around Portales. An observer two miles southwest of Portales reported 4.04 inches and another spotter 8 miles south-southeast of Portales reported 5.42 inches. Mostly minor flooding occurred however this heavy rainfall set the stage for more significant flooding through early October.

### DeBaca County

#### Taiban

25	1530MST								
	1730MST				0	0	0.00K	0.00K	Flash Flood

State highway 294 closed due to flash flooding between mile markers 0 and 15.

### Roosevelt County

#### 8 SE Portales Arpt

25	1635MST								
	1637MST				0	0	0.00K	0.00K	Hail (0.75)

Hail up to the size of pennies near Portales.

A potent upper level storm system over the western United States continued to pump abundant moisture and instability northward into the New Mexico. Another large area of heavy rain with embedded thunderstorms surged northward over the eastern plains during the early morning hours of the 25th, resulting in saturated soils across much of the area. The next round of showers and thunderstorms that developed by the mid to late afternoon hours dumped torrential rainfall over Chaves, De Baca, Curry, Roosevelt, and Quay counties through the night. A powerful storm that moved through the Fort Sumner area produced flash flooding and several inches of small hail. Numerous road closures were reported. A strong storm that moved through the Portales area produced penny size hail and rainfall amounts near four inches.

### Sandoval County

#### 3 WSW Rio Rancho

28	1900MST								
	2200MST				0	0	50.00K	0.00K	Flash Flood

Four homes flooded along Arlene Road in Rio Rancho from nearby Lisbon Channel arroyo.

### Sandoval County

#### 1 ENE Rio Rancho

28	1900MST								
	2200MST				0	0	75.00K	0.00K	Flash Flood

Memorable Moments day care was closed due to flood damages for four days. Lots of mud, sand, and debris were covering nearby roadways.

### Cibola County

#### 2 W Acoma Pueblo 5 S Seama

29	1255MST								
	1345MST				0	0	0.00K	0.00K	Flash Flood

Tribal police reported hail and flash flooding throughout Acoma Pueblo.

### San Juan County

#### 3 SE Farmington

29	1345MST								
	1430MST				0	0	0.00K	0.00K	Flash Flood

Flash flooding along U.S. Highway 64 at Browning Street.

# Storm Data and Unusual Weather Phenomena

September 2017

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

## NEW MEXICO, Central and North



*A picture of torrential rainfall that produced flash flooding in Farmington, New Mexico on September 29th, 2017. Photo courtesy of NWS Meteorologist Jennifer Shoemake.*

### **Cibola County**

#### **3 NNW Acoma Pueblo**

29	1345MST								
	1348MST				0	0	0.00K	0.00K	Hail (1.00)

Nickel to quarter size hail at Acoma Pueblo.

### **Cibola County**

#### **Acoma Pueblo**

29	1418MST								
	1530MST				0	0	0.00K	0.00K	Flash Flood

Tribal police reported flooding along Acoma Creek.

### **Socorro County**

#### **Veguita**

29	1628MST								
	1632MST				0	0	50.00K	0.00K	Hail (1.75)

Hail up to the size of golf balls reported in Veguita. Vehicle windshields damaged from large hail. Damages estimated.

### **Socorro County**

#### **Veguita**

29	1630MST								
	1745MST				0	0	50.00K	0.00K	Flash Flood

Mobile home flooded in Veguita with three feet of water.

### **Valencia County**

#### **1 NW Belen**

29	1645MST								
	1845MST				0	0	7500.00K	0.00K	Flash Flood

Retention ponds in Belen overflowing into neighborhoods on west side of Belen. Widespread street flooding in town. Travel along Interstate 25 becoming very difficult as water is ponding along the highway.



# Storm Data and Unusual Weather Phenomena

September 2017

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

## NEW MEXICO, Central and North



*A picture of severe thunderstorms with torrential rainfall that produced flooding in Belen, New Mexico on September 29th, 2017. Photo courtesy of KRQE.*

### **Valencia County**

**2 NW Jarales  
2 WSW Turn**

29	1700MST							
	1900MST	0	0	0.00K	0.00K			Flash Flood

Interstate 25 closed between Belen and U.S. Highway 60 due to flooding over the highway. Mud, rocks, and debris overflowing from mesa on west side of highway.



*A picture of torrential rainfall that forced a retention pond along Interstate 25 near Belen, New Mexico to overflow onto the highway on September 29th, 2017. Photo courtesy of Aymara Bustos Cadena.*

### **Socorro County**

**1 NE Bernardo  
1 WNW Veguita**

29	1722MST							
	1930MST	0	0	0.00K	0.00K			Flash Flood

All lanes of Interstate 25 closed due to mud, rocks, and debris rushing over the highway from nearby mesas and retention ponds.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Socorro County 3 E Bernardo

29	1800MST 1930MST			0	0	0.00K	0.00K	Flash Flood
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State road 304 closed at U.S. Highway 60 due to flooding.

### Socorro County 1 SW Abeytas

29	1815MST 1915MST			0	0	0.00K	0.00K	Flash Flood
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State road 116 closed around Abeytas due to flash flooding.

### Cibola County 1 NW Correo

30	1355MST 1357MST	2.45	30	0	0	0.00K	0.00K	Tornado (EF0)
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A tornado touched down briefly along Interstate 40 near state highway 6. No damage was reported. The large wall cloud and associated funnel was observed from the NWS office in Albuquerque.



A picture of a supercell thunderstorm 30 miles west of Albuquerque, New Mexico that produced a brief tornado along Interstate 40 near State Highway 6 on September 30th, 2017. Photo courtesy of KOAT.

### Sandoval County Jemez Pueblo

30	1512MST 1514MST			0	0	0.00K	0.00K	Hail (0.88)
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Dime to nickel size hail reported at Jemez Pueblo.

### Colfax County 1 N Springer

30	1613MST 1615MST			0	0	0.00K	0.00K	Hail (1.25)
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Hail up to the size of half dollars reported in Springer.

### Sandoval County 2 SW Rio Rancho

30	1645MST 1648MST			0	0	0.00K	0.00K	Hail (0.75)
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Hail up to the size of pennies in Rio Rancho.

### Sandoval County 4 WNW Bernalillo

30	1650MST 1653MST			0	0	0.00K	0.00K	Hail (1.10)
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Hail up to the size of slightly larger than a quarter on northwest edge of Enchanted Hills.

# Storm Data and Unusual Weather Phenomena

September 2017

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



*A picture of a wall cloud associated with a severe thunderstorm crossing U.S. Highway 550 in Rio Rancho, New Mexico on September 30th, 2017. Photo courtesy of Tim Korte.*

### **Sandoval County 1 ENE Rio Rancho**

30	1656MST 1658MST			0	0	0.00K	0.00K	Hail (1.00)
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Hail up to the size of pennies near Northern and Rockaway.

### **Santa Fe County Golden**

30	1710MST 1712MST			0	0	0.00K	0.00K	Hail (0.88)
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Hail up to the size of nickels in Golden.

### **Valencia County Tome**

30	1750MST 1753MST			0	0	0.00K	0.00K	Hail (1.00)
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Hail up to the size of quarters near Tome.

### **Valencia County Rio Communities**

30	1755MST 1915MST			0	0	0.00K	0.00K	Flash Flood
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Public reported the streets turned into raging rivers in Rio Communities from a severe thunderstorm.

### **Valencia County Rio Communities**

30	1755MST 1758MST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
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Peak wind gust up to 70 mph with severe storm in Rio Communities.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

## NEW MEXICO, Central and North



*A picture of a supercell thunderstorm approaching Belen, New Mexico on September 30th, 2017. Photo courtesy of John Sirlin.*

### **Valencia County Rio Communities**

30	1757MST 1801MST			0	0	0.00K	0.00K	Hail (1.50)
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Hail up to the size of ping pong balls near Rio Communities.

The potent upper low pressure system responsible for severe thunderstorms and flooding over eastern New Mexico between the 22nd and 25th began lifting slowly northeast into the central Rockies on the 26th and 27th. Daily rounds of showers and thunderstorms with heavy rainfall, hail, and strong winds began spreading westward to include much of central and western New Mexico through this period. This additional heavy rainfall set the stage for a more widespread flooding event through the end of September. Widespread three day rainfall reports averaged between two and five inches within central New Mexico. Several stations reported record daily rainfall amounts and placed September 2017 into the top 5 wettest Septembers on record. A potent storm that moved across Rio Rancho late on the 28th forced water into four homes along Arlene Road. A cluster of thunderstorms with torrential rainfall moved across western New Mexico during the early afternoon hours on the 29th and produced flash flooding around Farmington and Acoma Pueblo. These storms then shifted eastward and produced severe hail and flash flooding along much of the Interstate 25 corridor between Los Lunas, Belen, and Bernardo. Interstate 25 was closed for several hours as water flooded over the highway. Powerful storms developed again on the 30th and produced more flash flooding, severe hail, high winds, and even a tornado west of Albuquerque.



*A picture of large hail produced by a supercell thunderstorm near Belen, New Mexico on September 30th, 2017. Photo courtesy of Eathin Lockhar.*

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## NEW MEXICO, South Central and Southwest

### **Grant County**

**17 ESE Playas** 28 1945MST 0 0 5.00K 0.00K Hail (1.75)  
Multiple broken windows were reported in Hachita due to the hail.

### **Grant County**

**17 SSW Wilna** 28 1954MST 0 0 0.00K 0.00K Hail (1.75)  
Golf ball sized hail about 3 miles north of Hachita.  
An upper low over the Great Basin with southwest flow ahead of it combined with moist, easterly low level winds to produce isolated severe thunderstorms over southern Grant County. Hail up to the size of golf balls was reported with these storms.

### **Grant County**

**4 NNW Silver City** 30 0027MST  
**3 WSW Slvr City Turner Arp** 0400MST 2 0 0.00K 0.00K Flash Flood

Widespread rainfall amounts of 2 inches to almost 3.5 inches occurred around Silver City in the early morning hours. A water rescue was necessary in Tyrone. One vehicle was swept away in the Pinos Altos Creek low water crossing on East 19th Street. The vehicle became wedged in culvert running under US 180, but the driver and occupant were washed downstream. One body was recovered about 0.8 miles downstream near the confluence with Silva Creek. A second body was recovered about 1.2 miles downstream in the Silver City big ditch reach of San Vicente Arroyo near the Broadway Street bridge. M47IW, F57IW

An upper low was lifting out over the Rockies with an 80 knot upper level jet moving onto the southern plains. A strong surface high was located over the midwest with strong easterly winds keeping Gulf moisture across the region. Nocturnal thunderstorms developed in the early morning hours of September 30 and trained over the Silver City area with up to 3.45 inches of rain reported just north of town. This heavy rain lead to flash flooding which resulted in 2 fatalities in the Pinos Altos Creek area. M47IW, F57IW

## NEW MEXICO, Southeast

### **Eddy County**

**12 SW Whites City** 23 1715MST  
1720MST 0 0 3.00K Hail (1.75)

A thunderstorm moved across Eddy County and produced hail damage twelve miles southwest of Whites City. The hail broke windows on four vehicles, a bedroom window and a skylight on a home, and tail lights and running lights on a camper. The cost of damage is a very rough estimate.

An upper trough was over Nevada and Idaho and was moving eastward. This trough provided lift, and there was a plethora of moisture across the area. These conditions resulted in thunderstorms with large hail.

## NEW YORK, Central

### **Yates County**

**2 SE Dresden** 14 0845EST  
1025EST 0 0 50.00K 0.00K Flash Flood

A seasonal cabin was destroyed by a torrent of water, rocks and mud debris sliding down a steep hillside on the western shore of Seneca Lake.

### **Yates County**

**2 SE Dresden** 14 0900EST  
1025EST 0 0 40.00K 0.00K Flash Flood

A lakeside home was damaged by a torrent of water and debris sliding down a steep hillside on the western shore of Seneca Lake. A portion of the foundation was destroyed, and the lower floor of the residence was filled with mud and debris.

A slow moving area of weak low pressure drifted across western and central New York producing areas of heavy rain producing thunderstorms across the Finger Lakes region. Flash flooding, and isolated debris flows, along the western shore of Seneca Lake were the result of local downpours in excess of 2 inches per hour.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## NEW YORK, Coastal

### **Putnam County**

#### **2 NW Osoawana Corners**

05 1553EST 0 0 2.50K Thunderstorm Wind (52EG)  
Trees were reported down on Canopus Hill Road, east of Route 9.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Putnam County**

#### **1 SSW Manitou**

05 1555EST 0 0 1.00K Thunderstorm Wind (52EG)  
Trees were reported down on New York State Route 9D, one-quarter of a mile north of Bear Mountain Bridge.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Putnam County**

#### **1 SSW Putnam Lake**

05 1619EST 0 0 1.00K Thunderstorm Wind (52EG)  
A tree was reported down near 450 East Branch Road in Putnam Lake.

An approaching cold front triggered isolated severe thunderstorms in Putnam County. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Suffolk County**

#### **Shelter Is**

06 0830EST 0 0 1.50K Thunderstorm Wind (52EG)  
Wires and branches were reported down on Shelter Island.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Suffolk County**

#### **Orient Rose Fld Arpt**

06 0835EST 0 0 1.00K Thunderstorm Wind (52EG)  
A tree was reported down on Old Main Road , just north of Main Road (25) in Orient.

A passing cold front triggered an isolated severe thunderstorm which impacted Eastern Suffolk County. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## **NYZ081**

### **Southeast Suffolk**

16 1300EST  
1400EST 2 1 0.00K 0.00K Rip Current

Long period swells ahead of Tropical Cyclone Jose began affecting the Atlantic ocean beachfront on Saturday September 16th. The incoming energetic swells resulted in high surf and dangerous rip current development on Saturday. A Rip Current Statement was issued by NWS New York, NY to alert of this threat. Unfortunately, a man drowned at Coopers Beach in Southampton Village on Saturday afternoon in the dangerous conditions. M46IW

## **NYZ080-179**

### **Southeast Suffolk - Southern Nassau - Southwest Suffolk**

19 0600EST  
20 1200EST 0 0 0.00K 0.00K High Surf

Tropical cyclone Jose tracked north and east along the Mid Atlantic coast Tuesday September 19th, eventually passing about 150 to 200 miles southeast of Montauk Point Tuesday night into Wednesday morning. Generally 1 to 2 feet of surge was observed during the Tuesday Night and Wednesday morning high tides, resulting in minor to isolated moderate flooding thresholds being exceeded along the southern bays and Atlantic shore front communities of NYC and Long Island. The elevated water levels combined with incoming energetic swells from Jose, also brought surf of 7 to 13 feet. This caused widespread beachfront flooding, dune erosion, and localized wash overs.

## NEW YORK, East

### **Dutchess County**

#### **1 SSE Diddell**

05 1448EST 0 0 Thunderstorm Wind (50EG)  
The public reported a tree down on a house due to thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Dutchess County**

#### **1 E Diddell**

05 1450EST 0 0 Thunderstorm Wind (50EG)  
Trees and wires were blown down on Route 376 due to thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Schenectady County 2 WNW Carman

05 1604EST 0 0 Thunderstorm Wind (50EG)  
Trees and wires were reported down due to thunderstorm winds.

A cold front interacted with a warm and humid airmass to produce several clusters of thunderstorms on September 5. A few of these storms became severe in the Capital District and Mid-Hudson Valley with minor wind damage reported. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Rensselaer County 1 E Petersburg

07 1830EST 0 0 Thunderstorm Wind (50EG)  
The county dispatch reported a tree down in Petersburg.

A strong upper-level disturbance resulted in scattered showers and thunderstorms on Thursday, September 7. One of the storms became severe with isolated wind damage in Rensselaer County. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## NEW YORK, West

### NYZ001>007

### Jefferson - Monroe - Niagara - Northern Cayuga - Orleans - Oswego - Wayne

01 0000EST  
30 2359EST 0 0 Coastal Flood

During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario while the Ottawa River saw the highest flows in more than 50 years, leading to widespread flooding across the Lake Ontario - St. Lawrence River system. In early 2017, Lake Erie levels were the highest they'd been for that time of year for almost 20 years. Inflows to Lake Ontario from Lake Erie were above average from January through June. Lake Ontario saw two of the wettest months ever recorded in April and May of 2017. Water levels were impacted by precipitation falling directly onto the lakes surface and by runoff. Variable ice conditions in the St. Lawrence River from January through March along with high Ottawa River flows limited outflow from Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall. Waves destroyed public and private breakwalls all along the lake shore. Thousands of homes and buildings were affected flood waters. Several homes dropped off bluffs. In some areas shoreline erosion of 50 to 100 feet deep occurred. Sanitary sewer systems in lakeside communities were affected. Beaches, marinas and state parks were closed all summer long with unknown economic losses to mainly seasonal businesses. In late May, the Governor imposed a 5 mph speed limit within 600 feet of the Lake Ontario and St. Lawrence River shore. The shoreline counties of Lake Ontario and the St. Lawrence River sustained enough damage to qualify for both a New York State and Federal Disaster Declaration. By summer's end, damage estimates included: \$4 Million in Niagara County, \$9 Million in Orleans County, \$3 Million in Monroe County, \$3 Million in Wayne County, \$1 Million in Cayuga County, \$23 Million in Oswego County and \$10 Million in Jefferson County.

### Chautauqua County 1 W Ripley

04 2124EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County 1 NW Dunkirk

04 2126EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County 1 S Bournes Beach

04 2128EST 0 0 20.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds lifted a garage off its foundation.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County 1 W Westfield

04 2130EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds along Route 20 in Westfield.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County 1 S Silver Creek

04 2133EST 0 0 20.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Chautauqua County Brocton

04 2134EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
The mayor of Brocton reported a row of eight trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Genesee County North Pembroke

04 2136EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported wires down by thunderstorm winds on Beckwith Road.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County 2 NE Lamberton

04 2140EST 0 0 0.00K Thunderstorm Wind (52MG)  
Note: The measured wind gust of 52 knots is equivalent to 60 mph.

### Chautauqua County 1 NW Dunkirk Muni Arpt

04 2145EST 0 0 0.00K Thunderstorm Wind (51MG)  
Note: The measured wind gust of 51 knots is equivalent to 59 mph.

### Chautauqua County 3 N Cherry Creek

04 2151EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
The public reported trees and wires downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cattaraugus County 1 N Perrysburg

04 2154EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds along Route 39.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cattaraugus County Dayton

04 2156EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Cattaraugus County 1 SW Gowanda

04 2156EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Erie County 4 SE New Oregon

04 2208EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Erie County 1 NW Springville

04 2210EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Erie County 1 W East Aurora

04 2210EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Reports of downed trees by thunderstorm winds were noted on social media.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Chautauqua County Lakewood

04 2215EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>NEW YORK, West</b>									
<b>Chautauqua County Celoron</b>	04	2217EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported trees downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Chautauqua County 1 N Celoron</b>	04	2218EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)
	Social media showed a tree, downed by thunderstorm winds, that landed on a house.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Erie County Sardinia</b>	04	2219EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported trees downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Chautauqua County 1 S Levant</b>	04	2220EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)
	Thunderstorm winds downed trees along Elmwood Avenue.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Wyoming County Arcade</b>	04	2220EST			0	0	5.00K	0.00K	Thunderstorm Wind (50EG)
	Thunderstorm winds downed trees in Arcade.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Wyoming County 3 WSW Attica</b>	04	2220EST			0	0	30.00K	0.00K	Thunderstorm Wind (50EG)
	Thunderstorm winds caused substantial damage to trees at a golf course.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Cattaraugus County 1 W Onoville</b>	04	2222EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)
	Thunderstorm winds downed trees along Sawmill Run Road.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Chautauqua County 1 N Busti</b>	04	2241EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported trees downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Cattaraugus County 1 NW Humphery</b>	04	2245EST			0	0	6.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported trees downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Ontario County 1 N Manchester Center</b>	04	2250EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported wires downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
<b>Ontario County 2 SW Port Gibson</b>	04	2255EST			0	0		0.00K	Thunderstorm Wind (50MG)
	Note: The measured wind gust of 50 knots is equivalent to 58 mph.								
<b>Wayne County 1 SE Newark</b>	04	2258EST			0	0	6.00K	0.00K	Thunderstorm Wind (50EG)
	Law enforcement reported wires downed by thunderstorm winds.								
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Cattaraugus County Olean**

04 2309EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Cattaraugus County 1 N Westons Mills**

04 2313EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Allegany County 1 SW Friendship**

04 2320EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Oswego County 1 SE South Hannibal**

04 2322EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Allegany County 3 S Phillips Creek**

04 2334EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Ontario County Geneva**

04 2334EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Allegany County 3 S Alfred**

04 2338EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Thunderstorms ahead of an approaching strong cold front produced damaging winds during the late evening and early overnight hours. The thunderstorm winds downed trees and power lines throughout parts of the western southern tier and Finger Lakes region. Wind gusts were measured to 61 mph. Several homes and cars were damaged by falling trees including ones in Silver Creek, Celeron and Jamestown. Approximately 70 trees at a golf course near Attica toppled. In Westfield, a garage was lifted off its foundation. Several roads were closed by fallen trees and debris including ones in Perrysburg, East Aurora, Falconer and Onoville. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Chautauqua County 1 W Waterboro**

14 0330EST 0 0 15.00K 0.00K Flash Flood  
0730EST

Weak low pressure over the Ohio valley brought widespread rain to the region. Thunderstorms developed during the early morning hours and remained nearly stationary. Rainfall amounts in just a couple of hours exceeded three inches. In Kennedy, parts of Route 394 were quickly inundated with several inches of flowing water.

## NORTH CAROLINA, Central

### **Richmond County 1 E Ellerbe**

01 1335EST 0 0 0.50K 0.00K Thunderstorm Wind (50EG)  
One tree was blown down in Ellerbe.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wayne County 1 NE Dobbersville 3 WNW Dudley**

01 1350EST 0 0 0.00K 0.00K Hail (1.00)  
1403EST

Hail to 1 inch in diameter was reported along a swath from 6 miles northeast of Hobbton to approximately 4 miles west of Brogden.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Moore County**

**1 N West End**

01

1410EST

**2 NW Murdocksville**

1415EST

0

0

1.00K

0.00K

Thunderstorm Wind (50EG)

Two trees were blown down along a swath from Carthage Road in Seven Lakes to Route 73 near Taylortown.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wayne County**

**4 E Dobbersville**

01

1410EST

0

0

15.00K

0.00K

Thunderstorm Wind (50EG)

A large, live oak tree fell on a mobile home at 512 Crows Foot Road near Grantham School Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Randolph County**

**1 E Ramseur**

01

1445EST

0

0

5.00K

0.00K

Thunderstorm Wind (50EG)

One tree was blown down on to utility lines on Brooklyn Avenue. Dime size hail was also reported 2 miles southwest of Ulah.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Lee County**

**1 SSW Tramway**

01

1452EST

0

0

8.00K

0.00K

Thunderstorm Wind (50EG)

**1 NE Sanford Muni Arpt**

Numerous trees were blown down along a swath from Tramway to Sanford.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Lee County**

**1 W Sanford**

01

1500EST

**2 ESE Jonesboro**

1510EST

0

0

75.00K

0.00K

Thunderstorm Wind (50EG)

Numerous trees were blown down along a swath from north of Sanford to approximately 3 miles southeast of Sanford. One tree was blown down onto a car and another tree was blown down onto a house. Two additional structures reported damage with a roof collapse.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Lee County**

**1 W Jonesboro**

01

1520EST

0

0

0.00K

0.00K

Hail (1.00)

### **Harnett County**

**1 NE Angier**

01

1545EST

0

0

8.00K

0.00K

Thunderstorm Wind (50EG)

Numerous trees were blown down across northern portions of Harnett County.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wake County**

**2 W Fuquay Spgs**

01

1555EST

**1 NE Fuquay Spgs Arpt**

1615EST

0

0

10.00M

0.00K

Hail (2.75)

Hail up to 2.75 inches in diameter fell along a swath from 2 miles west-southwest of Fuquay-Varina to 3 miles north of Angier. Multiple trees were also blown down along the swath. Damage estimates have been estimated.

### **Moore County**

**1 ESE Carthage**

01

1600EST

0

0

1.00K

0.00K

Thunderstorm Wind (50EG)

**Glendon**

Two trees were blown down along a swath from NC 24-27 in Carthage to Glendon Carthage Road, 6 miles east of Glendon.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wake County**

**1 SSE Williams Xrds**

01

1603EST

0

0

0.00K

0.00K

Hail (1.00)

Hail up to 1 inch in diameter fell on Feldman Drive south-southwest of Garner.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Harnett County**

#### **1 NW Angier**

01 1603EST 0 0 0.50K 0.00K Thunderstorm Wind (50EG)  
One tree was blown down onto Raws Church Road, blocking the road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Harnett County**

#### **2 NNW Angier**

01 1605EST 0 0 2.00M 0.00K Hail (2.75)  
1610EST

Hail up to 2.75 inches fell across northern Harnett County. Property damage values have been estimated.

### **Johnston County**

#### **5 NW Hardy Xrds**

01 1608EST 0 0 0.50K 0.00K Thunderstorm Wind (50EG)  
One tree was blown down onto a roadway approximately 4 miles east-northeast of Angier.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wake County**

#### **1 WNW Green Level**

01 1630EST 0 0 0.00K 0.00K Hail (1.00)

### **Hoke County**

#### **1 SSE Montrose**

#### **2 NNE Timberland**

01 1640EST 0 0 25.00K 0.00K Thunderstorm Wind (60EG)  
1642EST

Rear flank downdraft winds uplifted and ripped a roof off of an outdoor building. There was also some roof damage to the primary home on the property. The downdraft winds also resulted in approximately 50 snapped pine trees in the neighboring Calloway Forest Preserve.

Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Wake County**

#### **2 S Brookhaven**

01 1721EST 0 0 4.00K 0.00K Thunderstorm Wind (50EG)  
Multiple trees were blown down onto power lines and equipment.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Wake County**

#### **2 WSW Wake Forest**

#### **1 NNW Wyatt**

01 1735EST 0 0 0.00K 0.00K Flash Flood  
1815EST

Heavy rain resulted in flash flooding on the US-1 Southbound ramp from NC-98.

### **Franklin County**

#### **2 NNW New Hope**

01 1750EST 0 0 4.00K 0.00K Thunderstorm Wind (50EG)  
Multiple trees were blown down onto a power line and power equipment.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Johnston County**

#### **Clayton**

01 1815EST 0 0 0.00K 0.00K Flash Flood  
1950EST

Heavy rain resulted in flash flooding in Clayton. The right lane of Route 70 near Champion Drive was impassable. A trained spotter 3 miles west of Clayton also measured 4.14 inches of rain in an hour and a half.

### **Cumberland County**

#### **1 SE Clifdale**

#### **2 E Fenix**

01 1920EST 0 0 0.00K 0.00K Flash Flood  
2125EST

Heavy rain resulted in flash flooding of multiple roads near Raeford Road and Skibo Road on the west side of Fayetteville.

The remnants of Harvey increased the southwesterly flow over Central North Carolina as it moved northeastward through Tennessee and Kentucky. In the wake of the northward moving warm front, a cold front moved into and stalled over Central North Carolina providing lift in the strongly sheared, moist environment. The resulting thunderstorms became severe, producing damaging wind gusts, large hail and flash flooding.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Lenoir County**

#### **4 ESE Pink Hill**

01 1815EST 0 0 Thunderstorm Wind (50EG)  
Lenoir County emergency manager reported damage to 3 to 4 buildings on Snags Path Rd and Turner Farm Ln.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Greene County**

#### **Maury**

01 1820EST 0 0 Thunderstorm Wind (50EG)  
Trees were blown down in the Maury Community.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Craven County**

#### **2 SSE Honolulu**

01 1932EST 0 0 Thunderstorm Wind (50EG)  
Large branches were blown down, and an awning and swing set were destroyed at a local restaurant.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Pitt County**

#### **1 SSE Greenville**

01 2058EST 0 0 0.00K 0.00K Flash Flood  
Reports of stalled vehicles across several locations around Greenville.

### **Greene County**

#### **1 NNE Shines Xrds**

01 2145EST 0 0 0.00K 0.00K Flash Flood  
Road closed at Hwy 13S and Shine Rd due to high waters.

### **Greene County**

#### **1 SSE Walstonburg**

01 2150EST 0 0 0.00K 0.00K Flash Flood  
Fildsboro Rd in Walstonburg closed due to high water.

### **Greene County**

#### **4 SE Ormandsville**

01 2205EST 0 0 0.00K 0.00K Flash Flood  
Intersection of Artis Cemetery Rd and Edwards Bridge Rd closed due to high water.

### **Greene County**

#### **2 E Castoria**

01 2229EST 0 0 0.00K 0.00K Flash Flood  
Taylor Rd closed due to high water.

### **Greene County**

#### **1 E Arba**

01 2235EST 0 0 0.00K 0.00K Flash Flood  
Intersection between Jesse Hill Rd and Hull Rd closed due to high water.

### **Lenoir County**

#### **1 NE La Grange**

01 2242EST 0 0 0.00K 0.00K Flash Flood  
Road flooded between Hwy 903S and Lenoir and Greene County line.

### **Greene County**

#### **3 NE Ormandsville**

01 2258EST 0 0 0.00K 0.00K Flash Flood  
Road closed at Willow Green Rd and Ormondsville Rd due to high water.

### **Greene County**

#### **1 S Castoria 1 ENE Herrings Xrds**

01 2310EST 0 0 0.00K 0.00K Flash Flood  
Road closed between Newell Rd and Hwy 91 due to high water.

### **Dare County**

#### **81 ESE Darden**

02 0330EST 0 0 Thunderstorm Wind (50EG)  
Minor damage was done to a deck, and a house was struck by lightning in Avon.

Thunderstorms developed and became severe, producing wind damage and flash flooding. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **NCZ103**

#### **Eastern Dare**

09 1700EST 2 0 0.00K 0.00K Rip Current  
A 17 year old male drowned in a rip current near Buxton. M17IW

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Craven County** **2 SW James City**

21 1325EST 0 0 0.00K 0.00K Hail (1.00)  
Nickel to quarter size hail fell in Perrytown.  
An isolated severe thunderstorm produced nickel to quarter size hail.

## NORTH CAROLINA, Northwest and North Central

### **Wilkes County** **Hays**

05 1500EST 0 0 0.20K 0.00K Thunderstorm Wind (60EG)  
Thunderstorm winds downed multiple large tree limbs within the community of Hays.

Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Wilkes County** **1 ENE Dockery**

05 1506EST 0 0 0.00K 0.00K Hail (0.88)  
High pressure gave way to a slow moving cold front which entered the region early on the 5th, before stalling just east of the Blue Ridge mountains in Virginia and North Carolina. This frontal passage provided the focus for isolated thunderstorms to develop across portions of north central North Carolina, a few of which produced small hail and isolated wind damage.

### **NCZ018**

#### **Watauga**

11 1538EST  
12 0730EST 0 0 15.0K 0.00K High Wind

### **NCZ001>004-019> 020**

#### **Alleghany - Ashe - Stokes - Surry - Wilkes - Yadkin**

12 0030EST  
0615EST 0 0 27.0K 0.00K Strong Wind

The remnants of Hurricane Irma continued to weaken as it tracked northwest across the southeast U.S., spreading near tropical storm force wind gusts across the North Carolina high country. These high wind gusts, coupled with light to moderate rain, produced isolated wind damage in the form of falling trees.

## NORTH CAROLINA, South Coastal

### **NCZ108**

#### **Coastal New Hanover**

23 0800EST 0 0 Rip Current  
26  
Large swells from Hurricane Maria, located far offshore, produced high surf and strong rip currents.

## NORTH CAROLINA, Southwest

### **Mecklenburg County** **1 W Stonehaven** **1 W Lansdowne**

01 1330EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
FD reported multiple power lines blown down on the southeast side of Charlotte.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Rowan County** **Landis**

01 1355EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
Media reported multiple power lines blown down in downtown Landis.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Iredell County** **Loray** **1 W Troutman**

01 1624EST  
1633EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)

County comms reported several trees blown down on Little Farm Road and another tree down on the west side of Troutman.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Iredell County**

**2 ESE Statesville**

01 1630EST  
1730EST 0 0 1.00K 0.00K Heavy Rain

County comms reported a small area of poor drainage flooding developed after around 3 inches of rain fell over the Statesville area in a short period of time. Standing water up to the hoods of vehicles was reported on Highway 70 near I-77.

### **Rutherford County**

**1 E Gilkey**

01 1734EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
FD reported a few trees blown down north of Thermal City.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Mecklenburg County**

**3 ENE Caldwell**

01 1817EST 0 0 Hail (1.75)  
Public reported golf ball size hail between Davidson-Concord Rd and East Rocky River Rd.

### **Mecklenburg County**

**2 SSW Smithville**

**1 NNE Caldwell**

01 1830EST  
2030EST 0 0 1.00K 0.00K Flash Flood

Multiple sources reported flash flooding developed in the Cornelius and Huntersville areas after repeating, slow-moving thunderstorms produced up to 4 inches of rain in the area in just a couple of hours. Public reported (via Social Media) Caldwell Station Creek, or one of its tributaries flooded a portion of Bailey Rd. A family member of an NWS employee reported a tributary of McDowell Creek flooded Sedgebrook Ln within an apartment complex. Law enforcement also reported Highway 115 was closed just north of Mayes Rd due to flooding.

### **Cabarrus County**

**1 SE Concord**

01 1937EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
Local law enforcement reported several trees and some power lines blown down in Concord.

Two lines of showers and thunderstorms developed ahead of a cold front and associated area of low pressure and moved over the western Piedmont of North Carolina on the 1st: one during early/mid afternoon, and another during the evening. Several embedded thunderstorms produced brief damaging winds, while flash flooding developed across a portion of the Charlotte metro area. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Alexander County**

**5 N Taylorsville Arpt**

05 1611EST 0 0 Hail (0.75)  
Public reported pea to penny size hail.

Multiple lines of showers and thunderstorms developed along and ahead of a cold front across western North Carolina throughout the afternoon and evening. A few of the storms produced small hail.

**NCZ053-062>065-  
507-509**

**Buncombe - Henderson - Macon - Polk Mountains - Rutherford Mountains - Southern Jackson - Transylvania**

11 0900EST  
2100EST 0 0 70.0K 0.00K High Wind

As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over the mountains of southwest North Carolina. Although gusts only occasionally exceeded 50 mph in most locations, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more. While the most significant damage was confined to these areas, there were also reports of significant tree damage across much of the remainder of the North Carolina mountains above 4000 feet or so, where winds likely gusted in excess of 60 mph fairly frequently.

**NCZ036-057-068>  
070**

**Cleveland - Gaston - Iredell - Lincoln - Rowan**

11 1800EST  
2000EST 0 0 50.0K 0.00K Strong Wind

As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, gusty winds developed over the foothills and western Piedmont of North Carolina. While wind gusts rarely exceeded 40 mph in these areas, the combination of prolonged gusty winds and very wet soil from heavy rainfall caused quite a few trees to fall across the area, with trees down on homes in Gastonia, Morganton, Mooresville, and Rockwell.



# Storm Data and Unusual Weather Phenomena

September 2017

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

## NORTH CAROLINA, Southwest

### **Transylvania County**

**1 NW Reid** 20 1530EST 0 0 Hail (0.75)  
Spotter reported 3/4 inch hail in the Lake Toxaway area.

### **Transylvania County**

**1 S Oakland** 20 1541EST 0 0 Hail (1.00)  
Public reported up to quarter size hail in the Burlingame community.

### **Jackson County**

**7 ESE Grimeshawes** 20 1601EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
Forest service personnel reported multiple large tree limbs blown down at the Whitewater Falls parking area off Highway 281.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Jackson County**

**7 ESE Grimeshawes** 20 1602EST 0 0 Hail (1.25)  
Forest service personnel observed half dollar size hail at the Whitewater Falls parking area off Highway 281.

Scattered thunderstorms developed during the late afternoon across the high terrain of western North Carolina. A couple of the storms briefly became strong to severe, producing hail up to the size of half dollars.

## NORTH DAKOTA, Central and West

### **Dickey County**

**1 NW Merricourt** 19 1430CST 0 0 0.00K 0.00K Hail (1.00)  
1433CST

### **Dickey County**

**4 NNW Monango** 19 1452CST 0 0 125.00K 75.00K Hail (2.50)  
1455CST

There was damage to crops and property.

### **Dickey County**

**5 NNE Merricourt** 19 1453CST 0 0 40.00K 50.00K Hail (2.50)  
1456CST

Windows and vehicles were damaged.

### **La Moure County**

**6 ESE Edgeley** 19 1501CST 0 0 0.00K 0.00K Hail (1.75)  
1505CST

### **La Moure County**

**6 S Edgeley** 19 1505CST 0 0 0.00K 0.00K Hail (1.75)  
1508CST

### **La Moure County**

**5 SSW Dickey** 19 1505CST 0 0 150.00K 50.00K Thunderstorm Wind (65EG)  
1510CST

A grain bin was destroyed. Homes in the area suffered roof damage. Many tree branches were down.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### **La Moure County**

**3 WSW Grand Rapids** 19 1510CST 0 0 0.00K 75.00K Thunderstorm Wind (65EG)  
1515CST

Corn crops were flattened to the ground.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b><u>NORTH DAKOTA, Central and West</u></b>										
<b>La Moure County</b> <b>6 SE Marion</b>	19	1522CST 1527CST			0	0	30.00K	0.00K	Thunderstorm Wind (61EG)	
Strong thunderstorm wind gusts blew the roof off of a machine shed.										
Strong instability combined with impressive deep layer shear to produce an environment ripe for severe weather over eastern and parts of central North Dakota. A cold front and upper level trough approached and moved through the area in the mid-afternoon into the evening. Initially, one very strong storm moved over Dickey and LaMoure counties and produced tennis ball size hail and strong wind gusts estimated to around 75 mph. This caused crop and property damage. A brief break in convective activity followed before additional thunderstorms formed. No severe weather was reported with the second round of storms. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b><u>NORTH DAKOTA, East</u></b>										
<b>Nelson County</b> <b>6 N Tolna</b>	01	1630CST 1631CST	0.07	50	0	0			Tornado (EF0)	
A brief tornado touchdown with water swirl was noted over the north end of Stump Lake. As the tornado lifted, the funnel continued to track to the east. Peak winds were estimated at 70 mph.										
<b>Nelson County</b> <b>7 NE Tolna</b> <b>9 S Mapes</b>	01	1638CST 1654CST	6.02	150	0	0			Tornado (EF0)	
This tornado touched down just east of Stump Lake and tracked to the east. Photos showed a persistent rope tornado with intermittent dust swirls. Peak winds were estimated at 80 mph.										
<b>Nelson County</b> <b>4 NNW McVile Arpt</b>	01	1659CST			0	0			Hail (1.00)	
Heavy rain was reported with a few dime to quarter sized hail.										
<b>Nelson County</b> <b>2 NW Kloten</b>	01	1725CST			0	0			Hail (1.25)	
A few half dollar sized hailstones fell just north of highway 15, in northwest Lee Township.										
<b>Griggs County</b> <b>11 ENE Jessie</b>	01	1756CST			0	0			Hail (1.50)	
Occasional nickel to ping pong ball sized hail fell in very heavy rain across southeast Lenora Township.										
<b>Griggs County</b> <b>7 NE Cooperstown</b>	01	1815CST			0	0	0.00K	0.00K	Funnel Cloud	
A funnel cloud was observed just west of the Steele County line in far southeast Romness Township.										
<b>Griggs County</b> <b>7 NE Cooperstown</b>	01	1816CST 1822CST	1.67	150	0	0	1.00K	2.00K	Tornado (EF0)	
This tornado tracked intermittently for about two miles across a portion of the Sheyenne River Valley. Large tree branches were broken down in various shelterbelts and groves along the path, mainly along the valley edge. Peak winds were estimated at 75 mph.										
<b>Steele County</b> <b>2 WSW Finley</b>	01	1825CST			0	0			Hail (1.75)	
Large hail fell with very heavy rain. Some of the hailstones were the size of golf balls.										
<b>Steele County</b> <b>5 W Pickert</b>	01	1830CST			0	0			Thunderstorm Wind (56EG)	
Several four to eight inch diameter tree branches were snapped in a farmstead shelterbelt near county road 25, north of highway 200, in west central Greenview Township.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
<b><u>NORTH DAKOTA, East</u></b>										
<b>Steele County</b> <b>5 W Hope</b>	01	1850CST			0	0			Thunderstorm Wind (52EG)	
Strong wind gusts were associated with the rear flank shelf cloud. Some dime to nickel sized hail fell as well.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Steele County</b> <b>2 W Hope</b>	01	1855CST			0	0			Thunderstorm Wind (52EG)	
Large tree branches were blown down around the town of Hope. One poplar tree was snapped at the golf course.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Steele County</b> <b>2 SW Hope</b>	01	1901CST			0	0	0.00K	0.00K	Funnel Cloud	
A persistent wall cloud with a brief funnel cloud were observed. The wall cloud was nearly rain wrapped.										
<b>Cass County</b> <b>4 N Walden</b>	01	1915CST			0	0			Thunderstorm Wind (52EG)	
A few large tree branches were blown down in shelterbelts. Corn and bean fields were flattened in spots across northwest Rochester and northeast Ellsbury townships.										
During the early evening of September 1st, a line of thunderstorms formed between Stump Lake, in Nelson County, and Pembina, in Cavalier County. However, one cell on the far southern end of the line quickly became the strongest storm, and it would hold together as the storm tracked to the south-southeast, through Griggs, Steele, and Cass counties, before weakening. This cell produced several weak tornadoes, funnel clouds, and large hail. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Barnes County</b> <b>1 SE Litchville</b>	19	1530CST			0	0			Hail (1.00)	
Quarter sized hail fell along with 50 to 60 mph winds.										
<b>Barnes County</b> <b>1 N Litchville</b>	19	1541CST			0	0			Thunderstorm Wind (70EG)	
A barn had damage to its roof from impacted tree limbs. A house also had shingles removed.										
Note: The estimated wind gust of 70 knots is equivalent to 81 mph.										
<b>Barnes County</b> <b>1 NE Litchville</b> <b>1 SW Hastings</b>	19	1541CST 1547CST	3.7	200	0	0	30.00K	3.00K	Tornado (EF1)	
The tornado peeled shingles and roofing off of homes at two farmsteads roughly a mile apart, and snapped or uprooted several box-elder and spruce trees at both farmsteads. Branch scatter through a shelterbelt located midway between the farms suggested a possible secondary vortex. Peak winds were estimated at 110 mph.										
<b>Ransom County</b> <b>8 NNW Ft Ransom</b>	19	1556CST			0	0			Thunderstorm Wind (56EG)	
A few large tree branches were broken down in shelterbelts just south of highway 46, in far northwest Northland Township.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Cass County</b> <b>1 NNE Buffalo</b>	19	1645CST			0	0			Thunderstorm Wind (52EG)	
Strong winds were reported along with pea sized hail.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Cass County</b> <b>4 SW Hunter</b>	19	1717CST			0	0			Thunderstorm Wind (56EG)	
Numerous large branches were scattered all over the road for about an eighth of a mile, half way between Page and Gardner, on county road 26. Some of the branches were six inches in diameter, and were blown off trees that were 100 feet tall.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Cass County</b> <b>1 SSW Gardner</b>	19	1725CST			0	0			Thunderstorm Wind (70EG)	
Mounted transmitter and receiver platforms on a cellular communications tower were damaged by the strong winds.										
Note: The estimated wind gust of 70 knots is equivalent to 81 mph.										

# Storm Data and Unusual Weather Phenomena

									September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b><u>NORTH DAKOTA, East</u></b>									
<b>Benson County</b> 2 NNE Esmond	19	1755CST			0	0			Hail (1.00)
<b>Sargent County</b> 4 SSE Hoving	19	2007CST			0	0			Hail (1.00)
<b>Richland County</b> Barney	19	2045CST			0	0			Thunderstorm Wind (52EG)
A few four to six inch diameter tree branches were blown down around town.									
Late in the afternoon of September 19th, a frontal boundary pushed into the Devils Lake to Jamestown (ND) corridor. Due to fairly extensive cloud cover throughout the day, late afternoon temperatures only ranged in the low 60s over the Devils Lake region, to the lower 70s over southeast North Dakota into west central Minnesota. Even though temperatures remained on the cool side, a strong moisture surge occurred. Cloud cover decreased somewhat over southeast North Dakota during the late afternoon, where thunderstorms flared up south of Jamestown. As this large thunderstorm cell moved into southwest Barnes County (ND), it produced a tornado near Litchville. This cell evolved into a larger storm complex, which moved east-northeast through the evening. This storm complex produced large hail, strong winds, and a second tornado along the Norman/Polk (MN) county border in Minnesota. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Grand Forks County</b> 2 NW Manvel	22	1934CST			0	0	10.00K		Thunderstorm Wind (65EG)
A large piece of metal sheet roofing from a neighbor's machine shed was torn off and hit the house, causing minor damage. An enclosed trailer was moved about ten feet and two trees were uprooted.									
By early in the evening of September 22nd, an area of surface low pressure was located just northwest of Fargo, North Dakota, with a stationary boundary extending out to the east, toward Fosston and Bemidji, Minnesota. A strong low level jet helped storms fire to the north and east of the surface features, mainly from Grand Forks County in North Dakota, up toward Marshall County in Minnesota. Note: The estimated wind gust of 65 knots is equivalent to 75 mph.									
<b><u>OHIO, North</u></b>									
<b>Lucas County</b> 2 SW Trilby	04	1801EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Thunderstorm winds downed a few trees.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Lucas County</b> Sylvania	04	1804EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
Penny sized hail was observed.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Lucas County</b> 1 SSW Trilby	04	1810EST			0	0	0.00K	0.00K	Hail (0.75)
Penny sized hail was observed.									
<b>Lucas County</b> 2 N Ottawa Hills	04	1810EST			0	0	1.00K	0.00K	Thunderstorm Wind (50EG)
Thunderstorm winds downed a large tree.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Lucas County</b> 1 NNE Ottawa Hills	04	1811EST			0	0	1.00K	0.00K	Thunderstorm Wind (50EG)
Thunderstorm winds downed a tree.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Lucas County</b> 5 NNE Toledo	04	1815EST			0	0	0.00K	0.00K	Hail (1.00)
Quarter sized hail was reported.									
<b>Lucas County</b> 1 SE West Toledo	04	1826EST			0	0	2.00K	0.00K	Thunderstorm Wind (50EG)
Thunderstorm winds tore some siding off of a house.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Wayne County</b> Doylestown	04	2136EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Thunderstorm winds downed several trees.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Crawford County

2 WSW North Robinson	04	2142EST							
2 N Crestline		2151EST	8.09	400	0	0	1.25M	0.00K	Tornado (EF2)

An EF0 tornado touched down in rural Crawford County about three quarters of a mile west of North Robinson. The initial touchdown was in a cornfield west of Olentangy Road about half way between Lower Leesville Road and Crestline Road. The tornado then continued east and moved across the northern half of North Robinson causing extensive damage. The tornado briefly reached EF2 intensity as it moved through the town. Several garages were destroyed and one home was heavily damaged after losing a large section of roof. Other homes along the path sustained lesser amounts of damage, mainly in the form of lost siding or shingles. One home did have a brick chimney toppled. Tree damage in the town was extensive. The tornado continued east over open farmland and eventually crossed the Sandusky River. The tornado then intensified to EF2 as it crossed State Route 598 north of Leesville. A home along State Route 598 was blown off it's foundation and destroyed. A second home nearby lost large sections of roofing. The tornado then continued east northeast snapping dozens of hardwood trees and leveling three farm buildings near where the Lincoln Highway and Krichbaum Road intersect. The tornado then followed a track nearly parallel and just north of Krichbaum Road for a couple of miles. Several more farm buildings were damaged or destroyed and a home lost a portion of its roof before the tornado crossed into Richland County north of the intersection of Krichbaum Road and Crawford Richland Line Road. The tornado was on the ground for just over 8 miles in Crawford County and had a damage path of up to 400 yards in width. Hundreds of trees and many power poles were downed along the damage path.



*A picture of tornado damage in North Robinson, (Crawford County), Ohio on September 4th, 2017.  
Photo courtesy of NWS.*

### Crawford County

2 SW Bucyrus	04	2148EST			0	0	0.00K	0.00K	Hail (0.75)
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Penny sized hail was observed.

### Richland County

2 N Crestline	04	2151EST							
Roseland		2202EST	8.58	200	0	2	800.00K	0.00K	Tornado (EF2)

An EF2 tornado crossed into Richland County from Crawford County just to the south of Hook Road in rural Springfield Township. A home on Hook Road just west of Thrush Road sustained heavy damage. Half of the roof of the home was torn off and a bedroom on the southwest side of the house was destroyed. The attached garage on the northeast side of the house was also leveled. Two people inside the southwest corner bedroom were thrown approximately 50 feet and ended up outside in the yard. Both sustained minor injuries. An adjacent detached garage was also leveled. A riding lawnmower inside the adjacent garage was found 100 yards away in a field. The tornado then continued east along Hook Road for several miles causing tree and structural damage. A couple barns were damaged or destroyed and a few other buildings lost roofing or siding in this area. The tornado weakened to an EF1 as it crossed Horning Road. The tornado then continued across open land till it leveled yet another barn as it crossed State Route 314. The tornado strengthened again to EF2 intensity as it crossed Rock Road. One home on Stiving Road was destroyed when large trees landed on the roof of the home causing it to collapse. The house was also knocked off it foundation. Two adjacent homes also sustained damage and some outbuildings were destroyed. At least 5 vehicles at the three homes were destroyed or damaged. The tornado continued east and weakened as it crossed State Route 39 just to the north of Cairns Road. The tornado finally lifted about a quarter mile east of Kline Road. Only minor tree damage was observed east of State Route 39. This tornado was on the ground in Richland County for around eight and half miles and had a damage path up to 200 yards in width. Hundreds of trees and many power poles were downed along the damage path.

# Storm Data and Unusual Weather Phenomena

September 2017

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, North



*A picture of Hook Road tornado damage in rural Springfield Township, (Richland County), Ohio on September 4th, 2017.  
Photo courtesy of NWS.*

### **Crawford County** **Galion**

04	2157EST			0	0	0.00K	0.00K	Hail (1.00)
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Quarter sized hail was observed.

### **Richland County** **1 S (MFD)Lahm Muni Arpt**

04	2204EST			0	0	25.00K	0.00K	Thunderstorm Wind (50EG)
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Thunderstorms winds blew in some large overhead doors at a factory just south of Mansfield Lahm Airport.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Ashland County** **2 E Five Pts**

04	2210EST			0	0	4.00K	0.00K	Thunderstorm Wind (50EG)
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Thunderstorm winds downed a few trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Richland County** **Lexington**

04	2215EST			0	0	5.00K	0.00K	Thunderstorm Wind (50EG)
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Thunderstorm winds tore part of a roof off of a home.

A strong cold front crossed northern Ohio during the evening of September 4th. A line of showers and thunderstorms developed ahead of this front and moved across the region. A long track tornado caused damage in the Mansfield area. There were also reports of severe weather elsewhere across northern Ohio. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## OHIO, Northwest

### **Henry County** **1 NE Liberty Center**

04	1838EST 1839EST			0	0	0.00K	0.00K	Thunderstorm Wind (55EG)
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Law enforcement officials reported a tree was blown down onto a power line.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Henry County** **Hamler**

04	1843EST 1844EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
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The public reported a power line was blown down across a CSX crossing gate, preventing the gate from properly functioning.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b><u>OHIO, Northwest</u></b>										
<b>Putnam County</b> 1 E Ottawa	04	1915EST 1916EST			0	0	0.00K	0.00K	Hail (0.75)	
<b>Allen County</b> 1 E Delphos Arpt	04	2039EST 2040EST			0	0	0.00K	0.00K	Hail (0.75)	
A cold front passed through the region, bringing scattered thunderstorms. A few of the storms produced isolated severe weather reports.										
<b><u>OHIO, Southwest</u></b>										
<b>Preble County</b> Gratis	04	2258EST 2306EST			0	0	4.00K	0.00K	Thunderstorm Wind (50EG)	
A few trees were downed in the Gratis area near the intersection of U.S. Route 127 and Antioch Road as well as in the 9000 block of Pleasant Valley Road.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Warren County</b> 1 WNW Lelan	05	0025EST 0027EST			0	0	2.00K	0.00K	Thunderstorm Wind (50EG)	
Several trees and power lines were downed onto Drake Road.										
A line of thunderstorms developed during the late evening hours ahead of an approaching cold front. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b><u>OKLAHOMA, Eastern</u></b>										
<b>Okmulgee County</b> 2 S Henryetta	17	1420CST			0	0	15.00K	0.00K	Thunderstorm Wind (61EG)	
Strong thunderstorm wind blew out five industrial sized garage doors of a county storage barn, snapped numerous tree limbs, and damaged another barn.										
Thunderstorms developed into eastern Oklahoma during the afternoon hours of the 17th as a cold front moved into the area. The strongest storms produced damaging wind gusts. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b><u>OKLAHOMA, Panhandle</u></b>										
<b>Cimarron County</b> 1 N Boise City	01	1628CST			0	0	0.00K	0.00K	Hail (1.00)	
Some hail stones were slightly larger than a Quarter.										
<b>Cimarron County</b> 1 E Boise City	01	1641CST			0	0	0.00K	0.00K	Hail (0.75)	
Hail covering ground.										
Diurnal convection moving east out of New Mexico helped to spark convection across the far western OK Panhandle. downstream of the 700 hPa trough axis across western OK Panhandle, a few cells developed and with a good mid level moisture pool and CAPE around 1000 J/kg, a few hail reports were the result before storms moved southeast and weakened.										
<b>Cimarron County</b> 8 NNE Griggs	22	1824CST			0	0	0.00K	0.00K	Hail (0.88)	
Lots of pea size hail with some nickel size hail mixed in.										
<b>Cimarron County</b> 8 NNE Griggs	22	1824CST			0	0			Thunderstorm Wind (52EG)	
Five power poles downed.										
A deep positive tilted trough helped to provide a SSW low level jet of 35-45 kts over the western Panhandles. This helped to advect low level moisture into the region. With good CAPE and good shear, individual cells developed along the western Panhandles and moved northward along a surface trough axis. Hail and a damaging wind report was documented in the western Oklahoma Panhandle. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										



# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Jackson County**

**Altus** 17 2129CST 0 0 4.00K 0.00K Thunderstorm Wind (52EG)  
Power lines were downed by winds.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Kiowa County**

**5 WSW Lone Wolf** 17 2130CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Large tree limbs downed by winds.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Jackson County**

**3 NW (LTS)Altus Afb** 17 2137CST 0 0 0.00K 0.00K Thunderstorm Wind (56MG)  
Note: The measured wind gust of 56 knots is equivalent to 64 mph.

### **Comanche County**

**2 WSW Mt Scott** 17 2325CST 0 0 0.00K 0.00K Thunderstorm Wind (56MG)  
An area of storms developed near a stationary front in the southern Texas panhandle on the afternoon of the 17th, then moved east into southwest Oklahoma through the evening. Note: The measured wind gust of 56 knots is equivalent to 64 mph.

### **Tillman County**

**4 N Grandfield** 19 1445CST 0 0 0.00K 0.00K Hail (1.25)

### **Tillman County**

**1 N Grandfield** 19 1530CST 0 0 0.00K 0.00K Hail (0.75)

### **Tillman County**

**Hollister** 19 1610CST 0 0 0.00K 0.00K Hail (0.88)  
Widely scattered thunderstorms developed across portions of southwestern OK during the late afternoon hours. Strong diabatic heating and a moist boundary layer combined with fairly steep mid level lapse rates contributed to at least moderate instability. These lapse rates, and a fairly mixed boundary layer, resulted in both severe hail and damaging wind gusts.

### **Comanche County**

**Fletcher** 20 2025CST 0 0 0.00K 0.00K Thunderstorm Wind (54MG)  
A line of storms formed along a front in southern Oklahoma and western north Texas on the evening of the 20th. Note: The measured wind gust of 54 knots is equivalent to 62 mph.

### **Comanche County**

**2 ESE Cache** 27 0450CST 0 0 0.00K 0.00K Flash Flood  
0750CST  
A report was relayed by broadcast media that the intersection of NW Cache Rd and NW Airport Rd was flooded and impassible.

### **Comanche County**

**4 W Lawton** 27 0518CST 0 0 10.00K 0.00K Flash Flood  
0918CST  
A report was relayed by broadcast media of flooding at the intersection of 53rd and Gore Blvd. Water was reported to be coming into a vehicle at this intersection.  
Moderate to heavy showers persisted for long enough during the morning of the 27th across portions of southwest Oklahoma to cause some localized flooding. One report of flooding was received between Lawton and Cache. The intersection of NW Cache Rd and NW Airport Rd was reported to be flooded and impassible.

## OREGON, Central and East

### **ORZ509**

### **East Slopes Of The Oregon Cascades**

01 0000PST  
25 0700PST 0 0 0.00K 0.00K Wildfire

The Milli Fire was located in the Sister's Wilderness Area, on the Deschutes National Forest. This fire was lightning caused, started in August and continues to burn into September. This fire caused the evacuations of some rural subdivisions near Sisters, Oregon.

02 2300PST  
19 1308PST 0 0 0.00K 0.00K Wildfire

The Rim fire occurred in the section of the Mt Hood National Forest in Wasco county. The fire burned during early and mid September.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **ORZ506**

#### **Ochoco-John Day Highlands**

09	1045PST								
27	1115PST				0	0	0.00K	0.00K	Wildfire

This fire was a holdover from lightning earlier in the week, and wasnt discovered sooner due to heavy smoke across Central Oregon.

## OREGON, Northwest

### **Linn County**

#### **2 ENE LaComb**

01	1207PST								
	1215PST	0.69	167	0	0	240.00K	0.00K		Tornado (EF1)

Tornado touched down along Green Mountain Road. Although tornado appeared to not be on the ground the entire path, the damage path appears to be 0.69 mile long. The tornado damaged five open barns, damaged 5 to 10 plus additional sheds or barns, brought down two power poles, and snapped six trees 4-12 inches in diameter. There were no injuries.

Warm surface temperatures with a strong upper-level front bringing cold air in aloft generated enough instability for a few strong thunderstorms across the region September 19th. One of these storms produced a brief tornado.

### **ORZ015**

#### **Western Columbia River Gorge**

02	1500PST								
30	2359PST			0	0				Wildfire

After a very dry summer, a teen with fireworks started a wildfire on September 2nd in the Eagle Creek area of the Columbia River Gorge. East winds over the over the following days spread the fire westward rapidly and sent heavy smoke into the Portland and Vancouver metropolitan areas.

## OREGON, Southeast

### **Baker County**

#### **6 WNW Unity Ellingson Arpt**

08	1720PST								
	2015PST			0	0	250.00K	0.00K		Flash Flood

Thunderstorms producing heavy rain over the 2016 Rail Fire burned area on the Wallowa-Whitman National Forest resulted in flash flooding and debris flows. Two surges of water, mud, rock, logs and vegetation cascaded down a number of drainages, all converging into the South Fork of the Burnt River. Extensive scouring of stream channels occurred. A number of Forest Service campgrounds and picnic areas were damaged and some Forest Service roads were washed out or heavily damaged. Campers and hunters had to evacuate the area. Some recreational vehicles were damaged.

Heavy rain fell across the Rail Burn Scar resulting in flash flooding including debris flow.

## OREGON, Southwest

### **ORZ023>028**

#### **Central Douglas - Eastern Curry & Josephine - Eastern Douglas Foothills - Jackson - Siskiyou Mountains & Southern Oregon Cascades - South Central Oregon Cascades**

01	0000PST								
30	0330PST			0	0	0.00K	0.00K		Wildfire

The Chetco Bar Wildfire was started by a lightning strike on 07/12/17 at about 13:45 PDT. It was allowed to burn for a while due to slow fire behavior and the difficulty of safely deploying crews in the steep terrain. It later developed into a major wildfire. As of 04:30 PDT on 10/01/17, the fire covered 191090 acres and was 97 percent contained. 66.8 million dollars had been spend on firefighting efforts.

### **ORZ029>031**

#### **Central & Eastern Lake - Klamath Basin - Northern & Eastern Klamath & Western Lake**

15	0100PST								
	0700PST			0	0	0.00K	0.00K		Frost/Freeze

The first significant front of the fall season brought a cooler air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to some parts of south central Oregon.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### ORZ030-031

#### Central & Eastern Lake - Northern & Eastern Klamath & Western Lake

16	0100PST 0700PST				0	0	0.00K	0.00K	Frost/Freeze
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The second significant front of the fall season brought a cooler air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to some parts of south central Oregon.

### ORZ029-031

#### Central & Eastern Lake - Klamath Basin

21	0100PST 0700PST				0	0	0.00K	0.00K	Frost/Freeze
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The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to many parts of south central Oregon.

22	0100PST 0700PST				0	0	0.00K	0.00K	Frost/Freeze
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### ORZ031

#### Central & Eastern Lake

22	0100PST 0700PST				0	0	0.00K	0.00K	Frost/Freeze
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The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to many parts of south central Oregon.

### ORZ029-031

#### Central & Eastern Lake - Klamath Basin

23	0100PST 0800PST				0	0	0.00K	0.00K	Frost/Freeze
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The third significant front of the fall season brought a cold air mass to the area. This, combined with clearing skies, brought sub-freezing temperatures to many parts of south central Oregon.

## PENNSYLVANIA, Central

### McKean County

#### 1 SSE Bradford

04	2305EST				0	0	4.00K	0.00K	Thunderstorm Wind (52EG)
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A severe thunderstorm producing winds estimated near 60 mph knocked down trees and wires in Bradford.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### McKean County

#### 1 NW East Bradford

04	2305EST				0	0	4.00K	0.00K	Thunderstorm Wind (52EG)
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A severe thunderstorm producing winds estimated near 60 mph knocked down trees and wires near Bradford.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Warren County

#### 2 S Russell

04	2318EST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A severe thunderstorm producing winds estimated near 60 mph knocked down trees near Russell.

A cold front approaching from the Great Lakes triggered a line of showers and thunderstorms that pushed into northwestern Pennsylvania during the late evening hours of September 4, 2017. The line was weakening with the loss of heating, but not before producing a handful of wind damage reports in Warren and McKean counties. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Franklin County

#### 1 E Greencastle

05	1435EST				0	0	2.00K	0.00K	Thunderstorm Wind (52MG)
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A severe thunderstorm producing winds estimated near 60 mph knocked down trees onto Leitersburg Road in Greencastle.

Note: The measured wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

September 2017									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b><u>PENNSYLVANIA, Central</u></b>									
<b>Franklin County</b> <b>1 ENE Greencastle</b>	05	1440EST			0	0	0.00K	0.00K	Thunderstorm Wind (56MG)
A wind gust of 65 mph was measured in Greencastle. Note: The measured wind gust of 56 knots is equivalent to 64 mph.									
<b>Franklin County</b> <b>2 S Zullinger</b>	05	1450EST			0	0	3.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down large trees onto Marsh Road.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Adams County</b> <b>Cashtown</b>	05	1500EST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down trees near Cashtown.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Adams County</b> <b>1 SE Cashtown</b>	05	1500EST			0	0	0.00K	0.00K	Thunderstorm Wind (61MG)
A wind gust of 70 mph was measured near Cashtown in Adams County.  Note: The measured wind gust of 61 knots is equivalent to 70 mph.									
<b>York County</b> <b>1 NE West York</b>	05	1529EST			0	0	12.00K	0.00K	Thunderstorm Wind (70EG)
A severe thunderstorm producing straight-line winds estimated near 80 mph snapped several trees and knocked down eight poles in York and West York. Note: The estimated wind gust of 70 knots is equivalent to 81 mph.									
<b>York County</b> <b>Grangeville</b>	05	1530EST			0	0	4.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down trees and wires near Parkville.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Lancaster County</b> <b>Columbia</b>	05	1543EST			0	0	8.00K	0.00K	Thunderstorm Wind (61EG)
A severe thunderstorm producing winds estimated near 70 mph knocked down numerous trees and wires in Columbia.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
<b>Lebanon County</b> <b>2 NW Palmyra</b>	05	1555EST			0	0	4.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down trees adn wires in North Palmyra.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Lancaster County</b> <b>2 NNW Klinesville</b>	05	1600EST			0	0	1.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down a tree across Iron Bridge Road north of Columbia. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Lancaster County</b> <b>1 WNW Centerville</b>	05	1615EST			0	0	0.00K	0.00K	Hail (1.00)
A severe thunderstorm produced quarter-sized hail near Landisville.									
<b>Lancaster County</b> <b>2 ENE Hamilton Park</b>	05	1615EST			0	0	3.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down large trees in East Lancaster.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Lancaster County</b> <b>1 NNE Hamilton Park</b>	05	1616EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
A severe thunderstorm producing winds estimated near 60 mph knocked down a large tree onto a townhouse in Lancaster.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Lancaster County**

#### **1 N Hamilton Park**

05 1629EST 0 0 0.00K 0.00K Hail (1.00)  
A severe thunderstorm produced golf ball sized hail in Lancaster.

A line of showers and thunderstorms developed in a moderately unstable airmass over south-central Pennsylvania, just ahead of an approaching cold front. This line of storms produced several reports wind damage from Franklin County eastward to Lancaster County, as well as a couple of severe hail reports in Lancaster County.

## PENNSYLVANIA, East

### **Berks County**

#### **2 SSW Mt Pleasant**

05 1514EST 0 0 Hail (1.00)  
Quarter-size hail was reported near Wernersville.

### **Berks County**

#### **1 NNE Leesport**

05 1630EST 0 0 1.00K 1.00K Flash Flood  
Flash flooding occurred in Leesport and Ontelaunee Township (Berks County) around 530 pm. Sections of Pennsylvania Route 61 were closed between Bellemans Church Road and Ashley Way. One vehicle was trapped in the flood waters. Rainfall totals include 4.12 inches near Leinbachs (Berks County) and 3.35 inches at Robesonia (Berks County).

### **Lehigh County**

#### **1 N New Smithville**

05 1638EST 0 0 Thunderstorm Wind (50EG)  
Wires were reported down in Weisenberg, Lehigh County. Time estimated from radar.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berks County**

#### **1 W Wyomissing Jct**

05 1650EST 0 0 Hail (0.75)  
Penny sized hail along with heavy rain and gusty winds were reported in West Wyomissing.

### **Berks County**

#### **1 W Amityville**

05 1650EST 0 0 Thunderstorm Wind (50EG)  
Downed trees and power lines closed a stretch of Route 662 in Amity Township in Berks County. Time estimated from radar.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berks County**

#### **1 NNW Moselem Spgs**

05 1700EST 0 0 1.00K 1.00K Flash Flood  
Route 622 was closed at Eagle Road in Moselem Springs due to flooding. Multiple vehicles were in the water.

### **Montgomery County**

#### **2 NW Perkiomenville**

05 1704EST 0 0 Thunderstorm Wind (50EG)  
Trees and power lines down near Becker and Woodland Roads in Upper Frederick Township.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Montgomery County**

#### **1 SSW Sanatoga**

05 1754EST 0 0 Thunderstorm Wind (50EG)  
Two poles and trees down blocking some roadways in Pottstown.

A frontal boundary moving through the region produced thunderstorms, some severe, during the late afternoon and early evening hours on the 5th. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Delaware County**

#### **1 NE Moore**

16 1840EST 0 0 0.00K 0.00K Flood  
Heavy rain showers lead to localized urban and poor drainage flooding during the evening of Saturday, September 16th. Route 420 in Prospect Park at the railroad bridge was impassible.

### **Philadelphia County**

#### **1 N (PHL)Philadelphia In**

16 1854EST 0 0 0.00K 0.00K Heavy Rain  
The Philadelphia, PA ASOS measured a one-hour rainfall total of 2.54 inches due to heavy rain showers.

A series of disturbances in the jet stream and a weak surface trough lead to sufficient lift within a tropical air mass to produce slow moving, heavy rain showers across portions of Pennsylvania. This lead to localized urban and poor drainage flooding during the evening of Saturday, September 16th.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## PENNSYLVANIA, Northwest

### **Crawford County**

#### **Spartansburg**

04 2313EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a large tree.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Crawford County**

#### **1 N Black Ash Corners**

04 2323EST 0 0 3.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a few trees.  
A strong cold front crossed western Pennsylvania during the late evening hours of September 4th. A line of showers and thunderstorms developed ahead of this front and moved across the region. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## RHODE ISLAND

### **Kent County**

#### **2 W Chepiwandxet**

06 0930EST 0 0 2.50K 0.00K Thunderstorm Wind (50EG)  
At 930 AM EST, a large tree and wires were brought down on Major Potter Road in Warwick, blocking the road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Kent County**

#### **1 NNW Longmeadow**

06 0930EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
At 930 AM EST, a tree was brought down on a house on Tidewater Drive in Warwick.

A cold front stalled over Southern New England on Wednesday the 6th with several waves of low pressure moving up along the front. The cold front then moved offshore Wednesday night. Thunderstorms moved across parts of Rhode Island during Wednesday producing damaging winds and heavy downpours. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **RIZ008**

#### **Block Island**

20 0918EST  
22 0218EST 0 0 0.00K 0.00K Tropical Storm

### **RIZ005**

#### **Bristol**

21 1530EST 0 0 1.5K 0.00K Strong Wind  
Jose formed over the Tropical Atlantic, moving west and growing to become a Major Hurricane. Jose passed north of the Leeward Islands, then turned on a northward path north of the Dominican Republic. As he moved north, Jose diminished to a Tropical Storm during Tuesday the 19th and then stalled about 150 miles southeast of Nantucket, Massachusetts. The storm then slowly drifted south by Friday the 22nd and started to dissipate.  
Jose brought strong wind gusts to Rhode Island, primarily to the islands and south coast. Wind gusts reached 61 mph at Block Island.

### **Providence County**

#### **Limerock**

30 1042EST 0 0 0.00K 0.00K Hail (0.75)  
At 1042 AM EST, an amateur radio operator reported dime-size hail at Lincoln.

### **Providence County**

#### **1 SE Cranston**

30 1209EST  
1600EST 0 0 0.00K 0.00K Flood

At 1209 PM EST, an amateur radio operator reported that Pontiac Avenue in Cranston was flooded.

Low pressure raced east from the Great Lakes bringing showers and isolated thunderstorms to Southern New England on the morning of Saturday the 30th. A couple of the showers in Rhode Island contained locally heavy downpours, and one contained large hail.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Fairfield County 2 NE Longtown**

01	1345EST 1349EST			0	0				Hail (1.00)
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Quarter size hail reported near the intersection of River Rd and Doe Run Ln.

### **Kershaw County 4 SSE Liberty Hill**

01	1350EST 1355EST			0	0				Hail (1.00)
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Quarter size hail reported at Lake Wateree campground.

### **Kershaw County 4 SSE Liberty Hill**

01	1350EST 1355EST			0	0				Thunderstorm Wind (60EG)
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Trees down at Lake Wateree Campground.

Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Chesterfield County 1 W McBee**

01	1440EST 1445EST			0	0				Hail (1.00)
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Pea to quarter size hail reported at Quail Ridge Farms near McBee.

### **Chesterfield County 1 W McBee**

01	1440EST 1444EST			0	0				Thunderstorm Wind (60EG)
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Trees down on US Hwy 1 near McBee.

Daytime heating, along with moisture, instability, and shear, influenced by the remnants of Tropical Cyclone Harvey NW of the region, led to scattered severe thunderstorms over the Northern Midlands of SC during the afternoon, which produced hail and strong damaging wind gusts. Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Barnwell County 3 ENE Barnwell**

05	1420EST 1425EST			0	0				Thunderstorm Wind (55EG)
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Barnwell Co SC EM reported several trees down.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Kershaw County Westville**

05	2043EST 2045EST			0	0				Thunderstorm Wind (50EG)
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Sheriff reported large limbs down on power lines on Damascus Church Rd near Damascus Church.

Thunderstorm activity developed along a prefrontal surface trough, a few of which produced strong damaging wind gusts. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Clarendon County 1 E St Paul**

06	1246EST 1250EST			0	0				Thunderstorm Wind (60EG)
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SCHP reported trees down on Interstate 95 at mile markers 105 and 106 northbound. Time estimated based on radar.

Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Clarendon County 2 E Rimini**

06	1259EST 1300EST			0	0				Thunderstorm Wind (55EG)
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Trees down taking down a power line along Chewing Rd.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Lee County**

**5 SE St Charles**

06	1540EST								
	1544EST				0	0			Thunderstorm Wind (60EG)

SCHP reported trees down on SC 527 and US 76. Time estimated based on radar.

A cold front moved through the region, with thunderstorm activity along and ahead of it, a few of which became severe and produced strong damaging wind gusts across the Eastern Midlands of SC. Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

### **Aiken County**

**3 ESE Windsor**

11	0000EST								
12	0800EST				0	0			Heavy Rain

CoCoRaHS observer measured a total rainfall amount of 5.75 inches 3 miles ESE of Windsor.

### **Bamberg County**

**3 WNW Denmark**

11	0000EST								
12	0800EST				0	0			Heavy Rain

CoCoRaHS observer measured a total rainfall amount of 6.80 inches 3 miles WNW of Denmark.

### **Barnwell County**

**1 SSE Hilda**

11	0000EST								
12	0800EST				0	0			Heavy Rain

COOP observer 5 miles ENE of Barnwell measured a total rainfall amount of 6.35 inches.

### **Clarendon County**

**3 WSW St Paul**

11	0000EST								
12	0800EST				0	0			Heavy Rain

RAWS unit 5 miles NNE of Santee at Santee NWR measured a total rainfall amount of 5.96 inches.

### **Lexington County**

**2 E Lexington**

11	0000EST								
12	0800EST				0	0			Heavy Rain

CoCoRaHS observer measured a total rainfall amount of 5.86 inches 2 miles E of Lexington.

### **Lexington County**

**1 N (CAE)Columbia Metro**

11	0000EST								
12	0800EST				0	0			Heavy Rain

ASOS unit at Columbia SC Metropolitan Airport measured a total rainfall amount of 3.78 inches.

### **Orangeburg County**

**Holly Hill**

11	0000EST								
12	0800EST				0	0			Heavy Rain

COOP observer near Holly Hill measured a total rainfall amount of 7.18 inches.

### **Orangeburg County**

**1 NW Orangeburg Arpt**

11	0000EST								
12	0800EST				0	0			Heavy Rain

ASOS unit at Orangeburg SC Municipal Airport measured a total rainfall amount of 3.86 inches.

# Storm Data and Unusual Weather Phenomena

September 2017

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, Central

### **Richland County**

<b>1 E Columbia Owens Arpt</b>	11	0000EST							
	12	0800EST			0	0			Heavy Rain

ASOS unit at Hamilton-Owens Airport in Columbia measured a total rainfall amount of 3.10 inches.

### **Richland County**

<b>Wateree</b>	11	0000EST							
	12	0800EST			0	0			Heavy Rain

RCWINDS unit near the town of Wateree measured a total rainfall amount of 5.27 inches.

### **SCZ021-028-030-035-036**

#### **Aiken - Barnwell - Fairfield - Orangeburg - Richland**

	11	0830EST							
		1215EST			0	0			High Wind

### **SCZ035**

#### **Barnwell**

	11	1304EST			0	0	0.1K	0.1K	Strong Wind
	11	1313EST							
		1315EST			0	0			High Wind

### **SCZ027**

#### **Lexington**

	11	1315EST							
		1317EST			0	0			High Wind

### **SCZ036**

#### **Orangeburg**

	11	1414EST			0	0	0.1K	0.1K	Strong Wind
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### **SCZ018-028**

#### **McCormick - Richland**

	11	1445EST							
		1540EST			0	0			High Wind

### **SCZ027**

#### **Lexington**

	11	1542EST			0	0	0.1K	0.1K	Strong Wind
	11	1548EST							
		1550EST			0	0			High Wind
	11	1550EST							
		1555EST			0	0			High Wind

### **SCZ015-031**

#### **Lancaster - Sumter**

	11	1555EST							
		1719EST			0	0	0.2K	0.2K	Strong Wind

### **SCZ041**

#### **Bamberg**

	11	1730EST							
		1735EST			0	0			High Wind

### **SCZ021**

#### **Fairfield**

	11	1735EST			0	0	0.1K	0.1K	Strong Wind
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# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
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## SOUTH CAROLINA, Central

### **Bamberg County**

1 NW Olar	11	1801EST								
1 WSW Govan		1805EST	2	50	0	0			Tornado (EF0)	

NWS storm survey team confirmed an EF-0 tornado touched down just NE of Olar, SC, moved to the NNW and dissipated approximately 4 minutes later near Govan, SC. The tornado was associated with the circulation of tropical cyclone Irma. The tornado touched down just northwest of the town of Olar along Thunder Road. The tornado continued north-northwest for approximately 2 miles. The tornado crossed Thunder Road, Red Fox Road, Memorial Church Road and dissipated before reaching Ehrhardt Road. The tornado downed a few trees and several large limbs along it's path. The tornado was brief, only staying on the ground for approximately 4 minutes.

Irma made landfall in south Florida as a category 4 hurricane on Sunday, September 10th, then moved north up the Florida peninsula during the day and night while gradually weakening. Irma weakened to Tropical Storm status while over north Florida Monday morning September 11th, and shifted NW over SW Georgia and into Alabama through Monday night while weakening to a Depression. Copious rainfall amounts associated with the cyclone occurred across the Central Savannah River Area (CSRA) of GA and the Midlands of SC, which generally fell from late Sunday night, through Monday and Monday night the 11th, and into the early morning hours of Tuesday the 12th. In addition, the pressure gradient between the cyclone to our SW, and high pressure to our north, provided strong wind gusts over the region as well which downed numerous trees. The strongest wind gusts occurred Monday afternoon Sept 11th.

### **Aiken County**

1 W Hamburg	22	1332EST								
		1335EST			0	0			Hail (0.88)	

Nickel to dime size hail reported in North Augusta SC near the 5th St Bridge.

Daytime heating allowed isolated severe thunderstorms to develop in the afternoon, which produced hail.

## SOUTH CAROLINA, North Coastal

### **SCZ056**

### **Coastal Georgetown**

11	1200EST			0	0				Coastal Flood	
12										

As tropical storm Irma traveled through central Florida, it interacted with strong high pressure to the north, creating a very strong onshore gradient and ocean fetch in Georgetown County, with lesser conditions in Horry County and points north.

### **Georgetown County**

1 SE Georgetown Co Arpt	11	1714EST								
		1715EST			0	0	0.00K	0.00K	Thunderstorm Wind (53MG)	

AWOS equipment measured a wind gust to 61 mph at the Georgetown County Airport.

The combination of rapidly weakening Tropical Storm Irma across southwest Georgia and strong high pressure to the north brought strong gradient winds to the area. These winds were enhanced by convection. One thunderstorm was able to produce stronger winds at the surface, resulting in a severe thunderstorm wind gust at the Georgetown County Airport. Note: The measured wind gust of 53 knots is equivalent to 61 mph.

## SOUTH CAROLINA, Northwest

### **Chester County**

1 ENE Lando	01	1327EST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
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County comms reported a few trees blown down with one falling on a power line in the Lando area.

Multiple lines of showers and thunderstorms developed over northern South Carolina during the afternoon ahead of a cold front and associated area of low pressure. One embedded severe thunderstorm briefly affected northeast Chester County. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **SCZ001>006-010> 012-019**

### **Abbeville - Anderson - Greater Greenville - Greater Oconee - Greater Pickens - Greenville Mountains - Greenwood - Laurens - Oconee Mountains - Pickens Mountains**

11	0900EST									
	2100EST			0	0	100.0K	0.00K		High Wind	

# Storm Data and Unusual Weather Phenomena

September 2017

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, Northwest

As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over western portions of Upstate South Carolina. Although gusts only occasionally exceeded 50 mph in these areas, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more.

### **Oconee County 6 NW Jocassee**

20	1609EST	0	0						Hail (0.75)
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Utility company reported 3/4 inch hail in the Bad Creek area.

A small cluster of thunderstorms moved out of North Carolina and through the Bad Creek area of South Carolina during the late afternoon, producing a brief period of small hail.

## SOUTH CAROLINA, South Coastal

### **Jasper County 2 NE Purrysburg**

01	1525EST								
	1526EST			0	0		0.00K		Thunderstorm Wind (50EG)

South Carolina Highway Patrol reported a tree down on Highway 321 near the intersection with Honey Hill Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Colleton County 1 N Cottageville**

01	1610EST								
	1611EST			0	0		0.00K		Thunderstorm Wind (50EG)

Colleton County dispatch reported a tree down on Pierce Road near Cottageville Highway.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Colleton County 2 E Cottageville**

01	1613EST								
	1614EST			0	0		0.00K		Thunderstorm Wind (50EG)

South Carolina Highway Patrol reported 2 trees down in the 3500 block of Rhode Drive.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Dorchester County 4 SSE Givhans**

01	1624EST								
	1625EST			0	0		0.00K		Thunderstorm Wind (50EG)

South Carolina Highway Patrol reported a tree down on Highway 61 near the intersection with Old Beech Hill Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Dorchester County 2 NW Jedburg**

01	1638EST								
	1639EST			0	0		0.00K		Thunderstorm Wind (50EG)

South Carolina Highway Patrol reported a tree down on Dawson Branch Road near the intersection with Highway 78.

An area of thunderstorms developed in the afternoon hours across southeast Georgia and progressed into southeast South Carolina. These thunderstorms formed in a warm and unstable airmass around the periphery of the remnants of Tropical Cyclone Harvey as it moved across the Tennessee Valley. A few of these thunderstorms became strong enough to produce damaging wind gusts. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Charleston County 2 S Mt Pleasant**

02	0256EST								
	0308EST			0	0		0.00K		Thunderstorm Wind (51MG)

The Weatherflow site at Fort Sumter measured a 51 knot wind gust. The peak gust of 61 knots occurred 10 minutes later.

Note: The measured wind gust of 51 knots is equivalent to 59 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Charleston County**

#### **1 W Centerville**

02	0258EST 0300EST				0	0		0.00K	Thunderstorm Wind (55EG)
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A trained spotter reported a large tree down in the 900 block of Folly Road on James Island.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Charleston County**

#### **2 SW Folly Beach**

02	0259EST 0301EST				0	0		0.00K	Thunderstorm Wind (54MG)
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The Weatherflow site on the Folly Beach pier measured a 54 knot wind gust.

Note: The measured wind gust of 54 knots is equivalent to 62 mph.

### **Charleston County**

#### **1 WNW Isle Of Palms**

02	0305EST 0307EST				0	0		0.00K	Thunderstorm Wind (50MG)
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The Weatherflow site at the Isle of Palms pier measured a 50 knot wind gust.

Note: The measured wind gust of 50 knots is equivalent to 58 mph.

### **Charleston County**

#### **1 NE James Is**

02	0308EST 0309EST				0	0		0.00K	Thunderstorm Wind (55EG)
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A report of a tree down near the intersection of Fred Street and Fort Johnson Road was received via social media.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Charleston County**

#### **1 N James Is**

02	0310EST 0311EST				0	0		0.00K	Thunderstorm Wind (55EG)
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A trained spotter reported several large limbs down on Stillwater Drive.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Charleston County**

#### **2 NNE Philip**

02	0313EST 0314EST				0	0		0.00K	Thunderstorm Wind (55EG)
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A National Weather Service employee reported 2 large trees down near the intersection of Highway 41 and the entrance to the Park West subdivision.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Charleston County**

#### **3 NNE Ten Mile**

02	0330EST 0331EST				0	0		0.00K	Thunderstorm Wind (55EG)
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Charleston County dispatch reported multiple trees down along Seewee Road near Highway 17.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### **Charleston County**

#### **4 N Ten Mile**

02	0330EST 0331EST				0	0		0.00K	Thunderstorm Wind (55EG)
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Charleston Fire Department reported a tree down on Guerins Bridge Road near Woodville Road.

A cluster of strong thunderstorms developed in the early morning hours just off the southeast Georgia coast. These thunderstorms tracked to the northeast along the southeast South Carolina coast and produced strong damaging wind gusts. Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### SCZ050

#### Charleston

10	1124EST 1300EST			0	0	0.00K	Coastal Flood
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A combination of recent full moon, approaching perigee, and elevated northeast winds ahead of approaching Tropical Cyclone Irma produced elevated high tides and coastal flooding along the southeast South Carolina coast.

### SCZ047

#### Jasper

11	0600EST 1800EST			0	0	0.00K	0.00K	Tropical Depression
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### SCZ048-051

#### Beaufort - Coastal Jasper

11	0600EST 1900EST			0	0	0.00K	0.00K	Tropical Storm
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### SCZ040-042>045-052

#### Allendale - Berkeley - Dorchester - Hampton - Northern Colleton - Tidal Berkeley

11	0800EST 2000EST			0	1	0.00K	0.00K	Tropical Depression
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### SCZ049-050

#### Charleston - Southern Colleton

11	0800EST 2000EST			0	0	0.00K	0.00K	Tropical Storm
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### SCZ045-048>050-052

#### Beaufort - Berkeley - Charleston - Southern Colleton - Tidal Berkeley

11	0900EST 1600EST			0	0	0.00K	0.00K	Storm Surge/Tide
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### Jasper County

#### 1 NW Old House

11	1330EST 1600EST			0	0	25.00K	0.00K	Flash Flood
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Jasper County Emergency Management reported homes flooded and inaccessible on Cherry Hill Road near the intersection with Highway 462. At least 1 person was stranded and in need of rescue.

### Charleston County

#### 2 WSW Drayton

11	1340EST							
12	0100EST			0	0	50.00K	0.00K	Flash Flood

The Crosstowne Christian Church on Bees Ferry Road flooded with at least one foot of water reported inside. Flooding occurred when Church Creek overflowed its banks in the afternoon. A nearby river and rain gauge on Church Creek measured a nearly 5 foot rise in the creek level in response to 8.97 inches of storm total rainfall due to Tropical Storm Irma. Winners Circle was also flooded and impassable along Church Creek on the other side of Bees Ferry Road.

### Charleston County

#### 1 SW (CHS)Charleston Afb 2 SSW Hilldale

11	1348EST 1350EST	1.46	60	0	0	0.00K	Tornado (EF0)
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A National Weather Service storm survey team confirmed an EF0 toranado on Joint Base Charleston in Charleston County. The weak, short-lived tornado, associated with the outer rain bands of Tropical Storm Irma, touched down near the Joint Base Charleston flight line and traveled along a discontinuous path toward the north-northwest. The tornado pushed back the edge of the roof on the control tower, damaged fascia of a nearby building near the flight line, and damaged the roof of another metal building on the base. Farther northwest on the Wrenwoods Golf Course, the tornado blew down two large oak trees and snapped large branches of other trees. The tornado then dissipated just beyond the north side of the golf course, about 2 minutes after touchdown.

# Storm Data and Unusual Weather Phenomena

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

September 2017

## SOUTH CAROLINA, South Coastal

### **Dorchester County**

#### **4 ESE Slandsville**

11	1400EST 2300EST			0	0	500.00K	0.00K	Flash Flood
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Dorchester County Emergency Management reported that water entered at least 31 homes due to flash flooding along Eagle Creek. This included homes on Tranquil Lane and Harrison Road in the Tranquil Acres/Estates neighborhood, as well as homes in the Summerwood subdivision off of Ladson Road. Of the 31 impacted structures, 18 had 12 inches or less of water, 10 had between 13 and 23 inches of water, and 3 had between 24 and 35 inches of water inside.

### **Charleston County**

#### **2 S Charleston Johns Arp**

11	1645EST 1647EST	0.43	30	0	0		0.00K	Tornado (EF1)
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A National Weather Service storm survey team confirmed an EF1 tornado in Legare Farms on Johns Island. The tornado touched down along the west bank of the Stono River near the junction of Abbapoola Creek. The tornado initially traveled north-northwest near the Stono River, destroying a shed, snapping a large live oak tree at the trunk, and damaging several other trees. In this area, the tornado also pulled from the ground a well pump and cement anchors for a chain link fence. The tornado then knocked a home off pilings, and the displaced residence incurred significant roof damage and crushed a pickup truck which was parked under the damaged house. The tornado then turned toward the north and northeast, damaging multiple trees before lifting along the west bank of the Stono River.

### **Charleston County**

#### **1 ESE James Is**

11	1719EST 1721EST	0.12	55	0	0		0.00K	Tornado (EF0)
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A National Weather Service storm survey team confirmed an EF0 tornado on James Island. The weak, short-lived tornado, associated with an outer rainband of Tropical Storm Irma, touched down in a marsh north of Schooner Creek and tracked north-northwest. The tornado uprooted a live oak tree and damaged another tree at the edge of the marsh. The tornado then damaged a residence on the southeast side of Seaward Drive, blowing off part of the southeast and northwest facing roof. The tornado then crossed Seaward Drive, damaging another tree and blowing 4 shutters off the southeast facing side of a residence on Lynne Avenue. Debris carried from the Seaward Drive residence also damaged a soffit on the Lynne Avenue home. The tornado then lifted south of Parrot Point Creek.

### **Charleston County**

#### **2 E The Groves**

#### **2 N Sullivans Is**

11	1813EST 1815EST	0.57	90	0	0		0.00K	Tornado (EF0)
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A National Weather Service Storm Survey team confirmed an EF0 tornado in Mount Pleasant. The weak, short-lived tornado, associated with an outer rainband of Tropical Storm Irma, formed over the marsh area between Mount Pleasant and Sullivan's Island. The weak tornado first moved into the south end of Pine Island View Road, then moved quickly north-northwest over the eastern ends of Oak Landing Road and Green Path Lane, before dissipating back on Pine Island View Road. Although no significant structural damage was observed, there were many large tree limbs down, some uprooted trees, and one wooden fence completely blown down.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## SOUTH CAROLINA, South Coastal

Irma first developed into a tropical storm on August 30th about 420 miles west of the Cabo Verde Islands, and within 24 hours strengthened into a hurricane. Irma continued to intensify and became a major hurricane over the eastern Atlantic on September 1st. After undergoing a brief period of weakening on September 2nd, Irma once again strengthened into a major hurricane on September 3rd and maintained major hurricane status through September 10th when it made landfall on the southwest Florida coast. During this extended period as a major hurricane, Irma set numerous intensity records for a hurricane in the Atlantic basin. Maximum sustained winds reached 185 mph, making Irma the strongest storm on record to exist in the Atlantic Ocean outside of the Caribbean and Gulf of Mexico. Also, Irmas 185 mph maximum sustained winds are tied for the second strongest maximum winds all time in an Atlantic hurricane. The minimum central pressure reached during Irmas life cycle was 914 mb which is the lowest pressure on record by an Atlantic hurricane outside of the western Caribbean and Gulf of Mexico. Furthermore, Irma maintained Category 5 status for 3 consecutive days which is the longest on record for an Atlantic hurricane. Irma stayed on a general westward track through September 5th when it began a gradual turn to the west-northwest. On this west-northwestward track, Irma eventually skirted along the north coast of Cuba on September 9th before turning northward toward Florida on September 10th. Irma officially made landfall at Marco Island, FL at 3:35 pm September 10 as a Category 3 hurricane. Following landfall, Irma tracked to the north-northwest and eventually the northwest as it progressed up the western side of the Florida peninsula. Irma steadily weakened during this time and was downgraded to a tropical storm near the big bend of Florida at 8:00 am on September 11th. Through the rest of September 11th, Irma tracked to the northwest into southern Georgia and widespread impacts occurred across the Southeast.

Despite the fact that the center of Irma tracked well to the west of the southeast Georgia and southeast South Carolina region, it still caused significant impacts due to heavy rainfall, strong winds, tornadoes, and storm surge. Feeder bands around Irma continuously moved onshore on September 11th and produced very heavy rainfall rates with rainfall totals generally ranging from 3 to 9 inches. The peak storm total rainfall of 9.07 was recorded by a CoCoRaHS observer near Beaufort, SC. Daily record rainfall totals for September 11th were recorded at all 3 climate sites in the area: 5.51 at the Charleston International Airport (KCHS), 4.53 at Downtown Charleston (KCXM), and 4.74 at the Savannah-Hilton Head International Airport (KSAV). This widespread heavy rain resulted in several reports of flash flooding with water entering homes and businesses. Wind damage produced numerous power outages across the region with some damage to structures and numerous downed trees. The strongest winds were confined to coastal locations, but frequent gusts into the 40-50 mph range occurred well inland. The maximum sustained wind recorded was 59 mph by the Weatherflow site on the Folly Beach Pier (XFOL) and the maximum wind gust recorded was 76 mph by the Weatherflow site near Beaufort (XBUF). One fatality and 1 injury occurred from trees falling on homes and across roadways in southeast South Carolina. The entire southeast Georgia and southeast South Carolina coast was impacted by storm surge generally ranging from 3 to 6 feet. This storm surge produced numerous reports of 4 to 6 feet of inundation above ground level, mainly along the southeast South Carolina coast. A peak surge of 4.87 feet occurred at the Charleston Harbor tide gauge at 2:00 pm while a peak surge of 5.63 feet occurred at the Fort Pulaski tide gauge at 5:42 am. Significant beach erosion occurred at area beaches with widespread damage to docks and piers all along the coast, as well as numerous reports of inundated roadways.

## SOUTH DAKOTA, Central and North

SDZ003>005-009>  
010-015>017-033>  
037-045-048-051

**Buffalo - Campbell - Corson - Dewey - Edmunds - Faulk - Hand - Hughes - Hyde - Jones - Lyman - McPherson - Potter - Stanley - Sully - Walworth**

01	0000CST						
30	2359CST	0	0	0.00K	0.00K	Drought	

Severe drought continued across most of central and north central South Dakota throughout much of September west of the James River Valley. There was some improvement towards the end of September. Periodic episodes of precipitation across the region had prevented widespread worsening of the drought conditions. The severe drought had began across the region in early June. Several counties still had burn bans in place. Crops and pastureland continued to suffer from the the long term dryness. The spring and winter wheat production was at its lowest in years and more than 60 percent below long-term norms. Only 670,000 acres of spring wheat were harvested in the state this year, the lowest since the big drought year of 1936 when only 550,000 acres were harvested.

**McPherson County**  
**6 SW Langlake**

19	1304CST	0	0	0.00K	0.00K	Hail (0.88)
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**McPherson County**  
**2 WSW Langlake**

19	1312CST	0	0	0.00K	0.00K	Hail (0.88)
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**McPherson County**  
**6 ENE Long Lake**

19	1355CST	0	0	0.00K	0.00K	Hail (1.00)
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**Walworth County**  
**1 E Java**

19	1745CST	0	0	0.00K	0.00K	Hail (1.00)
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# Storm Data and Unusual Weather Phenomena

September 2017

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

## SOUTH DAKOTA, Central and North

### **Walworth County**

1 E Java 19 1751CST 0 0 Hail (1.75)

### **Brown County**

2 NNW Richmond 19 1800CST 0 0 0.00K 0.00K Hail (1.50)

### **Hand County**

2 WSW Vayland 19 1804CST 0 0 0.00K 0.00K Hail (0.88)

### **Edmunds County**

9 N Bowdle 19 1805CST 0 0 Hail (1.50)

### **Edmunds County**

9 N Bowdle 19 1805CST 0 0 Thunderstorm Wind (52EG)  
Sixty mph winds along with ping pong size hail caused broken windows along with stripping some corn.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Edmunds County**

8 W Hosmer 19 1812CST 0 0 0.00K 0.00K Hail (1.75)

### **Edmunds County**

8 W Hosmer 19 1815CST 0 0 0.00K 0.00K Hail (1.50)

### **Brown County**

3 NW Westport 19 1817CST 0 0 0.00K 0.00K Hail (1.00)

### **Brown County**

1 NW Frederick 19 1817CST 0 0 0.00K 0.00K Hail (0.75)

### **McPherson County**

4 ESE Hillsvie 19 1825CST 0 0 0.00K 0.00K Hail (1.50)

### **Spink County**

5 SW Tulare 19 1846CST  
1857CST 2.75 155 0 0 Tornado (EF1)

A tornado touched down 5.5 miles south southwest of Tulare, uprooting a large cottonwood tree in a field. The tornado then passed over pasture and cropland before reaching a residence about 3 miles southwest of Tulare. Large tree branches were broke around the farm yard. On the north side of the farm an outbuilding had significant structural and roof damage with tin from the roof lofted over a half mile to the north. Additionally, two trees were uprooted along the north edge of the property. The tornado continued to track through a soybean field with slight crop damage and debris evident along the path. About 2.8 miles southwest of Tulare an irrigation unit was toppled and the corn crop was leveled before the tornado lifted.



*A picture of an EF-1 funnel cloud southwest of Tulare, South Dakota on September 19th, 2017.  
Photo courtesy of Nick Ihnen.*

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b><u>SOUTH DAKOTA, Central and North</u></b>										
<b>Brown County</b> <b>6 SW Houghton</b>	19	1849CST			0	0	0.00K	0.00K	Hail (1.00)	
<b>Brown County</b> <b>4 W Houghton</b>	19	1908CST			0	0	0.00K	0.00K	Hail (1.50)	
<b>Brown County</b> <b>5 SSW James</b>	19	1933CST 1937CST			0	0			Thunderstorm Wind (65EG)	
Seventy-five mph winds caused a partial loss to the roof of a large metal building 5 miles south of James. There was also tree and crop damage from this location to 3 miles south of James.										
Note: The estimated wind gust of 65 knots is equivalent to 75 mph.										
<b>Spink County</b> <b>1 N Doland</b>	19	1950CST			0	0	0.00K	0.00K	Hail (1.00)	
<b>Clark County</b> <b>5 SW Clark</b>	19	1955CST 1956CST	0.08	10	0	0	0.00K	0.00K	Tornado (EF0)	
A tornado touched down briefly in an open field with no damage occurring.										
<b>Clark County</b> <b>1 N Bradley</b>	19	2026CST 2027CST	0.11	10	0	0	0.00K	0.00K	Tornado (EF0)	
A tornado touched down briefly near Bradley. No damage was reported.										
<b>Codington County</b> <b>1 ESE (ATY)Watertown Arpt</b>	19 20	2215CST 0115CST			0	0	0.00K	0.00K	Flood	
Heavy rains of 1 to 3 inches falling over a short period of time brought street flooding to parts of Watertown. There were a few vehicles stalled with search and rescue crews barricading roads that were underwater.										
A strong upper level low pressure trough along with a surface cold front interacting with unstable air brought severe thunderstorms to the eastern parts of the region. Several tornadoes, large hail, damaging winds, along with some isolated flooding occurred.										
<b>Day County</b> <b>6 ESE Pierpont</b>	22	0025CST			0	0	0.00K	0.00K	Hail (1.00)	
A severe thunderstorm produced quarter size hail southeast of Pierpont.										
<b><u>SOUTH DAKOTA, Southeast</u></b>										
<b>Lake County</b> <b>3 ENE Winfred</b>	15	1804CST 1808CST	0.1	100	0	0	0.00K	0.00K	Tornado (EF0)	
A brief tornado damaged very old out buildings at an abandoned farmstead.										
<b>Lake County</b> <b>2 NNE Winfred</b>	15	1805CST			0	0	0.00K	0.00K	Hail (1.00)	
A thunderstorm developed in east central South Dakota and quickly became severe and produced severe-sized hail. A brief tornado was also spawned that resulted in minimal damage.										
<b>Brule County</b> <b>8 SSE Kimball</b>	19	2008CST			0	0	0.00K	0.00K	Hail (1.00)	
Quarter size hail at Grass Colony Ranch.										

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b><u>SOUTH DAKOTA, Southeast</u></b>										
<b>Gregory County</b> 7 ESE Carlock	19	2015CST			0	0	0.00K	0.00K	Hail (1.25)	
									Hail size varied from quarters to half dollars.	
<b>Aurora County</b> 1 E White Lake	19	2020CST			0	0	0.00K	0.00K	Hail (1.50)	
<b>Sanborn County</b> 7 NE Woonsocket	19	2029CST			0	0	0.00K	0.00K	Hail (1.00)	
<b>Davison County</b> (MHE)Mitchell Arpt	19	2102CST			0	0	0.00K	0.00K	Thunderstorm Wind (50MG)	
									Note: The measured wind gust of 50 knots is equivalent to 58 mph.	
<b>Miner County</b> 4 WSW Carthage	19	2120CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
									Quite a bit of tree damage, as well as minor damage to homes.	
									Note: The estimated wind gust of 61 knots is equivalent to 70 mph.	
<b>McCook County</b> 1 W Salem	19	2151CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
									Quite a bit of tree damage.	
									Note: The estimated wind gust of 61 knots is equivalent to 70 mph.	
<b>Turner County</b> 1 E Marion	19	2157CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
									Six inch diameter branches down in the town of Marion.	
									Note: The estimated wind gust of 61 knots is equivalent to 70 mph.	
<b>Lake County</b> 3 NW Smiths Park	19	2209CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)	
									Tree branches downed. Garage doors blown in around Lake Madison.	
									Note: The estimated wind gust of 65 knots is equivalent to 75 mph.	
<b>Lake County</b> 1 E Wentworth	19	2216CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
									Trees damaged, as well as house siding.	
									Note: The estimated wind gust of 61 knots is equivalent to 70 mph.	
<b>Moody County</b> 2 SSE Colman	19	2218CST			0	0	25.00K	0.00K	Thunderstorm Wind (65EG)	
									Farm equipment and a few trees were damages.	
									Note: The estimated wind gust of 65 knots is equivalent to 75 mph.	
<b>Moody County</b> Colman	19	2221CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)	
									Power lines and trees downed.	
									Note: The estimated wind gust of 70 knots is equivalent to 81 mph.	
<b>Minnehaha County</b> 1 E Dell Rapids	19	2227CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)	
									Tree Damage.	
									Note: The estimated wind gust of 65 knots is equivalent to 75 mph.	
<b>Minnehaha County</b> 1 W (FSD)Joe Foss Fld Si	19	2227CST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)	
									Note: The measured wind gust of 52 knots is equivalent to 60 mph.	
<b>Minnehaha County</b> 1 N West Sioux Falls	19	2238CST			0	0	0.00K	0.00K	Thunderstorm Wind (50MG)	
									Widespread thunderstorms first developed in central South Dakota and progressed eastward during the evening hours and produced hail and strong winds. The strong winds caused localized damage to trees and also to a home. Note: The measured wind gust of 50 knots is equivalent to 58 mph.	
<b>McCook County</b> 2 SW Center	22	1608CST			0	0	0.00K	0.00K	Hail (1.00)	
									An isolated thunderstorm developed and quickly dissipated. But before doing so, it produced localized severe-sized hail.	

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **McCook County**

**1 E Center** 22 1614CST 0 0 0.00K 0.00K Hail (0.88)  
Scattered thunderstorms developed in east central South Dakota and produced severe-sized hail in localized areas.

### **Davison County**

**4 SSE Mt Vernon** 22 1755CST 0 0 0.00K 0.00K Hail (1.00)  
An isolated thunderstorm developed and quickly dissipated. But before doing so, it produced localized severe-sized hail.

### **McCook County 2**

**SW Center** 23 1132CST 0 0 0.00K 0.00K Hail (1.00)  
Hail was almost covering the ground.

### **Lake County**

**3 NNW Madison Muni Arpt** 23 1149CST 0 0 0.00K 0.00K Hail (1.00)

### **Lake County**

**3 ENE Junius** 23 1223CST 0 0 0.00K 0.00K Hail (1.00)

### **Lake County**

**5 W Rutland** 23 1248CST 0 0 0.00K 0.00K Hail (1.75)  
Scattered thunderstorms developed in east central South Dakota and produced severe-sized hail in localized areas.

## SOUTH DAKOTA, West

### **Meade County**

**6 ESE Sturgis** 08 1706MST 0 0 0.00K 0.00K Hail (1.00)

### **Meade County**

**Ellsworth Afb** 08 1817MST 0 0 0.00K 0.00K Hail (0.75)

### **Meade County**

**2 E Ellsworth Afb** 08 1820MST 0 0 0.00K 0.00K Hail (0.88)

### **Pennington County**

**Box Elder** 08 1830MST 0 0 0.00K 0.00K Hail (0.88)  
A thunderstorm briefly became severe over east of the Black Hills. Hail to quarter size fell from near Sturgis to Box Elder.

## TENNESSEE, Central

### **Davidson County**

**1 WNW Forest Grove** 01 0000CST  
**1 SSW Newsom** 0200CST 0 0 200.00K 0.00K Flash Flood

Major flash flooding continued to affect much of the western two-thirds of Davidson County from the evening hours on August 31 into the early morning hours on September 1, with the worst flooding occurring in northwest Davidson County. Numerous homes were flooded on Cato Road and Eatons Creek Road in northwest Nashville and a home was flooded on Vailview Drive in north Nashville. Other homes and cars were flooded on Battlefield Drive near Belmont University with apartments and cars flooded at the Royal Arms Apartments in Green Hills. Many roadways were underwater and closed due to flooding including West End Avenue near Centennial Park and Highway 100 near Lynnwood Terrace in Belle Meade. A total of 30 water rescues were conducted across Davidson County including in Goodlettsville and Whites Creek as well as along Browns Creek, Mill Creek, and Sevenmile Creek.

in the Whites Creek area with many water rescues conducted. Several roads were also flooded in Whites Creek including Lickton Pike and Knight Road. Other roads were flooded and closed in parts of Nashville with several vehicles submerged and water rescues conducted, including at Vantage Way and Rosa Parks Blvd, Murfreesboro Pike north of Briley Parkway, Rolland Road, and Interstate 40 eastbound at Dr. D.B. Todd Jr. Blvd. where 5 cars stalled in the high water.

### **TNZ005-023>024**

### **Houston - Humphreys - Montgomery - Stewart**

01 0000CST  
0300CST 0 0 35.0K 0.00K Strong Wind

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Cheatham County**

**1 W Poplar Ridge  
1 WNW Griffintown**

01	0100CST 0300CST				0	0	10.00K	0.00K	Flash Flood
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Two homes were flooded along Sycamore Creek north of Ashland City with water in their basements. Several roads were flooded and closed in Ashland City including Fairgrounds Road, Chestnut Street, Duke Street, and Brookhollow Drive.

### **Sumner County**

**2 SSW Millersville  
3 WSW White Hill**

01	0100CST 0300CST				0	0	10.00K	0.00K	Flash Flood
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Highway 31W, Highway 76, and Flat Ridge Road in the Millersville and White House areas were flooded and closed. Two RV campgrounds in the area were also flooded and evacuated.

### **Montgomery County**

**3 SSE Port Royal**

01	0200CST 0400CST				0	0	20.00K	0.00K	Flash Flood
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Ten roads were flooded and closed across eastern Montgomery County, including Highway 76 near Port Royal which was completely washed out.

### **Dickson County**

**2 ENE Taylor Xrds**

02	0500CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 8.36 inches was measured at CoCoRaHS station Vanleer 2.8 SE.

### **Robertson County**

**1 N Greenbrier**

02	0500CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 10.93 inches was measured at CoCoRaHS station Greenbrier 1.4 N.

### **Robertson County**

**2 WSW Springfield**

02	0600CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 8.98 inches was measured at CoCoRaHS station Springfield 1.8 WSW.

### **Robertson County**

**3 N Cedar Hill**

02	0700CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 10.67 inches was measured at CoCoRaHS station Cedar Hill 2.6 N.

### **Robertson County**

**4 SSW Coopertown**

02	0700CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 9.18 inches was measured at CoCoRaHS station Pleasant View 2.8 ESE.

### **Davidson County**

**1 NNW Goodlettsville**

02	0800CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 7.87 inches was measured at CoCoRaHS station Goodlettsville 1.5 W.

### **Cheatham County**

**1 S Shacklett**

02	1500CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 6.83 inches was measured by the KINT1 River Gauge (Harpeth River near Kingston Springs).

### **Montgomery County**

**1 WNW Walnut Grove**

02	1530CST				0	0	0.00K	0.00K	Heavy Rain
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A 72 hour rainfall total of 9.86 inches was measured by the PORT1 River Gauge (Red River near Port Royal).

One week after Hurricane Harvey made landfall along the middle Texas coast, a weakened but still intense Tropical Depression Harvey moved across Middle Tennessee from Thursday August 31, 2017 into Friday September 1, 2017. Supercells rotating around Harvey spawned four weak tornadoes in Davidson, Maury, and Perry Counties. In addition, strong northeast winds up to 50 mph associated with the circulation of Harvey brought down numerous trees and power lines in areas along and west of I-65, knocking out power to thousands of residents. Finally, the heavy rainbands of Harvey produced 8-11 of rain in some areas, leading to major flash flooding of homes and roads. The flash flooding along with the strong winds continued from the late evening hours on August 31 into the morning hours on September 1.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Davidson County** **1 NE Oak Hill**

19 1414CST 0 0 0.00K 0.00K Hail (0.88)  
Nickel size hail reported at the Green Hills Library.

### **Davidson County** **2 WNW Oglesby**

19 1420CST 0 0 1.00K 0.00K Thunderstorm Wind (52EG)  
A two foot diameter tree was blown down in the Crieve Hall area of Nashville.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Davidson County** **2 WNW Oglesby**

19 1420CST 0 0 25.00K 0.00K Thunderstorm Wind (56EG)  
Davidson County Emergency Management reported 70-80 trees were blown down in the Crieve Hall and Oak Hill areas of Nashville, with some trees snapped and others uprooted.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Williamson County** **6 N Mallorys**

19 1424CST 0 0 15.00K 0.00K Thunderstorm Wind (56EG)  
A large section of the roof at The Academy of Powell Place preschool on Powell Place in the Maryland Farms area of Brentwood collapsed due to high winds. No injuries.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### **Williamson County** **6 N Mallorys**

19 1425CST 0 0 3.00K 0.00K Thunderstorm Wind (52EG)  
Several 2-3 foot diameter trees were blown down at the intersection of Maryland Way and Continental Place in Brentwood.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### **Davidson County** **2 WNW Oglesby**

19 1429CST 0 0 0.00K 0.00K Hail (0.88)  
Pea to nickel size hail fell at the intersection of Rochelle Drive and Oakley Drive.

Isolated showers and thunderstorms developed across Middle Tennessee during the afternoon and evening hours on September 19. One storm became severe in the Nashville metro area, with several reports of wind damage and hail received from southern Davidson and northern Williamson Counties.

### **Coffee County** **Manchester**

21 1425CST 0 0 0.00K 0.00K Hail (1.00)  
Numerous reports of hail up to quarter size and strong winds were received from in and around Manchester.

Scattered showers and thunderstorms developed across Middle Tennessee during the afternoon hours on September 21. One storm became severe in Coffee County and produced large hail and strong winds.

## TENNESSEE, East

### **Hamilton County** **1 N Chickamauga**

05 1530EST 0 0 Thunderstorm Wind (50EG)  
A lone tree fell on a house on Jarnigan Avenue.  
An isolated, lone thunderstorm produced just enough wind to down a tree in Chattanooga. Weak instability and modest wind shear were available for storm strengthening ahead of a cold front building through the Southern Appalachian region. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **TNZ074-099**

#### **Hamilton - Sevier/Smoky Mountains**

11 1700EST 0 0 High Wind  
2300EST

The weakening tropical system that was once Irma moved inland through the Deep South across the Western part of Tennessee generating a period of strong and gusty wind. A few trees were reported down with the passage of the low.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Taylor County

**1 W (DYS) Dyess Afb Abile** 02 1843CST 0 0 0.00K 0.00K Thunderstorm Wind (55MG)  
Note: The measured wind gust of 55 knots is equivalent to 63 mph.

### Taylor County Tye

02 1844CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Tye Police Department reported a small 10 by 10 foot metal building was destroyed and a couple of small 4 by 8 foot signs were blown down by damaging thunderstorm winds. Winds were estimated at 60 mph.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Taylor County Abilene

02 1849CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds blew down a restaurant sign onto a vehicle in southwestern Abilene near the intersection of Southwest Drive and Clack Street.  
An isolated supercell thunderstorm caused some wind damage in Abilene and Tye. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Mason County 2 SSW Mason

19 1510CST 0 0 0.00K 0.00K Thunderstorm Wind (70EG)  
Law enforcement officials reported a barn roof was blown off and trees were snapped in Mason.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### Irion County 10 NNE Sherwood

20 1718CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A trained spotter reported minor tree damage.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Shackelford County Albany

20 1730CST 0 0 0.00K 0.00K Thunderstorm Wind (61EG)  
Law enforcement officials reported damaging thunderstorm winds blew tree limbs down and caused some roof damage in Albany. The thunderstorm winds also damaged a door at the courthouse.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

### Irion County 2 NNW Sherwood

20 1807CST 0 0 0.00K 0.00K Thunderstorm Wind (64MG)  
The West Texas Mesonet near Mertzon measured a 64 knot wind gust.

Note: The measured wind gust of 64 knots is equivalent to 74 mph.

### Taylor County Lawn

20 1851CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A trained spotter estimated 60 mph winds associated with a microburst thunderstorm near Lawn.

Lots of instability along with dry and hot low to mid levels resulted in an isolated damaging thunderstorm microburst on September 19. The same airmass remained through September 20. A weak upper level disturbance interacted with this airmass to cause an increase of thunderstorm coverage on the 20th. A few of these thunderstorms resulted in thunderstorm microbursts and subsequent wind damage across West Central Texas. One of the thunderstorms began to rotate near Lawn. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## TEXAS, Central Southeast

### Harris County Westfield

11 1300CST  
1330CST 0 0 0.00K 0.00K Funnel Cloud

There were reports of funnel clouds between Spring and Bush-Intercontinental Airport. There were also reports of funnel clouds near Richey Road and FM 1960.  
Funnel clouds were spotted in and around the Houston metro area.

### Harris County 1 NE Houston 1 SE Bellaire Jct

18 1830CST  
1930CST 0 0 0.00K 0.00K Flash Flood

There were reports of high water over roadways in and around the Houston area, including the Loop 610 I-45 and Loop 610 Highway 288 intersections and just south of the I-45 I-69 intersection.

# Storm Data and Unusual Weather Phenomena

September 2017

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

Slow moving thunderstorms produced localized flash flooding in the Houston area.

### Harris County 3 SSW Olcott

20 1329CST 1 0 0.00K 0.00K Lightning  
A lightning strike killed a golfer while practicing at putting green at the Timber Creek Golf Course. M?GF

There was a lightning fatality on a golf course. M?GF

### Brazoria County Pearland

21 1129CST 0 0 2.00K 0.00K Lightning  
A car was damaged by lightning at the intersection of North Grand Blvd and Broadway in Pearland.

On the 21st of September, a thunderstorm produced a lightning strike in Pearland.

### Harris County 2 S Deer Park 1 W La Porte

21 1220CST  
1415CST 0 0 5.00K 0.00K Flash Flood

Flooding was reported between Spencer Highway and Fairmont Parkway in Pasadena. Flood waters entered a local junior college's gymnasium.

A lone slow-moving thunderstorm caused very isolated flooding within Pasadena's city limits.

## TEXAS, Extreme West

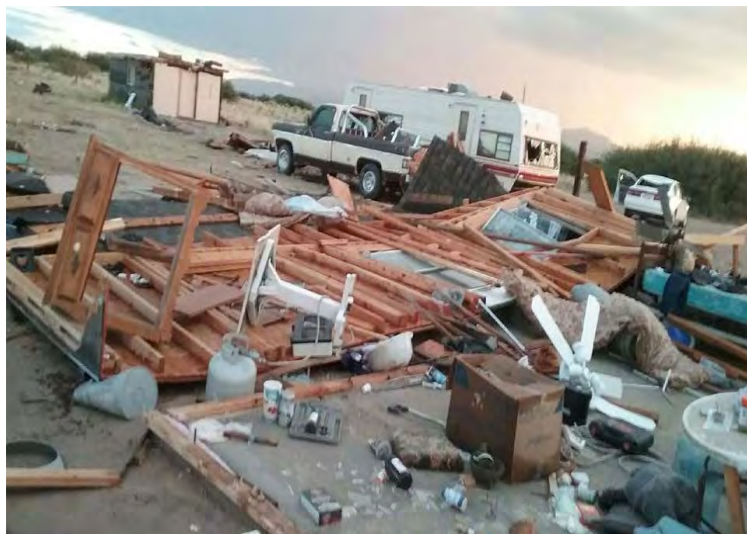
### Hudspeth County Dell City

23 1620MST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
The Sheriff reported downed power lines in Dell City.  
A deep early fall trough was moving into the Four Corners region with a dryline setup through Hudspeth County. These features combined to produce some strong to severe thunderstorms over eastern Hudspeth County in the late afternoon. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Hudspeth County Acala

26 1510MST 0 0 20.00K 0.00K Thunderstorm Wind (61EG)  
A couple of mobile homes were destroyed by a microburst with winds estimated at 70+ mph.

A deep trough was located across the western United States with strong south-southwest flow over far west Texas. Southeast surface winds kept dew points near 60 in Hudspeth County with tail end of a 100+ knot jet over the area provided sufficient shear and instability for severe thunderstorms to develop. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.



A picture of a couple of mobile homes that were destroyed by microburst winds in Acala, Texas on September 26th, 2017. Photo of Guadalupe Kelly.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **El Paso County**

<b>1 SSW Vinton</b>	28	0319MST							
<b>2 ENE Canutillo</b>		0600MST			0	0	20.00K	0.00K	Flash Flood

Water was knee deep at the intersection of Doniphan and Talbot making the road impassable. Water entered several businesses in this area including Tamales Lupita. Additional deep flooding was reported at the intersection of Doniphan and Redd Road.

An upper low was located over southern Utah with strong southwest flow aloft. Low level winds were out of the east bringing in good low level moisture to the region as dew points were into the lower 60s. Thunderstorms developed around 2AM over western El Paso county and trained over the area for several hours producing rainfall amounts of 2 to over 4 inches in just a few hours which lead to flash flooding.

## TEXAS, Mid-South

### **Calhoun County**

<b>3 NNW Tivoli Gulf Cst Arpt</b>	01	0000CST							
	04	0600CST			0	0	0.00K	0.00K	Flood

Major river flooding continued along the Guadalupe River in Calhoun County just east of Tivoli through September 4th. Several homes were flooded along River Road in Calhoun County east of Tivoli. State Highway 35 was closed near Tivoli.

### **Victoria County**

<b>3 ESE Mission Vly</b>	01	0000CST							
<b>5 NE McFaddin</b>	03	1800CST			0	0	0.00K	0.00K	Flood

Major river flooding continued along the Guadalupe River in Victoria County through September 3rd. At least 100 homes were flooded in Victoria in the Green's Addition area. Fox, Smith, Pozzi, Fordyce, Parsifal, Lower Mission Valley, and Old River Roads were inundated.

Major river flooding continued into the first few days of September along the Guadalupe River from Victoria southward to Tivoli. The flooding was associated with rainfall from Hurricane Harvey.

### **Live Oak County**

<b>6 SE Lagarteo</b>	25	1310CST							
		1311CST	0.1	15	0	0	0.00K	0.00K	Tornado (EF0)

Live Oak County Sheriff's Office reported a waterspout over Lake Corpus Christi near Pernitas Point.

A waterspout occurred over Lake Corpus Christi near Fiesta Mariner at Pernitas Point.

### **Webb County**

<b>2 W Laredo</b>	26	2200CST							
<b>3 WSW Laredo Afb</b>		2300CST			0	0	100.00K	0.00K	Flash Flood

Several water rescues of individuals trying to drive through low water crossings around Laredo. Most were on the south side of town but a few were on the northwest side and in the center of town. Flooding occurred near Laredo Community College.

### **Webb County**

<b>5 SSE Laredo Link Arpt</b>	26	2228CST							
		2328CST			0	0	250.00K	0.00K	Flash Flood

Several roads were flooded in the community of Rio Bravo. Some houses were flooded.

### **Webb County**

<b>6 W Pescadito</b>	26	2230CST							
<b>5 SSE Lake Casa Blanca</b>		2330CST			0	0	0.00K	0.00K	Flash Flood

Highway 359 was flooded near Los Altos and San Carlos subdivisions east of Laredo.

### **La Salle County**

<b>4 ENE Gardendale</b>	27	0800CST							
		0900CST			0	0	100.00K	0.00K	Flash Flood

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## TEXAS, Mid-South

Texas Department of Transportation reported Interstate 35 north of Millet was closed due to flooding. Bulldozers are being used to help push cars and trucks out of high water north of Cotulla.

### Webb County 2 SSE Laredo Afb

27	1840CST 1910CST			0	0	0.00K	0.00K	Flash Flood
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Water was over the road in several places on Highway 359 in Laredo.

Abundant moisture was confined to the Brush Country over a couple of days. There was a feed of deep tropical moisture from the Gulf of Mexico combined with a tap of moisture from the Pacific Ocean moving across Mexico. Scattered to numerous showers and thunderstorms moved across the Brush Country. Flash flooding occurred in Laredo with several roads being flooded. Water rescues were performed in several areas around Laredo. Laredo received between 5 and 10 inches of rainfall.

### La Salle County 13 WNW Tuna 10 WSW Woodward

28	1200CST			0	0	0.00K	0.00K	Flood
30	2359CST			0	0	0.00K	0.00K	Flood

Farm to Market Road 3408 from I-35, Valley Wells Road, and the frontage road near mile marker 67 were flooded. Flooding also occurred on Dobie Road including in and around Highway 624.

Torrential rainfall fell across the western Brush Country from September 26th through the 28th. Generally, 5 to 10 inches of rain fell during the period with some areas over northern Webb County into eastern Dimmit County received from 15 to 20 inches of rain. This caused major flooding on the Nueces River affecting portions of La Salle County.

## TEXAS, North

### Montague County 5 N Nocona

17	1426CST			0	0	0.00K	0.00K	Hail (1.50)
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Fire and Rescue reported hail ranging from 0.75 to 1.5 inches in diameter.

A stationary front draped across Northwest Texas served as a focus for isolated thunderstorms across the northwestern-most portions of North Texas.

### Jack County 3 SW Postoak

19	1815CST			0	0	2.00K	0.00K	Thunderstorm Wind (52EG)
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A public report indicated that power poles were knocked down approximately 3 miles southwest of the city of Post Oak, TX.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Jack County Postoak

19	1815CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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The local fire department reported wind gusts of 60 MPH in the city of Post Oak, TX.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Jack County 1 ENE Marvetta

19	1823CST			0	0	0.00K	0.00K	Thunderstorm Wind (51MG)
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Emergency management measured a wind gust of 59 MPH near the intersection of Highway 59 and FM 1810.

A cluster of thunderstorms produced sporadic wind damage across the northwest counties before weakening during the late evening hours. Note: The measured wind gust of 51 knots is equivalent to 59 mph.

## TEXAS, North Panhandle

### Carson County 4 WNW Groom

16	1610CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Three inch diameter tree limbs knocked down from healthy tree.

Storms fired along a residual outflow boundary draped SW to NE across the southern TX Panhandle. With 850-700 hPa converging along the boundary with CAPE around 1000 J/Kg, storm developed and moved NE across the boundary bringing a complex of storms with a severe wind gust report. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
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## TEXAS, North Panhandle

### Oldham County

3 WNW Adrian

17 1628CST 0 0 Hail (1.50)

Hail covering the ground.

A shortwave trough moving east out of New Mexico assisted with great ascent and lift in the upper levels. In a high CAPE, moderate shear environment, discrete supercells formed along a northward moving outflow boundary across the western Panhandles. Large hail up to ping-pong size hail was reported.

## TEXAS, Northeast

### Nacogdoches County

Woden

05 2140CST 0 0 0.00K 0.00K Thunderstorm Wind (56EG)

Trees and power lines were blown down in Woden near the Elementary/High School.

An upper level trough of low pressure shifted east from the Ohio Valley southwest across the Midwest and Central/Southern Plains during the late morning hours of September 5th. The accompanying cold front moved into Southwest Arkansas and extreme Northeast Texas during the mid and late afternoon, before moving into North Louisiana and Deep East Texas during the evening. Moderate instability developed along and ahead of the front, with increasing frontal convergence yielding scattered to numerous showers and thunderstorms during the late afternoon and evening across Southwest Arkansas, North Louisiana, and portions of Deep East Texas, where large scale forcing was strongest ahead of the trough. An isolated severe thunderstorm developed over Nacogdoches County, resulting in downed trees and power lines in the Woden community. These storms began to diminish by late evening over Deep East Texas as cooler and drier air began to spill south in wake of the frontal passage. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

## TEXAS, South

### Starr County

1 NNW Villareales

21 1805CST  
1815CST 0 0 Hail (2.50)

Tennis ball sized hail was reported in the Los Villareales section of Rio Grande City, and Golfball sized hail at two nearby locations, by the public and local Sheriff's Office, between Midway Road and Hospital Drive, and along US 83 and FM 3167, all just a few miles east of Los Villareales in the west portion of Rio Grande City between 705 and 715 PM CDT.

A weak upper level disturbance provided a pocket of cold air high in the atmosphere and aided the afternoon sea breeze, producing a single severe thunderstorm along the Rio Grande in Starr County that produced large hail. Damage was unknown at the time.

### Zapata County

1 N San Ygnacio

28 0300CST 0 0 20.00K 0.00K Flood  
29

Zapata County EM and US Customs and Border Protection reported high water out of the normal banks but within the berm area in and around San Ygnacio mainly on September 28th as a flood wave pushed south from Laredo toward Falcon International Reservoir. The high waters damaged U.S. Border Patrol equipment, including at least one generator, two light poles and one or two submerged vehicles. However, higher ground in San Ygnacio proper and above the river area was not impacted. Visual evidence showed the high water surrounding the equipment during the morning through afternoon hours, though high waters likely continued through the 29th.

An atmospheric river of deep tropical moisture (below) that flowed from the eastern tropical Pacific Ocean through Mexico, combined with the remnants of Tropical Storm Pilar to enhance rainfall along the Rio Grande from northern Zapata County through Webb County from late on September 25th and again on September 26th.

Additional heavy rains fell over the Rio Grande Basin in northern Nuevo Leon and extreme eastern Coahuila State (Mexico) on the 27th. A fairly widespread zone of 10 to 15 inches of rain fell along the Rio Grande in Webb County through the period, with a pocket of 8 to 10 inches along the Rio Salado west and northwest of Falcon International Reservoir during the late evening/overnight of September 25 and 26. The efficient, tropically-infused rainfall quickly flowed into the Rio Grande in Webb County, and would lead to very rapid rises and a flood wave along the river, with high-end moderate flooding near and in Laredo.

Downstream of Laredo, the river flooding continued in a small stretch of Zapata County, where water levels were comparable but a little less than those last seen during the Alex-remnant floods of July 2010 near San Ygnacio. The flood wave emptied into Falcon International Reservoir, along with a second flood wave from the Rio Salado in northern Mexico; each flood combined doubled the amount of acre-feet held by the reservoir, raised reservoir levels from 27 to more than 50 percent of capacity, Texas-share, by the end of September.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Kinney County 5 SW Spofford**

05 1723CST 0 0 0.00K 0.00K Thunderstorm Wind (54MG)  
A thunderstorm produced a wind gust measured at 54 kts. by the AWOS at the Laughlin AFB Auxiliary Field outside Spofford.

Thunderstorms developed in the warm, moist airmass ahead of a cold front. One of these storms produced severe wind gusts. Note: The measured wind gust of 54 knots is equivalent to 62 mph.

### **Dimmit County 3 S Valley Wells 3 ESE Asherton**

26 0700CST  
0800CST 0 0 0.00K 0.00K Flash Flood

Thunderstorms produced heavy rain that led to flash flooding requiring several people to be rescued from an oil field site and closing many ranch roads around Catarina.

### **Frio County 9 SW Divot**

27 1014CST  
1415CST 0 0 0.00K 0.00K Flood

Thunderstorms produced heavy rain that led to flooding closing SH 85 between Dilley and Big Wells.

### **Frio County 1 SSW Divot**

27 1101CST  
1415CST 0 0 0.00K 0.00K Flood

Thunderstorms produced heavy rain that led to flooding closing FM 117 northwest of Divot.

### **Dimmit County 4 W Catarina**

27 1105CST  
1415CST 0 0 0.00K 0.00K Flood

Thunderstorms produced heavy rain that led to flooding closing FM 2688 in both directions west of Catarina.

### **Maverick County 4 WSW Chittim Lease 12 E Darling**

27 1109CST  
1415CST 0 0 0.00K 0.00K Flood

Thunderstorms produced heavy rain that led to flooding closing FM 481 from SH 57 toward Uvalde.

### **Uvalde County 5 W Laguna**

27 1215CST  
1400CST 0 0 0.00K 0.00K Flash Flood

Thunderstorms produced heavy rain that led to flash flooding closing FM 334 about a mile east of Live Oak Rd. along the West Nueces River northwest of Uvalde.

### **Zavala County 3 SSE Batesville**

27 1340CST  
1645CST 0 0 0.00K 0.00K Flash Flood

Thunderstorms produced heavy rain that led to flash flooding closing CR 1866 at the Leona River southeast of Batesville.

### **Zavala County 5 WNW Batesville 8 ESE A B Jct**

27 1513CST  
1645CST 0 0 0.00K 0.00K Flash Flood

Thunderstorms produced heavy rain that led to flash flooding closing several roads in northern Zavala County including FM 117 and FM 140.

The remnants of Pacific Tropical Storm Pilar moved across Mexico adding mid-level moisture to an already moist boundary layer. Precipitable water values were around 2.5 inches when a series of upper level shortwave troughs initiated thunderstorms. Some of these storms produced heavy rainfall that led to flash flooding.



# Storm Data and Unusual Weather Phenomena

September 2017

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

### Cochran County

#### 15 S Whiteface

16 1605CST 0 0 0.00K 0.00K Thunderstorm Wind (52MG)  
 Measured by a Texas Tech University West Texas mesonet.  
 Note: The measured wind gust of 52 knots is equivalent to 60 mph.

### Motley County

#### 1 S Northfield

16 1745CST 0 0 0.00K 0.00K Thunderstorm Wind (63MG)  
 Measured by a Texas Tech University West Texas mesonet.  
 High-based thunderstorms developed early this afternoon across the South Plains and moved northeast through the far southeast Texas Panhandle. A few of these storms produced measured wind gusts of 60 to 73 mph. Note: The measured wind gust of 63 knots is equivalent to 72 mph.

### Bailey County

#### 4 NNE Enochs

#### 2 E Bula

17 1525CST 0 0 300.00K 1.00M Hail (2.75)  
 17 1535CST

Broadcast media relayed damage photos of a significant hailstorm that struck the community of Bula. Wind-driven hail as large as baseballs pummeled crops and caused extensive damage to siding, windows and roofs to dozens of buildings in the area.



*A picture of damage from wind-driven hail as large as baseballs that pummeled homes and destroyed crops in Bula, Texas on the afternoon of September 17th, 2017. Photo courtesy of Tim and Chase Cannon.*

### Hockley County

#### 1 NE Smyer

17 1616CST 0 0 0.00K 0.00K Hail (0.88)

### Lubbock County

#### 2 ENE Shallowater

17 1640CST 0 0 40.00K Thunderstorm Wind (65EG)  
 17 1645CST

Downburst winds around 75 mph downed several power lines along Farm-to-Market Road 2528 east of Shallowater. Some roof damage was also reported to a single family residence in the area.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Hale County

#### Petersburg

17 1730CST 0 0 100.00K 0.00K Thunderstorm Wind (70EG)  
 Downburst winds around 80 mph lofted the roof from the Allsup's convenience store in Petersburg. The roof landed on an adjacent mobile home, causing moderate damage to the residence. Much of the store suffered water damage from the ensuing heavy rainfall.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### Crosby County

#### 3 NW Estacado

#### 1 SE Wake

17 1735CST 0 0 1.50M 0.50M Thunderstorm Wind (87EG)  
 17 1755CST



# Storm Data and Unusual Weather Phenomena

September 2017

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

A large and particularly destructive macroburst (downburst winds more than 2.5 miles in width) tracked east across most of northern Crosby County this evening, accompanied by winds ranging from 80 to 100 mph at times. Data from radar and damage patterns during a NWS storm survey indicated these intense winds were about five miles in width, and traveled for a distance of almost 30 miles. The community of Cone was struck especially hard by these winds. An older, single family home had a west-facing wall partially collapse, and the roof to a grain store was blown off and deposited on US Highway 62 forcing a temporary closure of the road. Additional damage in Cone consisted of several downed power lines, about ten snapped utility poles, a few downed trees, light to moderate building damage, and one metal shed that was destroyed and had its contents of antique tractors and vehicles damaged. The NWS damage survey also noted several dozen more damaged power lines throughout northern Crosby County, along with multiple center pivot irrigation systems overturned. Cotton, corn, and sorghum crops sustained light to moderate damage, however some crops used as silage were completely flattened by the intense winds. Combined losses in Crosby County alone are estimated to be nearly \$2 million USD.

Note: The estimated wind gust of 87 knots is equivalent to 100 mph.



A picture of a large shed that lost its roof during intense straight line winds of 80 to 100 mph that struck the community of Cone, Texas on September 17th, 2017. Photo courtesy of NWS Lubbock Storm Survey.

### Crosby County Ralls

17	1755CST	0	0	0.00K	0.00K	Thunderstorm Wind (64MG)
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Measured by a Texas Tech University West Texas mesonet southeast of Ralls.

Note: The measured wind gust of 64 knots is equivalent to 74 mph.

### Dickens County 2 W McAdoo

17	1821CST	0	0	5.00K	0.00K	Thunderstorm Wind (70EG)
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The Floyd County Emergency Manager relayed a report from a fire department member in McAdoo who lost a corner of their home's roof during intense straight line winds.

Note: The estimated wind gust of 70 knots is equivalent to 81 mph.

### Floyd County 1 N Floydada

17	2020CST	0	0	0.00K	0.00K	Thunderstorm Wind (56MG)
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Measured by a Texas Tech University West Texas mesonet.

Scattered severe thunderstorms erupted this afternoon and tracked eastward across the South Plains and into the Rolling Plains. A few of these storms acquired deep rotation as they interacted with a stationary front draped west-to-east over the region, and resulted in swaths of destructive hail and significant straight line winds at times. One particularly intense supercell storm produced a large swath of downburst winds of 70 to 100 mph over portions of Lubbock, Hale, Crosby, and Dickens Counties. Note: The measured wind gust of 56 knots is equivalent to 64 mph.

### Cottle County 1 S Paducah

18	2115CST					
	2120CST	0	0			Hail (1.75)

Hail up to golf ball size fell in Paducah for about five minutes. Damage information was not available.

Isolated thunderstorms tracked northeast across the Rolling Plains late this evening. One storm intensified to severe levels in Cottle County where it produced hail up to golf ball size in Paducah.

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					Killed	Injured	Property		

## TEXAS, South Panhandle



*A picture of golf ball-sized hail in Paducah, Texas during the night of September 18th, 2017. Photo by Robyn Truelock.*

### **Parmer County** **6 WNW Bovina** **5 NW Black**

22	1650CST							
	1810CST	0	0	2.00M	Hail (1.75)			

More than a dozen farmers in Parmer County suffered varying degrees of damage to corn and cotton crops following a slow-moving hailstorm. About 20,000 acres were damaged in total, with about 3,500 acres reported as a complete loss. The hail was estimated to be as large as golf ball size.

A thunderstorm late this afternoon intensified west of Bovina (Parmer County) and produced large hail along a swath roughly 20 miles in length. The slow movement of this storm and frequent backbuilding of its hail core inflicted heavy tolls on otherwise promising corn and cotton crops.

## TEXAS, Southeast

### **Jefferson County** **2 N Pine Crest**

01	0000CST							
07	2359CST	0	0	0.00K	0.00K	Flood		

Record or near record crests along the Lower Neches River occurred during Tropical Storm Harvey. Areas along the river stayed flooded during much of the first week of September as the Neches remained above major flood stage. This affected some refineries near the river and also some parks, roadways, and residences. The crest finally moved through Sabine Lake during the 3rd.

### **Orange County** **3 SSE Bridge City** **1 E Brownwood**

01	0000CST							
07	2359CST	0	0	0.00K	0.00K	Flood		

Heavy rain from Tropical Storm Harvey caused record or near record flooding along the lower Sabine and Neches Rivers. While the crests of the rivers was during the last couple days of August to the first days of September the rivers remained in major flood stage through the first week. Some roadways and residences remained flooded near the rivers through the first week of the month.

Tropical Storm Harvey moved through the region during the last half of August causing record flooding. Flood water along the Sabine and Neches Rivers slowly receded during the first week of September.

# Storm Data and Unusual Weather Phenomena

										September 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b>TEXAS, West</b>										
<b>Borden County</b>										
2 ESE Gail	18	1910CST			0	0			Thunderstorm Wind (57MG)	
A thunderstorm moved across Borden County and produced a 66 mph wind gust at the mesonet site near Gail.										
Note: The measured wind gust of 57 knots is equivalent to 66 mph.										
<b>Howard County</b>										
5 N Big Spring	18	1950CST 1955CST			0	0			Hail (1.75)	
<b>Howard County</b>										
1 E Big Spring	18	1950CST 1955CST			0	0			Hail (1.00)	
<b>Howard County</b>										
5 N Big Spring	18	1950CST			0	0			Thunderstorm Wind (52EG)	
A thunderstorm moved across Howard County and produced a 60 mph wind gust five miles north of Big Spring.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Howard County</b>										
3 NE Fairview	18	2000CST 2015CST			0	0			Hail (1.25)	
There was a weak ridge over the region with good moisture across the area. Temperatures were above normal which allowed for more instability. These conditions allowed for storms with large hail and strong winds to develop across West Texas.										
<b>Culberson County</b>										
34 E Pine Spgs	23	1815CST 1820CST			0	0			Hail (2.50)	
<b>Reeves County</b>										
Orla	23	2023CST			0	0			Thunderstorm Wind (52EG)	
A thunderstorm moved across Reeves County and produced a 60 mph wind gust and pea sized hail in Orla.										
An upper trough was over Nevada and Idaho and was moving eastward. This trough provided lift, and there was a plethora of moisture across the area. These conditions resulted in thunderstorms with large hail and strong winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Andrews County</b>										
8 S Andrews	25	1650CST 1655CST			0	0			Hail (0.75)	
<b>Andrews County</b>										
8 S Andrews	25	1650CST 1651CST			0	0	6.00K		Thunderstorm Wind (61EG)	
A thunderstorm moved across Andrews County and produced wind damage eight miles south of the City of Andrews. A few telephone poles were blown down. The cost of damage is a very rough estimate.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Midland County</b>										
3 SW Midland	25	1939CST 2200CST			0	0	1.00K	0.00K	Flash Flood	
Heavy rain fell across Midland County and produced flash flooding in the City of Midland. There was a vehicle stalled in high water at the intersection of Midland Drive and Seminole Drive. The cost of damage is a very rough estimate.										
<b>Midland County</b>										
3 WNW Midland	25	1949CST 2200CST			0	0	1.00K	0.00K	Flash Flood	
Heavy rain fell across Midland County and produced flash flooding in the City of Midland. There was a vehicle stalled in high water at the intersection of Wadley Avenue and Midkiff Road. The cost of damage is a very rough estimate.										

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## TEXAS, West

An upper level trough was over southeast Montana, and a cold front was in the Texas Panhandle moving south towards the area. Good low-level moisture and upper lift combined with an unstable atmosphere across West Texas. These conditions resulted in thunderstorms developing with damaging winds and flash flooding.

### **Martin County**

**5 SW Ackerly**

26

1309CST

**5 SE Flower Grove**

1530CST

0

0

0.20K

0.00K

Flash Flood

Heavy rain fell across Martin County and produced flash flooding. FM 26 between FM 2212 and FM 3263 in Martin County was closed due to high water. The cost of damage is a very rough estimate.

### **Midland County**

**1 SE Warfield**

26

1319CST

1530CST

0

0

2.00K

0.00K

Flash Flood

Heavy rain fell across Midland County and produced flash flooding. A vehicle was submerged in high water on the westbound service road of Interstate 20 and Farm to Market 1788. The cost of damage is a very rough estimate.

### **Midland County**

**4 WSW Midland**

26

1340CST

**4 ENE (MAF) Midland Intl**

1500CST

0

0

0.00K

0.00K

Flash Flood

Heavy rain fell in Midland County and produced flash flooding in the City of Midland. There was water covering the access road off Loop 250 between Thomason Drive and Business 20.

### **Ector County**

**1 N Odessa**

26

1415CST

1630CST

0

0

2.00K

0.00K

Flash Flood

Heavy rain fell across Ector County and produced flash flooding in Odessa. The Odessa Fire/Rescue reported a high water rescue at Muskingum and 14th Street in Odessa. The cost of damage is a very rough estimate.

### **Midland County**

**2 NE (MAF) Midland Intl**

26

1450CST

1700CST

0

0

1.00K

0.00K

Flash Flood

Heavy rain fell across Midland County and produced flash flooding. A vehicle was in high water at Airline and Highway 80 near the City of Midland. The cost of damage is a very rough estimate.

### **Midland County**

**3 SW Midland**

26

1450CST

1700CST

0

0

1.00K

0.00K

Flash Flood

Heavy rain fell across Midland County and produced flash flooding in the City of Midland. A vehicle was in high water at Seminole and Midland Drive. The cost of damage is a very rough estimate.

There was an upper trough extending from the Great Plains to the Desert Southwest. Warm, moist air was interacting with a cold front north of southwest Texas. A plentiful supply of moisture was across West Texas, and upper lift was enhanced by placement of the area under an upper jet stream. The positioning of the front and the upper jet allowed for storms and heavy rain to develop and move over the same areas. These conditions contributed to flash flooding across the Permian Basin.

## TEXAS, Western North

### **Clay County**

**Henrietta**

16

1734CST

0

0

0.00K

0.00K

Hail (0.88)

### **Clay County**

**Henrietta**

16

1736CST

0

0

0.00K

0.00K

Hail (1.25)

An isolated storm moved up from central Texas into Clay county where it produced severe hail on the evening of the 16th.

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## TEXAS, Western North

### Wichita County

#### 7 S Pleasant Valley

19 1520CST 0 0 Thunderstorm Wind (52EG)  
Three to four inch diameter tree limbs were snapped by the strong winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Wichita County

#### 2 NW Cashion

19 1545CST 0 0 4.00K 0.00K Thunderstorm Wind (56EG)  
Downed/snapped power poles were reported by the emergency manager.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Wichita County

#### 4 SW Wichita Falls

19 1615CST 0 0 0.00K 0.00K Hail (0.88)

### Archer County

#### 2 SSE Lakeside City

19 1615CST 0 0 8.00K 0.00K Thunderstorm Wind (56EG)  
Four power poles were downed/snapped by strong winds.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

### Archer County

#### 2 SSE Lakeside City

19 1700CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
The fire department estimated wind speeds near 60 mph.  
Fairly strong warm air advection and a subtle mid level shortwave trough resulted in isolated severe thunderstorms developing during the overnight and early morning hours across portions of western north TX. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Baylor County

#### 1 N Seymour

20 1900CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement estimated winds near 60 mph.  
A line of storms formed along a front in southern Oklahoma and western north Texas on the evening of the 20th. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

## UTAH, East

### Grand County

#### 7 NW Castle Valley

14 1300MST  
1400MST 0 0 0.00K 0.00K Flash Flood

After a bout of heavy rain, the normally dry Salt Wash near the Delicate Arch parking lot in Arches National Park ran at least two feet deep and stranded several people.

A progressive upper level disturbance, paired with the support from a maximum jetstream wind flow, trekked across the Four Corners region and resulted in numerous showers and thunderstorms. While these storms moved quickly they were still very efficient rainfall producers which led to localized heavy runoff and at least two flash floods where thunderstorms trained behind one another.

### Grand County

#### 4 NNW Westwater Arpt

14 1445MST  
1500MST 0 0 0.00K 0.00K Thunderstorm Wind (63MG)

A peak thunderstorm wind gust of 72 mph was measured by the Bryson Canyon RAWS automated weather station.

A jet stream flow at the base of a Pacific disturbance which moved through the region enhanced thunderstorm development which resulted in some storms that produced strong outflow winds. Note: The measured wind gust of 63 knots is equivalent to 72 mph.

### Grand County

#### 2 SSE Moab

14 1600MST  
1700MST 0 0 30.00K 0.00K Flash Flood

Heavy rainfall resulted in flash flood waters at least a foot deep which ran down several drainages from the east side of the valley and across Highway 191 into a southern section of Moab. A flood control dam in one of the drainages was destroyed by the flash flooding after it was overtopped. Power House Dam Road was closed due to flood damage and some houses on Holyoak Lane and a couple of businesses incurred some flood damage. The flash flooding deposited a large amount of debris on roads. Rainfall measurements in the southeast area of Moab were up to 0.96 of an inch within about a half hour.

A progressive upper level disturbance, paired with the support from a maximum jetstream wind flow, trekked across the Four Corners region and resulted in numerous showers and thunderstorms. While these storms moved quickly they were still very efficient rainfall producers which led to localized heavy runoff and at least two flash floods where thunderstorms trained behind one another.

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<b>UTAH, East</b>									
<b>UTZ023</b>	<b>Eastern Uinta Mountains</b>								
	24	0400MST 2200MST			0	0	0.00K	0.00K	Avalanche
A moist upper low moved over eastern Utah and resulted significant snowfall over the eastern Uinta Mountains.									
<b>UTAH, West and Central</b>									
<b>UTZ002</b>	<b>Northern Wasatch Front/Brigham City/Ogden Bountiful</b>								
	05 10	0715MST 1120MST			0	0	849.0K	0.00K	Wildfire
The Uintah Fire began in northern Utah on September 5 and was contained on September 10.									
<b>Tooele County</b> <b>1 W Barro</b>	14	0000MST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)
The I-80 @ mp 29 sensor recorded a peak wind gust of 60 mph.									
Note: The measured wind gust of 52 knots is equivalent to 60 mph.									
<b>Tooele County</b> <b>1 E Barro</b>	14	0005MST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)
The Interstate 80 sensor recorded a peak wind gust of 60 mph.									
Note: The measured wind gust of 52 knots is equivalent to 60 mph.									
<b>Kane County</b> <b>19 E Glen Canyon</b>	14	1250MST			0	3	500.00K	0.00K	Thunderstorm Wind (61EG)
Thunderstorms moving over the Glen Canyon National Recreation Area produced severe microburst winds in the Padre Canyon, Sand King, Lone Rock, and Gunsight areas of the park. Several boats were overturned, including a 75 foot houseboat carrying 14 people. Aboard the large houseboat in Padre Canyon, the arm of an 80-year-old woman was severed, and a 57-year-old woman suffered head and hip injuries. Another person near Gunsight suffered a dislocated shoulder.									
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
<b>Kane County</b> <b>1 NNW Bullfrog</b>	14	1400MST			0	0	0.00K	0.00K	Thunderstorm Wind (63MG)
The Bullfrog Marina automated weather station reported a peak wind gust of 73 mph.									
Note: The measured wind gust of 63 knots is equivalent to 72 mph.									
<b>Garfield County</b> <b>33 ENE Boulder</b>	14	1405MST			0	0	0.00K	0.00K	Thunderstorm Wind (61MG)
The Henry Mountain RAWS recorded a peak wind gust of 70 mph.									
Note: The measured wind gust of 61 knots is equivalent to 70 mph.									
<b>Garfield County</b> <b>4 SW Escalante</b> <b>20 NNW Boulder</b>	14	1600MST 1800MST			0	0	0.00K	0.00K	Flash Flood
Flash flooding was reported across many tributaries of the Escalante River.									
<b>Kane County</b> <b>16 WSW Adairville</b> <b>17 E Kanab Arpt</b>	14	1600MST 1800MST			0	0	0.00K	0.00K	Flash Flood
A large flash flood was reported in Buckskin Wash and some surrounding drainages.									
<b>Washington County</b> <b>6 WSW Zion National Park</b> <b>4 NNE Grafton</b>	14	1600MST 1800MST			0	0	0.00K	0.00K	Flash Flood
Flash flooding was reported in multiple slot canyons in Zion National Park.									

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## UTAH, West and Central

### Wayne County

6 ENE Fremont  
4 NNW Torrey

14	1600MST 1800MST			0	0	0.00K	0.00K	Flash Flood
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Widespread flash flooding was reported across Capitol Reef National Park.

### Kane County

6 SW Adairville

14	1700MST 1900MST			0	0	0.00K	0.00K	Flash Flood
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A flash flood was reported in Buckskin Wash.

### Salt Lake County

2 NNW Salt Lake City

15	0800MST 1000MST			0	0	15.00K	0.00K	Flood
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Heavy rain caused flood damage to the Salt Lake City Justice Court and to a nearby Crossfit gym.

### Wayne County

8 S Notom

15	1630MST 1830MST			0	0	0.00K	0.00K	Flash Flood
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Flash flooding was reported on Pleasant Creek in Capitol Reef National Park.

Widespread thunderstorms developed over Utah on September 14, resulting in widespread flash flooding across southern Utah with some strong winds. Strong winds over Lake Powell resulted in three injuries to boaters. Additional showers and thunderstorms developed on September 15, resulting in additional areas of flooding in northern Utah and southern Utah.

## VERMONT, North and Central

### Rutland County

3 ENE Chittenden

05	1643EST 1645EST			0	0	25.00K	0.00K	Thunderstorm Wind (55EG)
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Numerous trees and utility lines down in Chittenden, extending into Pittsfield.

Note: The estimated wind gust of 55 knots is equivalent to 63 mph.

### Rutland County

1 N Pittsford

05	1648EST 1650EST			0	0	35.00K	0.00K	Thunderstorm Wind (65EG)
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Numerous trees down on utility lines throughout town, especially the south side including the town of Chittenden and the Michigan road, Route 100 vicinity.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

### Orange County

East Braintree

05	1705EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
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Several trees reported down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### Orange County

1 S Brookfield

05	1712EST			0	0	15.00K	0.00K	Thunderstorm Wind (55EG)
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Several trees down across the Brookfield-Braintree area including North Ridge road.

A marginal cold front moved into a marginally unstable air mass while a strong mid-level jet stream was aloft. These factors developed a few thunderstorms, some of which produced damaging winds, especially in the Pittsfield vicinity where numerous, trees fell onto utility lines. Note: The estimated wind gust of 55 knots is equivalent to 63 mph.



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<b>VERMONT, South</b>									
<b>Windham County</b>									
1 W West Brattleboro	05	1520EST			0	0			Hail (1.00)
The public estimated quarter-size hail.									
<b>Windham County</b>									
1 W Brattleboro	05	1520EST			0	0			Thunderstorm Wind (50EG)
The public reported a tree down via Facebook.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Windham County</b>									
1 SSW West Brattleboro	05	1520EST			0	0			Thunderstorm Wind (60EG)
1524EST									
The Brattleboro Fire Department reported tree damage and isolated power outages from Stockwell Drive in West Brattleboro to Kipling Road in Brattleboro. Tree damage was also reported along Black Mountain Road, Upper Dummerston Road, and East Orchard Street.									
Note: The estimated wind gust of 60 knots is equivalent to 69 mph.									
<b>Windham County</b>									
2 NNE Brattleboro	05	1523EST			0	0			Thunderstorm Wind (60EG)
2 S East Dummerston		1525EST							
Numerous trees and power lines were reported down along Putney Road from the Veterans Bridge north to the Brattleboro town line.									
Note: The estimated wind gust of 60 knots is equivalent to 69 mph.									
<b>Windham County</b>									
Brattleboro	05	1523EST			0	0			Thunderstorm Wind (50EG)
The Brattleboro Fire Department reported tree damage on Cedar Street.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Windham County</b>									
2 ENE West Brattleboro	05	1524EST			0	0			Thunderstorm Wind (50EG)
The Brattleboro Fire Department reported tree damage on Crescent Drive.									
A cold front interacted with a warm and humid airmass to produce several clusters of thunderstorms on September 5. One of these storms became severe in southern Vermont with wind damage and large hail reported. Numerous trees and power lines were reported down in the town of Brattleboro. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>VIRGINIA, North</b>									
<b>Frederick County</b>									
5 NNW Siler	05	1354EST			0	0			Thunderstorm Wind (50EG)
Multiple trees were down along Timber Ridge Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Frederick County</b>									
7 NNW Siler	05	1354EST			0	0			Thunderstorm Wind (50EG)
Trees were down along US 522 near the VA-WV state line.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Frederick County</b>									
Albin	05	1410EST			0	0			Thunderstorm Wind (50EG)
Trees were down along Apple Pie Ridge Road north of US 522.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Frederick County</b>									
2 SSW Opequon	05	1425EST			0	0			Thunderstorm Wind (50EG)
Trees were down along Cedar Creek Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
<b>Nelson County</b>									
1 ENE Martins Store	05	1510EST			0	0			Thunderstorm Wind (50EG)
A tree was down along Patrick Henry Highway.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									

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## VIRGINIA, North

### **Albemarle County 3 NW Rio**

05 1536EST 0 0 Thunderstorm Wind (50EG)  
A tree was down at the intersection of Holly Knoll Lane and Woodlands Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Albemarle County 2 WSW Earlysville**

05 1536EST 0 0 Thunderstorm Wind (50EG)  
A tree that was twelve inches in diameter was snapped off along Pelham Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Loudoun County 2 NNW North Fork**

05 1646EST 0 0 Thunderstorm Wind (50EG)  
A tree was down blocking Silcott Springs Road just north of Shoemaker School Road.

A cold front passes through the area. A southerly flow ahead of the boundary led to an unstable atmosphere. Stronger upper-level winds caused deeper shear profiles. The shear profiles combined with lift from the front and an unstable atmosphere to cause some storms to become severe. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

## VIRGINIA, Southwest

### **Botetourt County 1 WSW Eagle Rock**

05 1350EST 0 0 0.50K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds brought a tree down on a phone line near Mout Moriah Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Rockbridge County 1 E Lexington**

05 1418EST 0 0 0.20K 0.00K Thunderstorm Wind (50EG)  
Thunderstorms winds downed a large tree limb east of the intersection of Nelson Street and South Lee Highway.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Bedford County Boonsboro**

05 1520EST 0 0 5.00K 0.00K Lightning  
A lightning strike from a thunderstorm struck a tree on church property during the evening hours. Early the next morning, residual embers from the roots of the struck tree caused a small fire to occur within a nearby church building.

High pressure gave way to a slow moving cold front which entered the region early on the 5th, before stalling just east of the Blue Ridge Mountains. This front provided the focus for isolated thunderstorms to develop across portions of southwest Virginia, a few of which produced small hail and isolated wind damage.

## **VAZ016-032**

### **Carroll - Floyd - Patrick**

11 1520EST  
12 0615EST 0 0 11.0K 0.00K Strong Wind

## **VAZ009-014-033-043**

### **Franklin - Grayson - Henry - Montgomery - Smyth**

12 0153EST  
0655EST 0 0 10.0K 0.00K Strong Wind

The remnants of Hurricane Irma continued to weaken as it tracked northwest across the southeast U.S., spreading near tropical force wind gusts across the higher elevations of the southern Blue Ridge mountains of Virginia. These high winds coupled with moderate rain showers produced isolated wind damage in the form of falling trees.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## WASHINGTON, Northeast

### WAZ042

#### East Slopes Northern Cascades

01	0000PST			0	0	0.00K	0.00K	Wildfire
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The summer of 2017 produced numerous large wildfires in Eastern Washington. Most of these fires started in July and August and many continued to burn into September, most notably the Diamond Creek Fire in the Pasayten Wilderness of the north Cascades which burned 97,140 acres in the United States and spread into Canada before coming under containment in October. The Uno Fire near lake Chelan was started on August 30th and burned 8,726 acres through the month of September.

### WAZ033-036-041-043

#### Northeast Mountains - Okanogan Valley - Spokane Area - Washington Palouse - Wenatchee Area

04	0700PST							
08	1000PST			0	0	0.00K	0.00K	Dense Smoke

Smoke from numerous regional wildfires in Canada, Montana, Oregon and Washington fumigated eastern Washington from September 4th through the 8th. Air Quality sensors throughout eastern Washington recorded Unhealthy and Very Unhealthy readings during much of this period, with local reports of Hazardous air quality. Public Health Advisories were issued by local authorities to limit outdoor exposure and activities. A weak cold front on the 8th brought enough wind to ventilate the region and partially clear the smoke from the area.

## WASHINGTON, Northwest

### WAZ568

#### Cascades Of Snohomish And King Counties

04	1300PST							
15	0000PST			0	0	4.5M	0.00K	Wildfire

A wildfire started on the 4th 2 miles SE of Lester in the Central Cascades and burned 848 acres through the middle of the month. No structures were lost.

## WASHINGTON, Southeast

### WAZ520

#### East Slopes Of The Washington Cascades

01	0000PST							
30	2359PST			0	0	0.00K	0.00K	Wildfire

A lightning strike started the Jolly Mountain Fire on August 11, 2017. The fire continues to burn in the Cle Elum Ranger District of the Okanogan-Wenatchee National Forest and on or near land managed by the Washington Department of National Resources and The Nature Conservancy. This fire continued through September into October. On September 2nd, more than 500 homes in the Cle Elum area were threatened. Air quality was considered hazardous or dangerous at times during September over portions of western Kittitas county.

## WASHINGTON, Southwest

### Wahkiakum County Rosburg

18	1605PST							
	1610PST			0	0			Hail (1.00)

County official relayed a report of 1.0 inch hail from a resident in Rosburg.

Warm surface temperatures with a strong upper-level front bringing cold air in aloft generated enough instability for a few strong thunderstorms across the region September 18th. With these storms there were a couple reports of 1.0 inch hail.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Hampshire County**

#### **1 SSW Creekvale**

05 1341EST 0 0

A tree was down blocking the 6000 Block of Slanesville Pike.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Hardy County**

#### **Moorefield Muni Arpt**

05 1341EST 0 0

A tree was down along Caledonia Heights Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Morgan County**

#### **2 NW Largent**

05 1346EST 0 0

Three trees were down near the intersection of Route 9 and Milo School Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Morgan County**

#### **1 WSW Omps**

05 1400EST 0 0

Quarter sized hail was reported.

Hail (1.00)

### **Morgan County**

#### **1 NNW Stotlers Xrds**

05 1402EST 0 0

A tree was down along Winchester Grade Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Morgan County**

#### **1 NW FairView**

05 1402EST 0 0

A tree was down along Fairview Avenue.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Morgan County**

#### **1 SSW Johnsons Mill**

05 1402EST 0 0

A tree was down along Spriggs Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Morgan County**

#### **2 ESE Johnsons Mill**

05 1404EST 0 0

A tree was down along Duckwall Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berkeley County**

#### **Glengary**

05 1405EST 0 0

Multiple trees were down along McCubbins Hollow Road just south of Apple Harvest Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berkeley County**

#### **1 SE Ganotown**

05 1406EST 0 0

A dozen pine trees were snapped and uprooted along the 200 Block of Monalia Lane.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berkeley County**

#### **2 NNW Gerrardstown**

05 1407EST 0 0

Multiple trees were down along Buck Hill Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berkeley County**

#### **Shanghai**

05 1407EST 0 0

Several large trees were down near Back Creek Valley Road and Palmer Road.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### **Berkeley County**

#### **1 W Union Corner**

05 1407EST 0 0

Six to eight trees were snapped.

Thunderstorm Wind (50EG)

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Berkeley County**

<b>1 N (MRB)Shepherd Fld Mr</b>	05	1418EST			0	0			Thunderstorm Wind (58MG)
A wind gust of 67 mph was reported. A cold front passes through the area. A southerly flow ahead of the boundary led to an unstable atmosphere. Stronger upper-level winds caused deeper shear profiles. The shear profiles combined with lift from the front and an unstable atmosphere to cause some storms to become severe. Note: The measured wind gust of 58 knots is equivalent to 67 mph.									

## WISCONSIN, Northeast

### **Portage County**

<b>4 ESE Bancroft</b>	20	1647CST			0	0	0.00K	0.00K	Hail (1.75)
Golf ball size hail fell east of Bancroft.									

### **Portage County**

<b>3 ESE Bancroft</b>	20	1651CST			0	0	0.00K	0.00K	Hail (1.75)
Golf ball size hail fell northwest of Almond.									

### **Portage County**

<b>1 S Almond</b>	20	1656CST			0	0	0.00K	0.00K	Hail (2.00)
Two inch diameter hail fell in Almond.									

### **Portage County**

<b>1 S Amherst Jct</b>	20	1659CST			0	0	0.00K	0.00K	Hail (1.00)
Quarter size hail fell in Amherst Junction.									

### **Portage County**

<b>4 NNW Blaine</b>	20	1738CST			0	0	0.00K	0.00K	Hail (0.88)
Nickel size hail fell northwest of Blaine.									

### **Calumet County**

<b>1 E High Cliff</b>	20	1848CST			0	0	0.00K	0.00K	Hail (1.00)
Quarter size hail fell in Sherwood.									

### **Calumet County**

<b>1 NE Darboy</b>	20	1917CST			0	0	0.00K	0.00K	Hail (0.88)
Nickel size hail fell near the intersection of Calumet Street and Highway 441.									

### **Outagamie County**

<b>1 N Little Chute</b>	20	1924CST			0	0	0.00K	0.00K	Hail (0.88)
A thunderstorm produced nickel size hail and 40 to 50 mph wind gusts north of Kaukauna.									

A weak cold front moving across the state brought scattered thunderstorms to eastern Wisconsin. The strongest storms produced hail up to 2 inches in diameter, strong winds and torrential rainfall.

### **Vilas County**

<b>1 S Arbor Vitae</b>	22	1028CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
Thunderstorm winds downed some tree limbs and power lines in Arbor Vitae. The time of this event was estimated based on radar data. Thunderstorms moved across northern Wisconsin along a warm front and produced isolated wind damage in Vilas County. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									

## WISCONSIN, Northwest

### **Burnett County**

<b>2 WNW Yellow Lake</b>	02	1258CST			0	0	0.00K	0.00K	Hail (0.75)
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### **Washburn County**

<b>Trego</b>	02	1306CST			0	0			Hail (0.88)
Strong thunderstorms moved across Washburn and Burnett Counties dropping hail as large as nickels.									

### **Douglas County**

<b>1 S Boylston</b>	20	0235CST			0	0			Hail (1.00)
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### **Burnett County**

<b>5 E Webster</b>	20	0240CST			0	0			Thunderstorm Wind (52EG)
A tree was knocked down and blocked travel on Austin Lake Road in Sand Lake Township.									

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Burnett County 6 W Gaslyn

20 0240CST 0 0 Thunderstorm Wind (52EG)  
Multiple trees were knocked down and blocked travel on County Road A and Treasure Island Road in Jackson Township.

Severe storms that moved across portions of Burnett County and Douglas County produced quarter size hail and strong winds that toppled trees. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

### Washburn County 1 E Sarona

22 0627CST 0 0 Hail (1.00)

### Washburn County 1 S Sarona

22 0630CST 0 0 Hail (2.00)

### Washburn County 2 W Twin Oaks

22 0642CST 0 0 Hail (1.50)

### Douglas County 1 N Saunders

22 0645CST 0 0 100.00K 0.00K Lightning  
An assisted living residence was struck by lightning damaging the roof and ignited an electric fire in the attic.

### Sawyer County 2 SE Hayward Arpt

22 0731CST 0 0 Hail (0.75)

### Sawyer County 2 NNE Round Lake

22 0810CST 0 0 Hail (0.75)

### Sawyer County 2 NNE Round Lake

22 0828CST 0 0 Hail (0.75)

### Sawyer County 2 WSW Round Lake

22 0831CST 0 0 Hail (0.88)

### Sawyer County 6 ENE Round Lake

22 0841CST 0 0 Hail (0.75)

### Sawyer County 4 SW Grindstone Lake

22 0841CST 0 0 Hail (1.25)

### Sawyer County 3 WNW Loretta

22 0938CST 0 0  
0940CST Hail (0.88)

### Price County 1 E Lymantown

22 0952CST 0 0 Thunderstorm Wind (56EG)  
A tree that was blown over also took down a power cable near Agenda and North River Roads.

Several severe thunderstorms moved across portions of Washburn, Douglas, Sawyer, and Price Counties. These storms dropped penny-sized to hen's egg sized hail. A lightning strike damaged and sparked a fire at an assisted living home in Superior while strong winds blew down a tree in Price County. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

## WISCONSIN, Southeast

### Fond Du Lac County 2 SE Fond Du Lac airport 1 SW Taycheedah

20 2030CST  
21 0030CST 0 0 1.00K 0.00K Heavy Rain

Heavy rain of 3.50-4.00 inches over several hours resulted in street flooding in the city of Fond du Lac. I-41 flooded at S. Hickory Rd. The Woodland Trailer Park was being monitored for evacuation due to rising water but was ultimately not needed.

A slow moving cold front resulted in repeated rounds of showers and thunderstorms. This caused urban flooding in the city of Fond du Lac.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Juneau County 2 WNW Cutler**

20 1438CST 0 0 0.00K 0.00K Hail (0.88)

### **Juneau County 1 W Necedah**

20 1445CST 0 0 0.00K 0.00K Hail (1.00)  
Quarter sized hail fell at the Necedah Wildlife Refuge.

### **Juneau County 3 N Necedah**

20 1459CST 0 0 0.00K 0.00K Hail (0.75)

### **Adams County 2 SW Strongs Prairie**

20 1500CST 0 0 0.00K 0.00K Hail (1.50)  
Golf ball sized hail was reported near the south end of Petenwell Lake.

### **Crawford County Mt Sterling**

20 1730CST 0 0 0.00K 0.00K Hail (0.75)  
A line of thunderstorms developed across portions of central into western Wisconsin during the afternoon of September 20th. Some of these storms produced hail up to golf ball sized near the south end of Petenwell Lake (Adams County).

## WYOMING, Central and West

### **WYZ002**

#### **Absaroka Mountains**

15 0300MST 0 0 0.00K 0.00K Winter Storm  
16

A unusually strong cold front and upper level low combined with a deep stream of Pacific moisture to produce the first snowstorm of the year. The hardest hit area was the Absarokas. Some areas received close to a foot of snow. The Beartooth highway was shut down for several hours due to winter conditions.

### **WYZ001-012**

#### **Teton & Gros Ventre Mountains - Yellowstone National Park**

20 2200MST  
22 0100MST 0 0 0.00K 0.00K Winter Storm

### **WYZ002**

#### **Absaroka Mountains**

21 0000MST  
22 0500MST 0 0 0.00K 0.00K Winter Storm

An usually cold air mass and a plume of Pacific moisture combined to bring heavy snow to the mountains of northwestern Wyoming. The highest amounts were in Yellowstone Park where close to 2 feet fell in some of the higher elevations. Over a foot of snow also fell in portions of the Tetons and Absarokas. At lower elevations, temperatures remained warm enough for much of the precipitation to fall as rain or wet snow that did not accumulate.

## WYOMING, Southeast

### **WYZ106-117-118**

#### **Central Laramie County - Central Laramie Range And Southwest Platte County - South Laramie Range Foothills**

19 1600MST  
2200MST 0 0 0.00K 0.00K High Wind

A brief period of strong post-frontal west to northwest winds occurred from the central Laramie Range to central Laramie County.

### **WYZ114**

#### **Snowy Range**

24 1000MST  
1800MST 0 0 0.00K 0.00K Winter Weather

A Pacific low pressure system produced moderate snow over the Snowy Range. Total snow accumulations varied from six to ten inches.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## LAKE ST. CLAIR

### LCZ460

#### Lake St. Clair (US Portion)

04 1720EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
A thunderstorm moving into Lake St. Clair produced a 57 mph wind gust.

## GULF OF MEXICO

### GMZ042

#### Hawk Channel From Ocean Reef To Craig Key Out To The Reef

02 0529EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
Numerous showers and thunderstorms over the Florida Straits and upper Florida Keys developed as a trough of low pressure remained nearly stationary across the northern Florida Peninsula and northeast Gulf of Mexico. An isolated gale-force wind gust occurred along the reef offshore Islamorada, Florida.

## GULF OF MEXICO

### GMZ656

#### Chokoloskee to Bonita Beach FL out 20nm

02 2001EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
With a tropical air mass in place and precipitable water levels around 2.2 inches widespread showers and thunderstorms were seen across South Florida. Storms that developed over the interior and moved off the Gulf waters producing gusty winds.

## GULF OF MEXICO

### GMZ035

#### Gulf Of Mexico From West End Of Seven Mile Bridge To Halfmoon Shoal Out To 5 Fathoms

03 0601EST 0 0 0.00K 0.00K Waterspout  
0612EST

Several successive waterspouts were observed north of Key West as deep tropical moisture was slowly departing the Florida Keys, in advance of a Saharan Air Layer.

04 1249EST 0 0 0.00K 0.00K Waterspout  
1254EST

04 1251EST 0 0 0.00K 0.00K Waterspout  
1300EST

04 1304EST 0 0 0.00K 0.00K Waterspout  
1315EST

04 1305EST 0 0 0.00K 0.00K Waterspout  
Several waterspouts were observed in association with a cloud line extending just north of the Lower Florida Keys.

## GULF OF MEXICO

### GMZ656-676

#### Chokoloskee to Bonita Beach FL 20 to 60nm - Chokoloskee to Bonita Beach FL out 20nm - East Cape Sable to Chokoloskee FL out 20nm

09 0000EST 0 0 Marine Hurricane/Typhoon  
11

Major Hurricane Irma made landfall in southwest Florida on Marco Island as a category 3 hurricane in the afternoon on September 10th. The storm traveled north through southwest Florida through the morning on September 11th. Effects from Irma were felt across South Florida from September 9th through September 11th. Irma had reached a Category 5 strength and a minimum central pressure of 914mb before weakening before landfall.

The strength and size of Hurricane Irma allowed the effects to expand across all of South Florida waters. The wind, waves, surge created dangerous life-threatening marine conditions.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## GULF OF MEXICO

**GMZ730-750-755-765-770-775**

**Apalachee Bay or Coastal Waters from Keaton Beach to Ochlockonee River FL out to 20nm - Apalachicola to Destin FL 20 to 60nm - Apalachicola to Destin FL out 20nm - Coastal Waters From Suwannee River To Keaton Beach Out To 20 Nm - Suwannee River to Apalachicola FL 20 to 60nm - Suwannee River to Apalachicola FL out 20nm**

10	2200EST				0	0	0.00K	0.00K	Marine Tropical Storm
11									

Hurricane Irma weakened to a tropical storm as it moved northward across the western portions of the Florida peninsula. The large size of the storm resulted in tropical storm conditions across all of the coastal waters from Destin to the Suwannee River out to 60 nautical miles.

## GULF OF MEXICO

**GMZ031**

**Florida Bay**

13	0905EST				0	0	0.00K	0.00K	Waterspout
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An isolated waterspout was observed near Blackwater Sound in association with a developing rain shower.

**GMZ042**

**Hawk Channel From Ocean Reef To Craig Key Out To The Reef**

22	1217EST				0	0	0.00K	0.00K	Waterspout
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An isolated waterspout was observed near Tavernier, Florida, in association with a developing rain shower.

## GULF OF MEXICO

**GMZ730**

**Apalachee Bay or Coastal Waters from Keaton Beach to Ochlockonee River FL out to 20nm**

23	1810EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
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An isolated thunderstorm brought strong winds in excess of 34 knots near Bald Point as measured by a private weather station along the coast.

## GULF OF MEXICO

**GMZ034**

**Gulf Of Mexico Including Dry Tortugas And Rebecca Shoal Channel**

30	0833EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
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Numerous showers and scattered thunderstorms over the southeast Gulf of Mexico produced brief gale-force wind gusts near Dry Tortugas National Park. A weak trough of low pressure extended north-to-south over the western Florida Straits and southeast Gulf of Mexico.

## EAST PACIFIC OCEAN

**PZZ250**

**Cascade Head OR to Cape Shoalwater WA westward 20nm**

01	0945PST								
	0955PST				0	0	0.00K	0.00K	Waterspout

Warm surface temperatures with a strong upper-level front bringing cold air in aloft generated enough instability for a few strong thunderstorms across the region September 18th. One of these storms produced a waterspout off the coast near Happy Camp, OR.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## EAST PACIFIC OCEAN



Photo courtesy of Jim Young  
Waterspout observed at 10:40 am from  
Oceanside, Oregon in Tillamook County

*A picture of a waterspout that was observed from Oceanside, Oregon in Tillamook County on September 1st, 2017.  
Photo courtesy of Jim Young.*

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ671**

**Deerfield Beach to Ocean Reef FL 20 to 60nm**

01	1745EST	0	0	0.00K	0.00K	Waterspout
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A breezy southeast wind brought plenty of tropical moisture to the region. Scattered afternoon showers and thunderstorm affected all of the South Florida waters. One of these showers produced a waterspout offshore Fort Lauderdale.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ350**

**South Santee River to Edisto Beach SC out 20nm**

01	1754EST					
	1757EST	0	0		0.00K	Marine Thunderstorm Wind

A strong line of thunderstorms moved across portions of southeast South Carolina in the afternoon and to the coast by the early evening hours. These storms developed in the warm and unstable airmass out ahead of the remnants of Tropical Cyclone Harvey as it moved through the Tennessee Valley. These thunderstorms produced strong wind gusts along the coast.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ552**

**Volusia-Brevard County Line to Sebastian Inlet 0 to 20nm**

01	1915EST	0	0	0.00K	0.00K	Marine Thunderstorm Wind
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A strong thunderstorm moved north along the central Brevard County coast and produced winds over 34 knots over the Banana River along the Highway 528 Causeway.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ330-350-352-354-370**

**Charleston Harbor - Edisto Beach SC to Savannah GA out 20nm - Savannah GA to Altamaha Sound GA out 20nm - South Santee River SC to Savannah GA 20 to 40nm - South Santee River to Edisto Beach SC out 20nm**

02	0202EST					
	0333EST	0	0		0.00K	Marine Thunderstorm Wind

A cluster of strong thunderstorms developed in the early morning hours just off the southeast Georgia coast. These thunderstorms tracked to the northeast along the southeast Georgia and southeast South Carolina coast and produced strong wind gusts.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ552**

**Volusia-Brevard County Line to Sebastian Inlet 0 to 20nm**

02 1620EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
A strong thunderstorm moved north along the central Brevard County coast and produced winds to 34 knots over the Indian River along the NASA Parkway Causeway, between Port St. John and the Kennedy Space Center.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ650**

**Jupiter Inlet to Deerfield Beach FL out 20nm**

04 0900EST 0 0 0.00K 0.00K Waterspout  
In a typical summertime pattern with easterly flow showers and thunderstorms developed over the Atlantic waters in the morning hours. A couple of these isolated to scattered showers and storms produced waterspouts offshore Palm Beach County.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ330-350-370**

**Charleston Harbor - South Santee River SC to Savannah GA 20 to 40nm - South Santee River to Edisto Beach SC out 20nm**

06 0029EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
0243EST

A strong line of thunderstorms developed along the southeast Georgia and southeast South Carolina coast in the early morning hours. This line of storms eventually produced strong wind gusts along the coast and over the Atlantic coastal waters.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ552-555**

**Cocoa Beach to Jupiter Inlet FL out 20nm - Volusia-Brevard County Line to Sebastian Inlet 0 to 20nm**

08 1920EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
2130EST

Showers and isolated thunderstorms moved southwest and onshore the east-central Florida coast associated with several narrow rain bands. During the evening, several of the showers and storms produced strong wind gusts along the coast of Brevard, St. Lucie and Martin Counties.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ610-630-650-670>671**

**Biscayne Bay - Deerfield Beach to Ocean Reef FL - Deerfield Beach to Ocean Reef FL 20 to 60nm - Jupiter Inlet to Deerfield Beach FL 20 to 60nm - Jupiter Inlet to Deerfield Beach FL out 20nm - Lake Okeechobee**

09 0000EST 0 0 0.00K 0.00K Marine Tropical Storm  
11

Major Hurricane Irma made landfall in southwest Florida on Marco Island as a category 3 hurricane in the afternoon on September 10th. The storm traveled north through southwest Florida through the morning on September 11th. Effects from Irma were felt across South Florida from September 9th through September 11th. Irma had reached a Category 5 strength and a minimum central pressure of 914mb before weakening before landfall.

The strength and size of Hurricane Irma allowed the effects to expand across all of South Florida waters. The wind, waves, surge created dangerous life-threatening marine conditions.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

**AMZ550-552-555-570-572-575**

**Cocoa Beach to Jupiter Inlet FL 20 to 60nm - Cocoa Beach to Jupiter Inlet FL out 20nm - Flagler Beach to Cocoa Beach FL 20 to 60nm - Flagler Beach to Cocoa Beach FL out 20nm - Volusia-Brevard County Line To Sebastian Inlet 20-60nm - Volusia-Brevard County Line to Sebastian Inlet 0 to 20nm**

10 1200EST 0 0 0.00K 0.00K Marine Tropical Storm  
11

Hurricane Irma moved northward over the western Florida peninsula and produced a long duration of sustained tropical storm force winds with frequent gusts to hurricane force over the Atlantic coastal waters due to its very expansive wind field. These winds drove seas of at least 20 to 25 feet.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ATLANTIC, Caribbean Sea and Tropical Atlantic

### AMZ350

#### South Santee River to Edisto Beach SC out 20nm

11	1049EST								
	1051EST			0	0		0.00K		Waterspout

Irma first developed into a tropical storm on August 30th about 420 miles west of the Cabo Verde Islands, and within 24 hours strengthened into a hurricane. Irma continued to intensify and became a major hurricane over the eastern Atlantic on September 1st. After undergoing a brief period of weakening on September 2nd, Irma once again strengthened into a major hurricane on September 3rd and maintained major hurricane status through September 10th when it made landfall on the southwest Florida coast. During this extended period as a major hurricane, Irma set numerous intensity records for a hurricane in the Atlantic basin. Maximum sustained winds reached 185 mph, making Irma the strongest storm on record to exist in the Atlantic Ocean outside of the Caribbean and Gulf of Mexico. Also, Irmas 185 mph maximum sustained winds are tied for the second strongest maximum winds all time in an Atlantic hurricane. The minimum central pressure reached during Irmas life cycle was 914 mb which is the lowest pressure on record by an Atlantic hurricane outside of the western Caribbean and Gulf of Mexico. Furthermore, Irma maintained Category 5 status for 3 consecutive days which is the longest on record for an Atlantic hurricane. Irma stayed on a general westward track through September 5th when it began a gradual turn to the west-northwest. On this west-northwestward track, Irma eventually skirted along the north coast of Cuba on September 9th before turning northward toward Florida on September 10th. Irma officially made landfall at Marco Island, FL at 3:35 pm September 10 as a Category 3 hurricane. Following landfall, Irma tracked to the north-northwest and eventually the northwest as it progressed up the western side of the Florida peninsula. Irma steadily weakened during this time and was downgraded to a tropical storm near the big bend of Florida at 8:00 am on September 11th. Through the rest of September 11th, Irma tracked to the northwest into southern Georgia and widespread impacts occurred across the Southeast.

Despite the fact that the center of Irma tracked well to the west of the southeast Georgia and southeast South Carolina region, it still caused significant impacts due to heavy rainfall, strong winds, tornadoes, and storm surge. Feeder bands around Irma continuously moved onshore on September 11th and produced very heavy rainfall rates with rainfall totals generally ranging from 3 to 9 inches. The peak storm total rainfall of 9.07 was recorded by a CoCoRaHS observer near Beaufort, SC. Daily record rainfall totals for September 11th were recorded at all 3 climate sites in the area: 5.51 at the Charleston International Airport (KCHS), 4.53 at Downtown Charleston (KCXM), and 4.74 at the Savannah-Hilton Head International Airport (KSAV). This widespread heavy rain resulted in several reports of flash flooding with water entering homes and businesses. Wind damage produced numerous power outages across the region with some damage to structures and numerous downed trees. The strongest winds were confined to coastal locations, but frequent gusts into the 40-50 mph range occurred well inland. The maximum sustained wind recorded was 59 mph by the Weatherflow site on the Folly Beach Pier (XFOL) and the maximum wind gust recorded was 76 mph by the Weatherflow site near Beaufort (XBUF). One fatality and 1 injury occurred from trees falling on homes and across roadways in southeast South Carolina. The entire southeast Georgia and southeast South Carolina coast was impacted by storm surge generally ranging from 3 to 6 feet. This storm surge produced numerous reports of 4 to 6 feet of inundation above ground level, mainly along the southeast South Carolina coast. A peak surge of 4.87 feet occurred at the Charleston Harbor tide gauge at 2:00 pm while a peak surge of 5.63 feet occurred at the Fort Pulaski tide gauge at 5:42 am. Significant beach erosion occurred at area beaches with widespread damage to docks and piers all along the coast, as well as numerous reports of inundated roadways.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

### AMZ650

#### Jupiter Inlet to Deerfield Beach FL out 20nm

16	0658EST			0	0	0.00K	0.00K		Waterspout
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Weak easterly flow with showers over the Atlantic waters in the morning in a typical diurnal summertime pattern. A line of showers offshore was able to produce multiple waterspouts.

## ATLANTIC, Caribbean Sea and Tropical Atlantic

### AMZ550

#### Flagler Beach to Cocoa Beach FL out 20nm

18	1140EST								
	1146EST			0	0	0.00K	0.00K		Waterspout

Several reports were received of waterspouts offshore of Ormond by the Sea over a 30-minute period. The waterspouts dissipated before reaching the coast.

22	0815EST								
	0817EST			0	0	0.00K	0.00K		Waterspout

22	0830EST								
	0834EST			0	0	0.00K	0.00K		Waterspout

A waterspout was observed over the Atlantic from the Ormond Beach Airport. A short time later, multiple waterspouts were observed over the Atlantic from Daytona Beach. The waterspouts were associated with marine showers.

# Storm Data and Unusual Weather Phenomena

September 2017

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

**ANZ537-543**

**Patapsco River Including Baltimore Harbor - Tangier Sound And The Inland Waters Surrounding Bloodsworth Island - Tidal Potomac Cobb Island MD to Smith Point VA**

05	1630EST				0	0			Marine Thunderstorm Wind
	2220EST								

A cold front passes through the area. A southerly flow ahead of the boundary led to an unstable atmosphere. Stronger upper-level winds caused deeper shear profiles. The shear profiles combined with lift from the front and an unstable atmosphere to cause some storms to produce gusty winds.

## ATLANTIC, North

**ANZ338**

**New York Harbor**

05	2254EST				0	0			Marine Thunderstorm Wind
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An approaching cold front triggered an isolated strong thunderstorm over upper NY Harbor.

**ANZ330-340-370**

**Long Island Sound East of New Haven CT to Port Jefferson NY - Montauk Point NY to Sandy Hook NJ 20 to 40nm - Peconic and Gardiners Bays**

06	0718EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
	0835EST								

**ANZ330**

**Long Island Sound East of New Haven CT to Port Jefferson NY**

06	0900EST				0	0	0.00K	0.00K	Waterspout
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A passing cold front triggered isolated strong to severe thunderstorms, which impacted the ocean waters south of Central Long Island, Eastern Long Island Sound, and Peconic and Gardiners Bays.

## ATLANTIC, North

**ANZ543**

**Tangier Sound And The Inland Waters Surrounding Bloodsworth Island**

06	1728EST				0	0			Marine Thunderstorm Wind
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An isolated storm produced gusty winds.

## ATLANTIC, North

**ANZ632-634-656**

**Cape Charles Light VA to NC-VA border out 20nm - Chesapeake Bay From Little Creek - Chesapeake Bay New Point Comfort to Cape Henry VA**

06	1754EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
	1812EST								

Scattered thunderstorms associated with a cold front produced gusty winds across portions of the Chesapeake Bay and Virginia Coastal Waters.

## ATLANTIC, North

**ANZ451-470**

**Manasquan Inlet to Little Egg Inlet NJ out 20nm - Sandy Hook NJ to Fenwick Island DE 20 to 40nm**

19	1130EST				0	0			Marine Tropical Storm
	1405EST								

Hurricane Jose meandered offshore for several days. Portions of the offshore waters saw high surf and tropical storm force winds.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ATLANTIC, North

### ANZ232-235-236

#### Nantucket Sound - Narragansett Bay - Rhode Island Sound

21	1340EST 2059EST			0	0	0.00K	0.00K	Marine Tropical Storm
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### ANZ251

#### Massachusetts Bay And Ipswich Bay

22	0635EST			0	0	0.00K	0.00K	Marine Tropical Storm
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Named storm Jose formed over the Tropical Atlantic, moving west and growing to become a Major Hurricane. Jose passed north of the Leeward Islands, then turned on a northward path north of the Dominican Republic. As he moved north, Jose diminished to a Tropical Storm during Tuesday the 19th and then stalled about 150 miles southeast of Nantucket. The storm then slowly drifted south by Friday the 22nd and started to dissipate.

Jose brought strong wind gusts and heavy downpours, primarily to the islands and south coasts of Massachusetts. Rainfall reached about 6 inches on Nantucket, wind gusts reached 62 mph at Nantucket and Aquinnah, and storm surge brought minor coastal flooding to parts of Nantucket.

## ATLANTIC, North

### ANZ350

#### Montauk Point to Moriches Inlet NY out 20nm

30	1048EST			0	0	0.00K	0.00K	Waterspout
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A passing upper level disturbance and surface low triggered a waterspout just south of Westhampton Beach.

## LAKE MICHIGAN

### LMZ344

#### Grand Traverse Light to Sleeping Bear Point MI

05	0957EST 1015EST			0	0	0.00K	0.00K	Waterspout
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Showers produced a waterspout over Lake Michigan.

## LAKE MICHIGAN

### LMZ221

#### Bay of Green Bay North of Line from Cedar River MI to Rock Island Passage

22	1420EST 1430EST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
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A line of strong to severe storms moved southeast across northern Lake Michigan during the late morning hours on Sept. 22nd bringing strong winds.

## LAKE MICHIGAN

### LMZ362

#### Seul Choix Point To The Mackinac Bridge And From Charlevoix Mi To S Fox Is 5nm Off Shore

27	0828EST			0	0	0.00K	0.00K	Waterspout
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Showers produced a waterspout over northern Lake Michigan.

## LAKE SUPERIOR

### LSZ147

#### Sand Island to Bayfield WI

03	2205CST 2222CST			0	0	10.0K	0.00K	Marine Thunderstorm Wind
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Strong thunderstorm-induced winds and waves battered the shorelines of Sand, Rocky and Outer Islands of the Apostle Islands. The winds and waves damaged moored boats by pushing the boats into shore. Two of the eight vessels involved had to be towed back to the mainland and one was partially sunk.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	September 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## LAKE SUPERIOR

### LSZ263

**Lake Superior East of line from Saxon Harbor WI to Grand Portage MN to line Manitou Island MI northward beyond 5nm and South of Intl Border**

15	0147EST								
	0152EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

A line of strong storms tracked across western Lake Superior during the early morning hours.

22	0943EST								
	0948EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

### LSZ241-246-249> 251-263-265

**Grand Marais To Whitefish Point Mi - Lake Superior East of line from Saxon Harbor WI to Grand Portage MN to line Manitou Island MI northward beyond 5nm and South of Intl Border - Manitou Island To Marquette Mi Beyond 5nm From Shore - Marquette To Munising Mi - Marquette to Munising MI - Munising To Grand Marais Mi - Ontonagon to Upper Entrance of Portage Canal MI - Saxon Harbor WI to Ontonagon MI**

22	0955EST								
	1315EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

During the early morning hours on Sep. 22nd, a strong line of thunderstorms pushed east across Western Lake Superior bringing strong and gusty winds.

## LAKE ONTARIO

### LOZ045

**Mexico Bay NY to the St. Lawrence River**

07	0849EST				0	0	0.00K	0.00K	Waterspout
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Cold air crossing the relatively warmer waters of Lake Ontario resulted in waterspouts at the eastern end of the Lake. Social media reports showed a spout off Henderson Harbor.

## LAKE ERIE

### LEZ444

**MI Waters of Lake Erie**

04	1818EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
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A thunderstorm moving through Lake Erie produced a 42 knot thunderstorm wind gust.

## LAKE ERIE

### LEZ142>146

**Avon Point to Willowick OH - Maumee Bay to Reno Beach OH - Reno Beach to the Islands OH - The Islands to Vermilion OH - Vermilion to Avon Point OH**

04	1818EST								
	2018EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

A cold front moved across Lake Erie during the evening of September 4th. Showers and thunderstorms developed along the front and produced some strong winds.

## LAKE ERIE

### LEZ040

**Ripley to Dunkirk NY**

04	2138EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
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Thunderstorms ahead of an approaching cold front produced winds measured to 53 knots at Dunkirk.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	September 2017
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## LAKE ERIE

### LEZ145-146

#### Avon Point to Willowick OH - Vermilion to Avon Point OH

06	0659EST 0900EST				0	0	0.00K	0.00K	Waterspout
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Several waterspouts were observed on Lake Erie.

## LAKE ERIE

### LEZ040

#### Ripley to Dunkirk NY

07	1630EST				0	0	0.00K		Marine Thunderstorm Wind
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Thunderstorms accompanied the passage of a weak cold front across the region. The storm produced winds measured to 35 knots at Dunkirk.

## LAKE ERIE

### LEZ146

#### Avon Point to Willowick OH

29	1256EST				0	0	0.00K	0.00K	Waterspout
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Several waterspouts were observed on Lake Erie.

## LAKE ERIE

### LEZ040

#### Ripley to Dunkirk NY

29	1330EST				0	0	0.00K		Waterspout
----	---------	--	--	--	---	---	-------	--	------------

Cold air crossing the relatively warmer waters of Lake Erie resulted in waterspouts at the eastern end of the Lake. Broadcast media reports showed a spout off Westfield.

## VIRGIN ISLANDS

### St. Croix County 3 E St Croix

14	2251AST								
15	1130AST				0	0	500.00K	0.00K	Flash Flood

Saint Croix police department reported serious flooding occurring from Mid Island all the way to the west with up to three feet of water on roadways near the Home Depot store.

A moist southerly flow as a result of Hurricane Jose meandering well north of the local area resulted in shower and thunderstorm activity across the region.

## AMERICAN SAMOA,

### Tutuila County Pago Pago

22	2000SST								
23	2100SST				0	0			Heavy Rain

Heavy rainfall from thunderstorms soaked American Samoa. This situation triggered heavy runoff and flash flooding across the territory especially near Tualauta district and low-lying areas in the Fagaloa. The Weather Service Office recorded over 3.70 inches of rainfall.

Heavy rainfall from thunderstorms soaked American Samoa. This situation triggered heavy runoff and flash flooding across the territory especially near Tualauta district and low-lying areas in the Fagaloa. The Weather Service Office recorded over 3.70 inches of rainfall.

## PUERTO RICO

### Culebra 4 E Culebra

06	1444AST 2345AST				0	0	500.00K	0.00K	Flash Flood
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Heavy rains associated with Hurricane Irma produced flooding.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### **Canovanas**

**6 NNW Canovanas**

06 1455AST  
2000AST 0 0 500.00K 0.00K Flash Flood

Heavy rain resulted in flash flooding.

### **Carolina**

**4 NNW Carolina**

06 1455AST  
2000AST 0 0 250.00K 0.00K Flash Flood

Rio Grande de Loiza flooded, inundating areas at Carolina.

### **Ceiba**

**2 N Ceiba**

06 1455AST  
2000AST 0 0 250.00K 0.00K Flash Flood

Heavy rain resulted in flash flooding across Ceiba.

### **Gurabo**

**3 WNW Gurabo**

06 1455AST  
07 0000AST 0 0 500.00K 0.00K Flash Flood

Heavy rainfall associated with Hurricane Irma produced flooding.

### **Humacao**

**5 NNW Humacao**

06 1455AST  
07 0000AST 0 0 500.00K 0.00K Flash Flood

Heavy rains associated with Hurricane Irma produced flooding.

### **Ciales**

**7 NNE Ciales**

06 1510AST  
2315AST 0 0 500.00K 0.00K Flash Flood

Rio Grande de Manati went out of its banks.

### **Aguas Buenas**

**5 WNW Aguas Buenas**

06 1516AST  
07 0015AST 0 0 177.00K 0.00K Flash Flood

Ro Grande de Loza in Caguas, reported as flooded.

### **Bayamon**

**5 NNW Bayamon**

06 1516AST  
07 0015AST 0 0 250.00K 0.00K Flash Flood

Heavy rain resulted in flash flood across Bayamon.

### **Catano**

**3 WNW Catano**

06 1516AST  
07 0015AST 0 0 250.00K 0.00K Flash Flood

Heavy rain resulted in flash flooding across Catano.

### **Cidra**

**3 E Cidra**

06 1516AST  
07 0015AST 0 0 500.00K 0.00K Flash Flood

Heavy rainfall associated with Hurricane Irma produced flooding.

### **Guaynabo**

**9 NW Guaynabo**

06 1516AST  
07 0015AST 0 0 500.00K 0.00K Flash Flood

Heavy rainfall associated with Hurricane Irma produced flooding.

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Barceloneta

<b>4 NW Barceloneta</b>	06	1523AST 2315AST			0	0	250.00K	0.00K	Flash Flood
Heavy rain resulted in flash flooding in Barceloneta.									

### Corozal

<b>4 N Corozal</b>	06	1523AST 2315AST			0	0	500.00K	0.00K	Flash Flood
Heavy rains associated with Hurricane Irma produced flooding.									

### Florida

<b>3 NW Florida</b>	06	1523AST 2315AST			0	0	500.00K	0.00K	Flash Flood
Heavy rainfall associated with Hurricane Irma produced flooding.									

### Fajardo

<b>2 SSE Fajardo</b>	06 07	1618AST 0000AST			0	0	500.00K	0.00K	Flash Flood
Rio Fajardo went out of its banks.									

### Adjuntas

<b>6 NNW Adjuntas</b>	06	1630AST 2130AST			0	0	750.00M	0.00K	Flash Flood
Emergency managers reported flooding in Adjuntas.									

### Arecibo

<b>8 WNW Arecibo</b>	06	1630AST 2130AST			0	0	250.00K	0.00K	Flash Flood
Heavy rain resulted in flash flooding across the area.									

### Camuy

<b>6 NW Camuy</b>	06	1630AST 2130AST			0	0	250.00K	0.00K	Flash Flood
Heavy rain resulted in flash flooding across the area.									

### Hatillo

<b>4 NNW Hatillo</b>	06	1630AST 2130AST			0	0	500.00K	0.00K	Flash Flood
Heavy rainfall associated with Hurricane Irma produced flooding.									

### Jayuya

<b>5 N Jayuya</b>	06	1630AST 2130AST			0	0	500.00K	0.00K	Flash Flood
Heavy rainfall associated with Hurricane Irma produced flooding.									

### Comerio

<b>3 N Comerio</b>	06 07	1640AST 0015AST			0	0	500.00K	0.00K	Flash Flood
Rio de la Plata went out of its banks.									

### Barranquitas

<b>4 NW Barranquitas</b>	06 07	2008AST 0015AST			0	0	250.00K	0.00K	Flash Flood
Heavy rain resulted in flash flooding across the area.									

# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>PUERTO RICO</b>									
<b>Dorad</b> 4 NW Dorado	06	2016AST 2315AST			0	0	500.00K	0.00K	Flash Flood
			Rio de la Plata was out of its banks.						
<b>Caguas</b> 8 NNW Caguas	07	0741AST 0903AST			0	0	250.00K	0.00K	Flash Flood
			Heavy rain resulted in flash flooding across Caguas. Hurricane Irma was a category 5 storm with max winds of 185 mph, mainly confined in the northeast quadrant. The direction of the storm was towards the west northwest. Saint Thomas and Saint John experienced the southern eyewall with winds in excess of 115 mph with Culebra also experiencing Hurricane force gusts in excess of 100 mph. Mainland Puerto Rico, Vieques, and Saint Croix experienced mainly tropical storm force winds. The eye of Irma as it was tracking towards the west-northwest passed 30 miles north of San Juan.						
<b>Ponce</b> 8 NNW Ponce	20	0000AST			0	0	500.00M	0.00K	Flash Flood
			River out of its banks.						
<b>Fajardo</b> 3 NNW Fajardo	20 21	0124AST 1500AST			0	0	500.00K	0.00K	Flash Flood
			Rio Fajardo went out of its banks.						
<b>Guayama</b> 9 NNE Guayama	20 21	0300AST 1500AST			0	0	500.00K	0.00K	Flash Flood
			Heavy rainfall associated with Hurricane Maria produced flooding.						
<b>Ciales</b> 5 NW Ciales	20 21	0417AST 1800AST			0	0	500.00K	0.00K	Flash Flood
			Rio Grande de Manati went out of its banks.						
<b>Gurabo</b> 4 NW Gurabo	20 21	0419AST 1500AST			0	0	500.00K	0.00K	Flash Flood
			Rio Gurabo went out of its banks.						
<b>Arroyo</b> 4 NW Arroyo	20 21	0434AST 0453AST			0	0	750.00M	0.00K	Flash Flood
			Heavy rain flooded municipality of Arroyo.						
<b>Humacao</b> 4 NE Humacao	20 21	0434AST 1500AST			0	0	500.00K	0.00K	Flash Flood
			Heavy rainfall associated with Hurricane Maria produced flooding.						
<b>Comerio</b> 4 N Comerio	20 21	0454AST 1500AST			0	0	250.00M	0.00K	Flash Flood
			La Plata river went out of its banks producing serious flash flooding across downtown Comerio.						

# Storm Data and Unusual Weather Phenomena

September 2017

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

### Aguas Buenas

#### 5 NW Aguas Buenas

20	0512AST								
21	1500AST				0	0	750.00M	0.00K	Flash Flood

Heavy rain associated to hurricane Maria resulted in mudslides and rockslides.

### Catano

#### 1 NE Catano

20	0512AST								
22	0800AST				0	0	750.00M	0.00K	Flash Flood

Heavy rain resulted in flooding.

### Cidra

#### 3 NNW Cidra

20	0512AST								
21	1500AST				0	0	0.00K	0.00K	Flash Flood

Heavy rainfall associated with Hurricane Maria produced flooding.

### Guaynabo

#### 9 NW Guaynabo

20	0512AST								
21	1500AST				0	0	500.00K	0.00K	Flash Flood

Heavy rainfall associated with Hurricane Maria produced flooding.

### Ceiba

#### 2 N Ceiba

20	0524AST								
22	0800AST				0	0	750.00M	0.00K	Flash Flood

Rio Fajardo went out of its banks.

### Coamo

#### 5 WSW Coamo

20	0602AST								
21	1500AST				0	0	500.00K	0.00K	Flash Flood

Rio Coamo went out of its banks.

### Canovanas

#### 6 NNW Canovanas

20	0629AST								
22	0800AST				0	0	750.00M	0.00K	Flash Flood

Very heavy rain resulted in Rio Canovanas out of its banks.

### Corozal

#### 3 NNW Corozal

20	0629AST								
21	1500AST				0	0	500.00K	0.00K	Flash Flood

Rio Cibuco went out of its banks.

### Hatillo

#### 4 NNW Hatillo

20	0716AST								
21	1800AST				0	0	500.00K	0.00K	Flash Flood

Rio Camuy went out of its banks.

### Dorad

#### 4 NW Dorado

20	0720AST								
21	1500AST				0	0	500.00K	0.00K	Flash Flood

Rio de la Plata went out of its banks.

### Cayey

#### 6 WNW Cayey

20	0722AST								
21	1100AST				0	0	750.00M	0.00K	Flash Flood

Rio de La Plata went out of its banks.

# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<b>PUERTO RICO</b>									
<b>Isabela</b>									
7 NW Isabela	20	0725AST							
	21	0915AST			0	0	500.00K	0.00K	Flash Flood
Rio Guajataca went out of its banks.									
<b>Jayuya</b>									
6 N Jayuya	20	0725AST							
		1800AST			0	0	500.00K	0.00K	Flash Flood
Rio Saliente went out of its banks.									
<b>Guayanilla</b>									
7 N Guayanilla	20	0745AST							
	21	0900AST			0	0	500.00K	0.00K	Flash Flood
Rio Guayanilla went out of its banks.									
<b>Guanica</b>									
4 ESE Guanica	20	0800AST							
	21	0900AST			0	0	500.00K	0.00K	Flash Flood
Heavy rainfall associated with Hurricane Maria produced flooding.									
<b>Bayamon</b>									
5 NNW Bayamon	20	0822AST							
	21	1500AST			0	0	750.00M	0.00K	Flash Flood
Rio de La Plata out of its banks.									
<b>Caguas</b>									
8 NNW Caguas	20	0823AST							
	21	1500AST			0	0	750.00M	0.00K	Flash Flood
Rio Cagitas out of its banks.									
<b>Carolina</b>									
6 NNW Carolina	20	0835AST							
	22	0800AST			0	0	750.00M	0.00K	Flash Flood
Rio Quebrada Grande out of its banks.									
<b>Aibonito</b>									
4 N Aibonito	20	1002AST							
	21	1521AST			0	0	750.00M	0.00K	Flash Flood
Rio Coamo went out of its banks.									
<b>Adjuntas</b>									
6 NNW Adjuntas	20	1046AST							
	21	1800AST			0	0	750.00K	0.00K	Flash Flood
Rio Grande de Arecibo went out of its banks.									
<b>Arecibo</b>									
8 WNW Arecibo	20	1046AST							
	21	1800AST			0	0	750.00M	0.00K	Flash Flood
Rio Grande de Arecibo out of its banks.									
<b>PRZ004-006</b>									
<b>Central Interior - Eastern Interior</b>									
	20	1100AST							
		2300AST			0	0	5.0M	0.00K	Hurricane



# Storm Data and Unusual Weather Phenomena

September 2017

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<b>PUERTO RICO</b>									
<b>Camuy</b>									
<b>5 NNE Camuy</b>	20	1116AST							
	21	0915AST			0	0	750.00M	0.00K	Flash Flood
	Rio Camuy out of its banks.								
<b>Hormigueros</b>									
<b>2 NW Hormigueros</b>	20	1127AST							
	21	0915AST			0	0	500.00K	0.00K	Flash Flood
	Rio Guanajibo went out of its banks.								
<b>Barceloneta</b>									
<b>4 NNE Barceloneta</b>	20	1141AST							
	21	1800AST			0	0	750.00M	0.00K	Flash Flood
	Rio Manati out of its banks.								
<b>Barranquitas</b>									
<b>4 NW Barranquitas</b>	20	1141AST							
	21	1800AST			0	0	750.00M	0.00K	Flash Flood
	Rio Grande de Manati out of its banks.								
<b>Aguadilla</b>									
<b>3 NNE Aguadilla</b>	20	1248AST							
	21	0915AST			0	0	750.00M	0.00K	Flash Flood
	Heavy rain resulted in floods.								
<b>Anasco</b>									
<b>7 WNW Anasco</b>	20	1253AST							
	21	0915AST			0	0	750.00M	0.00K	Flash Flood
	Heavy rain resulted in floods.								
<b>Cabo Rojo</b>									
<b>10 NNW Cabo Rojo</b>	20	1521AST							
	21	0915AST			0	0	750.00M	0.00K	Flash Flood
	Rio Guanajibo out of its banks.								
<b>Aguada</b>									
<b>20 N Aguada</b>	20	1636AST							
	21	0915AST			0	0	750.00M	0.00K	Flash Flood
	Margarita Dam out of its banks.								
<b>Florida</b>									
<b>4 NNW Florida</b>	20	1810AST							
	21	1800AST			0	0	500.00K	0.00K	Flash Flood
	Heavy rains associated with Hurricane Maria produced flooding.								

Hurricane Maria was a category 5 storm with max sustained winds of 175 mph as it was approaching the county warning area. The direction was towards the west northwest with the eye clipping Saint Croix and Vieques. The hurricane then made landfall in the municipality of Yabucoa in mainland PR at 6:15 am AST with maximum sustained winds of 155 mph. The center of the storm traversed diagonally through mainland Puerto Rico exiting across the northwest municipalities in the early afternoon hours. Extreme winds were observed across most of mainland Puerto Rico, Vieques, and Saint Croix with severe flooding observed across many areas in mainland Puerto Rico. Maria was the strongest hurricane to make landfall in mainland Puerto Rico since Hurricane Felipe II in 1928, a category 5 storm.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	February 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ADDITIONS

### ARIZONA, Central and Northeast

#### **Yavapai County**

<b>1 N Montezuma Castle</b>	28	0600MST 0800MST			1	0	0.00K	0.00K	Flash Flood
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A 59-year-old man from Cottonwood drowned around 6:30am while attempting to cross Beaver Creek at Reay Road in Rimrock. M59IW

The second of two low pressure systems hit northern Arizona with a generous moisture tap. This produced abundant snow above around 6,000 feet and heavy rain below that elevation. Several locations along and north of the Mogollon Rim experienced strong to high winds. M59IW

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		March 2017
					Killed	Injured	Property	Crops	Character of Storm

## ADDITIONS

### FLORIDA, East Central

**FLZ041**

**Volusia**

13	1200EST								
	2100EST				1	0	0.00K	0.00K	Rip Current

Six people visiting from out of state were swimming at New Smyrna Beach and got caught in a rip current. All made it back to shore on their own or were rescued. One of the swimmers was pulled to shore unresponsive and later died at a nearby hospital. M18IW

Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Property	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage				

ADDITIONS

ALABAMA, Southwest

ALZ064											
	04	1400CST			1	3	0.00K	0.00K		Rip Current	
	Dangerous surf and rip current conditions along coastal Alabama resulted in one fatality. M50IW										

# Storm Data and Unusual Weather Phenomena

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

May 2017

## ADDITIONS

### NEW YORK, West

NYZ001>007

**Jefferson - Monroe - Niagara - Northern Cayuga - Orleans - Oswego - Wayne**

02	1400EST					
31	2359EST	0	0			Coastal Flood

During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario while the Ottawa River saw the highest flows in more than 50 years, leading to widespread flooding across the Lake Ontario St. Lawrence River system. In early 2017, Lake Erie levels were the highest theyd been for that time of year for almost 20 years. Inflows to Lake Ontario from Lake Erie were above average from January through June. Lake Ontario saw two of the wettest months ever recorded in April and May of 2017. Water levels were impacted by precipitation falling directly onto the lakes surface and by runoff. Variable ice conditions in the St. Lawrence River from January through March along with high Ottawa River flows limited outflow from Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall. Waves destroyed public and private breakwalls all along the lake shore. Thousands of homes and buildings were affected flood waters. Several homes dropped off bluffs. In some areas shoreline erosion of 50 to 100 feet deep occurred. Sanitary sewer systems in lakeside communities were affected. Beaches, marinas and state parks were closed all summer long with unknown economic losses to mainly seasonal businesses. In late May, the Governor imposed a 5 mph speed limit within 600 feet of the Lake Ontario and St. Lawrence River shore. The shoreline counties of Lake Ontario and the St. Lawrence River sustained enough damage to qualify for both a New York State and Federal Disaster Declaration. By summers end, damage estimates included: \$4 Million in Niagara County, \$9 Million in Orleans County, \$3 Million in Monroe County, \$3 Million in Wayne County, \$1 Million in Cayuga County, \$23 Million in Oswego County and \$10 Million in Jefferson County.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	June 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ADDITIONS

### NEW YORK, West

01	0000EST								
30	2359EST				0	0			Coastal Flood

### NYZ001>007

#### Jefferson - Monroe - Niagara - Northern Cayuga - Orleans - Oswego - Wayne

01	0000EST								
30	2359EST				0	0			Coastal Flood

During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario while the Ottawa River saw the highest flows in more than 50 years, leading to widespread flooding across the Lake Ontario St. Lawrence River system. In early 2017, Lake Erie levels were the highest theyd been for that time of year for almost 20 years. Inflows to Lake Ontario from Lake Erie were above average from January through June. Lake Ontario saw two of the wettest months ever recorded in April and May of 2017. Water levels were impacted by precipitation falling directly onto the lakes surface and by runoff. Variable ice conditions in the St. Lawrence River from January through March along with high Ottawa River flows limited outflow from Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall. Waves destroyed public and private breakwalls all along the lake shore. Thousands of homes and buildings were affected flood waters. Several homes dropped off bluffs. In some areas shoreline erosion of 50 to 100 feet deep occurred. Sanitary sewer systems in lakeside communities were affected. Beaches, marinas and state parks were closed all summer long with unknown economic losses to mainly seasonal businesses. In late May, the Governor imposed a 5 mph speed limit within 600 feet of the Lake Ontario and St. Lawrence River shore. The shoreline counties of Lake Ontario and the St. Lawrence River sustained enough damage to qualify for both a New York State and Federal Disaster Declaration. By summers end, damage estimates included: \$4 Million in Niagara County, \$9 Million in Orleans County, \$3 Million in Monroe County, \$3 Million in Wayne County, \$1 Million in Cayuga County, \$23 Million in Oswego County and \$10 Million in Jefferson County.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ADDITIONS

### IOWA, Central

#### **Boone County** **2 S Napier**

21	1652CST								
	1654CST	1.91	60	0	0	5.00K	5.00K	Tornado (EF0)	

This tornado was found in hi-resolution satellite imagery and crossed mostly open farm fields. The tornado did damage trees across the corner of one farmstead but otherwise did little other damage. This tornado continued into Story county.

#### **Story County** **2 SW Kelley**

21	1654CST								
	1655CST	1.37	80	0	0	0.00K	4.00K	Tornado (EF0)	

Tornado found in hi-resolution satellite imagery. This tornado entered from Boone county and stayed in open row crops, mainly corn where the path was very visible in the imagery.

#### **Story County** **1 NNE Midvale**

21	1658CST								
	1659CST	1.08	10	0	0	0.00K	3.00K	Tornado (EF0)	

Tornado captured by hi-resolution satellite imagery to the southeast of Ames. Started just southeast of the water treatment plant and moved quickly through open farm fields with a distinctive path noted in both bean and corn fields. Little damage noted other than to the crops.

With the help of a couple weak boundaries in the area, storms initiated on the nose of the low level jet and generally remained over the same areas overnight. The primary result of the storms was heavy rainfall, though a few initial storms were able to produce damaging winds and severe hail within 2000+ J/kg CAPE and borderline effective bulk shear around 30 kts. Other than the few initial severe storm reports, total rainfall reports exceeded 5 inches in some locations. During the afternoon and evening on the 21st, ahead of a cold front, storms once again initiated and produced primarily sub-severe winds and hail, though two weak tornadoes and one severe wind gust were reported.

### NEW YORK, West

#### **NYZ001>007**

#### **Jefferson - Monroe - Niagara - Northern Cayuga - Orleans - Oswego - Wayne**

01	0000EST								
31	2359EST			0	0			Coastal Flood	

During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario while the Ottawa River saw the highest flows in more than 50 years, leading to widespread flooding across the Lake Ontario St. Lawrence River system. In early 2017, Lake Erie levels were the highest theyd been for that time of year for almost 20 years. Inflows to Lake Ontario from Lake Erie were above average from January through June. Lake Ontario saw two of the wettest months ever recorded in April and May of 2017. Water levels were impacted by precipitation falling directly onto the lakes surface and by runoff. Variable ice conditions in the St. Lawrence River from January through March along with high Ottawa River flows limited outflow from Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall. Waves destroyed public and private breakwalls all along the lake shore. Thousands of homes and buildings were affected flood waters. Several homes dropped off bluffs. In some areas shoreline erosion of 50 to 100 feet deep occurred. Sanitary sewer systems in lakeside communities were affected. Beaches, marinas and state parks were closed all summer long with unknown economic losses to mainly seasonal businesses. In late May, the Governor imposed a 5 mph speed limit within 600 feet of the Lake Ontario and St. Lawrence River shore. The shoreline counties of Lake Ontario and the St. Lawrence River sustained enough damage to qualify for both a New York State and Federal Disaster Declaration. By summers end, damage estimates included: \$4 Million in Niagara County, \$9 Million in Orleans County, \$3 Million in Monroe County, \$3 Million in Wayne County, \$1 Million in Cayuga County, \$23 Million in Oswego County and \$10 Million in Jefferson County.

### OHIO, North

#### **Stark County** **1 W North Brewster**

02	1710EST			1	0	0.00K	0.00K	Lightning	
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An 82 year old man was struck by lightning and killed while working outside. This incident occurred just outside of Brewster. M82OU

A cold front moved across northern Ohio on August 2nd. Scattered thunderstorms developed along this front. At least one of the thunderstorms became severe. M82OU



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ADDITIONS

### TEXAS, Central Southeast

#### TXZ213

#### Harris

21 1300CST 1 0 0.00K 0.00K Heat  
A jogger succumbed to the heat within a Seabrook park. M37OU

#### Montgomery County

1 WSW Shenandoah  
2 WNW Willis

26 0808CST  
1000CST 0 0 0.00K 0.00K Flash Flood

Heavy rain from first rain band caused flash flooding on portions of Interstate 45 between The Woodlands and Conroe with several reports of roads impassable.

#### Fort Bend County

6 E Fulshear

26 0956CST  
27 1200CST 0 0 0.00K 0.00K Flash Flood

FM 1093 closed east of FM 723 due to flooding.

#### Walker County

2 NE Huntsville  
2 SE Hawthorne

26 1040CST  
1240CST 0 0 0.00K 0.00K Flash Flood

Flash flooding from Huntsville to New Waverly. Road closures include Bowers, Bearkat, Cotton and Podraza Roads. Also FM 1374.

#### Walker County

2 ESE Hawthorne  
5 E Riverside

26 2100CST  
30 0000CST 1 0 600.00M 10.00K Flash Flood

Slow moving Tropical Storm Harvey produced torrential rains and moderate to major flooding over portions of Walker County. Areas along the Trinity River and Bedia Creek were among the areas impacted. There were numerous road closures including FM1375, SH75 at Bedia Creek, FM1791, FM2989, and FM3478. High water occurred on Interstate 45 but it remained passable. F83VE

#### San Jacinto County

14 S Liberty Hill  
Maynard

26 2200CST  
29 1200CST 3 0 350.00M 10.00K Flash Flood

Slow moving Tropical Storm Harvey produced very heavy rainfall and flooding over portions of San Jacinto County. Major lowland flooding occurred near the Trinity River and areas below Lake Livingston. There was a report of high water closing Marie Street in Shepherd with numerous reports of other flooded roadways around the county. Many roads and homes along the southern end of Lake Livingston were inundated. FM 3278 was inaccessible due to the inundation of flood waters. Major lowland flooding occurred on the Trinity River near Goodrich. Hundreds to thousands of homes received various levels of damage from flooding; from minor to being completely destroyed. There were 3 fatalities, all direct. M69IW, F1VE, M64VE

#### Austin County

Wallis  
4 ENE Frydek

27 0457CST  
29 1600CST 0 0 100.00K 50.00K Flash Flood

Numerous roads closed due to flooding including but not limited to FM109, FM 331, FM 2429, FM 1093 and SH 36. Moderate, yet record, flooding along the Brazos at San Felipe caused several homes to flood along FM 1458. Inundation ranged from 4 to 7 feet of water. Minimal impacts were observed at Mill creek near Bellville. No impacts were observed from the minor flooding at the Brazos river near Hempstead.

#### Montgomery County

4 NNW Montgomery

27 1513CST  
28 1500CST 0 0 0.00K 0.00K Flash Flood

Road closed due to flooding, FM 149 north of Montgomery.

#### Montgomery County

3 S Boy  
8 SSW Mostyn

27 2000CST  
30 0000CST 3 0 7.00B 10.00K Flash Flood

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## ADDITIONS

### TEXAS, Central Southeast

Tropical Storm Harvey brought heavy rains and catastrophic flooding to portions of Montgomery County. There were 5 storm related fatalities, 3 direct. Major record flooding occurred along the San Jacinto River and tributaries. Water was reported over sections of I-45 northbound where TXDOT reported flooding at the FM 1097 intersection. Water was reported over sections of I-45 northbound where TXDOT reported flooding at the FM 1097 intersection. Record pool levels on Lake Conroe required downstream releases that flooded numerous downstream homes, businesses and vehicles. Major flooding occurred along the San Jacinto River and the east Fork of the San Jacinto and its tributaries inundated tens to hundreds of residential subdivisions. There were hundreds of flooded homes along Lake, Spring, Peach and Caney Creeks. There were impassable roads due to high water at Horseshoe Circle and Painted Blvd off the Grand Parkway, 19000 block of David Memorial from Sam's Club to Shenandoah Park, the 11000 block of River Oaks Drive, the 45 northbound lanes at Highway 242 and Hines Road in Willis. Flash flooding led to numerous road closures including FM149, FM1484, FM1485, FM1486, FM1774, FM2090 SH105 and others. M61IW, ??OU, F60PS, M33VE

Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and a moderate storm surge near Matagorda Bay. In some of the heavier bands rain fell at a rate of over 5 inches per hour. This copious record amount of rain over a led to catastrophic flooding. Thousands of homes, businesses, and roads were flooded due to flash flooding and sheet flow from long duration intense rain. Main stem rivers and adjoining tributaries, creeks and bayous reached full capacity and came out of their banks and this also contributed to the massive flooding across southeastern Texas.

# Storm Data and Unusual Weather Phenomena

February 2017

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

### ARIZONA, Central and Northeast

**AZZ004-015-016**

**Eastern Mogollon Rim - Kaibab Plateau - Western Mogollon Rim**

27	0800MST							
28	1000MST			0	0	0.00K	0.00K	Heavy Snow

**Coconino County**

**3 W Munds Park**

**15 WNW Sedona Arpt**

27	1100MST							
28	1200MST			0	0	0.00K	0.00K	Heavy Rain

Heavy rain fell in and around Oak Creek Canyon while heavy snow was falling at higher elevations. The RAWs in Oak Creek Canyon reported 3.35 inches of rain in just 24 hours. This lead to a mudslide across Highway 89.

**Yavapai County**

**3 ESE Bagdad Arpt**

**3 SSW Poland Jct**

27	1100MST			0	0	0.00K	0.00K	Heavy Rain
28								

Heavy rain fell across Yavapai County. Here are some of the 24 hour rainfall amounts in inches:

Crown King	3.67	Seven Springs	3.43	7 NW Strawberry	2.80	Yarnell Hill
2.68	14 SW Strawberry	2.62	Wilhoit	2.36	1 NNW Bagdad	2.31
ENE Rimrock	2.03	Castle Hot Springs	2.00	3 W Iron Springs	1.98	1 SSW
Prescott	1.94.					

**AZZ006-008-016**

**Eastern Mogollon Rim - Grand Canyon Country - Yavapai County Mountains**

27	1100MST							
28	1800MST			0	0	0.00K	0.00K	Heavy Snow

**Gila County**

**1 NNE Strawberry**

**8 WNW Fulton**

27	1300MST			0	0	0.00K	0.00K	Heavy Rain
28								

Heavy rain fell across Northern Gila County. Here are some 24 hours rainfall amounts (inches):

Washington Park	3.72	1 S Pine	3.28	4 N Kohls Ranch	3.13	1 SW Washington Park	2.99
4 NNW Star Valley	2.63	1 E Payson	2.47	Payson		2.21	Young
2.03.							

**AZZ009-011-017-039-040**

**Black Mesa Area - Chuska Mountains And Defiance Plateau - Northeast Plateaus And Mesas From Highway 264 North - Northeast Plateaus And Mesas South Of Highway 264 - White Mountains**

27	1700MST							
28	1100MST			0	0	0.00K	0.00K	Heavy Snow

# Storm Data and Unusual Weather Phenomena

February 2017

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

### ARIZONA, Central and Northeast

#### **Gila County**

<b>4 N (0E4)Payson Arpt</b>	28	0549MST 1500MST			0	0	0.00K	0.00K	Flood
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The Gila County Sheriffs Office reported flooding along the lower water crossings of East Verde River at East Verde Estates.

#### **AZZ014-017**

#### **Little Colorado River Valley In Apache County - White Mountains**

	28	0655MST 0920MST			0	0	0.00K	0.00K	High Wind
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#### **Coconino County**

<b>4 WNW Munds Park</b>	28	0900MST 0910MST			0	0	0.00K	0.00K	Flash Flood
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Heavy rain on the steep western walls of Oak Creek Canyon caused a flash flood with mud, debris, and rocks. This flow covered Highway 89A at mile post 379. The guard rail and mile post sign were washed away. A snowplow was called to clear the road.

The second of two low pressure systems hit northern Arizona with a generous moisture tap. This produced abundant snow above around 6,000 feet and heavy rain below that elevation. Several locations along and north of the Mogollon Rim experienced strong to high winds.

### IDAHO, Southwest

#### **IDZ016-029**

#### **Owyhee Mountains - Western Magic Valley**

	07	0400MST 1600MST			0	0	0.00K	0.00K	Heavy Snow
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A warm front lifting across Southeast Oregon and Southwest Idaho spread moderate wet snow over the area.

#### **Gooding County**

<b>Hagerman</b>	08 09	1500MST 0600MST			0	0	1.50M	0.00K	Flood
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Rain and snowmelt on top of saturated and frozen soil led to widespread flooding. A report from social media indicated much of the town of Hagerman including the city park was flooded. Widespread flooding of agricultural lands occurred and some roads were damaged and closed due to flooding.

#### **Ada County**

<b>2 W Boise Terminal Arpt 2 SSE Beatty</b>	08 09	1800MST			0	0	0.00K	0.00K	Flood
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Neighborhood roads and yards along Cole Road submerged due to flooding along Five Mile Creek.

#### **Elmore County**

<b>6 NNW Cleft</b>	08 09	1800MST			0	0	2.00K	0.00K	Flood
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A road was washed out cutting access to Souls Rest Creek neighborhood.

#### **Gem County**

<b>10 NNW Plaza 11 NW Sweet</b>	08 09	1800MST 2200MST			0	0	1.00K	0.00K	Flood
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The emergency manager reported high water and debris along Big Willow Creek and water running over Big Willow Road northeast of Dry Creek.

#### **Jerome County**

<b>Jerome 2 WNW Barrymore</b>	08 10	1800MST			0	0	2.75M	0.00K	Flood
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Rainfall and rapid melting of low elevation snowpack on top of frozen and saturated soil led to widespread flooding. Many roads around Jerome were damaged and closed due to flood waters. Widespread flooding of agricultural lands occurred.

# Storm Data and Unusual Weather Phenomena

February 2017

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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## CORRECTIONS

### IDAHO, Southwest

#### Twin Falls County

(TWF)Twin Falls Arpt  
3 NW Twin Falls

08 1800MST 0 0 2.50M 0.00K Flood

10  
Rainfall coupled with rapid melting of low elevation snowpack on top of frozen and saturated soil led to widespread flooding. Many county roads and large sections of agricultural land were flooded. County Road 1100 East was washed out at the Deep Creek crossing and many other roads were closed and severely damaged. Snow and ice filled canals caused water to overflow canal banks and contribute to the flooding.

Strong Southwesterly flow behind a warm front spread heavy rain across most of the intermountain west. Flooding occurred in most of South Central Idaho.

#### Washington County

1 S Weiser  
1 NNE Weiser Arpt

10 0500MST  
1200MST 0 0 1.00M 0.00K Flood

An ice jam released and caused flooding downstream along the Weiser River near the town of Weiser. Some homes near the river were flooded and widespread flooding of agricultural land occurred. A few residents living near the river were evacuated from their homes and one resident had to be rescued via helicopter. Flood waters inundated a portion of U.S. Highway 95 just south of Weiser.

An ice jam on the Weiser River just south of Weiser caused flooding on U.S. Highway 95.

### IDZ016

#### Western Magic Valley

23 0900MST  
2100MST 0 0 0.00K 0.00K Heavy Snow

A slow moving upper low tracking across the southern border of Idaho spread heavy snow across parts of South Central Idaho.

### NEVADA, North

#### Humboldt County

5 ENE Adelaide  
11 W Sulphur

07 1300PST  
09 1800PST 0 0 3.00M 0.00K Flood

Residents of Paradise Valley were inundated on at least two separate occasions as water poured off the Santa Rosa Mountains through the various creeks surrounding the town. Humboldt county reported over 68 rural roads that were damaged by the flooding. Damages are estimated.

#### Elko County

30 E San Jacinto  
9 W Owyhee Arpt

07 1500PST  
14 0 0 3.00M 0.00K Flood

Rain on a much above normal snow pack combined with frozen ground caused extensive flooding. About 30 homes and a few businesses in both Montello and Wells were flooded along with some homes and outbuildings in rural areas. Many rural roads were damaged and had washouts. US highway 93 was closed both south and north of Wells for a time as flood waters submerged the road. Salmon Falls Creek overflowed US highway 93 and completely submerged the adjoining rest area. Extensive shoulder damage was reported along US Highway 93 mainly north of Wells. All the runoff caused the Humboldt River to rise above flood stage. This caused extensive flooding of homes and businesses along and near the Humboldt River in Elko. Interstate 80 between Elko and Wells was reduced to one lane in places due to flood waters over the road. A total of 25 homes in Elko, Wells, and Montello were totally destroyed or suffered extensive damage.

#### Elko County

19 NNW Montello Arpt

08 1306PST  
1900PST 0 0 500.00K 0.00K Flash Flood

Rising waters behind Twenty One Mile Dam caused the dam to fail sending a 2 to 3 foot wall of water downstream. The flood waters washed out a section of State Route 233 and railroad tracks. The waters flooded buildings at the Gamble Ranch and washed out some county roads. Damages are estimated.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	February 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### NEVADA, North

Rain on a much above normal snow pack combined with frozen ground caused extensive flooding across northern Nevada, especially across Elko county. The excessive runoff caused the Twenty One Mile dam north of Montello to fail sending flood waters 2-3 feet deep down Twenty One Mile Creek flooding buildings at the Gamble Ranch and washing out a section of State Route 233 and railroad tracks. Flooding also stopped trains traveling through northern Elko County as tracks were underwater. About 30 homes and a few businesses in both Montello and Wells were flooded along with some homes and outbuildings in rural areas. Many rural roads were damaged and had washouts. US highway 93 was closed both south and north of Wells for a time as flood waters submerged the road. Salmon Falls Creek overflowed US highway 93 and completely submerged the adjoining rest area. Extensive shoulder damage was reported along US Highway 93 mainly north of Wells. Humboldt county reported over 68 rural roads that were damaged by the flooding. Residents of Paradise Valley were inundated on at least two separate occasions as water poured off the Santa Rosa Mountains through the various creeks surrounding the town. All the runoff caused the Humboldt River to rise above flood stage. This caused extensive flooding of homes and businesses along and near the Humboldt River in Elko. Interstate 80 between Elko and Wells was reduced to one lane in places due to flood waters over the road. A total of 25 homes in Elko, Wells, and Montello were totally destroyed or suffered extensive damage.

#### NVZ031-034

#### N Elko Cnty - Ruby Mountains/e Humboldt Range

22	0700PST							
23	0800PST		0	0	0.00K	0.00K	Heavy Snow	

A winter storm brought heavy snow to northern Elko county and the Ruby Mountains and East Humboldt Range. Some valley location reported 6 to 7 inches of snow while the mountains reported 1 to 2 feet of snow.

### OREGON, Southeast

#### ORZ061-063

#### Harney - Malheur

07	0300PST							
	1500PST		0	0	0.00K	0.00K	Heavy Snow	

A warm front lifting across Southeast Oregon and Southwest Idaho spread moderate wet snow over the area.

#### Malheur County

##### Juntura

##### 3 WNW Vale

10	0500MST							
	1800MST		0	0	0.00K	0.00K	Flood	

Ice jams on the Malheur River caused flooding along U.S. Highway 20 from Juntura to Vale.

Ice Jams on the Malheur River caused flooding in areas along U.S. Highway 20.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### ALABAMA, North

#### Lauderdale County

**1 E Florence** 01 1157CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### Lauderdale County

**1 SE Petersville** 01 1200CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### Lauderdale County

**1 S Killen** 01 1206CST 0 0 Hail (1.75)  
Golf ball sized was reported via social media.

#### Lauderdale County

**2 E Thortontown** 01 1219CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### Limestone County

**1 E Holbert Spgs** 01 1225CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### Colbert County

**1 SW Whitehouse Spgs** 01 1235CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### Colbert County

**3 SW Emco Listerhill Jct** 01 1242CST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### Colbert County

**1 W Leighton** 01 1242CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### Madison County

**1 S Toney** 01 1250CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### Lawrence County

**1 W Town Creek** 01 1252CST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### Limestone County

**1 SE Ardmore** 01 1300CST 0 0 Hail (1.75)  
Golf ball sized hail was reported via social media.

#### Madison County

**1 E Hazel Green** 01 1301CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### Limestone County

**1 NNE Lawngate** 01 1305CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### Madison County

**2 ENE Dan** 01 1307CST 0 0 Thunderstorm Wind (60EG)  
Thunderstorm winds produced roof damage and knocked trees down near Ready Section Road at Pulaski Pike. A shed was also damaged in this area.  
Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

#### Madison County

**1 SE Fisk** 01 1321CST 0 0 Thunderstorm Wind (52EG)  
A metal community center building and batting cages were damaged near the intersection of U.S. 231 and Carriger Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Madison County

**2 NE Madison** 01 1323CST 0 0 Hail (1.00)  
Quarter sized hail was reported and 50 mph winds were estimated.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	March 2017
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## CORRECTIONS

### ALABAMA, North

#### **Madison County 1 E Fletcher Chapel**

01 1328CST 0 0 Hail (1.00)  
Quarter sized hail observed at the National Weather Service in Huntsville. 40 mph wind gust observed by UA-Huntsville's MIPS equipment.

#### **Madison County 3 E Huntsville Park**

01 1330CST 0 0 Hail (1.25)  
Half dollar sized hail was reported near the intersection of Whitesburg Drive and Drake Avenue.

#### **Madison County 2 SSE Monrovia**

01 1330CST 0 0 Hail (1.25)  
Half dollar sized hail in the Creekwood Subdivision near Creekwood Park in Huntsville.

#### **Madison County 1 N Lily Flag**

01 1335CST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### **Morgan County 1 NW Ryan Xrds**

01 1413CST 0 0 Hail (1.25)  
Half dollar sized hail was reported and relayed by broadcast media.

#### **Marshall County Hebron**

01 1420CST 0 0 Hail (1.00)  
Quarter sized hail was reported along with a 56 mph wind gust in Hebron.

#### **Marshall County Guntersville Muni Ar**

01 1430CST 0 0 Hail (1.75)  
Golf ball sized hail broke windows out near U.S. 431, Claysville School and the Guntersville airport.

#### **Marshall County 1 N Henryville**

01 1430CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **DeKalb County 1 E Beaty Xrds**

01 1441CST 0 0 Hail (2.50)  
Tennis ball sized hail was reported.

#### **Marshall County 2 NE Oleander**

01 1443CST 0 0 Thunderstorm Wind (52EG)  
Power lines and trees were knocked down near the intersection of Quarry Road and Union Grove Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County 2 ENE Swearengin**

01 1449CST 0 0 Thunderstorm Wind (52EG)  
Trees were knocked down on a house on Burroughs Loop.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County 1 SSW Henryville**

01 1452CST 0 0 Thunderstorm Wind (52EG)  
Trees were knocked down at Willow Lake and Burroughs Drive.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County 2 WNW Henryville**

01 1540CST 0 0 Thunderstorm Wind (52EG)  
A tree and power lines were knocked down on Bakers Chapel Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **DeKalb County 2 WNW Fyffe**

01 1546CST 0 0 Thunderstorm Wind (52EG)  
A barn was damaged on County Road 50 near Fyffe.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### ALABAMA, North

#### **DeKalb County**

##### **1 N High Pt**

01 1549CST 0 0 Thunderstorm Wind (52EG)  
 A tree was knocked down on CR 137 near Violet Hill.  
 A band of strong to severe thunderstorms, including a few embedded supercells, developed during the late morning into the early afternoon hours along a cold front. The storms tracked rapidly east as the front dropped southeast through the mid afternoon hours. Several storms produced large hail and a few reports of damaging winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Madison County**

##### **Chelsea**

10 0005CST 0 0 Thunderstorm Wind (52EG)  
 A large tree was knocked down on the Tree Haven Glen Apartment Complex.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Limestone County**

##### **2 ESE Sardis Spgs**

10 0015CST 0 0 0.50K 0.00K Thunderstorm Wind (43EG)  
 A tree was knocked down onto power lines on Barksdale Road in eastern Limestone County.  
 Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

#### **Madison County**

##### **3 NNW Maple Hill**

10 0015CST 0 0 Thunderstorm Wind (52EG)  
 Power lines were knocked down just east of Ardmore. A tree was also knocked down blocking a medical vehicle in the same area.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Madison County**

##### **2 NNW Lily Flag**

10 0045CST 0 0 Hail (1.00)  
 Hail up to quarter size was reported at the intersection of Golf Road and South Memorial Parkway.

#### **Morgan County**

##### **1 NNW Huntsville Laceys Sp**

10 0049CST 0 0 Thunderstorm Wind (52EG)  
 Trees were knocked down on Arvida Drive near Sherbrook Drive.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Morgan County**

##### **2 SW Florette**

10 0055CST 0 0 0.50K Thunderstorm Wind (43EG)  
 A tree was knocked down on Peck Mountain Road near Gullian Farms.  
 Note: The estimated wind gust of 43 knots is equivalent to 49 mph.

#### **Cullman County**

##### **1 S Vinemont**

10 0123CST 0 0 Hail (1.00)  
 Hail up to quarter size was reported in south Vinemont.

#### **DeKalb County**

##### **1 SE Beaty Xrds**

10 0128CST 0 0 Thunderstorm Wind (52EG)  
 Several trees were knocked down near Ider.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **DeKalb County**

##### **1 NNE Crossville**

10 0128CST 0 0 Thunderstorm Wind (52EG)  
 Estimated wind gusts near 60 mph and dime sized hail was reported in the Crossville area.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County**

##### **Arab**

10 0140CST 0 0 Thunderstorm Wind (52EG)  
 Thunderstorm wind gusts of around 60 mph were estimated near Arab.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **DeKalb County**

##### **1 ESE Rainsville**

10 0148CST 0 0 Thunderstorm Wind (52EG)  
 A power pole was knocked down onto a home in the Rainsville area.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### ALABAMA, North

A quasi-linear convective system developed rapidly during the evening hours of the 9th and tracked east through north Alabama into the early morning hours of the 10th. A few of the thunderstorms produced large hail. Numerous reports of thunderstorm wind damage were received. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### ALZ001-005

#### Lauderdale - Limestone

11	2100CST								
12	0200CST				0	0			Winter Weather

Light snow fell across far north Alabama along the Tennessee border. Up to one inch was reported in Lauderdale County.

#### Jackson County 1 SE Bridgeport

21	1426CST				0	0			Hail (1.00)
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Quarter sized hail was reported.

#### Jackson County 1 E Bridgeport

21	1426CST				0	0			Hail (0.75)
----	---------	--	--	--	---	---	--	--	-------------

Penny sized hail was reported.

#### Madison County 1 NW Hazel Green

21	1630CST				0	0			Hail (0.88)
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Nickel sized hail was reported 1.2 miles northwest of Hazel Green.

#### Jackson County 1 ESE Avery

21	1642CST				0	0			Thunderstorm Wind (52EG)
----	---------	--	--	--	---	---	--	--	--------------------------

Trees were knocked down on highway 117 north heading into Stevenson.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Jackson County 1 SE Bridgeport

21	1647CST				0	0			Thunderstorm Wind (52EG)
----	---------	--	--	--	---	---	--	--	--------------------------

Shingles were blown off of a roof.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Morgan County 1 S Decatur

21	1650CST				0	0			Hail (0.88)
----	---------	--	--	--	---	---	--	--	-------------

Nickel sized hail was reported.

#### Jackson County 2 NE Woodville

21	1655CST				0	0			Hail (0.75)
----	---------	--	--	--	---	---	--	--	-------------

Three quarter inch hail was reported 1.7 miles northeast of Woodville.

#### Jackson County 1 NW Higdon

21	1655CST				0	0			Thunderstorm Wind (61EG)
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A steeple was knocked off of a church.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### Morgan County 2 SSE Leesdale

21	1704CST				0	0			Hail (1.00)
----	---------	--	--	--	---	---	--	--	-------------

Quarter sized hail was reported.

#### Marshall County 2 SW Guntersville

21	1729CST				0	0			Hail (1.00)
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One inch diameter hail was reported 2.2 miles southwest of Guntersville.

#### Madison County 1 E Hazel Green

21	1737CST				0	0			Hail (1.00)
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Quarter sized hail was reported.

Numerous thunderstorms produced a few reports of large hail and damaging winds in northeast Alabama during the late afternoon and early evening hours.

#### Lawrence County 1 NNW Hillsboro

25	1208CST				0	0			Thunderstorm Wind (52EG)
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Thunderstorm winds knocked a large tree down and blew down multiple sheds at the intersections of Highway 20 and CR 217. Time was estimated by radar.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### ALABAMA, North

A weakening line of thunderstorms pushed slowly northeast through north Alabama during the late morning and afternoon hours. One storm produced a bow-echo segment in Lawrence County that knocked down a large tree and destroyed a couple of sheds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Lauderdale County Petersville**

27 1335CST 0 0 Hail (0.88)  
Nickel sized hail was reported on Patsy Drive in the Forrest Hills subdivision in Florence.

#### **Marshall County 1 SE Crossroads**

27 1341CST 0 0 Hail (1.25)  
Hail up to half dollar sized was reported on Spring Creek Drive in Guntersville.

#### **Marshall County 2 NW Guntersville**

27 1341CST 0 0 Hail (1.75)  
Golf ball sized hail was reported on the east side of Guntersville.

#### **Franklin County 2 SW Glasgow Corner**

27 1436CST 0 0 Funnel Cloud  
A funnel cloud descended from a wall cloud.

#### **Franklin County Belgreen**

27 1445CST 0 0 Hail (1.00)  
Quarter sized hail was measured at the Franklin County EOC in Belgreen.

#### **Franklin County 1 WSW Vina**

27 1507CST 0 0 Hail (1.00)  
Quarter sized hail was reported at the intersection of CR 23 and Alabama Highway 19 in Vina.

#### **Lawrence County 1 NE Hatton**

27 1516CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **Lawrence County Hatton**

27 1516CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **Franklin County 2 WSW Glasgow Corner**

27 1526CST 0 0 Hail (1.00)  
Quarter sized hail was reported at Little Bear Creek Reservoir at Highway 184 and William Hollow Road in Spruce Pine.

#### **Cullman County 1 NW Wilburn**

27 1556CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **Cullman County Cold Spgs**

27 1559CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **Cullman County 6 SE Loretto**

27 1614CST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### **Franklin County 1 SE Red Bay Muni Arpt**

27 1625CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **DeKalb County 1 E Collinsville**

27 1755CST 0 0 Thunderstorm Wind (52EG)  
Power lines and trees were knocked down.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	March 2017
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## CORRECTIONS

### ALABAMA, North

#### **Dekalb County**

##### **4 E Rodentown**

27 1755CST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A barn was damaged near Hendrexville.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County**

##### **1 E Douglas**

27 1801CST 0 0 Hail (0.88)  
Nickel sized hail was reported.

#### **Marshall County**

##### **2 SSE Douglas**

27 1806CST 0 0 Thunderstorm Wind (52EG)  
Several trees were knocked down.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Marshall County**

##### **1 ENE Boaz**

27 1810CST 0 0 Hail (1.00)  
Quarter sized hail was reported near Boaz.

#### **Lauderdale County**

##### **1 ESE Cloverdale**

27 1942CST 0 0 Thunderstorm Wind (52EG)  
A tree was knocked down across the road at the intersection of CR 118 and CR 11.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Lauderdale County**

##### **Center Star**

27 2009CST 0 0 Hail (1.75)  
Golf ball sized hail was reported.

#### **Lauderdale County**

##### **1 SE Center Star**

27 2011CST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### **Colbert County**

##### **1 NE Cherokee**

27 2024CST 0 0 Hail (1.00)  
Quarter sized hail was estimated near Cherokee.

#### **Colbert County**

##### **1 N Cherokee**

27 2026CST 0 0 Hail (0.88)  
Nickel sized hail was reported.

#### **Colbert County**

##### **1 SE Line Kiln**

27 2030CST 0 0 Thunderstorm Wind (52EG)  
A tree was knocked down on the road at the intersection of CR 2 and Natchez Trace Parkway. Trees were also knocked down on Natchez Track Parkway in Cherokee.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Colbert County**

##### **5 W Colbert Hgts**

27 2057CST 0 0 Hail (1.00)  
Quarter sized hail was reported.  
Clusters of strong to severe thunderstorms developed during the afternoon hours producing large hail and isolated damaging winds. Late in the evening, a squall line of strong to severe thunderstorms dropped southeast from Tennessee producing isolated severe weather.

### ATLANTIC, Caribbean Sea and Tropical Atlantic

#### **AMZ552**

#### **Volusia-Brevard County Line To Sebastian Inlet 0-20nm**

12 1330EST 0 0 0.00K 0.00K Marine Thunderstorm Wind  
Isolated thunderstorms developed out ahead of a cold front over north Florida. Strong winds were recorded north of Cape Canaveral as a thunderstorm pushed offshore.

23 0330EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

23 0405EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

23 0425EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

23 0447EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

23 0555EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

23 0735EST 0 0 0.00K 0.00K Marine Thunderstorm Wind

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### ATLANTIC, Caribbean Sea and Tropical Atlantic

23	0758EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
23	0815EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

#### AMZ552-555

#### Sebastian Inlet To Jupiter Inlet 0-20nm - Volusia-Brevard County Line To Sebastian Inlet 0-20nm

23	0819EST				0	0	0.00K	0.00K	Marine Thunderstorm Wind
	1210EST								

A back door cold front combined with abnormally cold temperatures aloft produced scattered to numerous strong thunderstorms over the Atlantic waters. Numerous strong wind gusts occurred as the storms pushed onshore the Space and Treasure coasts.

### FLORIDA, East Central

#### Seminole County 3 WNW Slavia

22	1817EST				0	0	0.00K	0.00K	Hail (0.75)
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A trained spotter in Winter Springs reported penny sized hail during a strong thunderstorm. Duration unknown.

#### Seminole County 2 W Gabriella

22	1830EST				0	0	0.00K	0.00K	Hail (0.75)
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A resident of Winter Park north of SR 526 reported penny sized hail during a strong thunderstorm. Duration unknown.

A sea breeze collision combined with abnormally cold temperatures aloft generated isolated thunderstorms during the late afternoon, one of which produced penny sized hail in Winter Springs.

#### Indian River County 1 SE (VRB)Vero Beach Muni

23	1217EST				0	0	0.00K	0.00K	Hail (0.88)
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A ham radio operator received a report of hail up to the size of nickels in Vero Beach, falling near the intersection of Route 60 and 27th Avenue, as a severe thunderstorm moved over the area.

#### Indian River County 2 SSE Gifford

23	1227EST				0	0	0.00K	0.00K	Hail (1.25)
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A resident of Vero Beach reported quarter to half-dollar sized hail falling near the Vero Beach Country Club as a thunderstorm became severe after moving onshore from the Atlantic.

#### Indian River County 3 SE Vero Beach Airpark

23	1231EST				0	0	10.00K	0.00K	Thunderstorm Wind (87EG)
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Florida Power and Light reported that four wooden power poles were snapped several feet from ground level as a severe thunderstorm moved into a mostly rural area just west of Interstate 95 and south of Highway 60. Photos of the damage suggest straight-line winds of 90-100 mph likely impacted the area.

Note: The estimated wind gust of 87 knots is equivalent to 100 mph.

#### St. Lucie County 9 WNW Ft Pierce Nelson Arp

23	1240EST								
	1242EST	0.96	30		0	0	2.00K	0.00K	Tornado (EF0)

Florida Power and Light reported a power pole snapped in a rural area of St. Lucie County between Interstate 95 and the Florida Turnpike. The damage occurred as a severe thunderstorm traveled southwest from the Vero Beach area and acquired strong low-level rotation, resulting in a brief tornado touchdown. Photos of the damage suggest EF-1 damage (90-100 mph).

#### St. Lucie County 12 W Ft Pierce Nelson Arp

23	1253EST				0	0	2.00K	0.00K	Thunderstorm Wind (87EG)
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Florida Power and Light reported that a wooden power pole was snapped due to high winds as a severe thunderstorm crossed into a rural area of St. Lucie County to the southwest of the Florida Turnpike, near Highway 68. Straight-line winds were estimated at 90-100 mph.

A cluster of thunderstorms moved onshore from the Atlantic and organized into a long-lived severe storm as it moved southwest at 30 mph. The storm produced large hail in Vero Beach, then snapped four wooden power poles west of Vero Beach. As the storm continued farther southwest into rural Indian River and St. Lucie Counties, the cell acquired rotation and a brief tornado developed and damaged a power pole between Interstate 95 and the Florida Turnpike. Additional sporadic wind damage occurred to powerlines and a power pole near and southwest of the Florida Turnpike. Note: The estimated wind gust of 87 knots is equivalent to 100 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	March 2017
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## CORRECTIONS

### IDAHO, Southwest

#### Ada County

4 SE Barber	06	1000MST							
1 SW Star	31	2359MST			0	0	0.00K	0.00K	Flood

#### Ada County

4 SE Barber	06	1000MST							
1 SW Star	31	2359MST			0	0	1.00M	0.00K	Flood

The Army Corps of Engineers and Bureau of Reclamation increased regulated flows from Lucky Peak Reservoir putting the Boise River in flood for the remainder of the month of March. Flooding was expected to continue through late spring. Flood flows for the extended period caused significant damage to much of the Greenbelt and Nature Trail paths along the river. Flood fight efforts were focused in the Eagle Island area where severe bank erosion occurred and a pit capture threat existed. A HESCO barrier wall and extensive sandbagging occurred in the area to mitigate a pit capture.

#### Canyon County

2 E Stoddard	06	1000MST							
3 SW Apple Vly	31	2359MST			0	0	250.00K	0.00K	Flood

The Army Corps of Engineers and Bureau of Reclamation increased regulated flows from Lucky Peak Reservoir putting the Boise River in flood for the remainder of the month of March. Flooding was expected to continue through late spring. The extended period of flood flows caused severe bank erosion and lowland flooding.

The Army Corps of Engineers and Bureau of Reclamation increased regulated flows from Lucky Peak Reservoir putting the Boise River in flood for the remainder of the month of March. Flooding was expected to continue through late spring.

### IDZ016

#### Western Magic Valley

06	1100MST								
	2300MST			0	0	0.00K	0.00K	Heavy Snow	

A late winter storm hit parts of South Central Idaho with 4 to 6 inches of snow falling around the Jerome area.

### Washington County

7 NE Cambridge	08	0900MST							
	22	2200MST			0	0	2.00K	0.00K	Flood

Flooding occurred along the Weiser River from Cambridge to Weiser and surrounding fields and roads.

Rainfall and snow melt combined to increase the flow on the Weiser River to minor flood stage.

### Gem County

2 W Plaza	17	0000MST							
2 ESE Emmett	22	2200MST			0	0	0.00K	0.00K	Flood

Flooding occurred along the Payette River around the Emmett, Idaho area and surrounding fields and roads.

### Payette County

8 ESE New Plymouth	17	0000MST							
	31	0600MST			0	0	2.00K	0.00K	Flood

Flooding occurred along the Payette River around the Payette, Idaho area and surrounding fields and roads.

Rainfall and snow melt combined to increase the flow on the Payette River to minor flood stage.

### Washington County

3 ENE Feltham	18	0000MST							
3 W Weiser Arpt	31	2359MST			0	0	0.00K	0.00K	Flood

Flooding occurred along the Snake River around the Weiser, Idaho area and surrounding fields and roads.

Rainfall and snow melt combined to increase the flow on the Snake River to minor flood stage.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### OREGON, Southeast

#### Malheur County

1 ESE (ONO)Ontario Arpt	10	0000MST							
	12	1400MST			0	0	0.00K	0.00K	Flood

Flooding occurred along the Malheur River around the Vale, Oregon area and surrounding fields and roads.

Rainfall and snow melt combined to increase the flow on the Malheur River to minor flood stage.

#### Harney County

1 SE Burns	17	1100PST							
	27	1800PST			0	0	0.00K	0.00K	Flood

Flooding occurred along the Silvies River around the Burns, Oregon area and surrounding fields and roads.

Rainfall and snow melt combined to increase the flow on the Silvies River to minor flood stage.

#### Malheur County

1 S Cairo	19	0000MST							
1 SW Morton	31	2359MST			0	0	0.00K	0.00K	Flood

Flooding occurred along the Snake River around the Ontario, Oregon area and surrounding fields and roads.

Flooding occurred along the Snake River around the Ontario, Oregon area and surrounding fields and roads.

### TENNESSEE, South Central

#### Moore County

1 E Chestnut Ridge	09	2348CST			0	0			Thunderstorm Wind (52EG)
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Multiple trees were knocked down on Highway 231/Shelbyville Highway.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

4 ENE Chestnut Ridge	09	2350CST			0	0			Thunderstorm Wind (60EG)
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Multiple trees were knocked down at 1201 Mount Herman Road.

Note: The estimated wind gust of 60 knots is equivalent to 69 mph.

#### Moore County

2 ESE Chestnut Ridge	09	2352CST			0	0			Thunderstorm Wind (52EG)
----------------------	----	---------	--	--	---	---	--	--	--------------------------

Multiple trees were knocked down at 5857 Charity Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

1 SW Lois	09	2352CST			0	0			Thunderstorm Wind (52EG)
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Multiple trees were knocked down on Champ Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

1 SW Lynchburg	09	2353CST			0	0			Thunderstorm Wind (52EG)
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Multiple trees were knocked down at 1506 Fayetteville Highway.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

1 WNW Lynchburg	09	2355CST			0	0			Thunderstorm Wind (52EG)
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Multiple trees were knocked down at 347 Buckeye Loop Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

2 WSW Pleasant Hill	09	2355CST			0	0			Thunderstorm Wind (52EG)
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Multiple trees were knocked down on Harry Hill Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TENNESSEE, South Central

#### Moore County

2 E Pleasant Hill  
3 NE Ridgeville

09	2355CST								
	2358CST	1.4	320	0	0				Tornado (EF1)

A damage assessment team determined an EF-1 tornado touched down approximately 5 miles east-northeast of Lynchburg, TN. The tornado continued in a generally east-southeast direction into Franklin County before gusting out approximately 4 miles west of Estill Springs, TN.

In Moore County, between Turkey Creek Loop and Turkey Creek Church Road, significant tree damage was observed by the team. Numerous, healthy soft wood trees were either uprooted or snapped. An area of convergence was noted as several trees along Turkey Creek Loop were oriented in a northerly direction (potentially due to a developing rear flank down draft) with debris scattered eastward near and along Turkey Creek Church Rd. Strongest winds in Moore County were estimated to be between 85-90 MPH.

#### Moore County

1 NNE Lois

09	2356CST			0	0				Thunderstorm Wind (52EG)
----	---------	--	--	---	---	--	--	--	--------------------------

Multiple trees were knocked down at 20 Lois Ridge Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

1 SSE County Line

09	2356CST			0	0				Thunderstorm Wind (52EG)
----	---------	--	--	---	---	--	--	--	--------------------------

Multiple trees were knocked down at 1506 Lynchburg Highway.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Franklin County

1 S Center Grove

09	2358CST			0	0				Thunderstorm Wind (52EG)
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Several trees and power lines were knocked down in Tullahoma just north of Tims Ford Lake.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

2 NW Lynchburg

09	2358CST			0	0				Thunderstorm Wind (52EG)
----	---------	--	--	---	---	--	--	--	--------------------------

Multiple trees were knocked down at 115 Morris Hollow Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Franklin County

2 SW Center Grove

09	2358CST								
10	0008CST	2.8	320	0	0				Tornado (EF0)

As the tornado tracked into Franklin County, sporadic tree damage was observed, generally in the strong EF-0 range. However, the most intense damage occurred near the end of the track along Hurricane Rd and Riddle Ln were a chicken house (undergoing rebuilding) and a mobile home were completely destroyed. Estimated wind speed at this location was 100 MPH (decreased due to the unknown quality of the chicken house and unknown condition of the mobile home). Further to the east, the tornado knocked down several more trees, before gusting out, and causing straight line wind damage, along HWY 130 and areas further east.

It should be worth noting that the team found numerous causes of straight line wind damage outside of the estimated vortex of the tornado. Straight line winds, just outside of the path, were estimated in the 70-80 MPH range.

#### Moore County

1 WSW Hurdlow

10	0000CST			0	0				Thunderstorm Wind (52EG)
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Multiple trees were knocked down at 7125 Dry Prong Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Moore County

Pleasant Hill

10	0002CST			0	0				Thunderstorm Wind (52EG)
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Multiple trees were knocked down at 239 Hurricane Creek Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	March 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TENNESSEE, South Central

#### Moore County

##### 1 ESE County Line

10 0003CST 0 0  
Multiple trees were knocked down at 2431 Lynchburg Highway.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 2 NNE Lois

10 0003CST 0 0  
Multiple trees were knocked down at 2449 Winchester Highway.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 NNW Cumberland Spgs

10 0003CST 0 0  
Multiple trees were knocked down at 2243 Raysville Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 2 NE Ridgeville

10 0003CST 0 0  
Multiple trees were knocked down at 75 Tankersley Ridge Road.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 N Ridgeville

10 0003CST 0 0  
Multiple trees were knocked down on Chestnut Ridge Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 SSE Lynchburg

10 0004CST 0 0  
Multiple trees were knocked down at 5653 Winchester Highway.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 NNE Pleasant Hill

10 0004CST 0 0  
Multiple trees were knocked down at 24 Patterson Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 E Pleasant Hill

10 0004CST 0 0  
Multiple trees and power lines were knocked down at 2370 Hurricane Creek Road.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### Ridgeville

10 0004CST 0 0  
Multiple trees were knocked down at 9404 Chestnut Ridge Road.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 NW Pleasant Hill

10 0004CST 0 0  
Multiple trees were knocked down at 1908 Cobb Hollow Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

0.00K 0.00K

Thunderstorm Wind (52EG)

#### Moore County

##### 4 E Cumberland Spgs

10 0005CST 0 0  
Multiple trees were knocked down at 1097 Turkey Creek Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

#### Moore County

##### 1 NW Pleasant Hill

10 0005CST 0 0  
Multiple trees knocked down around Tims Ford Lake southwest of Tullahoma. Several roads are affected.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

Thunderstorm Wind (52EG)

# Storm Data and Unusual Weather Phenomena

										March 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b>CORRECTIONS</b>										
<b><u>TENNESSEE, South Central</u></b>										
<b>Franklin County</b> <b>2 SW Center Grove</b>	10	0006CST			0	0			Thunderstorm Wind (52EG)	
A power pole was knocked down at 2106 Gourdneck Road.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Franklin County</b> <b>2 S Center Grove</b>	10	0008CST			0	0			Thunderstorm Wind (52EG)	
Multiple trees and power lines were knocked down. Power outages reported.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Lincoln County</b> <b>1 E Prospect</b>	10	0010CST			0	0			Hail (0.88)	
Nickle sized hail was reported in Park City.										
A quasi-linear convective system developed rapidly during the evening hours of the 9th and tracked east through southern middle Tennessee through the early morning hours of the 10th. The thunderstorms produced one EF-1 tornado and other reports of damaging thunderstorm winds.										
<b>TNZ076-096-097</b>	<b>Franklin - Lincoln - Moore</b>									
	11	2100CST								
	12	0200CST			0	0			Winter Weather	
Light snow fell across southern middle Tennessee late on the 11th into the early morning hours of the 12th. Most locations reported from one-half to two inches.										
<b>Lincoln County</b> <b>1 E Howell</b>	21	1528CST			0	0			Hail (1.00)	
Quarter sized hail was reported.										
<b>Moore County</b> <b>1 W Lois</b>	21	1556CST			0	0			Hail (1.75)	
Golf ball sized hail was reported.										
<b>Moore County</b> <b>1 E Lynchburg</b>	21	1600CST			0	0			Hail (1.00)	
Quarter sized hail was reported.										
<b>Lincoln County</b> <b>1 E Fayetteville</b>	21	1602CST			0	0			Thunderstorm Wind (52EG)	
A widespread area of trees were knocked down on Shelbyville Highway and along U.S. 431.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Franklin County</b> <b>1 N Huntland</b>	21	1613CST			0	0			Thunderstorm Wind (52EG)	
Trees were knocked down across Huntland.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Franklin County</b> <b>1 E Belvidere</b> <b>3 S Lakeview</b>	21	1613CST			0	0			Thunderstorm Wind (52EG)	
Widespread tree damage was reported across the southern half of Franklin County.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Moore County</b> <b>2 WNW Lois</b>	21	1656CST			0	0			Hail (1.75)	
Golf ball sized hail was reported.										
A swath of damaging thunderstorm winds with speeds up to 80 mph occurred across Lincoln, Moore, and Franklin Counties during the late afternoon and early evening hours. The storms knocked down numerous trees and also produced a few reports of large hail.										

# Storm Data and Unusual Weather Phenomena

April 2017

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

### ALABAMA, Southwest

#### **Choctaw County**

##### **Yantley**

03	0250CST 0252CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees and powerlines on Highway 10.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Choctaw County**

##### **Pennington**

03	0325CST 0327CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees and powerlines on Pine Grove Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Mobile County**

##### **2 WSW Spring Hill**

03	0455CST 0855CST			0	0	0.00K	0.00K	Heavy Rain
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A total of 4.5 inches of rain measured at Stanky Field.

#### **Clarke County**

##### **Thomasville**

03	0455CST 0457CST			0	0	2.00K	0.00K	Thunderstorm Wind (52EG)
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Trees down in Highway 5.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Clarke County**

##### **Thomasville**

03	0500CST			0	0	30.00K	0.00K	Lightning
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A lightning strike caused a house fire along Finley Crossing Road.

#### **Mobile County**

##### **Citronelle**

03	0525CST 0527CST			0	0	5.00K	0.00K	Thunderstorm Wind (61EG)
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Winds estimated at 70 mph downed several trees.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clarke County**

##### **Whatley**

03	0545CST 0547CST			0	0	5.00K	0.00K	Thunderstorm Wind (61EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Winds estimated at 70 mph downed trees on Gosport Road.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clarke County**

##### **Manila**

03	0600CST 0602CST			0	0	5.00K	0.00K	Thunderstorm Wind (61EG)
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Winds estimated at 70 mph caused roof damage to a home on Play Lane.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clarke County**

##### **2 NW Gainestown**

03	0615CST 0617CST			0	0	10.00K	0.00K	Thunderstorm Wind (61EG)
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Winds estimated at 70 mph blew a porch off a house on Walker Springs Road.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

# Storm Data and Unusual Weather Phenomena

April 2017

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

### ALABAMA, Southwest

#### **Mobile County Wilmer**

03	0626CST 0628CST			0	0	0.00K	0.00K	Hail (1.00)
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#### **Escambia County Flomaton**

03	0655CST 0657CST			0	0	2.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees and power lines in and around Flomaton.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Conecuh County Lenox**

03	0700CST 0702CST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees on a barn and a home.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Conecuh County Evergreen**

03	0707CST 0709CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed multiple trees along CR 6 near CR28 and Appleton Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Escambia County Brewton**

03	0710CST 0712CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees on CR 18 near Brewton.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Conecuh County 4 ESE Evergreen**

03	0727CST 0729CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 70 mph downed multiple trees on CR6 near Johnsonville.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Conecuh County 5 NE Evergreen**

03	0733CST 0735CST			0	0	15.00K	0.00K	Thunderstorm Wind (61EG)
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Winds estimated at 70 mph caused the roof of a covered porch to collapse and numerous trees were blown over and snapped in the area.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Covington County South**

03	0740CST 0742CST			0	0	3.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees and power lines on CR82 near Buck Creek Baptist Church.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Crenshaw County Luverne**

03	0752CST 0754CST			0	0	1.00M	0.00K	Thunderstorm Wind (78EG)
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# Storm Data and Unusual Weather Phenomena

April 2017

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

### ALABAMA, Southwest

Most of the damage in and around the city of Luverne was produced by a corridor of enhanced straight line winds with top winds estimated as high as 90 mph. Significant tree and power line damage was observed in the city with a few homes suffering significant shingle damage. A few homes were also damaged by fallen trees. A few businesses in downtown Luverne suffered major roof loss. The greatest damage occurred on Fourth Street where a single wide mobile home was pushed off its unanchored foundation and destroyed.

Note: The estimated wind gust of 78 knots is equivalent to 90 mph.

#### **Crenshaw County** **1 ESE Luverne**

03	0754CST								
	0755CST	0.05	25	0	0	2.00K	0.00K		Tornado (EF0)

A brief EF-0 tornado developed on East 1st Street just north of Highway 10. The tornado uprooted a few trees and caused some minor shingle damage.

#### **Mobile County** **2 SE Big Creek Lake** **1 NNW Mobile Aerospace Arp**

03	0830CST								
	0930CST			0	0	0.00K	0.00K		Flash Flood

Flowing water was reported up to the tires of cars on St. Joseph Street.

Thunderstorms developed ahead of a strong cold front and moved across the area. These storms produced high winds, large hail and a weak tornado.

#### **Clarke County** **Dickinson**

05	0736CST								
	0738CST			0	0	0.00K	0.00K		Thunderstorm Wind (52EG)

Winds estimated at 60 mph downed trees on Dickinson Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Wilcox County** **Camden**

05	0810CST			0	0	0.00K	0.00K		Hail (1.00)
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#### **Wilcox County** **Camden**

05	0810CST			0	0	0.00K	0.00K		Hail (1.75)
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Thunderstorms moved across southwest Alabama producing high winds and large hail.

### **ALZ063-064**

#### **Lower Baldwin - Lower Mobile**

30	1230CST								
	2000CST			0	0	0.00K	0.00K		Coastal Flood

A deep upper level low moving across the southern plains contributed a strong onshore flow across the north central Gulf Coast. The combination of the prolonged southerly winds and above normal tides resulted in minor coastal flooding in portions of Mobile County.

### **ALZ061-063**

#### **Lower Mobile - Upper Mobile**

30	1928CST								
	2359CST			0	0	15.0K	0.00K		Strong Wind

Strong winds developed behind a line of showers and thunderstorms and caused tree limb damage and scattered power outages.

### ATLANTIC, North

#### **ANZ534-536-543**

#### **Chesapeake Bay Drum Pt To Smith Pt Va - Tangier Sound And The Inland Waters Surrounding Bloodsworth Island - Tidal Potomac Cobb Is Md To Smith Pt Va - Tidal Potomac Indian Hd To Cobb Is Md**

06	1130EST								
	1212EST			0	0				Marine Thunderstorm Wind

#### **ANZ535**

#### **Tidal Potomac Key Bridge To Indian Hd Md**

06	1243EST								
	1244EST			0	0				Waterspout



# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### ATLANTIC, North

06	1244EST				0	0			Marine Thunderstorm Wind
06	1244EST				0	0			Marine Thunderstorm Wind
06	1249EST				0	0			Marine Thunderstorm Wind
06	1248EST				0	0			Marine Thunderstorm Wind

### **ANZ530>533-536>539**

**Chesapeake Bay N Beach To Drum Pt Md - Chesapeake Bay N Of Pooles Is Md - Chesapeake Bay Pooles Is To Sandy Pt Md - Chesapeake Bay Sandy Pt To N Beach Md - Chester River To Queenstown Md - Patapsco River Including Baltimore Harbor - Tidal Potomac Cobb Is Md To Smith Pt Va - Tidal Potomac Indian Hd To Cobb Is Md**

06	1254EST				0	0			Marine Thunderstorm Wind
	1642EST				0	0			Marine Thunderstorm Wind

Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Strong shear profiles were in place due to the cutoff low to the west. Strong lift associated with the developing low combined with strong shear and enough instability to produce severe thunderstorms.

### **ANZ536**

#### **Tidal Potomac Indian Hd To Cobb Is Md**

21	1553EST				0	0			Marine Thunderstorm Wind
21	1826EST				0	0			Marine Hail
21	1828EST				0	0			Marine Thunderstorm Wind
	1838EST				0	0			Marine Thunderstorm Wind
21	1836EST				0	0			Marine Thunderstorm Wind

### **ANZ537**

#### **Tidal Potomac Cobb Is Md To Smith Pt Va**

21	1838EST				0	0			Marine Thunderstorm Wind
	1843EST				0	0			Marine Thunderstorm Wind

### **ANZ533**

#### **Chesapeake Bay N Beach To Drum Pt Md**

21	1849EST				0	0			Marine Hail
21	1852EST				0	0			Marine Thunderstorm Wind

### **ANZ537-540**

#### **Eastern Bay - Tidal Potomac Cobb Is Md To Smith Pt Va**

21	1900EST				0	0			Marine Thunderstorm Wind
	1930EST				0	0			Marine Thunderstorm Wind

A cold front moved through the area. Ahead of the boundary, a southwest flow led to warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to produce gusty winds.

## DISTRICT OF COLUMBIA

### **District of Columbia 1 S Bolling Afb**

06	1241EST				0	1			Tornado (EF0)
	1243EST	1.56	25		0	1			Tornado (EF0)

The National Weather Service in Baltimore MD/Washington DC has confirmed an EF-0 tornado initiating in Joint Base Anacostia Bolling and continuing into Anacostia DC on April 6, 2017. On the two mile path, the weak tornado caused several small and midsized trees to be snapped and uprooted on base in a convergent manner. Flags were stripped off their posts in the central roundabout. A large soccer net was thrown from the athletic field. Shingle damage was noted to one of the buildings. As the tornado crossed over Interstate 295 it likely lifted off the ground. Trees were snapped higher up on the trunks on the hill just east of the interstate. An apartment complex was unroofed on Stanton Rd SE. Media reported one person was injured by flying drywall.

# Storm Data and Unusual Weather Phenomena

April 2017

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

### DISTRICT OF COLUMBIA

#### District of Columbia

1 NW Bolling Afb

1 NNE US Capitol

06	1242EST								
	1245EST	2.98	50	0	0				Tornado (EF0)

The waterspout then moved onshore near the George Mason Memorial at the Tidal Basin at approximately 1:41 PM EDT. Here, multiple large softwood and hardwood trees, including several ornamental cherry trees, had large branches downed and/or were uprooted around the Tidal Basin. While some minor tree damage was evidenced near the George Mason Memorial on the southwest side of the Tidal Basin, the most concentrated damage was in the grove of trees directly adjacent to the parking lot of the Tidal Basin Marina.

The last damage reported to the NWS was to the roof of the St. Aloysius Church at the intersection of North Capitol and I Streets NW at 145 PM EDT.

Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Strong shear profiles were in place due to the cutoff low to the west. Strong lift associated with the developing low combined with strong shear and enough instability to produce severe thunderstorms and isolated tornadoes.

#### District of Columbia

1 N Brookland

21	1558EST			0	0				Hail (1.00)
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Quarter sized hail was reported.

#### District of Columbia

2 N Brookland

21	1558EST			0	0	0.00K	0.00K		Thunderstorm Wind (50EG)
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There was damage to roof shingles of a house at the 300 Block of Hamilton Street Northeast.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### District of Columbia

2 N Brookland

21	1602EST			0	0				Hail (1.00)
----	---------	--	--	---	---	--	--	--	-------------

Quarter sized hail was reported.

#### District of Columbia

2 SW National Arboretum

21	1607EST			0	0				Hail (1.00)
----	---------	--	--	---	---	--	--	--	-------------

Quarter sized hail was reported.

A cold front moved through the area. Ahead of the boundary, a southwest flow led to warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to become severe.

### FLORIDA, West Panhandle

#### FLZ006

#### Coastal Okaloosa

04	1030CST			1	0	0.00K	0.00K		Rip Current
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Dangerous surf and rip current conditions along the northwest Florida panhandle beaches resulted in one fatality. M49IW

#### Santa Rosa County

1 NE Navarre

05	1143CST			0	3		0.00K		Lightning
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Three injuries were reported in Navarre due to lightning strikes. One individual was seated in a metal chair when lightning struck his home. Two other individuals were transported to the hospital after lightning struck their facility while they were using the phone lines.

Strong thunderstorms moved across the western Florida panhandle on April 5th and produced frequent lightning. Two strikes resulted in a few injuries.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### GULF OF MEXICO

#### GMZ633-634

#### Pensacola Bay Area Including Santa Rosa Sound - Perdido Bay Area

03	0847CST 0852CST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
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#### GMZ634

#### Pensacola Bay Area Including Santa Rosa Sound

03	0913CST			0	0	0.00K	0.00K	Waterspout
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#### GMZ631

#### South Mobile Bay

03	0938CST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
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Thunderstorms moved across the marine area and produced high winds.

#### GMZ634

#### Pensacola Bay Area Including Santa Rosa Sound

05	1122CST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
----	---------	--	--	---	---	-------	-------	--------------------------

Strong thunderstorms resulted in strong, gusty winds across portions of the coastal waters of Alabama and northwest Florida.

#### GMZ630-633-655

#### Coastal Waters From Destin Fl To Pensacola Fl Out 20 Nm - North Mobile Bay - Perdido Bay Area

30	1622CST 2250CST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
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#### GMZ634

#### Pensacola Bay Area Including Santa Rosa Sound

30	2323CST			0	0	0.00K	0.00K	Marine High Wind
----	---------	--	--	---	---	-------	-------	------------------

#### GMZ630

#### North Mobile Bay

30	2357CST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
----	---------	--	--	---	---	-------	-------	--------------------------

Strong storms resulted in several instance of strong wind gusts across the coastal waters of Alabama and northwest Florida.

### IDAHO, Southwest

#### Ada County

4 SE Barber  
2 SW Star

01	0000MST							
30	2359MST			0	0	1.00M	0.00K	Flood

Planned releases from Lucky Peak Reservoir for flood control ranged from 7800 CFS to 8900 CFS during the month of April. The prolonged flood flows continued to cause extensive damage to the Greenbelt and Nature Trail paths. Flood waters inundated portions of Eagle Island, particularly along Artesian Road and Hatchery Road. Numerous homes in Riviera Estates were surrounded by water. Flood fight efforts continued to focus in the Eagle Island area with extensive sandbagging taking place. Additional flood fight efforts to mitigate a pit capture continued along the Eagle Island south channel of the river. Flood diversion tubes and muscle wall barriers were used to limit river encroachment on the sandpit. Large sections of Ann Morrison Park, Marianne Williams Park, and Barber Park were flooded. Some residential streets adjacent to the river had water on them, especially in the Garden City Warehouse District.

#### Canyon County

2 ENE Stoddard  
1 WSW Apple Vly

01	0000MST							
30	2359MST			0	0	500.00K	0.00K	Flood

Planned releases from Lucky Peak Reservoir for flood control ranged from 7800 CFS to 8900 CFS during the month of April. The prolonged flood flows caused extensive damage along the river banks and widespread flooding of lowlands.

Flooding continued for the entire month of April on the Boise River as a result of flood control efforts by the U.S. Army Corps of Engineers.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### IDAHO, Southwest

#### **Gooding County 3 NNE Gooding**

01	0000MST								
07	0900MST				0	0	250.00K	0.00K	Flood

The combination of rain and melting of near record snowpack in the Big Wood Basin led to significant flooding along the Big Wood River. Magic Reservoir filled to capacity sending large flows over the spillway and downriver through Gooding County. Extensive flooding of agricultural land occurred and several county roads were inundated with water. Just north of Gooding, portions of County Road 1700 South, 1800 East, and 1950 East were inundated with water and damaged. A few homes and businesses near the river were surrounded by water. Lowland flooding and damage to county roads occurred in the county well downstream from Gooding.

Flooding on the Big Wood River from snow melt occurred in East Central Gooding County.

#### **Washington County Weiser**

01	1930MST								
02	2330MST				0	0	0.00K	0.00K	Flood

Flooding continued from the previous month of March along the Snake River in southern Washington County near Weiser.

Flooding continued from the previous month of March along the Snake River in southern Washington County.

### MARYLAND, Central

#### **Prince George's County 1 SE Oak Crest**

06	1242EST								
	1542EST				0	0	5.00K	0.00K	Flood

There was a car stranded in high water on Brock Bridge Road.

Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Showers and thunderstorms led to heavy rain at times and led to a river gauge reaching flood stage in northeast MD.

#### **Prince George's County 1 E Forestville**

06	1246EST				0	0			Thunderstorm Wind (57MG)
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A wind gust of 66 mph was reported.  
Note: The measured wind gust of 57 knots is equivalent to 66 mph.

#### **Montgomery County 1 ESE Georgetown Jct**

06	1247EST				0	0			Thunderstorm Wind (52EG)
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A tree was down on a light pole along Colesville Road near Georgia Avenue.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Prince George's County 1 NNE Riverdale**

06	1250EST				0	0			Thunderstorm Wind (59MG)
----	---------	--	--	--	---	---	--	--	--------------------------

A wind gust of 68 mph was reported.  
Note: The measured wind gust of 59 knots is equivalent to 68 mph.

#### **Prince George's County 2 ENE Collington**

06	1300EST				0	0			Thunderstorm Wind (52EG)
----	---------	--	--	--	---	---	--	--	--------------------------

Trees were down near Bowie.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Prince George's County 1 ENE Collington**

06	1302EST				0	0			Thunderstorm Wind (52EG)
----	---------	--	--	--	---	---	--	--	--------------------------

Five large trees were down in the neighborhood off of Moylan Drive.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Montgomery County 1 SE Clopper**

06	1303EST				0	0			Hail (1.00)
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Quarter sized hail was reported.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### MARYLAND, Central

#### Prince George's County 2 ENE Collington

06 1303EST 0 0 Thunderstorm Wind (52EG)  
Trees were down on power lines as well as houses and cars in the area of Milan Way.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Prince George's County 1 NNE Mitchellville

06 1305EST 0 0 Thunderstorm Wind (51MG)  
Wind gusts of 59 mph were reported near Bowie.  
Note: The measured wind gust of 51 knots is equivalent to 59 mph.

#### Baltimore County 1 N Bare Hills

06 1330EST 0 0 Thunderstorm Wind (52EG)  
A roof was blown off an apartment building.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Anne Arundel County 1 N (BWI)Baltmor-Wshngtn

06 1332EST 0 0 Thunderstorm Wind (50MG)  
A wind gust of 58 mph was reported at the Baltimore Washington International Airport.

Note: The measured wind gust of 50 knots is equivalent to 58 mph.

#### Baltimore County 1 NNW White Marsh

06 1340EST 0 0 Thunderstorm Wind (57MG)  
A wind gust of 66 mph reported near White Marsh.  
Note: The measured wind gust of 57 knots is equivalent to 66 mph.

#### Harford County 1 SSW Van Bibber

06 1344EST 0 0 Thunderstorm Wind (52EG)  
Trees were down along Route 24 between 7 and Edgewood Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Harford County Aberdeen

06 1351EST 0 0 Thunderstorm Wind (52EG)  
A tree fell onto a house along Hillman Court.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Harford County 2 SSE Weide Aaf Arpt

06 1351EST 0 0 Thunderstorm Wind (56MG)  
A wind gust of 64 mph was reported along the Aberdeen Proving Ground.

Note: The measured wind gust of 56 knots is equivalent to 64 mph.

#### Harford County 2 WNW Havre De Grace

06 1352EST 0 0 Thunderstorm Wind (50EG)  
Tree limbs were down in the 2000 Block of Level Road.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Harford County 3 ESE Aberdeen Proving Grn

06 1400EST 0 0 Thunderstorm Wind (60MG)  
A wind gust of 69 mph was reported at the Aberdeen Proving Ground.

Note: The measured wind gust of 60 knots is equivalent to 69 mph.

#### Harford County 1 E Short Lane

06 1405EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees and branches were down near Phillips Airfield.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Harford County Phillips Aaf Arpt

06 1406EST 0 0 Thunderstorm Wind (51MG)  
A wind gust of 59 mph was reported near Perryman.  
Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Strong shear profiles were in place due to the cutoff low to the west. Strong lift associated with the developing low combined with strong shear and enough instability to produce severe thunderstorms. Note: The measured wind gust of 51 knots is equivalent to 59 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### MARYLAND, Central

#### **Baltimore County 1 SSW Glencoe**

06	1539EST 2002EST			0	0	0.00K	0.00K	Flood
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The stream gauge at Glencoe at Gundpowder Falls reached flood stage of 7 feet. The river level peaked at 9.17 feet at 17:30 EST. Sparks Road began to flood as well as portions of Upper Glencoe Road and Lower Glencoe Road.

Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Showers and thunderstorms led to heavy rain at times and led to a river gauge reaching flood stage in northeast MD.

#### **Montgomery County 1 N Georgetown Jct**

20	1910EST			0	0			Thunderstorm Wind (52EG)
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A large tree was down near the intersection of Linden Lane and Warren Street.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Prince George's County Adelphi**

20	1915EST			0	0			Thunderstorm Wind (52EG)
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Structural damage was reported to an Apartment building on Metzert Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Prince George's County Adelphi**

20	1915EST			0	0			Thunderstorm Wind (52EG)
----	---------	--	--	---	---	--	--	--------------------------

A large tree fell onto a couple townhomes along Greenspire Terrace.

High pressure was centered to the south and this allowed warm and moist air to move into the area. A few thunderstorms became severe due to the unstable atmosphere. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Montgomery County 3 ESE Glen**

21	1534EST			0	0			Thunderstorm Wind (52EG)
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Trees and wires down at the 11200 Block of Gainsborough Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Montgomery County 2 NNE Carderock Spgs**

21	1536EST			0	0			Thunderstorm Wind (52EG)
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Several large tree branches and wires were blocking the entire road near the intersection of Seven Locks Road and Bells Mill Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Montgomery County Bethesda**

21	1540EST			0	0			Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--	--	--------------------------

Several tree branches were down onto wires in the 6300 Block of Haviland Drive.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Montgomery County Luxmanor**

21	1542EST			0	0			Hail (1.00)
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Quarter sized hail was reported.

#### **Montgomery County 1 W Parkside**

21	1542EST			0	0			Thunderstorm Wind (52EG)
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Tree branches were down at the intersection of Montrose Avenue and Weymouth Street.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Montgomery County 1 W Parkwood**

21	1543EST			0	0			Thunderstorm Wind (52EG)
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Tree and wires were down on the 4500 Block of Woodfield Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### MARYLAND, Central

#### Montgomery County Kensington Estates

21 1543EST 0 0 Thunderstorm Wind (52EG)  
Trees and wires were down partially blocking the intersection of University Boulevard West and Connecticut Avenue.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 1 NNE Woodhaven

21 1543EST 0 0 Thunderstorm Wind (52EG)  
Tree branches were down on the left shoulder of the Capital Beltway.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 1 W Parkwood

21 1543EST 0 0 Thunderstorm Wind (52EG)  
A tree was down blocking the Inner Loop of the Beltway near Maryland 355.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 1 SW Parkwood

21 1544EST 0 0 Thunderstorm Wind (52EG)  
A large tree was uprooted.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 2 W Georgetown Jct

21 1546EST 0 0 Thunderstorm Wind (52EG)  
A tree fell onto a house with wires down along Connecticut Avenue.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 2 NNW Friendship Hgts

21 1547EST 0 0 Hail (1.50)  
Ping pong ball sized hail was reported.

#### Montgomery County 2 WSW Georgetown Jct

21 1547EST 0 0 Thunderstorm Wind (52EG)  
A tree fell into a house along the 8500 Block of Lynwood Place.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Montgomery County 1 W Georgetown Jct

21 1549EST 0 0 Hail (1.00)  
Quarter sized hail was reported.

#### Montgomery County 2 SW Northwest Park

21 1552EST 0 0 Hail (1.00)  
Quarter sized hail was reported at Piney Branch Road.

#### Montgomery County Georgetown Jct

21 1552EST 0 0 Hail (1.25)  
Half dollar sized hail was reported at National Weather Service Headquarters.

#### Montgomery County 1 NNW Takoma Park

21 1553EST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### Montgomery County 1 N Takoma Park

21 1553EST 0 0 Hail (1.25)  
Half dollar sized hail was reported.

#### Montgomery County 1 N Takoma Park

21 1553EST 0 1 Thunderstorm Wind (52EG)  
A half dozen large trees were uprooted along the 800 Block of Jackson Avenue. One injury was reported.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### MARYLAND, Central

<b>Montgomery County</b> 1 NNW Takoma Park	21	1554EST			0	0			Hail (1.75)	
	Golf ball sized hail was reported.									
<b>Montgomery County</b> 1 NNW Takoma Park	21	1554EST			0	0			Thunderstorm Wind (52EG)	
	Trees and wires were down blocking the intersection of Carroll Avenue and Grant Avenue.									
	Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Montgomery County</b> 1 NNE Takoma Park	21	1554EST			0	0			Thunderstorm Wind (52EG)	
	A tree fell into a house at the 1100 Block of Merwood Drive.									
	Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Montgomery County</b> 1 NNW Takoma Park	21	1554EST			0	0			Thunderstorm Wind (52EG)	
	A tree fell onto a house at the 300 Block of Ethan Allen Avenue.									
	Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Montgomery County</b> 1 NNW Takoma Park	21	1555EST			0	0			Hail (1.00)	
	Quarter sized hail was reported.									
<b>Prince George's County</b> Branchville	21	1603EST			0	0			Hail (1.00)	
	Quarter sized hail was reported.									
<b>Prince George's County</b> Landover	21	1612EST			0	0			Hail (1.00)	
	Quarter sized hail was reported.									
<b>Prince George's County</b> 1 SW Upper Marlboro	21	1637EST			0	0			Thunderstorm Wind (52EG)	
	Large trees were down on power lines near the intersection of Route 4 and Old Crain Highway.									
	Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
<b>Prince George's County</b> Wells Corner	21	1644EST			0	0			Hail (1.25)	
	Half dollar sized hail was reported.									
<b>Calvert County</b> North Beach	21	1849EST			0	0			Hail (1.00)	
	Quarter sized hail was reported.									
	A cold front moved through the area. Ahead of the boundary, a southwest flow led to warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to become severe.									

### MISSISSIPPI, Southeast

<b>Perry County</b> 4 NNE Janice	03	0404CST 0406CST			0	0	8.00K	0.00K	Thunderstorm Wind (61EG)	
	Winds estimated at 70 mph downed numerous trees blocking Highway 29 at Paret Tower Road. Trees also down at Beaumont Brooklyn Road and Highway 29.									
	Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
<b>Greene County</b> 1 SSW Neely	03	0435CST 0437CST			0	0	10.00K	0.00K	Thunderstorm Wind (61EG)	
	Winds estimated at 70 mph downed several power poles on Neely Road. Three power poles were also downed on Herndon Road.									
	Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### MISSISSIPPI, Southeast

#### **Greene County 8 NNE Leakesville**

03	0440CST 0442CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees and power lines on Highway 57 between Leakesville and State Line.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Stone County 8 WSW Perkinston**

03	0445CST 0447CST			0	0	5.00K	0.00K	Thunderstorm Wind (52EG)
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Winds estimated at 60 mph downed trees.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **George County Agricola**

03	0610CST 0612CST			0	0	0.00K	0.00K	Hail (1.00)
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Thunderstorms developed ahead of a strong cold front and moved across the area. These storms produced high winds, which caused damage across southeast Mississippi.

### OREGON, Southeast

#### **Malheur County 1 NE Ontario**

01	1930MST							
02	2330MST			0	0	0.00K	0.00K	Flood

Flooding continued from the previous month of March along the Snake River in eastern Malheur County from Nyssa to Ontario.

Flooding continued from the previous month of March along the Snake River near Ontario, Oregon.

### VIRGINIA, North

#### **Orange County Orange Co Arpt**

06	1127EST			0	0			Thunderstorm Wind (53MG)
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A wind gust of 61 mph was reported.

Note: The measured wind gust of 53 knots is equivalent to 61 mph.

#### **Orange County 1 N Unionville 2 ENE Everona**

06	1129EST 1133EST	2.63	175	0	0			Tornado (EF0)
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The National Weather Service in Baltimore MD/Washington DC has confirmed a tornado near Unionville in Orange County Virginia on April 6, 2017.

The tornado caused extensive convergent tree damage intermittently along its path, along with some minor structural damage. The first instances of uprooted and snapped trees occurred near the intersection of Everona Road and Deertrail Lane. The tornado continued north-northeast, causing additional tree damage on Signal Hill Lane.

The most extensive impacts occurred along US Route 522 near Ida Mae Lane, where many of the trees in the concentrated path of the tornado were either snapped or uprooted in differing directions. At least two trees fell on structures. Metal roofing and siding were removed from a business on the sides of the building opposing storm motion. Some of this material was lofted and landed in a yard 0.4 miles away. The wall of an outbuilding was displaced several inches off its foundation. Several homes received minor damage to shingles, gutters, and siding. Two residents in this area witnessed the tornado and observed debris being lofted and swirling in the air. The survey concluded that this concentrated tornadic damage was embedded within a larger area of very strong straight-line winds, as numerous trees were downed in unidirectional fashion along a 0.7 mile stretch of US 522.

The next observable damage occurred on Pine Stake Road near Clover Hill Farm Lane. Trees were downed in a convergent pattern along a narrow path, and a wooden fence sustained damage. The tornado lifted after this point, as no further damage was observed to the north-northeast.

The National Weather Service would like to thank the Orange County Emergency Management Agency and the residents interviewed for their assistance in this survey.

# Storm Data and Unusual Weather Phenomena

April 2017

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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## CORRECTIONS

### VIRGINIA, North

#### **Orange County 1 ENE Thornhill**

06 1133EST 0 0 Thunderstorm Wind (52EG)  
Multiple trees more than one foot in diameter were down. Structural damage was reported from wind and a barn was also blown down.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Culpeper County 1 ESE Winston**

06 1135EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees were down and a small shed was destroyed.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Orange County 1 SE Locustgrove**

06 1136EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees were snapped and uprooted in the 31000 Block of Deep Meadow Lane.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Culpeper County 1 WSW Stevensburg**

06 1143EST 0 0 Thunderstorm Wind (52EG)  
Trees were down in Stevensburg.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Culpeper County Alanthus**

06 1145EST 0 0 Thunderstorm Wind (52EG)  
Trees were down and a roof was damaged to a house near the intersection of Alanthus Road and Farley Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Culpeper County Richardsville**

06 1145EST 0 0 Thunderstorm Wind (52EG)  
Trees were down on power lines in Richardsville.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 WNW Remington**

06 1150EST 0 0 Thunderstorm Wind (52EG)  
Trees were down in Remington.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 3 S Midland Warrenton Ar**

06 1150EST 0 0 Thunderstorm Wind (52EG)  
Numerous trees and power lines were down along Summerduck Road near Maryann Lane.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 WNW Goldvein**

06 1151EST 0 0 Thunderstorm Wind (52EG)  
Trees were down in the Block of Sumerduck Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County Remington**

06 1151EST 0 0 Thunderstorm Wind (52EG)  
Part of a roof was torn off on East Main Street.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 4 W Oak Shade**

06 1152EST 0 0 Thunderstorm Wind (52EG)  
Seven large Oaks were down on property.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 N Goldvein**

06 1152EST 0 0 Thunderstorm Wind (52EG)  
Several trees were downed and snapped near Sillamon road and Clovers Oak Lane.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### VIRGINIA, North

#### **Fauquier County 3 W Oak Shade**

06 1153EST 0 0 Thunderstorm Wind (52EG)  
Trees were down and a barn was collapsed in the 11000 Block of Cemetery Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 ESE Morrisville**

06 1154EST 0 0 Thunderstorm Wind (52EG)  
Trees were down near the intersection of Goldmine Road and Blackwood Forest Drive.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 ESE Morrisville**

06 1154EST 0 0 Thunderstorm Wind (52EG)  
Trees were down near Morrisville.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 2 SW Opal**

06 1154EST 0 0 Thunderstorm Wind (52EG)  
Trees were down.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County Opal**

06 1156EST 0 0 Thunderstorm Wind (52EG)  
Several trees were down in Opal.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 N Somerville Hartwood**

06 1156EST 0 0 Thunderstorm Wind (52EG)  
A metal roof was damaged and several trees were down or snapped.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 ENE Somerville**

06 1158EST 0 0 Thunderstorm Wind (52EG)  
Trees were down in the 2000 Block of Aquia road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 WSW Turnbull**

06 1158EST 0 0  
1159EST 0.86 50 0 0 Tornado (EF0)

The National Weather Service in Baltimore MD/Washington DC has confirmed a tornado southwest of Warrenton in Fauquier County Virginia on April 6, 2017.

An extensive area of tree damage was noted along a several mile long path in west-central Fauquier County. Embedded within this straight- line wind damage was a small concentrated area of convergent tree damage consistent with an EF-0 tornado.

A row of trees just north of Harts Mill Road was blown down towards the west-northwest, while several other trees just south of the road were snapped and fell towards the northeast. A similar pattern of tree damage was found at a residence on Woodbourne Lane a quarter mile to the northeast, where several dozen hardwood trees were uprooted, mainly falling towards the east but a couple fell towards the west.

Further southwest and to the northeast of the tornadic damage, hardwood and softwood trees were snapped and uprooted but all falling to the northeast over a nearly mile-wide swath, indicating straight-line wind damage. It is notable that the straight-line wind damage was more severe than that caused by the brief tornado.

The National Weather Service would like to thank the Fauquier County Emergency Management Agency and the residents interviewed for their assistance in this survey.

#### **Fauquier County Cromwell**

06 1159EST 0 0 Thunderstorm Wind (52EG)  
A Greenhouse was destroyed in the 7000 Block of Tacketts Mill Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 E Warrenton Arpt**

06 1200EST 0 0 Thunderstorm Wind (52EG)  
An outbuilding was destroyed. A large tree and branches were also down through the exterior wall of a house on Donnybrook Drive.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### VIRGINIA, North

#### **Fauquier County 1 S Dudie**

06 1202EST 0 0 Thunderstorm Wind (52EG)  
 Numerous trees were down along Waterloo Farm Road.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fauquier County 1 S Bethel 2 WSW Broad Run**

06 1208EST  
 1214EST 0.86 75 0 0 Tornado (EF0)

The National Weather Service in Baltimore MD/Washington DC has confirmed a tornado near Airlie in Fauquier County Virginia on April 6, 2017.  
 The tornado caused a nearly continuous path of convergent tree damage. Large to mid sized trees were snapped and uprooted. The most intense of which was the result of estimated wind speeds of 85 mph that snapped several large trees on Airlie Road between Artillery Road and The Rainforest Trust. The first trees downed were noted just west of US 17. After crossing Airlie Road, the tornado snapped and uprooted trees all along Blantyre Road. Continuous damage stopped just prior to Interstate 66. The National Weather Service would like to thank the Fauquier County Emergency Management Agency and the residents interviewed for their assistance in this survey.

#### **Fauquier County New Baltimore**

06 1208EST  
 1210EST 0.86 75 0 0 Tornado (EF0)

The National Weather Service in Baltimore MD/Washington DC has confirmed a tornado near New Baltimore in Fauquier County Virginia on April 6, 2017.  
 The tornado caused a continuous path of extensive tree damage, along with some minor structural damage. The first instances of uprooted and snapped trees occurred just northwest of the intersection of Lee Highway and Electric Avenue. The tornado continued north-northeast, generally along Beverlys Mill Road, causing additional damage to just north of Fairview Lane.

Extensive tree damage was found along the tornados path, where many hardwood and softwood trees were either snapped, topped or uprooted in a convergent pattern. Several trees fell on vehicles. Wooded fences were blown down in several locations along its path. A roof was partially removed from a barn. Other metal roofing was removed from smaller outbuildings. Several sheds were either destroyed or severely damaged. Most homes in the path had minor damage to shingles, gutters and siding.  
 Two residents in the area witnessed the tornado with debris being lofted.

The National Weather Service would like to thank Fauquier County Emergency Management Agency and the residents interviewed for their assistance in this survey.

#### **Fauquier County 3 E Auburn**

06 1209EST 0 0 Thunderstorm Wind (52EG)  
 Dozens of trees were down near Greenwich.  
 Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **King George County 1 W King George**

06 1210EST 0 0 Thunderstorm Wind (52EG)  
 Trees were down in King George along Route 301. One tree fell into a house.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed   Injured		Estimated Damage Property	Crops	Character of Storm
CORRECTIONS									
VIRGINIA, North									
Prince William County 2 SW Canova	06	1211EST			0	0			Thunderstorm Wind (52EG) A tree was down on a power line. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 3 NNW Nokesville	06	1212EST			0	0			Thunderstorm Wind (52EG) Trees were down near Bristow. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County Minnieville	06	1213EST			0	0			Thunderstorm Wind (52EG) A tree fell onto power lines. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 2 SW Wellington	06	1214EST			0	0			Thunderstorm Wind (52EG) Trees were down on Sudley Manor Road. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 1 SE Hoadly	06	1214EST			0	0			Thunderstorm Wind (52EG) A tree fell onto power lines on Old Delaney Road. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County Independent Hill	06	1215EST			0	0	0.00K	0.00K	Thunderstorm Wind (51MG) A wind gust of 59 mph was reported at Independent hill. Note: The measured wind gust of 51 knots is equivalent to 59 mph.
Prince William County 1 S Hoadly	06	1215EST			0	0			Thunderstorm Wind (52EG) A large pine tree was snapped at the base. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 2 W Woodbridge	06	1215EST			0	0			Thunderstorm Wind (52EG) A tree fell onto power lines. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 2 NW Occoquan	06	1218EST			0	0			Thunderstorm Wind (52EG) A tree fell onto a house. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 1 N West Gate Of Lomond	06	1218EST			0	0			Thunderstorm Wind (52EG) A tree fell onto power lines blocking Lomond Drive near Powhatan Street.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Prince William County 1 NNE Woodbridge Arpt	06	1219EST			0	0			Thunderstorm Wind (52EG) A tree fell onto a house and deck. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Loudoun County 1 ESE Arcola Glascock Arpt	06	1221EST			0	0			Thunderstorm Wind (52EG) Trees were down just north of the Intersection of Bull Run Post Office Road and U.S. 29 Lee Highway.  Note: The estimated wind gust of 52 knots is equivalent to 60 mph.
Manassas (c) County 1 E Manassas	06	1221EST			0	0			Thunderstorm Wind (51MG) A wind gust of 59 mph was reported. Note: The measured wind gust of 51 knots is equivalent to 59 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### VIRGINIA, North

#### **Fairfax County**

##### **1 WSW Fairfax Station**

06 1224EST 0 0 Thunderstorm Wind (52EG)  
A large tree was down blocking part of Southbound Fairfax County Parkway near the intersection of Burke Center Parkway.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **1 SE Floris**

06 1227EST 0 0 Thunderstorm Wind (52EG)  
A tree was uprooted.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Loudoun County**

##### **2 ESE Arcola Glascock Arpt**

06 1227EST 0 0 Thunderstorm Wind (52EG)  
A tree fell onto a car.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **1 W Annandale**

06 1229EST 0 0 Thunderstorm Wind (52EG)  
A large tree fell onto a house splitting it in half.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Loudoun County**

##### **2 S Arcola Glascock Arpt**

06 1229EST 0 0 Thunderstorm Wind (52EG)  
About two dozen trees were snapped near the intersection of Gum Spring road and Lennox Hale Drive.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **1 ESE Ilda**

06 1230EST 0 0 Thunderstorm Wind (52EG)  
A tree fell onto a house.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **1 NNW North Springfield**

06 1231EST 0 0 Thunderstorm Wind (52EG)  
Several trees were down on Philip road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **1 SW Herndon Hgts**

06 1234EST  
1237EST 1.91 25 0 0 Tornado (EF0)

A path of sporadic damage, mainly to trees, began just east of Rock Hill Road in between the Dulles Greene and Capstone apartment complexes in Herndon. About a half dozen trees here were either snapped or uprooted in a convergent pattern. One of the trees was thrown into the window of a nearby apartment building.

The National Weather Service would like to thank Fairfax and Loudoun County Emergency Management Agency and the residents interviewed for their assistance in this survey.

The tornado continued north-northeast, where additional tree damage was noted near the intersections of Summerfield Drive and Autumn Breeze Court, and Sterling Road (VA-606) and Herndon Parkway. Several trees were downed from east to west, and fencing was blown down north to south.

It appears the tornado lifted briefly as it continued north-northeast, before touching down again near the intersection of Crestview Drive and Builders Road. Here, nearly a dozen trees were snapped or uprooted, mainly to the north, with fencing blown down towards the trees (to the west).

#### **Fairfax County**

##### **1 S Herndon**

06 1235EST 0 0 Thunderstorm Wind (52EG)  
A tree was down at the Courtyard Hotel in Herndon.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Fairfax County**

##### **2 NE Herndon Hgts**

06 1237EST 0 0 Thunderstorm Wind (52EG)  
Several small trees were snapped at the Sugarland Run Stream Valley Park in Herndon.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.



# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops	Character of Storm	April 2017
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## CORRECTIONS

### VIRGINIA, North

#### **Loudoun County**

**2 ESE Sterling**

06

1237EST

**1 SSW Broad Run Farms**

1238EST

1.29

25

0

0

Tornado (EF0)

Additional minor and sporadic tree damage was noted in a north-northeastward path, with several trees snapped and uprooted and an instance of siding damage noted by a trained spotter just east of South Lincoln Avenue. The tornado likely lifted for a final time just northeast of the intersection of East Frederick Drive and Sugarland Road in Sterling Park.

The National Weather Service would like to thank Fairfax and Loudoun County Emergency Management Agency and the residents interviewed for their assistance in this survey.

#### **Arlington County**

**1 ENE Arlington**

06

1238EST

0

0

Thunderstorm Wind (52EG)

Several tree and power poles were snapped.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Arlington County**

**2 SW South Washington**

06

1239EST

1242EST

1.93

50

0

0

Tornado (EF0)

Trees were snapped along Interstate 395 adjacent to Army-Navy Country Club at approximately 1:39 PM EDT. Video of a portion of the Pentagon Parking Lot showed a vortex cross between two light poles, ripping off one lamp from the top of the poles. Additional video from the Pentagon showed two rope-like funnel clouds form at the same time, although it could not be determined from the video whether these funnels touched the ground or were attached to the cloud base. Video from the National Park Service National Mall and Memorial Parks showed a waterspout over the Potomac River west of the Tidal Basin; however, it is not clear the vertical extent of this waterspout and whether it was sourced from the cloud base, or an independent vortex associated with the gust front.

Cutoff low pressure was over the Ohio Valley. Another area of low pressure strengthened overhead on the occluded boundary. Warm and moist air from the south lead to an unstable atmosphere. Strong shear profiles were in place due to the cutoff low to the west. Strong lift associated with the developing low combined with strong shear and enough instability to produce severe thunderstorms and isolated tornadoes.

#### **Rockingham County**

**1 ENE Mechanicsville**

20

1555EST

0

0

Hail (1.00)

Quarter sized hail was reported.

High pressure was centered to the south and this allowed warm and moist air to move into the area. An isolated thunderstorm became severe due to the unstable atmosphere.

#### **King George County**

**1 NNW Weedonville**

21

1803EST

0

0

Thunderstorm Wind (52EG)

Trees were down on Trailors.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	April 2017
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## CORRECTIONS

### VIRGINIA, North

#### **King George County Edgehill**

21 1805EST 0 0 Thunderstorm Wind (52EG)  
Trees were down through multiple Trailers. A Tractor Trailer was also blown over.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **King George County 1 WSW Allnut**

21 1805EST 0 0 Thunderstorm Wind (52EG)  
Twenty tall trees were down. A tree fell onto a Minivan and another tree fell onto a Back Deck. Two sheds were damaged and there were holes in the House Siding.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **King George County 1 WSW Allnut**

21 1805EST 0 0 Thunderstorm Wind (52EG)  
A roof was blown off a shed and multiple trees were down.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **King George County Edgehill**

21 1806EST 0 0 Thunderstorm Wind (52EG)  
Trees and power lines were down near the intersection of Lakeview Drive and VA 205.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **King George County 1 SSW Ninde**

21 1810EST 0 0 Thunderstorm Wind (50EG)  
A tree was down at Round Hill Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **King George County 1 SSE Ninde**

21 1817EST 0 0 Thunderstorm Wind (52EG)  
Two trees were down near the Intersection of VA 205 and VA 218.

A cold front moved through the area. Ahead of the boundary, a southwest flow led to warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to become severe. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Frederick County 2 W Gore**

30 1537EST 0 0 Thunderstorm Wind (52EG)  
Several trees were snapped and uprooted near the intersection of Hollow Road and Parishville Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Frederick County 2 NNE Rock Enon Spgs**

30 1538EST 0 0 Thunderstorm Wind (50EG)  
A tree was down in the 1600 Block of Carpers Pike.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Frederick County 2 SW Gore**

30 1538EST 0 0 Thunderstorm Wind (50EG)  
Two large trees were uprooted off Gold Orchard Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Frederick County 1 ESE Gore**

30 1544EST 0 0 Thunderstorm Wind (50EG)  
A tree was down on either side of Highway 50 just north of Gore.

A warm front stalled over the area. A southerly flow behind the boundary allowed for warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to become severe. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	April 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### WEST VIRGINIA, East

#### WVZ501-505

#### Western Grant - Western Pendleton

06	1800EST								
07	1500EST				0	0			Winter Weather

A cold northwest wind picked up moisture from the Great Lakes and deposited it in the form of snow for locations along and west of the Allegheny Front.

#### Hampshire County

##### 2 N Pleasantdale

30	1518EST				0	0			Thunderstorm Wind (52EG)
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A tree was down near the intersection of Bloomery Pike and Hoy Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Hampshire County

##### 1 WNW Hoy

30	1519EST				0	0			Hail (1.50)
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Ping pong ball sized hail was reported.

#### Hampshire County

##### 2 NE Bubbling Spg

30	1530EST				0	0			Thunderstorm Wind (52EG)
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A large tree was down on lines.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Hampshire County

##### 1 ENE Capon Bridge

30	1534EST				0	0			Thunderstorm Wind (52EG)
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Numerous trees were down in multiple directions and Power poles were snapped on Settlers Lane.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Hampshire County

##### 1 E Capon Bridge

30	1536EST				0	0			Thunderstorm Wind (52EG)
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A tree was down on Northwestern Turnpike near Bear Garden Trail.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Hampshire County

##### 1 E Capon Bridge

30	1536EST				0	0			Thunderstorm Wind (52EG)
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Two trees were down on Cold Stream Road between Capon School Street and Settlers Lane.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Hampshire County

##### 1 ESE Cold Stream

30	1537EST				0	0			Thunderstorm Wind (50EG)
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A tree was down on Cold Stream Road near Allen Lane.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Hampshire County

##### 1 ESE Capon Bridge

30	1541EST				0	0			Hail (1.00)
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Quarter sized hail was reported.

A warm front stalled over the area. A southerly flow behind the boundary allowed for warm and humid conditions. The unstable atmosphere from warm and humid conditions along with stronger winds aloft caused some storms to become severe.

# Storm Data and Unusual Weather Phenomena

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

May 2017

## CORRECTIONS

### IDAHO, Southwest

#### Ada County

##### Barber

01	0000MST							
31	2359MST			0	0	2.00M	0.00K	Flood

The Boise River remained in flood during the entire month of May due to planned release from Lucky Peak dam. Regulated flows were above flood stage for 101 days resulting in extensive damage to the Greenbelt and Nature Trail paths. Extensive flood fight efforts continued in the Eagle Island area to prevent a pit capture. Widespread flooding continued on Eagle Island in the Riviera Estates area where several homes were surrounded by water and low lying roads were inundated. Large portions of Ann Morrison Park, Barber Park, and Marianne Williams Park were impacted by flood waters. Some residential streets continued to be impacted by flood waters, especially in the Garden City Warehouse District and on Eagle Island. A pit capture occurred just downstream of Eagle Island causing a major shift in the river channel. Streets in the Stonebriar development just downstream of the Highway 16 bridge were inundated by water. Severe bank erosion and large trees washed into the river caused problems in the river channel and at some bridge crossings.

#### Canyon County

##### Middleton

##### 2 W Maddens

01	0000MST							
31	2359MST			0	0	750.00K	0.00K	Flood

The Boise River remained in flood during the entire month of May due to planned release from Lucky Peak dam. Regulated flows were above flood stage for 101 days resulting in extensive bank erosion and flooding of lowlands along the river.

The Boise River continued to be in flood during the entire month of May due to planned release at Lucky Peak.

#### Canyon County

##### Parma

##### 7 NE Parma Arpt

05	0500MST							
	0530MST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)

Social media reported a 60 foot tall Blue Spruce tree was uprooted near Parma.

A strong upper low moved through the Inter mountain West kicking off strong to severe thunderstorms across parts of Southwest Idaho. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Gem County

##### Emmett

##### 1 NE Emmett Lanham Arpt

07	0745MST							
08	0915MST			0	0	0.00K	0.00K	Flood

The Payette River at Emmett reached minor food stage due to snow melt.

#### Elmore County

##### Anderson

07	1025MST							
15	1100MST			0	0	100.00K	0.00K	Flood

The Boise River near Anderson reached minor food stage due to snow melt. A number of county and Forest Service roads were damaged.

#### Boise County

##### 21 SE Garden Vly

07	1050MST							
15	1100MST			0	0	100.00K	0.00K	Flood

The Middle fork of the Boise River near Atlanta reached minor food stage due to snow melt. A number of county and Forest Service roads were damaged.

#### Gooding County

##### Gooding

07	2325MST							
16	1130MST			0	0	100.00K	0.00K	Flood

Rapid snowmelt in the high elevations of the Big Wood Basin sent high flows over the spillway of Magic Reservoir causing flooding downstream in Gooding County. Agricultural land and low lying roads were impacted by the high water around the town of Gooding.

Spring snow melt flooding occurred across much of Southwest Idaho as a result of an above normal snow pack for the winter of 2016 to 2017.

# Storm Data and Unusual Weather Phenomena

May 2017

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

### LAKE ERIE

#### LEZ020-041

#### Dunkirk To Buffalo Ny - Upper Niagara River

01	1400EST								
	1430EST				0	0	0.00K		Marine Thunderstorm Wind

A strong cold front moved across the region during the afternoon and evening hours. A line of thunderstorms just ahead of the front produced winds gusting to 44 knots at Dunkirk and 41 knots at Buffalo.

18	2240EST				0	0	0.00K		Marine Hail
18	2246EST				0	0	0.00K		Marine Thunderstorm Wind

A thunderstorm crossing Lake Erie produced three-quarter inch hail and wind gusts measured to 34 knots at Dunkirk.

### LAKE ONTARIO

#### LOZ042-044

#### Niagara River To Hamlin Beach Ny - Sodus Bay To Mexico Bay Ny

01	1455EST								
	1648EST				0	0	0.00K		Marine Thunderstorm Wind

A strong cold front moved across the region during the afternoon and evening hours. A line of thunderstorms just ahead of the front produced winds gusting to 37 knots at Youngstown and 52 knots at Oswego.

#### LOZ044-045

#### Mexico Bay Ny To The St Lawrence River - Sodus Bay To Mexico Bay Ny

28	1305EST								
	1325EST				0	0	0.00K		Marine Hail

Thunderstorms crossing Lake Ontario produced three-quarter inch hail near North Pond and Fair Haven.

### NEW YORK, West

#### Chautauqua County 3 ESE Sherman

01	1403EST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Thunderstorm wind downed trees on Stedman-Sherman Road.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Chautauqua County 1 SW Willow Brook

01	1406EST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Thunderstorm wind downed trees on Lakeside Drive.  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Chautauqua County Ellery Center

01	1413EST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Law enforcement reported trees and wires downed by thunderstorm winds.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Chautauqua County 2 SE South Stockton

01	1418EST				0	0	10.00K	0.00K	Thunderstorm Wind (68MG)
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Note: The measured wind gust of 68 knots is equivalent to 78 mph.

#### Cattaraugus County Versailles

01	1420EST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Spotters reported trees and wires downed by thunderstorm winds.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Erie County Collins

01	1429EST				0	0	10.00K	0.00K	Thunderstorm Wind (52EG)
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Law enforcement reported trees downed by thunderstorm winds in Collins.  
  
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

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

May 2017

## CORRECTIONS

### NEW YORK, West

#### **Cattaraugus County** **1 N Cottage**

01 1436EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Trained spotters reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Erie County** **Woodlawn**

01 1436EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds downed a large tree on Gilbert Street in Blasdell.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Niagara County** **1 NE North Tonawanda**

01 1436EST 0 0 20.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported a tree on a house downed by thunderstorm winds in North Tonawanda.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Erie County** **1 W Bay View**

01 1438EST 0 0 10.00K 0.00K Thunderstorm Wind (55MG)  
Note: The measured wind gust of 55 knots is equivalent to 63 mph.

#### **Erie County** **1 NW Depew**

01 1441EST 0 0 30.00K 0.00K Thunderstorm Wind (56EG)  
Ham radio operators reported numerous large trees snapped and uprooted in Depew.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Niagara County** **1 E Wurlitzer Park**

01 1441EST 0 0 20.00K 0.00K Thunderstorm Wind (56EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Orleans County** **1 SW Medina**

01 1457EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Genesee County** **1 E Alexander**

01 1505EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees downed by thunderstorm winds on Beaver Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Genesee County** **1 E Alabama**

01 1505EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees downed by thunderstorm winds on Roseville Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Orleans County** **1 E Albion**

01 1512EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds..

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Wyoming County** **Arcade**

01 1523EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Cattaraugus County** **Olean**

01 1524EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Trees and wires were downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

										May 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
NEW YORK, West										
Orleans County										
1 SW Holley	01	1524EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees and wires downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Genesee County										
2 WNW Oakfield	01	1525EST			0	0	15.00K	0.00K	Thunderstorm Wind (52EG)	
Thunderstorm wind downed numerous trees on East Shelby Road.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Genesee County										
1 SW Pavilion Center	01	1526EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees downed by thunderstorm winds on Linwood Avenue.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Orleans County										
1 SSW Kendall	01	1526EST			0	0	15.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees and wires downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Wyoming County										
1 N Pike	01	1530EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Allegany County										
1 W Cuba	01	1534EST			0	0	20.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported numerous trees and wires downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Allegany County										
1 NNE Ceres	01	1540EST			0	0	15.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees and wires downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Monroe County										
2 SSW Greece	01	1542EST			0	0	25.00K	0.00K	Thunderstorm Wind (52EG)	
Thunderstorm winds knocked a tree onto a house on Tarwood Drive in Gates.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Monroe County										
2 SSW Greece	01	1545EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Thunderstorm winds down trees on Pasadena Drive in Gates.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Wyoming County										
Portage	01	1545EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Law enforcement reported trees downed by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Allegany County										
1 N Petrolia	01	1552EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
Several trees were uprooted by thunderstorm winds.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Allegany County										
Wellsville	01	1554EST			0	0	15.00K	0.00K	Thunderstorm Wind (52EG)	
Thunderstorm winds downed a large tree which damaged fence.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										



# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm	May 2017
CORRECTIONS										
NEW YORK, West										
Allegany County Wellsville	01	1555EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
	Law enforcement reported trees and wires downed by thunderstorm winds.									
	Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
Allegany County 4 W Swain	01	1555EST			0	0	10.00K	0.00K	Thunderstorm Wind (52MG)	
	Note: The measured wind gust of 52 knots is equivalent to 60 mph.									
Livingston County 2 SSE Ross Corners	01	1600EST			0	0	15.00K	0.00K	Thunderstorm Wind (52EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Livingston County 2 NNW Reeds Corners	01	1610EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Livingston County 1 E Springwater	01	1617EST			0	0	10.00K	0.00K	Thunderstorm Wind (52EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Ontario County Cheshire	01	1622EST			0	0	12.00K	0.00K	Thunderstorm Wind (52EG)	
	Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Ontario County 1 N Canandaigua	01	1625EST			0	0	25.00K	0.00K	Thunderstorm Wind (56EG)	
	Law enforcement reported power poles snapped and lines downed by thunderstorm winds.									
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
Erie County 1 SSE Sloan	01	1636EST 1930EST			0	0	15.00K	0.00K	Flood	
Oswego County 1 SE Oswego	01	1646EST			0	0	8.00K	0.00K	Thunderstorm Wind (52MG)	
	Thunderstorm wind downed a light post on SUNY Oswego campus.									
Note: The measured wind gust of 52 knots is equivalent to 60 mph.										
Oswego County 1 SE Oswego	01	1648EST			0	0	5.00K	0.00K	Thunderstorm Wind (52MG)	
	Note: The measured wind gust of 52 knots is equivalent to 60 mph.									
Erie County 2 WNW Kenmore	01	1650EST 2000EST			0	0	10.00K	0.00K	Flood	
Monroe County 2 NE Morton	01	1656EST 2100EST			0	0	8.00K	0.00K	Flood	

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	May 2017
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## CORRECTIONS

### NEW YORK, West

#### Jefferson County Chaumont

01 1712EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Oswego County 1 N Altmar

01 1716EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Jefferson County 1 SW Watertown

01 1722EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Jefferson County 1 S Westminster Park

01 1727EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Jefferson County 2 SW West Carthage

01 1735EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Lewis County Harrisville

01 1758EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

A strong cold front moved across the region during the afternoon and evening hours. A line of thunderstorms just ahead of the front produced damaging winds that downed trees and wires across western New York through the Finger Lakes Region as well as areas east of Lake Ontario. A few falling trees caused minor structural damage. Wind gusts were measured to 60 mph. The line of storms also dropped heavy rainfall in a short period of time, with amounts of 0.75 to 1.5 inches common over a few hours. While not overly excessive rates, on top of very wet antecedent conditions, there were reports of road closures due to flooding mainly in flood prone areas such as low lying land and underpasses. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Monroe County 2 NNE Brighton Po

06 0300EST  
07 1600EST 0 0 10.00K 0.00K Flood

#### Monroe County 1 WNW Churchville

06 2230EST  
07 1630EST 0 0 15.00K 0.00K Flood

Soaking rains fell across the region. Combined with the antecedent wet conditions (the three month March through May period was the second wettest on record in Rochester) area creeks rain high and in some cases overflowed. Black Creek at Churchville crested at 6.21 feet at 6:30 AM EST on the 7th. Irondequoit Creek crested at 8.62 feet at 8:15 PM EST on the 6th.

### NYZ019

#### Chautauqua

07 2105EST  
08 0725EST 0 0 0.00K Frost/Freeze

Unusually cold temperatures for early May resulted in a freeze across the interior sections of Chautauqua County overnight. The temperature fell below freezing for eight hours with a low of 30 degrees in Clymer.

08 2215EST  
09 0645EST 0 0 0.00K Frost/Freeze

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	May 2017
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## CORRECTIONS

### NEW YORK, West

**NYZ012-085**

#### **Southern Erie - Wyoming**

09	0330EST								
	0615EST			0	0	0.00K			Frost/Freeze

Unusually cold temperatures for early May resulted in a freeze across the interior sections of western Southern Tier including parts of southern Erie, Chautauqua and Wyoming Counties overnight. The temperature fell below freezing for up to eight hours in some locations. Recorded low temperatures included 30 degrees in Clymer, 31 degrees in Warsaw and 29 degrees in East Aurora.

#### **Monroe County**

**1 SSW Beechwood**

14	1443EST			0	0				Hail (0.75)
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#### **Monroe County**

**1 E Railroad Mills**

14	1502EST			0	0				Hail (0.75)
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#### **Ontario County**

**2 ENE Fishers**

14	1504EST			0	0				Hail (0.75)
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#### **Ontario County**

**1 N Canandaigua**

14	1533EST			0	0				Hail (0.75)
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#### **Ontario County**

**2 W Ennerdale**

14	1535EST			0	0	2.00K			Hail (1.00)
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A thunderstorm moving across the Finger Lakes dropped pea- to dime-sized hail on Rochester and the southeast suburbs, including the annual Lilac Festival. The storm merged with another cell over northwest Ontario County. That storm produced one-inch hail just east of Canandaigua.

#### **Erie County**

**Collins**

18	1422EST			0	0				Hail (1.00)
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#### **Livingston County**

**1 S South Lima**

18	1424EST			0	0				Hail (1.00)
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#### **Livingston County**

**1 W South Lima**

18	1424EST			0	0				Hail (1.00)
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#### **Erie County**

**3 SE New Oregon**

18	1433EST			0	0				Hail (2.00)
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#### **Erie County**

**4 SE New Oregon**

18	1434EST			0	0				Hail (0.88)
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#### **Erie County**

**1 W East Concord**

18	1438EST			0	0				Hail (1.00)
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#### **Livingston County**

**1 E Dansville**

18	1455EST			0	0				Hail (0.75)
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#### **Ontario County**

**2 WSW Oaks Corners**

18	1512EST			0	0				Hail (1.25)
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#### **Livingston County**

**2 SSE Ross Corners**

18	1530EST			0	0	10.00K	0.00K		Thunderstorm Wind (52EG)
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Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Ontario County**

**Geneva**

18	1541EST			0	0	12.00K	0.00K		Thunderstorm Wind (52EG)
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Thunderstorm winds downed trees and large branches which blocked sections of St. Clair Street.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Lewis County**

**1 NNW Croghan**

18	1644EST			0	0	10.00K	0.00K		Thunderstorm Wind (52EG)
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Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

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

May 2017

## CORRECTIONS

### NEW YORK, West

#### **Lewis County**

**1 SW New Bremen Dufllo Arp** 18 1648EST 0 0 12.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds in New Bremen.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Oswego County**

**Fulton** 18 1654EST 0 0 Hail (1.50)

#### **Oswego County**

**1 E Phoenix** 18 1659EST 0 0 Hail (1.50)

#### **Oswego County**

**1 SE Volney** 18 1659EST 0 0 Hail (2.50)

#### **Oswego County**

**Palermo** 18 1659EST 0 0 12.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Oswego County**

**1 W Clifford** 18 1700EST 0 0 Hail (2.50)

#### **Oswego County**

**Fulton** 18 1700EST 0 0 Hail (1.50)

#### **Oswego County**

**2 E Mt Pleasant** 18 1700EST 0 0 20.00K 0.00K Hail (2.00)  
Large hail broke windows and damaged building siding.

#### **Oswego County**

**2 SSE Central Square** 18 1705EST 0 0 Hail (1.50)

#### **Oswego County**

**1 N Clifford** 18 1705EST 0 0 Hail (1.75)

#### **Oswego County**

**3 S Central Square** 18 1706EST 0 0 Hail (1.75)

#### **Oswego County**

**1 SE Wellwood** 18 1706EST 0 0 Hail (2.50)

#### **Lewis County**

**1 W Beaches Bridge** 18 1707EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds on Number 4 Road.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Oswego County**

**West Monroe** 18 1709EST 0 0 10.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Oswego County**

**Constantia** 18 1713EST 0 0 12.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Oswego County**

**1 SE Albion Center** 18 1716EST 0 0 Hail (1.50)

#### **Oswego County**

**1 SW Altman** 18 1721EST 0 0 Hail (1.75)

#### **Oswego County**

**1 NE Cleveland** 18 1721EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

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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May 2017

## CORRECTIONS

### NEW YORK, West

#### **Chautauqua County 1 NE Dunkirk**

18 2243EST 0 0 Hail (0.75)

#### **Chautauqua County 1 S Silver Creek**

18 2255EST 0 0 15.00K 0.00K Thunderstorm Wind (52EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Several rounds of thunderstorms moved across the region during from the afternoon through the early overnight hours. Numerous storms tracked from the western Southern Tier across the northern Finger Lakes and into the eastern Lake Ontario region. Numerous reports of hail from dime- to golf-ball sized were received. The hail, up to two-and-a-half inches, did damage siding, autos and broke windows. There were also some reports of downed trees and wires from the thunderstorm winds. Downed trees blocked several roads. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Chautauqua County 2 SE Forestville**

28 1724EST 0 0 Hail (2.00)

#### **Chautauqua County 1 N Forestville**

28 1729EST 0 0 Hail (1.75)

#### **Cattaraugus County 1 N Perrysburg**

28 1745EST 0 0 Hail (1.75)

#### **Cattaraugus County 1 NW Delevan**

28 1751EST 0 0 Hail (1.00)

#### **Erie County Sardinia**

28 1755EST 0 0 Hail (2.00)

#### **Erie County Sardinia**

28 1755EST 0 0 20.00K 0.00K Thunderstorm Wind (52EG)  
Thunderstorm winds downed a large tree which fell on and damaged a house.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Erie County 1 E North Collins**

28 1809EST 0 0 Hail (1.00)  
Thunderstorms that developed during the late afternoon / evening hours produced hail up to two-inches in diameter.

#### **Allegany County 1 N Whitesville**

30 1221EST 0 0 Hail (1.25)

#### **Ontario County 1 NE Phelps**

30 1305EST 0 0 Hail (1.00)

#### **Oswego County 2 NE Sandy Pond**

30 1305EST 0 0 Hail (0.75)

#### **Wayne County 2 NW Wolcott**

30 1308EST 0 0 Hail (0.75)

#### **Cayuga County North Fair Haven**

30 1325EST 0 0 Hail (0.75)  
Thunderstorms developed ahead of an approaching cold front. The thunderstorms produced hail up to a quarter-sized in diameter across the western southern tier and Finger Lakes region.

### St. Lawrence River

#### **SLZ024**

#### **St Lawrence River From Ogdensburg To St Regis Ny**

18 2025EST 0 0 0.00K Marine Thunderstorm Wind  
A thunderstorm crossing the St. Lawrence River produced gusts measured to 39 knots at Massena.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	June 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### CALIFORNIA, South Central

#### Mariposa County

##### 4 ENE Foresta

01	0000PST								
23	1522PST			0	0	0.00K	0.00K	Flood	

The Merced River at Pohono Bridge remained above it's flood stage at 10 feet on as June began and remained above flood stage through June 7. Flood stage was exceeded again between June 19 and June 23.

The Merced River at Pohono Bridge began the month above it's flood stage at 10 feet on and remained above flood stage through June 7. Flood stage was exceeded again between June 19 and June 23.

#### CAZ095-098-099

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

11	0050PST								
	1432PST			0	0	0.00K	0.00K	High Wind	

#### Mariposa County

##### 2 E Elliott Corner

11	1600PST								
12	0725PST			0	0	0.00K	0.00K	Heavy Rain	

A spotter in Ponderosa Basin reported 24 hour rainfall total of 1.00. Most of this fell during the evening of June 11 through the early morning of June 12.

A cold upper low pressure system deepened over the Pacific Northwest on June 10 pushing a strong cold front through Central California on the morning of June 11 resulting in a period of strong winds over the Kern County Mountains and Deserts from the afternoon of June 10 through the evening of June 11. This system also produced widespread rainfall over the area from the afternoon of June 11 through the morning of June 12 as an unseasonably cool and unstable airmass prevailed over the area. Rainfall amounts were generally light (a tenth of an inch or less); however, but snow was observed as low as 6000 feet over the mountains and up to 3 inches of new snow fell over the highest elevations of the Southern Sierra Nevada.

#### CAZ089>095-098>099

##### E Central S.j. Valley - Indian Wells Vly - Kern Cty Mtns - S Sierra Foothills - Se Kern Cty Desert - Se S.j. Valley - Sw S.j. Valley - Tulare Cty Foothills - W Central S.j. Valley

18	1100PST								
23	2000PST			0	0	0.00K	0.00K	Heat	

A large area of high pressure began to build north and west into central California on June 13 and strengthened over the area through June 17 with temperatures rising to well above seasonal normals. This led to a heat wave which resulted in high temperatures often exceeding 105 degrees across much of the San Joaquin Valley between June 18 and June 25 and exceeding 110 degrees across the Kern County Deserts. Excessive Heat Warnings were posted for these areas as well as for the southern Sierra foothills and the Kern County Mountains where temperatures were much above normal for much of this period.

#### CAZ095

##### Kern Cty Mtns

18	1330PST								
25	2300PST			0	0		0.00K	Wildfire	

The Highway fire began on June 18, 2017, 5 miles northeast of Bodfish, near Lake Isabella CA, in Kern County. The cause is under investigation. It burned 1541 acres before being contained on June 28, 2017. The fire closed part of Highway 178 near Lake Isabella from July 18 to July 20. The fire was contained on June 25, 2017. Cost of containment was \$3 Million.

#### Fresno County

##### 1 SSE Belmont Avenue 2 ENE Minkler

19	1700PST								
29	1100PST			0	0	0.00K	0.00K	Flood	

Riverbend and Kings Canyon RV Park near Sanger flooded as the result of large water releases along the Kings River.

#### Tulare County

##### 4 NW Traver

19	1700PST								
29	1100PST			0	0	500.00K	0.00K	Flood	

Flooding occurred at the Riverland RV resort between Kingsburg and Traver as the result of a levee breach on the Kings River which occurred on June 19.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	June 2017
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## CORRECTIONS

### CALIFORNIA, South Central

#### **Kings County**

2 SSW Hardwick	22	1300PST							
3 WNW Grangeville	29	1100PST			0	0	0.00K	0.00K	Flood

A levee breach occurred along an irrigation canal near Grangeville. The report was received from the California Department of Water Resources after being reported by Kings County Sheriff Deputies.

#### **Fresno County**

1 W Reedley	23	1240PST							
	29	1100PST			0	0	0.00K	0.00K	Flood

Flooding was reported by an NWS employee along the Kings River just south of the bridge on Manning Ave at the adjacent RV Park on the west side of Reedley.

Large water releases from Pine Flat Dam resulted in flooding along portions of the Kings River between June 18 and June 29. Evacuations began at Riverland RV park near Kingsburg on June 18. A levee breach near the Kings River Country Club near Kingsburg occurred on June 23 followed by a second breach just downstream of the first levee breach on June 24. As a result of the second breach, 90 homes were threatened by flooding in Tulare County. 300 people were evacuated as water ponded up to 12 feet deep around homes and 7 structures were damaged. A sandbagging operation took place on June 24 and June 25 in Tulare County on on June 25 and June 26 using over 1000 sandbags. Releases were cut back at Pine Flat Dam on June 26 and the flooding downstream receded by June 29.

#### **CAZ089**

#### **W Central S.j. Valley**

	23	1500PST			0	0		0.00K	Wildfire
	28								

The Creek fire began on June 25, 2017, off Los Gatos Creek Rd, west of Derrick, or 13 miles northwest of Coalinga, CA in Fresno County. The cause is under investigation. It burned 357 acres before being contained on June 28, 2017. There was one residence and 3 sheds destroyed. The cost of containment was \$1.5 million.

#### **Tulare County**

3 WSW Delft Colony	24	0415PST							
	29	1100PST			0	0	0.00K	0.00K	Flood

A levee breach was reported by emergency officials along the Kings River east of Kingsburg.

Large water releases from Pine Flat Dam resulted in flooding along portions of the Kings River between June 18 and June 29. Evacuations began at Riverland RV park near Kingsburg on June 18. A levee breach near the Kings River Country Club near Kingsburg occurred on June 23 followed by a second breach just downstream of the first levee breach on June 24. As a result of the second breach, 90 homes were threatened by flooding in Tulare County. 300 people were evacuated as water ponded up to 12 feet deep around homes and 7 structures were damaged. A sandbagging operation took place on June 24 and June 25 in Tulare County on on June 25 and June 26 using over 1000 sandbags. Releases were cut back at Pine Flat Dam on June 26 and the flooding downstream receded by June 29.

### KANSAS, Northeast

#### **Leavenworth County**

4 W Leavenworth	15	1955CST							
		1958CST			0	0	0.00K	0.00K	Hail (1.00)

#### **Leavenworth County**

2 NNE Reno	15	2001CST							
		2004CST			0	0	0.00K	0.00K	Hail (1.00)

#### **Leavenworth County**

1 E Lansing	15	2001CST							
		2004CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)

Several trees down across the city of Lansing. Some were up to 10 inches in diameter, but most were in the 4 to 6 inch range.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.



# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
<u>KANSAS, Northeast</u>										
<b>Leavenworth County</b> <b>6 NNE Jarbalo</b>	15	2002CST 2005CST			0	0	0.00K	0.00K	Hail (1.00)	
<b>Johnson County</b> <b>2 SE Wilder</b>	15	2026CST			0	0	0.00K	0.00K	Hail (0.75)	
<b>Atchison County</b> <b>Lancaster</b>	16	2217CST 2220CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
Trees and a few power lines down in Lancaster. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Atchison County</b> <b>1 ESE Lancaster</b>	16	2223CST 2228CST			0	0	0.00K	0.00K	Thunderstorm Wind (72MG)	
An Emergency Manager reported a 83 mph measured gust. These winds blew in some windows in a trained spotters truck at Kingman Road and 286th Road. Note: The measured wind gust of 72 knots is equivalent to 83 mph.										
<b>Atchison County</b> <b>2 SSE Atchison Earhart Arp</b>	16	2229CST 2232CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
Trees were uprooted at 274th and Phillips Road. Upstream measurements were in the 70 to 85 mph range. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Atchison County</b> <b>5 SW Cummings</b>	16	2235CST 2238CST			0	0	0.00K	0.00K	Thunderstorm Wind (66MG)	
An Emergency Manager near Cummings reported a 76 mph wind. Note: The measured wind gust of 66 knots is equivalent to 76 mph.										
<b>Atchison County</b> <b>1 S Atchison</b>	16	2236CST 2239CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
An Emergency Manager near Atchison reported a 60 mph wind gust. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Atchison County</b> <b>3 W Potter</b>	16	2253CST 2256CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
Six inch tree limbs were down. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Leavenworth County</b> <b>4 SSW Springdale</b>	16	2306CST 2309CST			0	0	0.00K	0.00K	Thunderstorm Wind (52MG)	
An Emergency Manager reported 60 mph wind. Note: The measured wind gust of 52 knots is equivalent to 60 mph.										
<b>Leavenworth County</b> <b>Lansing</b>	16	2313CST 2316CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
Fire department reported 60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										

# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
<u>KANSAS, Northeast</u>										
<b>Leavenworth County</b> <b>1 S Leavenworth</b>	16	2313CST 2316CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
Emergency Management reported 60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Leavenworth County</b> <b>1 N Basehor</b>	16	2316CST 2319CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
A few power lines were down just east of Basehor. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Leavenworth County</b> <b>3 N Fairmount</b>	16	2318CST 2321CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
Power lines down across the area. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Leavenworth County</b> <b>2 NE Fairmount</b>	16	2321CST 2324CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
Emergency Management reported 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Wyandotte County</b> <b>3 S Wolcott</b>	16	2321CST 2324CST			0	0	0.00K	0.00K	Thunderstorm Wind (70MG)	
A trained spotter reported 81 mph wind, with considerable tree damage.  Note: The measured wind gust of 70 knots is equivalent to 81 mph.										
<b>Wyandotte County</b> <b>5 WNW Wolcott</b>	16	2321CST 2324CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
Emergency Management reported 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Wyandotte County</b> <b>3 ESE Piper</b>	16	2323CST 2326CST			0	0	0.00K	0.00K	Thunderstorm Wind (70EG)	
A storm chaser at the Hollywood Casino reported 80 mph winds.  Note: The estimated wind gust of 70 knots is equivalent to 81 mph.										
<b>Leavenworth County</b> <b>2 NNE Linwood</b>	16	2328CST 2331CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
Emergency Management reported 65 mph wind. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Leavenworth County</b> <b>Lansing</b>	16	2329CST 2332CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
Emergency Management reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										

# Storm Data and Unusual Weather Phenomena

June 2017									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm
CORRECTIONS									
KANSAS, Northeast									
Leavenworth County 3 WNW Loring	16	2330CST 2333CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
	Emergency Management reported 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								
Johnson County 1 NNE Westwood	16	2335CST 2338CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
	A large tree limb fell onto a car damaging the car on 49th between Booth and Adams.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								
Johnson County 3 WSW Leawood	16	2340CST 2343CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Public reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Johnson County 1 WSW Shawnee	16	2344CST 2347CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Public reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Johnson County 1 W (IXD)Jhnsn Co Indsl	17	0004CST 0007CST			0	0	0.00K	0.00K	Thunderstorm Wind (54MG)
	ASOS at KIXD reported a 63 mph wind gust (54 knots). Note: The measured wind gust of 54 knots is equivalent to 62 mph.								
Linn County 1 W Pleasanton	17	0157CST 0200CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
	Large tree in the roadway. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
Leavenworth County 1 S Leavenworth	17	1950CST 1953CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Trained Spotter reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Leavenworth County Lansing	17	1951CST 1954CST			0	0			Thunderstorm Wind (61EG)
	Power lines were down in Lansing with a blown transformer. Power poles were broken in half.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								
Leavenworth County 2 SE Reno	17	1952CST 1955CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	Emergency Management reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	June 2017
CORRECTIONS										
KANSAS, Northeast										
Johnson County 1 SSE De Soto	17	1953CST 1956CST			0	0	0.00K	0.00K	Thunderstorm Wind (59MG)	
		Trained spotter reported 68 mph wind. Note: The measured wind gust of 59 knots is equivalent to 68 mph.								
Wyandotte County 2 N Grandview	17	1957CST 2000CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
		Trained spotter reported 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Johnson County 1 E Shawnee	17	2000CST 2003CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
		A 2 to 3 inch tree limb was down. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Johnson County 1 SSE Monticello	17	2007CST 2010CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
		A 50 foot tall, 4 foot diameter tree was knocked over. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
Johnson County 1 SE Merriam	17	2009CST 2012CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
		A 15 inch diameter tree was down near Merriam. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.								
Johnson County 1 S Roeland Park	17	2012CST 2015CST			0	0	0.00K	0.00K	Thunderstorm Wind (56MG)	
		Emergency Management reported 60 mph wind. Note: The measured wind gust of 56 knots is equivalent to 64 mph.								
Wyandotte County 5 ESE Turner	17	2015CST 2018CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
		A few 3 to 5 inch tree limbs were broken. On the afternoons of June 15 through June 17 multiple rounds of severe storms raked through eastern Kansas causing widespread wind damage and large hail. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
Linn County 1 W Pleasanton	30	0241CST 0246CST			0	0			Thunderstorm Wind (61EG)	
		Several outbuildings were blown down and numerous tree limbs were down in Pleasanton.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								
Linn County 2 NNE Trading Post	30	0241CST 0244CST			0	0			Thunderstorm Wind (61EG)	
		A semi truck was blown into the ditch on Highway 69 at mile marker 109. Wind damage extends down to Pleasanton along Highway 69. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								

# Storm Data and Unusual Weather Phenomena

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

June 2017

## CORRECTIONS

### KANSAS, Northeast

#### Atchison County

3 W Potter

2 S Cummings

30	0429CST							
	1029CST			0	0	0.00K	0.00K	Flood

Crooked Creek was nearly over 214th road. All farmland on either side of the creek is flooded.

On the evenings of June 29 and 30 a couple rounds of severe thunderstorms moved through eastern Kansas, producing some wind damage. Heavy rain associated with these storms also contributed to flooding along area roadways.

### LAKE ERIE

#### LEZ041

#### Dunkirk To Buffalo Ny

26	2355EST			0	0		0.00K	Marine Thunderstorm Wind
27	0914EST			0	0		0.00K	Waterspout

Thunderstorms accompanied a cold front crossing Lake Erie. The storms produced wind gusts measured to 37 knots at Dunkirk. In the cold air following the front, a waterspout was sighted just west of Sturgeon Point.

### LAKE ONTARIO

#### LOZ043-044

#### Hamlin Beach To Sodus Bay Ny - Sodus Bay To Mexico Bay Ny

18	1330EST							
	1448EST			0	0		0.00K	Marine Thunderstorm Wind

Under the influence of a warm, moist airmass, thunderstorms developed across Lake Ontario. Thunderstorm wind gusts to 37 knots were measured with the storms.

#### LOZ042

#### Niagara River To Hamlin Beach Ny

25	1322EST			0	0		0.00K	Marine Thunderstorm Wind
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Thunderstorms crossing Lake Ontario produced wind gusts measured to 54 knots at Olcott and 44 knots at Youngstown.

#### LOZ044

#### Sodus Bay To Mexico Bay Ny

27	1828EST			0	0		0.00K	Waterspout
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A waterspout was sighted just northeast of Nine Mile Point.

### MISSOURI, Northwest

#### Putnam County

3 W Hartford

14	2104CST			0	0	0.00K	0.00K	Hail (0.88)
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On the evening of June 14 a storm produced a nickel sized hail stone.

#### Platte County

1 N Waldron

15	2005CST							
	2008CST			0	0			Thunderstorm Wind (52EG)

Trees were down across HWY 45 near Waldron.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Platte County

1 WSW Milton

15	2015CST							
	2018CST			0	0			Thunderstorm Wind (52EG)

Numerous tree limbs were blown down in the area NW of 67th St and N Overland Dr.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	June 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### MISSOURI, Northwest

#### **Platte County 2 E Parkville**

15	2028CST 2031CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Numerous reports of trees and limbs down in the Riss lake area.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Clay County 1 N Bigham Hgt**

15	2032CST 2033CST			0	0	0.00K	0.00K	Hail (1.00)
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#### **Clay County Bigham Hgt**

15	2032CST 2035CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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A trained spotter reported a 60 mph wind.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Clay County 1 SW Liberty**

15	2035CST 2037CST			0	0			Hail (1.50)
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#### **Clay County 1 E Avondale**

15	2035CST 2036CST			0	0	0.00K	0.00K	Hail (1.00)
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#### **Clay County 1 WNW Liberty**

15	2037CST			0	0	0.00K	0.00K	Hail (0.88)
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#### **Clay County 1 S Liberty Mitchell Arp**

15	2041CST			0	0	0.00K	0.00K	Hail (0.75)
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#### **Clay County 2 NW Liberty City Arpt**

15	2053CST			0	0	0.00K	0.00K	Hail (1.00)
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#### **Nodaway County 3 NW Quitman**

15	2053CST 2056CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Several trees were down across western portions of Nodaway County.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Andrew County 1 SSW Rosendale**

15	2056CST			0	0	0.00K	0.00K	Hail (0.75)
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#### **Harrison County 3 SE Brooklyn**

15	2203CST 2206CST			0	1	0.00K	0.00K	Thunderstorm Wind (56EG)
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Semi was blown off of I-35 near mile marker 99, with driver sustaining minor injuries.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Harrison County 1 E Washington Center**

15	2203CST			0	0			Thunderstorm Wind (52EG)
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Outbuildings destroyed on W 200th Street east of Washington Center.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Harrison County Eagleville Cainsville**

15	2203CST 2206CST			0	0			Thunderstorm Wind (61EG)
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A machine shed was destroyed. Power lines were down from Ridgeway to Cainsville to Blythedale, along with power outages in those areas, including Eagleville.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
<u>MISSOURI, Northwest</u>										
<b>Harrison County</b>										
1 W Ridgeway	15	2203CST								
		2206CST			0	2			Thunderstorm Wind (61EG)	
A tree fell on a mobile home on the 200 block of 2nd Street, temporarily trapping two people, both of whom sustained minor to moderate injuries.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Mercer County</b>										
1 W Princeton	15	2215CST								
		2218CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
Tree limbs of various sizes and conditions were down near Princeton.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Grundy County</b>										
Trenton	15	2223CST								
		2226CST			0	0			Thunderstorm Wind (52EG)	
A tree was blocking Crowder Road at Mable Street.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Adair County</b>										
1 S Kirksville	15	2330CST								
		2333CST			0	0			Thunderstorm Wind (56EG)	
Power poles and power lines were down near Kirksville.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Atchison County</b>										
4 W Westboro	16	2025CST								
		2028CST			0	0	0.00K	0.00K	Thunderstorm Wind (76MG)	
Recorded at a wind farm about 3 miles south of the Missouri and Iowa border. Height of the instrument is unknown.										
Note: The measured wind gust of 76 knots is equivalent to 87 mph.										
<b>Atchison County</b>										
1 N Tarkio	16	2040CST								
		2043CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
Trees were reported down in and around Tarkio.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Nodaway County</b>										
3 ENE Maryville Rankin Arp	16	2049CST								
		2052CST			0	0			Thunderstorm Wind (61EG)	
A camper was blown into Mozingo Lake. There was no follow up on whether there was an occupant inside.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Worth County</b>										
1 N Grant City	16	2100CST								
		2103CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
A trained spotter reported a 60-70 mph wind.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Gentry County</b>										
Albany	16	2113CST								
		2116CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
A large tree was blocking the road on Henley St in Albany.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										



# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
<u>MISSOURI, Northwest</u>										
<b>Holt County</b> 1 E Oregon	16	2126CST 2129CST			0	0	0.00K	0.00K	Thunderstorm Wind (67EG)	
Fire department reported a 70 to 80 mph wind. Note: The estimated wind gust of 67 knots is equivalent to 77 mph.										
<b>Andrew County</b> 1 SE Rosendale	16	2140CST 2143CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
Emergency Manager reported a 60-70 mph wind. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Buchanan County</b> 1 NE (STJ)St Joseph Mem A 3 W San Antonio	16	2147CST 2152CST			0	0			Thunderstorm Wind (66MG)	
Numerous trees and power lines were down across St Joseph. The ASOS at St Joseph Airport (KSTJ) measured 76 mph wind as the storm came through. Note: The measured wind gust of 66 knots is equivalent to 76 mph.										
<b>Harrison County</b> 1 S Gilman City	16	2153CST 2156CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
A public spotter reported a 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
<b>Grundy County</b> 1 SE Spickard	16	2201CST 2204CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
A fire department employee reported a 50-60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>DeKalb County</b> 3 W Stewartville	16	2202CST 2205CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
Emergency Manager reported a 60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Andrew County</b> 5 SW Avenue City	16	2205CST 2208CST			0	0			Thunderstorm Wind (65EG)	
Large tree down blocking the road near HWY 59 and DD in Country Club Village. Nearby ASOS at KSTJ recorded 76 mph wind with this storm. Note: The estimated wind gust of 65 knots is equivalent to 75 mph.										
<b>Clinton County</b> 2 SSE Perrin	16	2210CST 2213CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
An amateur radio spotter reported a 60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Clinton County</b> 1 SE Plattsburg	16	2214CST 2217CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
A trained spotter reported a 60 mph wind. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										

# Storm Data and Unusual Weather Phenomena

June 2017

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

### MISSOURI, Northwest

#### **Clinton County**

##### **3 E Plattsburg Arpk Arpt**

16	2217CST 2220CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Highway 33 north of 280th St is blocked due to a large tree down.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Clinton County**

##### **1 E Plattsburg**

16	2217CST 2220CST			0	0			Thunderstorm Wind (61EG)
----	--------------------	--	--	---	---	--	--	--------------------------

Damage was reported to a fertilizer structure at Sur-Gro.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clinton County**

##### **1 ESE Plattsburg**

16	2217CST 2220CST			0	0			Thunderstorm Wind (61EG)
----	--------------------	--	--	---	---	--	--	--------------------------

HWY 116 near Birch St. closed due to live power line across the road along with numerous trees and limbs throughout the city.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clinton County**

##### **2 NNE Plattsburg Arpk Arpt**

16	2222CST 2225CST			0	0			Thunderstorm Wind (61EG)
----	--------------------	--	--	---	---	--	--	--------------------------

Damage of unknown extent near NW 296th St and NW HWY Y near Plattsburg.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

#### **Clinton County**

##### **2 SE Perrin**

16	2222CST 2225CST			0	0	0.00K	0.00K	Thunderstorm Wind (59EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

An amateur radio spotter reported a 60-70 mph wind.

Note: The estimated wind gust of 59 knots is equivalent to 68 mph.

#### **Clinton County**

##### **4 S Gridley**

16	2229CST 2232CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

An amateur radio spotter reported a 60-70 mph wind.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Ray County**

##### **1 E Richmond**

16	2245CST 2248CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

A large tree of unknown size and condition was down near Richmond.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Lafayette County**

##### **1 NNE Lexington**

16	2258CST 2301CST			0	0			Thunderstorm Wind (56EG)
----	--------------------	--	--	---	---	--	--	--------------------------

Approximately two foot branch snapped off and pushed up against the exterior wall of the Lafayette Regional health Center. No damage was reported to the hospital.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Lafayette County**

##### **Alma**

16	2300CST 2303CST			0	0			Thunderstorm Wind (61EG)
----	--------------------	--	--	---	---	--	--	--------------------------

A 70 mph wind caused some structural damage to school and some crops.

Note: The estimated wind gust of 61 knots is equivalent to 70 mph.

# Storm Data and Unusual Weather Phenomena

June 2017

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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## CORRECTIONS

### MISSOURI, Northwest

#### **Lafayette County Alma**

16	2307CST 2310CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

A foot and a half diameter hollowed out tree fell near Alma.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Platte County 1 S (MCI)KS City Intl Ar**

16	2324CST 2327CST			0	0	0.00K	0.00K	Thunderstorm Wind (56MG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

ASOS at Kansas City International Airport reported 64 mph winds.

Note: The measured wind gust of 56 knots is equivalent to 64 mph.

#### **Platte County 1 S (MCI)KS City Intl Ar**

16	2330CST 2333CST			0	0	0.00K	0.00K	Thunderstorm Wind (56MG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

ASOS at Kansas City International Airport reported 65 mph winds.

Note: The measured wind gust of 56 knots is equivalent to 64 mph.

#### **Clay County 3 WNW Paradise**

16	2334CST			0	0	1.00K	0.00K	Lightning
----	---------	--	--	---	---	-------	-------	-----------

A house was struck by lightning on NE 196th St near Smithville.

#### **Jackson County 2 W Leeds**

17	0000CST			0	0	50.00K	0.00K	Lightning
----	---------	--	--	---	---	--------	-------	-----------

Lightning strike caused a tree to catch fire which then fell on to a house and resulted in a house fire.

#### **Pettis County Sedalia**

17	0000CST 0003CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

A few trees down in Sedalia with some power outages.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Henry County 1 SW Clinton**

17	0120CST 0123CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

Multiple trees were down in the city of Clinton.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Platte County 1 S Platte City**

17	1959CST 2002CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

An amateur radio spotter reported 60 mph wind.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Clay County 1 S Nashua**

17	2005CST 2008CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
----	--------------------	--	--	---	---	-------	-------	--------------------------

A tree of unknown size and condition was snapped near Farrelview.

Note: The estimated wind gust of 56 knots is equivalent to 64 mph.

#### **Platte County 1 NE Riverside**

17	2007CST 2010CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)
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A NWS employee reported a 70-80 mph wind.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm
CORRECTIONS									
MISSOURI, Northwest									
Clay County 1 W Claycomo	17	2010CST							
		2013CST			0	0	10.00K	0.00K	Thunderstorm Wind (61EG)
	A 10 inch diameter tree fell on a car. No one was injured. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.								
	Clay County 1 W Claycomo	17	2013CST						
2016CST					0	0	0.00K	0.00K	Thunderstorm Wind (56EG)
Tree damage with 5 inch limbs snapped off. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									
Clay County 1 N Claycomo		17	2017CST						
	2020CST				0	0	0.00K	0.00K	Thunderstorm Wind (50EG)
	A trained spotter reported a 60 mph wind. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.								
	Clay County 1 N Bigham Hgt	17	2018CST						
2021CST					0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
A trained spotter reported a 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
Jackson County 2 WSW Kansas City		17	2019CST						
	2022CST				0	0			Thunderstorm Wind (52EG)
	Damage done to the Boulevardia event in the West Bottoms to tents and vendor stands caused the event to close early. No damage estimate was given. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
	Clay County 1 E Winnwood	17	2025CST						
2028CST					0	0			Thunderstorm Wind (70EG)
A trained spotter reported a 80 mph wind with blown transmitters.  Note: The estimated wind gust of 70 knots is equivalent to 81 mph.									
Clay County 2 ENE Bigham Hgt		17	2025CST						
	2028CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	A NWS employee reported a 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								
	Clay County 1 E Linden	17	2025CST						
2028CST					0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
A NWS employee reported a 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
Jackson County 2 ESE Dodson		17	2025CST						
	2028CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
	A trained spotter reported a 60 mph wind. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.								

# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed      Injured		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
MISSOURI, Northwest										
Jackson County										
1 E Leeds										
	17	2025CST								
		2028CST			0	0	0.00K	0.00K	Thunderstorm Wind (65EG)	
A trained spotter reported a 70-80 mph wind. Power flashes occurred at the BP station across from Kauffman Stadium.										
Note: The estimated wind gust of 65 knots is equivalent to 75 mph.										
Clay County										
1 W Claycomo										
	17	2029CST								
		2032CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
A trained spotter reported a 60-70 mph wind with some small trees down.										
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
Jackson County										
3 ESE Blue Summit										
	17	2029CST								
		2032CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
Several 4 to 6 inch tree limbs were blocking 44th Street at Phelps Road.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Clay County										
1 E Linden										
	17	2030CST								
		2033CST			0	0			Thunderstorm Wind (52EG)	
A transformer was blown in Oakwood Park.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Jackson County										
2 E Blue Summit										
	17	2030CST								
		2033CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
A 3 to 4 inch tree limb was down in Independence.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Jackson County										
3 ESE Blue Summit										
	17	2034CST								
		2037CST			0	0	0.00K	0.00K	Thunderstorm Wind (50EG)	
A trained spotter reported a 60 mph wind.										
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
Jackson County										
2 NE Blue Spgs										
	17	2040CST								
		2043CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
A trained spotter reported a 60 mph wind.										
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Jackson County										
2 ESE Blue Spgs										
	17	2043CST								
		2046CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
A trained spotter reported a 70 mph wind with transformers blowing nearby.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
Jackson County										
3 E Cement City										
	17	2044CST								
		2047CST			0	0	0.00K	0.00K	Thunderstorm Wind (50MG)	
A trained spotter reported a 60 mph wind.										
Note: The measured wind gust of 50 knots is equivalent to 58 mph.										

# Storm Data and Unusual Weather Phenomena

June 2017									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
CORRECTIONS									
MISSOURI, Northwest									
Jackson County Lake Lotawana	17	2045CST 2048CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
A 8 inch tree branch was down. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
Lafayette County 4 SSW Napoleon 4 NNW Odessa	17	2047CST 2053CST	4.75	50	0	0			Tornado (EF0)
A tornado formed in western Lafayette County late in the evening of June 17, 2017 just north of Bates City and west of Mayview. This tornado remained mostly over rural portions of Lafayette County and caused mostly minor damage to some residences as well as snapping trunks of a few large trees.									
Jackson County 1 E Lake Tapawingo	17	2052CST 2055CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
A 6 inch tree limb was down. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.									
Lafayette County 1 E Odessa	17	2054CST 2057CST			0	0			Thunderstorm Wind (56EG)
Several trees and power lines were down in Odessa. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.									
Jackson County 1 N Oak Grove	17	2055CST 2058CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
A public spotter reported a 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
Lafayette County 1 W Higginsville Jct Arp	17	2110CST 2113CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
A trained spotter reported a 70 mph wind. Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
Lafayette County 1 N Emma	17	2120CST 2123CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)
A trained spotter reported a 70 mph wind with blown transmitters nearby.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									
Linn County 2 E Fountain Grove	17	2142CST 2143CST			0	0	0.00K	0.00K	Hail (1.00)
Howard County Glasgow	17	2147CST 2150CST			0	0			Thunderstorm Wind (61EG)
Numerous large trees were down throughout the city. Utility poles were also snapped in half.  Note: The estimated wind gust of 61 knots is equivalent to 70 mph.									

# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
MISSOURI, Northwest										
Saline County 3 NE Harmony	17	2147CST 2150CST			0	0	0.00K	0.00K	Thunderstorm Wind (61EG)	
Numerous large trees were down across town. Utility poles ere snapped in half.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
Howard County Glasgow	17	2150CST 2153CST			0	0			Thunderstorm Wind (61EG)	
Power lines and large trees limbs were down.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
Cooper County 1 S Otterville	17	2201CST 2204CST			0	0	0.00K	0.00K	Thunderstorm Wind (56EG)	
A large tree of unknown size and conditions was down near Otterville.										
On the afternoons of June 15 through June 17 mulitple rounds of severe storms raked through western and central Missouri causing widespred wind damage and large hail. A tornado occurred in Lafayette County after dark, causing minor damage to rural areas north of Bates City. Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
Nodaway County 2 SSE Pickering	28	1645CST 1649CST			0	0	0.00K	0.00K	Hail (1.75)	
Worth County 3 ENE Worth	28	1732CST 1735CST			0	0			Thunderstorm Wind (65EG)	
Power poles were snapped near Worth.										
Note: The estimated wind gust of 65 knots is equivalent to 75 mph.										
Worth County 3 NNW Worth	28	1735CST 1736CST			0	0	0.00K	0.00K	Hail (1.00)	
Worth County 2 N Denver	28	1745CST 1748CST			0	0			Hail (1.75)	
Gentry County 1 S Pinhook	28	1745CST 1748CST			0	0			Thunderstorm Wind (61EG)	
Heavy damage to outbuildings was reported.										
Note: The estimated wind gust of 61 knots is equivalent to 70 mph.										
Gentry County 1 S Pinhook 4 SE Lone Star	28	1748CST 1757CST	6.06	75	0	0			Tornado (EF0)	
A weak tornado formed in eastern Gentry County, then moved into Harrison County where it ultimately did some EF-1 damage to some structures in rural Harrison County. The extent of the damage in Gentry County was limited to tree damage in rural areas.										
Harrison County 1 NW New Hampton 3 S Bethany	28	1757CST 1814CST	10.31	75	0	0			Tornado (EF1)	



# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	June 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### MISSOURI, Northwest

This tornado is a continuation of the tornado that moved out of Gentry County. This tornado moved through mainly rural parts of Harrison County, where it produced mostly damage to trees. There was a structure west of Bethany that sustained some EF-1 damage. Otherwise the damage was EF-0 with this tornado across the county.

#### Atchison County

##### 1 N Tarkio

28	1805CST								
	1806CST				0	0	0.00K	0.00K	Hail (1.00)

#### Atchison County

##### 1 N Tarkio

28	1812CST								
	1816CST				0	0			Hail (1.75)

#### Harrison County

##### 4 NNW Mitchellville

28	1850CST								
	1852CST				0	0	0.00K	0.00K	Thunderstorm Wind (52EG)

A storm chaser reported a 60 mph wind gust.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Grundy County

##### Spickard

28	1900CST								
	1903CST				0	0			Thunderstorm Wind (65EG)

Numerous large trees were down between Mill Grove and Tindall.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

#### Grundy County

##### 1 E Spickard

28	1901CST								
	1903CST				0	0	0.00K	0.00K	Hail (1.00)

#### Putnam County

##### Unionville

28	1904CST								
	1908CST				0	0			Thunderstorm Wind (69MG)

A Missouri Mesonet station near Unionville recorded a 79 mph wind gust with thunderstorms moving through the area.

Note: The measured wind gust of 69 knots is equivalent to 79 mph.

#### Grundy County

##### 1 SW Tindall

28	1928CST								
	1930CST				0	0	0.00K	0.00K	Hail (1.50)

#### Nodaway County

##### 4 NW Arkoe

28	1931CST								
	1933CST	1.31	25		0	0			Tornado (EF0)

A weak tornado formed near Maryville, but caused little to no damage outside of some tree damage in rural Nodaway County.

#### Gentry County

##### 3 W Stanberry

28	1950CST								
	1952CST	1.44	25		0	0	0.00K	0.00K	Tornado (EF0)

A weak tornado formed in rural Gentry County, but produced little to no damage outside of some tree damage.

#### Harrison County

##### 4 NNW Bethany Mem Arpt

28	2010CST								
	2210CST				0	0	0.00K	0.00K	Flash Flood

Emergency Management reported 6 inches of water running over HWY 69 near Bethany.

# Storm Data and Unusual Weather Phenomena

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

June 2017

## CORRECTIONS

### MISSOURI, Northwest

#### **Harrison County 2 E Martinsville**

28	2016CST 2216CST			0	0	0.00K	0.00K	Flash Flood
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Highway FF south of Martinsville was impassible due to high water.

#### **Daviess County 1 NE Coffey**

28	2055CST 2100CST			0	0			Hail (2.50)
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#### **Daviess County 1 NE Coffey**

28	2055CST 2057CST			0	0			Thunderstorm Wind (52EG)
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Fire in Coffey reported 60 mph wind, concurrent with 2.5 inch hail.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Macon County 1 S La Plata**

28	2055CST 2058CST			0	0			Thunderstorm Wind (65EG)
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Numerous large trees were down near La Plata due to strong thunderstorm winds.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

#### **Macon County 1 SW La Plata**

28	2101CST 2102CST			0	0	0.00K	0.00K	Hail (1.00)
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#### **Macon County 1 SW La Plata**

28	2120CST 2123CST			0	0			Thunderstorm Wind (65EG)
----	--------------------	--	--	---	---	--	--	--------------------------

Multiple large trees were broken as a result of strong thunderstorm winds.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

#### **Nodaway County 1 ENE Parnell**

28	2128CST			0	0	0.00K	0.00K	Hail (0.75)
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#### **Daviess County 4 ENE Carlow**

28	2131CST 2134CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)
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Fire department near Lock Springs reported 60 mph wind.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### **Grundy County 1 E Trenton**

28	2135CST 2138CST			0	0			Thunderstorm Wind (65EG)
----	--------------------	--	--	---	---	--	--	--------------------------

There were several reports of trees and power poles down across Trenton.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

#### **Nodaway County 4 NW Elmo 7 NNE Gaynor**

28	2207CST							
29	0307CST			0	0	0.00K	0.00K	Flash Flood

A prolonged flash flooding event took place across much of Nodaway County on the evening of June 28. Numerous roads across the county were closed, and at least one water rescue was performed near Maryville. At one point a herd of cattle were reported floating across HWY 136. The current well-being of the cattle is unknown.

# Storm Data and Unusual Weather Phenomena

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

June 2017

## CORRECTIONS

### MISSOURI, Northwest

#### **Harrison County**

##### **1 WNW Bethany**

28	2211CST							
29	0011CST			0	0	0.00K	0.00K	Flash Flood

There were reports of numerous flooded roadways in Bethany, as well as water entering the basement of Harrison County Community Hospital.

#### **Gentry County**

##### **1 WSW Albany Meml Arpt**

28	2327CST							
29	0127CST			0	0	0.00K	0.00K	Flash Flood

Several roads in Albany were flooded, including a closure of HWY 136 across the northside of town due to running water over the roadway.

#### **Daviess County**

##### **3 E Coffey**

29	0357CST							
	0957CST			0	0	10.00K	0.00K	Flood

A vehicle ran off the roadway along HWY B when it encountered flooded roadway. He crashed the vehicle, but was rescued without injury.

#### **Grundy County**

##### **3 N Coburn**

29	0930CST							
	1530CST			0	0	0.00K	0.00K	Flood

Highways W and WW were closed near Hickory Creek due to water over the roadway.

#### **Nodaway County**

##### **3 SW Conception Jct**

29	0930CST							
	1530CST			0	0	0.00K	0.00K	Flood

Water was over Highway VV.

On the evening of June 28 a complex of supercell thunderstorms moved into northern Missouri, producing widespread large hail and damaging winds, mainly north of Interstate 70. These storms also produced at least 3 tornadoes, all north of Highway 36. The strongest damage was located in Harrison County where some low-end EF-1 damage to a residence occurred. Otherwise, the damage was confined to tree damage to rural parts of Harrison, Gentry, and Nodaway Counties. Heavy rain and slow movement of the complex contributed to some flash flooding across northern Missouri. There were no known injuries with this evening's event.

#### **Cooper County**

##### **Boonville Arpt**

29	1940CST							
	1941CST			0	0	0.00K	0.00K	Hail (1.00)

#### **Macon County**

##### **7 ESE Redman**

##### **4 NNE Callao**

29	2055CST							
	2255CST			0	0	0.00K	0.00K	Flash Flood

Multiple roads that normally do not flood flooded several inches deep, including Road DD and Highway 63, Road 149 and Eagle Road, and Road 149 and Dogwood Road.

#### **Platte County**

##### **3 WNW Barry**

29	2100CST							
	2101CST			0	0	0.00K	0.00K	Hail (1.00)

Report received via MPing.

#### **Platte County**

##### **1 N Lake Waukomis**

29	2100CST							
	2101CST			0	0	0.00K	0.00K	Hail (1.00)

#### **Platte County**

##### **1 ENE Lake Waukomis**

29	2104CST							
				0	0	0.00K	0.00K	Hail (0.75)

# Storm Data and Unusual Weather Phenomena

June 2017

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

### MISSOURI, Northwest

#### **Platte County** **3 WNW Barry**

29	2108CST								
	2109CST			0	0	0.00K	0.00K		Hail (1.00)

#### **Clay County** **1 SE Gashland**

29	2135CST								
	2136CST			0	0	0.00K	0.00K		Hail (1.00)

#### **Chariton County** **1 E Keytesville** **1 SE Salisbury**

29	2215CST								
	2237CST			0	0				Thunderstorm Wind (65EG)

Multiple trees and power lines were down along Highway 24 between Keytesville and Salisbury. Also a grain bin was blown over and a shed roof was blown off along Highway 24.

Note: The estimated wind gust of 65 knots is equivalent to 75 mph.

#### **Chariton County** **1 WNW Cunningham** **1 NNW Lagonda**

29	2333CST								
30	0133CST			0	0	0.00K	0.00K		Flash Flood

Widespread road closures were reported across Chariton County as a result of flash flooding.

#### **Macon County** **3 WNW Anabel** **2 N Macon**

30	0145CST								
	0345CST			0	0	0.00K	0.00K		Flash Flood

A vehicle water rescue was performed on Business Highway 36 and US Highway 63 east of Macon. Multiple other roads in Macon were closed due to flooding.

On the evenings of June 29 and 30 a couple rounds of severe thunderstorms moved through western and central Missouri, producing some marginally severe hail and wind damage. Heavy rain associated with these storms also contributed to flooding along area roadways.

### NEW YORK, West

#### **Livingston County** **1 E Geneseo**

15	1521EST			0	0	10.00K	0.00K		Thunderstorm Wind (50EG)
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Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County** **1 SE Geneseo**

15	1523EST			0	0	12.00K	0.00K		Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--	--------------------------

Thunderstorm winds downed trees and power lines near Geneseo.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County** **1 W Conesus**

15	1533EST			0	0	10.00K	0.00K		Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--	--------------------------

Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County** **Livonia**

15	1539EST			0	0	12.00K	0.00K		Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--	--------------------------

Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County** **2 NW White Bridge**

15	1631EST			0	0	10.00K	0.00K		Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--	--------------------------

Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	June 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### NEW YORK, West

#### **Livingston County**

**2 SSE Ross Corners**

15 1632EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wyoming County**

**1 W Fairview**

15 1645EST 0 0 25.00K 0.00K Thunderstorm Wind (50EG)  
A house was damaged by downed trees at Lakeshore Drive and West Springbrook Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County**

**5 WNW Rushford  
4 N Rawson**

15 1650EST 0 0 30.00K 0.00K Flash Flood  
2030EST

#### **Monroe County**

**1 E Mendon**

15 1750EST 0 0 14.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County**

**2 E Piffard  
3 WSW Lakeville Hannas Arp**

15 1825EST 0 0 30.00K 0.00K Flash Flood  
2130EST

A warm front during the morning of the 15th brought a soaking rainfall across the Genesee Valley and Finger Lakes. During the afternoon hours thunderstorms developed along the Lake Erie lake breeze. Several of these storms reached severe limits with trees and wires reported down in parts of Livingston, Wyoming and Monroe counties. Near Silver Lake, one house was damaged by falling trees at the intersection of Lakeshore Drive and Springbrook Road. The heavy rains that fell from the storm produced flash flooding. Several roads were inundated and closed. Near Hardy Corners, the intersection of West Branch and Bush Hill Roads was washed out.

#### **Ontario County**

**1 N Seneca Castle**

16 1657EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Ontario County**

**1 E Flint**

16 1700EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds near the intersection of Vogt and Seneca Castle Roads.

A thunderstorm developed near the junction of the Lake Erie and Lake Ontario lake breeze boundaries. The thunderstorm produced damaging winds that downed trees in Seneca Castle. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

**2 NNE Panama**

18 1330EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

**1 SW Summerdale**

18 1420EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds on Sherman-Westfield Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

**2 NNE Panama**

18 1430EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
CORRECTIONS									
NEW YORK, West									
Chautauqua County									
3 SSW Nashville	18	1432EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds on Dye Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County									
1 N Leon	18	1506EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Chautauqua County									
2 E Frewsburg	18	1517EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Trained Spotters reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County									
1 W Onoville	18	1530EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County									
1 NW Allegany	18	1607EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Monroe County									
1 E Scottsville	18	1615EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Broadcast media reported trees and wires downed by thunderstorm winds on Quaker Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Lewis County									
1 NNW Denmark	18	1621EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds on Old State Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Allegany County									
Bolivar	18	1624EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Livingston County									
1 E Geneseo	18	1624EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds on Eagle Point Road.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Allegany County									
1 NW Hume	18	1630EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
Law enforcement reported trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Monroe County									
1 SW Brighton	18	1632EST			0	0	12.00K	0.00K	Thunderstorm Wind (50EG)
Social media had reported of trees and wires downed by thunderstorm winds.									
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	June 2017
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## CORRECTIONS

### NEW YORK, West

#### **Lewis County**

##### **1 NW Croghan**

18 1640EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds on George Street.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Ontario County**

##### **1 S Manchester**

18 1704EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Lewis County**

##### **3 SSW Chase Lake**

18 1710EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wayne County**

##### **1 SE Newark**

18 1716EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wayne County**

##### **1 SE Lyons**

18 1724EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

##### **3 NNW Weedsport Whtfrds Ar**

18 1746EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

##### **1 S Cato**

18 1748EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

##### **1 SE Meridian**

18 1751EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

##### **1 NE Lacona**

18 1821EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

##### **1 NNE West Amboy**

18 1827EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds at the intersection of Little Pond and Coan Roads.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

##### **1 S Boyleston Center**

18 1827EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.



# Storm Data and Unusual Weather Phenomena

										June 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
<b>CORRECTIONS</b>										
<b><u>NEW YORK, West</u></b>										
<b>Chautauqua County</b>										
2 SE Ellery Center	18	1840EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
Law enforcement reported trees and wires downed by thunderstorm winds on Dutch Hollow Road.										
Under the influence of a warm, moist airmass, thunderstorms developed across western and north-central New York. A severe multi-cell cluster of storms over northeast Pennsylvania, tracked northeast forming a line of thunderstorms that moved across the region from Chautauqua County to Lewis County during the afternoon and early evening hours. Law enforcement reported trees and wires downed by thunderstorm winds. Several roads were partially or completely blocked by debris from the falling trees. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.										
<b>Niagara County</b>										
1 NE Falls	24	1514EST			0	0			Hail (0.75)	
A thunderstorm in Niagara Falls produced three-quarter inch hail.										
<b>Wayne County</b>										
1 S East Bay Park	25	1547EST			0	0			Hail (0.75)	
A thunderstorm near Port Bay produced three-quarter inch hail.										
<b>Wyoming County</b>										
2 NW Dale	26	1546EST			0	0			Hail (1.00)	
<b>Oswego County</b>										
1 NNW Dexterville	26	1800EST			0	0			Hail (1.00)	
With the area under the influence of unseasonably cool air, an upper air disturbance crossed the region during the afternoon. This spawned a broken line of convection that produced hail of three-quarters to one-inch in diameter.										
<b>Erie County</b>										
1 S West Seneca	27	1715EST			0	0			Hail (0.75)	
<b>Erie County</b>										
1 S East Hamburg	27	1740EST			0	0			Hail (0.75)	
Thunderstorms in Orchard Park and West Seneca produced three-quarter inch hail.										

# Storm Data and Unusual Weather Phenomena

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

July 2017

## CORRECTIONS

### LAKE ONTARIO

#### LOZ044

#### Sodus Bay To Mexico Bay Ny

17 0400EST 0 0 0.00K Marine Thunderstorm Wind  
A cluster of thunderstorms moved across eastern Lake Ontario during the pre-dawn hours. Wind gusts to 34 knots were measured at Oswego.

#### LOZ042

#### Niagara River To Hamlin Beach Ny

20 1050EST 0 0 0.00K Marine Thunderstorm Wind  
An area of thunderstorms moved across western Lake Ontario. Wind gusts were measured to 40 knots at Youngstown and to 54 knots at Olcott.

### NEW YORK, West

#### Genesee County East Pembroke

08 0049EST 0 0 Hail (1.75)

#### Genesee County Batavia

08 0107EST 0 0 20.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported several trees down across the City of Batavia.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Genesee County Batavia

08 0112EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down in the Town of Batavia.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Oswego County 1 S Hastings

08 0325EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees in Hastings.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Monroe County 2 NNW Sweden Center

08 0329EST 0 0 20.00K 0.00K Lightning

#### Oswego County Williamstown

08 0343EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Highway Department reported several trees down near Williamstown.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Monroe County 1 SW Penfield Center

08 0450EST 0 0 25.00K 0.00K Lightning

#### Allegany County 1 W Little Genesee

08 0712EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

A cold front slowly advanced its way across the eastern Great Lakes region during the overnight and early morning hours. The thunderstorms produced damaging winds and large hail. Hail up to 1.75, fell in East Pembroke in Genesee County. The thunderstorm winds downed trees and power lines. Route 183 near Williamstown and Route 11 in Hastings were blocked by debris. Two homes in Monroe County, one in Brockport on Monroe-Orleans County Line Road and one in Penfield on Pipers Meadow Trail, were struck by lightning during the pre-dawn hours. All occupants were able to get out without injury. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Wyoming County 3 ESE Eagle

12 2200EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported damage from thunderstorm winds.

An isolated thunderstorm crossed Wyoming County during the evening hours. The thunderstorm winds downed trees and blew over a barn. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Genesee County 1 SSW Batavia

13 0915EST  
2300EST 0 0 15.00K 0.00K Flood

# Storm Data and Unusual Weather Phenomena

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

July 2017

## CORRECTIONS

### NEW YORK, West

#### Erie County

2 SW Sloan

1 ESE Buffalo

13

0933EST

1245EST

0

0

50.00K

0.00K

Flash Flood

#### Erie County

1 W West Seneca

13

1011EST

1315EST

0

0

20.00K

0.00K

Flash Flood

#### Livingston County

1 WNW Caledonia

13

1031EST

1245EST

0

0

20.00K

0.00K

Flash Flood

#### Wyoming County

3 SE Bennington

3 WSW Attica

13

1046EST

1245EST

0

0

30.00K

0.00K

Flash Flood

#### Erie County

1 ENE Elma

1 NE Blossom

13

1136EST

1315EST

0

0

15.00K

0.00K

Flash Flood

#### Ontario County

2 WNW Ennerdale

1 NW Victor

13

1200EST

1345EST

0

0

50.00K

0.00K

Flash Flood

#### Ontario County

Geneva

13

1200EST

1345EST

0

0

20.00K

0.00K

Flash Flood

#### Wyoming County

Attica

13

1200EST

1815EST

0

0

10.00K

0.00K

Flood

#### Erie County

1 WSW Lancaster

Depew

13

1345EST

2130EST

0

0

15.00K

0.00K

Flood

A convective complex moved across Western New York late in the morning. This produced a quick 2 to 4 inches of rain which covered a significant portion of the region and resulted in flash flooding that impacted the Buffalo metro area, the Boston/Wyoming hills and parts of the northern Finger Lakes Region. The flash flooding resulted in numerous road closures, including: Back Creek Road in Boston, Route 6 in Geneva, Route 5 in Canandaigua, Prospect Road in Attica, Route 98 between Attica and Varysburg, Route 240 in West Seneca, Walden Ave in Depew, Transit Road in Depew, Scajaquada Expressway in Cheektowaga, Union Road in Cheektowaga, Broadway Ave in Buffalo, and William Street in Cheektowaga and Buffalo. The heavy rain also resulted in river and creek flooding which is relatively rare for July. Tonawanda Creek at Attica and Batavia and Cayuga Creek at Lancaster all exceeded flood stage. Tonawanda Creek at Attica crested at 9.6 feet the third highest crest on record. Flood stage is 8 feet. Tonawanda Creek at Batavia crested at 9.88 feet. Flood stage is 9 feet. Cayuga Creek at Lancaster crested at 11.06 feet. Flood Stage is 8 feet. It was the fifth highest crest on record and the highest warm season crest. Rises were quick on the creeks due to the brief period the rain fell.

#### Oswego County

3 NE Little France

14

1206EST

0

0

10.00K

0.00K

Thunderstorm Wind (50EG)

Law enforcement reported trees down on Voorhees Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Oswego County

1 SSW Amboy Center

14

1218EST

0

0

10.00K

0.00K

Thunderstorm Wind (50EG)

Law enforcement reported trees down on Route 17A.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

July 2017

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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## CORRECTIONS

### NEW YORK, West

#### **Oswego County** **1 N Carterville**

14 1236EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down on County Route 17.  
Thunderstorms developed along a Lake Ontario Lake Breeze. One of the storms moved across Oswego county and downed trees on Voorhees Road, Route 17A and Route 17. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Lewis County** **1 S Glenfield**

17 0531EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

A cluster of thunderstorms moved across the eastern Lake Ontario region during the pre-dawn hours. Thunderstorm winds downed trees in Glenfield. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Niagara County** **2 N Newfane Hollands Arp**

20 1050EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County** **1 W Mt Vernon**

20 1128EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds near St. Mary's on the Lake Church.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County** **1 SE Locksley Park** **2 SW Ellicott**

20 1130EST  
1140EST 6.11 700 0 0 3.50K 0.00K Tornado (EF2)

A NWS storm survey confirmed an EF2 tornado touched down in Hamburg.

#### **Erie County** **2 SSE South Wales** **2 NNW Holland**

20 1155EST  
1156EST 1.34 450 0 0 100.00K 0.00K Tornado (EF0)

A NWS storm survey confirmed an EF1 tornado touched down in Holland.

#### **Livingston County** **1 NE Lima**

20 1224EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County** **1 N Hume**

20 1227EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds on Mills Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County** **2 W Houghton College Arp** **2 WNW Houghton**

20 1229EST  
1230EST 1.06 150 0 0 25.00K 0.00K Tornado (EF0)

Drone video provided by the county emergency manager confirmed an EF0 tornado touched down near Rushford.

#### **Allegany County** **Caneadea**

20 1235EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm	July 2017
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## CORRECTIONS

### NEW YORK, West

#### **Allegany County 2 E Houghton**

20 1235EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds on Council House Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County 2 E Houghton**

20 1242EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds on Holiday Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County 3 N Angelica 3 SSW Scholes**

20 1245EST 4.22 740 0 0 250.00K 0.00K Tornado (EF1)  
1252EST

A NWS storm survey confirmed an EF1 tornado touched down in Angelica.

#### **Cattaraugus County 5 NNW Riceville**

20 1302EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds at Beach Tree Road and Highway 240.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cattaraugus County 1 S Yorkshire**

20 1304EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds on Creek Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County 1 E Short Tract**

20 1335EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County 1 NNE Angelica**

20 1347EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported thunderstorm winds knocked down a tree onto a car.

A nearly stationary frontal zone was located just to the north of the area over far southern Ontario, Canada. A weak wave of low pressure tied to a cluster of thunderstorms moved east along this stalled frontal zone during the late morning and early afternoon. Thunderstorms strengthened across southern Ontario during the late morning. These storms further intensified as they moved into Western NY during the early afternoon. The southernmost storm of the cluster quickly evolved into a long lived cyclic supercell, going through numerous cycles of weakening and strengthening. This storm was responsible for all four tornadoes across Western NY. The storms moved onshore from Lake Erie with damage beginning in Hamburg before moving across Orchard Park. Windows of hundreds of car windows were blown out at the Hamburg Fairgrounds where trees were downed and several buildings including the Grandstand sustained damage. The tornado continued across the Chestnut Ridge Park and the Town of Orchard Park causing more structural and tree damage. About ten miles further down along the thunderstorm's path, a second tornado touched down in the Town of Holland. Several structures were damaged with a significant amount of tree damage. Roads were blocked and wires were downed. Tracks of the Norfolk Southern Railway were blocked in several places by large downed trees. The storm briefly re-intensified near Rushford spinning up a weak tornado over a mainly wooded area. A small shed was destroyed and drone video shows a path of downed and twisted trees. Finally, based on radar and spotter reports two thunderstorms merged and intensified and produced a tornado that extended from the Town of Allen across the Town of Angelica to the Town of West Almond. Several homes were damaged. A barn was severely damaged. Several sheds or small outbuildings were tipped and moved. Numerous large trees were shredded and downed. Some fell causing additional structural damage. These thunderstorms later evolved into a line, producing a corridor of wind damage extending through the Southern Tier of New York. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Crops	Character of Storm	July 2017
CORRECTIONS										
NEW YORK, West										
Allegany County Scio	23	1345EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Allegany County Belmont	23	1345EST			0	0	12.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Allegany County Andover	23	1416EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Trees were downed by thunderstorm winds in Andover.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Ontario County Canandaigua	23	1418EST			0	0	12.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Ontario County 2 S Canandaigua	23	1511EST 1830EST			0	0	50.00K	0.00K	Flash Flood	
Ontario County Canaoice Corners 2 SSW Honeoye	23	1600EST 2000EST			0	0	20.00K	0.00K	Flash Flood	
Genesee County 2 SW West Bethany 1 SSE Bethany Center	23	1645EST 1800EST			0	0	15.00K	0.00K	Flash Flood	
	Thunderstorms developed along the lake breezes during the afternoon hours. In Allegany County, the thunderstorms that formed along the Lake Erie breeze downed trees and wires in Belmont, Scio and Andover. In Ontario County, the storms that developed on the Lake Ontario breeze downed trees and wired in Canandaigua and Crystal Beach. The thunderstorm also produced heavy downpours that resulted in areas of flash flooding. IN Candandaigua, the flash flooding was rather widespread. The storm had rainfall rates in excess of four inches per hour at times with more than two-and-a-half inches falling in some areas. Many roads in and around the City were inundated. In the City of Canandaigua several cars were stranded in flood waters.									
Genesee County 2 E North Bergen	24	0620EST			0	0	75.00K	0.00K	Lightning	
Monroe County (ROC)Rochester Arprt	24	0650EST			0	0	5.00K	0.00K	Lightning	
	Thunderstorms developed during the early morning hours along a warm front extending across the Genesee Valley and Finger Lakes. A lightning strike caused a house fire in Bergen. No one was injured however the house suffered extensive damage. Another lightning strike hit the Air Traffic Control Tower. No one was injured or evacuated and flights were not affected however smoke was reported in the air traffic control room.									

# Storm Data and Unusual Weather Phenomena

August 2017

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

## CORRECTIONS

### GULF OF MEXICO

#### GMZ335-355

#### Galveston Bay - High Is To Freeport Tx Out 20nm

06	1312CST								
	1429CST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

Thunderstorms moved eastward across the Galveston Bay area and produce several marine wind gusts.

23	1055CST								
	1100CST				0	0	0.00K	0.00K	Waterspout

Morning storms in Galveston Bay produced waterspouts.



*A picture of Clear Lake waterspout that was observed from Seabrook, Texas on August 23rd, 2017. Photo courtesy of Helen Odat.*

#### GMZ335-350-355-370

#### Freeport To Matagorda Ship Chnl 20 To 60nm - Freeport To Matagorda Ship Chnl Out 20nm - Galveston Bay - High Is To Freeport Tx Out 20nm

25	0300CST								
	1425CST				0	0	0.00K	0.00K	Marine Thunderstorm Wind

Marine thunderstorm wind gusts were observed ahead of Harvey's landfall along the central Texas coast.

### IOWA, Central

#### Humboldt County 3 NW Livermore

13	1230CST				0	0	0.00K	0.00K	Funnel Cloud
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A trained spotter reported a funnel cloud near US Hwy 169 just south of St. Joseph.

#### Hancock County 3 NNW Hutchins

13	1321CST				0	0	0.00K	0.00K	Funnel Cloud
----	---------	--	--	--	---	---	-------	-------	--------------

Public reported a funnel cloud via social media. This is a delayed report and time estimated from radar.

A few showers were around and one produced a funnel cloud near St. Joseph.

#### Franklin County 7 NNE Alexander

14	0345CST				0	0	50.00K	0.00K	Thunderstorm Wind (52EG)
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Emergency manager reported a large machine shed partially destroyed, partial roof damage, a hog building with door damage and tin ripped up, and grain storage bins with damage to 2 doors. This is a delayed report and time estimated from radar.

Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

# Storm Data and Unusual Weather Phenomena

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

August 2017

## CORRECTIONS

### IOWA, Central

#### **Story County** **3 E Nevada**

14 0530CST 0 0 0.00K 0.00K Hail (1.00)  
Trained spotter reported brief pea to quarter sized hail between Nevada and Colo on Highway 30.

Elevated storms were the name of the game in the morning of the 14th before surface based convection later in the day. A surface low pressure center slowly made its way out of South Dakota and into parts of western and central Iowa. The morning round of elevated storms were strongest across northern Iowa within an environment of 500-1000 J/kg MUCAPE and effective bulk shear values around 30 to 40 kts. While most storms were sub-severe, a couple were able to produce damaging winds and hail. By the afternoon, much of the state found itself within the weak warm sector and was able to experience some weak surface based convection. As a result, no noteworthy storms developed, but a pair of funnel cloud reports were received.

#### **Calhoun County** **2 SSE Manson**

18 2138CST 0 0 5.00K 0.00K Hail (1.00)  
Trained spotter reported quarter sized hail lasting about 3 to 5 minutes, resulting in some damage to vehicles.

Synoptically the set up was nothing impressive. However, with 1000-2000 J/kg MUCAPE, 30-40 kts effective bulk shear, and weak surface convergence, a cluster of storms was able to develop in west central Minnesota. Said cluster of storms propagated SSE into parts of northern Iowa and was able to produce a single severe hail report in Calhoun county.

#### **Audubon County** **1 N Audubon Arpt**

20 0555CST 0 0 0.00K 0.00K Heavy Rain  
21  
Audubon AWOS recorded heavy rainfall of 3.17 inches over the last 24 hours.

#### **Adair County** **1 E Adair**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
Coop observer reported heavy rainfall of 2.40 inches over the last 24 hours.

#### **Carroll County** **1 NE Manning**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
CoCoRaHS observer reported heavy rainfall of 3.37 inches over the last 24 hours.

#### **Cass County** **1 E Massena**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
Coop observer reported heavy rainfall of 3.43 inches over the last 24 hours.

#### **Cass County** **2 NE Atlantic**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
Coop observer reported heavy rainfall of 2.99 inches over the last 24h ours.

#### **Cass County** **3 ESE Anita Muni Arpt**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
CoCoRaHS observer reported heavy rainfall of 2.45 inches over the last 24 hours.

#### **Crawford County** **2 NE Denison**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
Coop observer reported heavy rainfall of 6.47 inches over the last 24 hours.

#### **Crawford County** **Schleswig**

20 0600CST 0 0 0.00K 0.00K Heavy Rain  
21  
CoCoRaHS observer reported heavy rainfall of 4.64 inches over the last 24 hours.



# Storm Data and Unusual Weather Phenomena

August 2017

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

### IOWA, Central

#### **Dallas County**

**1 SSE Shuler Mine**

20 0600CST 0 0 0.00K 0.00K Heavy Rain

21

CoCoRaHS observer reported heavy rainfall of 2.06 inches over the last 24 hours.

#### **Kossuth County**

**3 ENE Swea City**

20 0600CST 0 0 0.00K 0.00K Heavy Rain

21

Coop observer reported heavy rainfall of 2.93 inches over the last 24 hours.

#### **Polk County**

**2 SSE Saydell**

20 0600CST 0 0 0.00K 0.00K Heavy Rain

21

CoCoRaHS observer reported heavy rainfall of 2.70 inches over the last 24 hours.

#### **Sac County**

**4 NW Wall Lake**

20 0600CST 0 0 0.00K 0.00K Heavy Rain

21

CoCoRaHS observer reported heavy rainfall of 3.30 inches over the last 24 hours.

#### **Dallas County**

**1 NNW Shuler Mine**

20 0615CST 0 0 0.00K 0.00K Heavy Rain

21

Coop observer reported heavy rainfall of 2.28 inches over the last 24 hours.

#### **Guthrie County**

**Guthrie Center**

20 0700CST 0 0 0.00K 0.00K Heavy Rain

21

Coop observer reported heavy rainfall of 4.85 inches over the last 24 hours.

#### **Polk County**

**1 SW Lovington**

20 0701CST 0 0 0.00K 0.00K Heavy Rain

21

Mesonet station recorded heavy rainfall of 2.01 inches over the last 24 hours.

#### **Cass County**

**2 E Atlantic**

20 0715CST 0 0 0.00K 0.00K Heavy Rain

21

Mesonet station recorded heavy rainfall of 2.81 inches over the last 24 hours.

#### **Crawford County**

**1 NE Denison**

20 2140CST

21 0354CST 0 0 0.00K 0.00K Heavy Rain

Online home weather station recorded heavy rainfall of 6.34 inches.

#### **Crawford County**

**1 W Denison**

20 2140CST

21 0355CST 0 0 0.00K 0.00K Heavy Rain

Online home weather station measured heavy rainfall of 4.03 inches.

#### **Audubon County**

**1 E Audubon**

20 2230CST

21 0813CST 0 0 0.00K 0.00K Heavy Rain

Local fire department reported heavy rainfall of 5.30 inches.

# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
<b>IOWA, Central</b>										
<b>Polk County</b> <b>2 W Herrold</b>	20	2300CST								
	21	1500CST			0	0	0.00K	0.00K	Heavy Rain	
KCCI relayed a viewer report of heavy rainfall of 3.60 inches since midnight.										
<b>Guthrie County</b> <b>1 E Guthrie Center</b>	20	2315CST								
	21	0220CST			0	0	0.00K	0.00K	Heavy Rain	
Trained spotter reported heavy rainfall of 4.30 inches.										
<b>Guthrie County</b> <b>1 N Guthrie Center</b>	20	2315CST								
	21	0307CST			0	0	0.00K	0.00K	Heavy Rain	
Emergency manager reported heavy rainfall of 4.70 inches.										
<b>Polk County</b> <b>1 SW Des Moines</b>	21	0100CST								
		0731CST			0	0	0.00K	0.00K	Heavy Rain	
KCCI recorded 2.20 inches of heavy rainfall overnight.										
<b>Cass County</b> <b>1 N Atlantic Arpt</b>	21	0105CST			0	0	0.00K	0.00K	Thunderstorm Wind (50MG)	
	Atlantic Municipal Airport AWOS recorded a 50 kt (58 mph) gust.									
Note: The measured wind gust of 50 knots is equivalent to 58 mph.										
<b>Palo Alto County</b> <b>1 NE Ruthven</b>	21	0108CST			0	0	0.00K	0.00K	Hail (1.00)	
	Coop observer reported quarter sized hail.									
<b>Cass County</b> <b>1 E Atlantic</b>	21	0115CST			0	0	1.00K	0.00K	Thunderstorm Wind (52EG)	
	Public reported several large limbs down and damage to a shed.									
Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
<b>Cass County</b> <b>Atlantic</b>	21	0120CST			0	0	10.00K	0.00K	Thunderstorm Wind (56EG)	
	Public reported three inch tree limbs down and power poles broken.									
Note: The estimated wind gust of 56 knots is equivalent to 64 mph.										
<b>Audubon County</b> <b>1 SSE Audubon</b> <b>1 NNW Audubon Arpt</b>	21	0215CST								
		0615CST			0	0	0.00K	0.00K	Flash Flood	
Law enforcement reported water over the road one half mile south of town from Bluegrass Creek. Debris and mud remained on the roadway.										
<b>Poweshiek County</b> <b>2 S Brooklyn</b>	21	1805CST			0	0	0.00K	0.00K	Thunderstorm Wind (52EG)	
	Emergency manager reported estimated 60 to 65 mph winds at Brooklyn exit on I-80.									
With the help of a couple weak boundaries in the area, storms initiated on the nose of the low level jet and generally remained over the same areas overnight. The primary result of the storms was heavy rainfall, though a few initial storms were able to produce damaging winds and severe hail within 2000+ J/kg CAPE and borderline effective bulk shear around 30 kts. Other than the few initial severe storm reports, total rainfall reports exceeded 5 inches in some locations. During the afternoon and evening on the 21st, ahead of a cold front, storms once again initiated and produced primarily sub-severe winds and hail, though two weak tornadoes and one severe wind gust were reported. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### IOWA, Central

#### **Palo Alto County 1 SE Emmetsburg**

26	1000CST 1030CST			0	0	0.00K	0.00K	Heavy Rain
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Coop observer recorded heavy rainfall of 1.35 inches over a 30 minute period from 11 am to 11:30 am CDT.

#### **Pocahontas County 1 NW Pocahontas**

26	1205CST			0	0	0.00K	0.00K	Hail (1.00)
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Trained spotter reported quarter sized hail.

#### **Pocahontas County 1 SW Pocahontas Muni Arpt**

26	1215CST			0	0	0.00K	0.00K	Hail (1.00)
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Trained spotter reported quarter sized hail.

Seasonally cool conditions prevailed throughout the day with temperatures only into the 70s in many cases and dew points in the 60s. With low pressure located over Minnesota, weak warm frontal and cold frontal boundary reflections resided over western Iowa and northern Nebraska respectively. In the afternoon, storms initiated within 1000-2000 J/kg MUCAPE and effective bulk shear generally under 30 kts. Resulting storms were unorganized and sub-severe in nature for the most part. A pair of quarter sized hail reports were received near Pocahontas, otherwise periods of heavy rain most often prevailed.

### LAKE ERIE

#### **LEZ145**

#### **Vermilion To Avon Point Oh**

03	2000EST			0	0	0.00K	0.00K	Marine Thunderstorm Wind
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Scattered thunderstorms moved across Lake Erie causing gusty winds.

### LAKE ERIE

#### **LEZ040-041**

#### **Dunkirk To Buffalo Ny - Ripley To Dunkirk Ny**

04	1108EST 1142EST			0	0		0.00K	Marine Thunderstorm Wind
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Showers and thunderstorms developed along and ahead of an advancing cold front. The thunderstorms produced winds that gusted to 42 knots at Buffalo and 40 knots at Dunkirk.

### LAKE ERIE

#### **LEZ146**

#### **Avon Point To Willowick Oh**

05	1755EST			0	0	0.00K	0.00K	Waterspout
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Several waterspouts were reported on Lake Erie.

07	1015EST			0	0	0.00K	0.00K	Waterspout
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#### **LEZ145**

#### **Vermilion To Avon Point Oh**

07	1051EST			0	0	0.00K	0.00K	Waterspout
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Waterspouts were observed on Lake Erie.

### LAKE ERIE

#### **LEZ041**

#### **Dunkirk To Buffalo Ny**

23	1730EST			0	0		0.00K	Waterspout
----	---------	--	--	---	---	--	-------	------------

Convective showers developed as cool air crossed the relatively warmer waters of Lake Erie. The storms produced waterspouts northwest of Lake Erie Beach, Brocton and Barcelona.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm	August 2017
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## CORRECTIONS

### LAKE ERIE

#### LEZ040-146

#### Avon Point To Willowick Oh - Ripley To Dunkirk Ny

23	1735EST 1809EST			0	0	0.00K	0.00K	Waterspout
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A waterspout was observed on Lake Erie.

### LAKE ERIE

26	0634EST 0638EST			0	0	0.00K	0.00K	Waterspout
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A waterspout was observed on Lake Erie.

### LAKE ONTARIO

#### LOZ043-044

#### Hamlin Beach To Sodus Bay Ny - Sodus Bay To Mexico Bay Ny

04	1450EST 1524EST			0	0		0.00K	Marine Thunderstorm Wind
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Showers and thunderstorms developed along and ahead of an advancing cold front. The thunderstorms produced winds that gusted to 41 knots at Oswego and 34 knots at Rochester.

22	1200EST			0	0		0.00K	Marine Thunderstorm Wind
----	---------	--	--	---	---	--	-------	--------------------------

Thunderstorms that crossed Lake Ontario produced winds gusting to 36 knots at Irondequoit Bay.

### NEW YORK, West

#### Monroe County

##### 1 W Parma Corners

01	1833EST			0	0	5.00K	0.00K	Hail (1.00)
----	---------	--	--	---	---	-------	-------	-------------

Thunderstorms developed in afternoon summertime warmth and humidity. One of the storms that developed along the boundary of the Lakes Erie and Ontario lake breezes produced large hail. Hail up to one inch in diameter was reported in near Spencerport.

#### Lewis County

##### 1 NW Lowville

03	1130EST			0	0			Hail (0.88)
----	---------	--	--	---	---	--	--	-------------

Thunderstorms that developed during the afternoon hours produced dime- to nickel-sized hail.

#### Erie County

##### 2 WSW Buffalo

04	1140EST			0	0	35.00K	0.00K	Thunderstorm Wind (50EG)
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Thunderstorm winds tore part off of a roof building in Buffalo.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Erie County

##### 3 S Buffalo

04	1142EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)
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The Fire Department reported trees down at Oconnell and Alabama Streets.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Erie County

##### 2 NW West Seneca

04	1143EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--------------------------

Trees were downed by thunderstorm winds in Cazenovia Park.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Erie County

##### 2 N Lackawanna

04	1145EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)
----	---------	--	--	---	---	--------	-------	--------------------------

A downed tree damaged a car on Romeo Street.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Erie County

##### 3 N Lackawanna

04	1150EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)
----	---------	--	--	---	---	-------	-------	--------------------------

Trained spotters reported trees down on Dash Street in Buffalo.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### NEW YORK, West

#### **Chautauqua County 1 NW Hanover Center**

04 1212EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds on Hanford Road.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County 1 W Forest Glen**

04 1243EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds in the Village of Hamburg.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Orleans County Carlton**

04 1247EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds in Carlton.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County Elma**

04 1259EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Orleans County 1 SSW Kendall**

04 1259EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County 4 SSE East Boyleston**

04 1354EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees and branches.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wayne County 1 SE Lyons**

04 1400EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
A large trees downed by thunderstorm winds fell on a house.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County Carthage**

04 1437EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and power lines down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County 1 SSE Philadelphia**

04 1450EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County Redwood**

04 1522EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County 1 E Weedsport**

04 1607EST 0 0 5.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds lifted a trampoline onto a house.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County 1 S Sloan**

04 1608EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds on Bright Street.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### NEW YORK, West

#### **Erie County**

**1 W (BUF)Gtr Buffalo Int** 04 1610EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds on Chapel Avenue.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

**1 SW Meridian** 04 1620EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees and power lines.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County**

**1 N Caneadea** 04 1645EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds..

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County**

**4 NNE Angelica** 04 1648EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County**

**1 SE Adams** 04 1653EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Trees and wires were downed by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County**

**Adams** 04 1655EST 0 0 5.00K Hail (1.00)

#### **Jefferson County**

**1 N Ellisburg** 04 1656EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

**2 WSW Southwest Oswego** 04 1817EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wayne County**

**1 E Wolcott** 04 1838EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.

Showers and thunderstorms developed along and ahead of an advancing cold front. The thunderstorms produced damaging winds that downed trees and power lines. In Buffalo, the winds partially tore the roof off a building at Utica Street and Massachusetts Avenue. In Weedsport, a trampoline was lifted and landed on a house. The thunderstorms also produced hail up to one inch in diameter near Adams. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

**Hannibal** 12 1300EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

**1 N Granby Center** 12 1313EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

**1 S Hastings** 12 1336EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

August 2017

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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## CORRECTIONS

### NEW YORK, West

#### **Oswego County**

1 N Central Square

12 1342EST 0 0 Hail (0.88)

#### **Oswego County**

2 E Constantia Shrwld Arp

12 1356EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Oswego County**

1 SE West Amboy

12 1358EST 0 0 Hail (0.88)

#### **Oswego County**

3 N Carterville

12 1405EST 0 0 5.00K Hail (1.00)  
Low pressure and an associated cold front moved across the region. Showers and thunderstorms developed along the cold front. These produced damaging winds and hail up to one-inch in diameter. Near Williamstown the nickel- to quarter-size hail was three to four inches deep. The thunderstorm winds downed trees and power lines.

#### **Ontario County**

1 E Pre Emption

15 1235EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees in Geneva.  
An isolated thunderstorm produced damaging winds in Geneva. Trees were downed near Geneva High School. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

1 W Cassadaga

17 2023EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County**

1 N Langford

17 2121EST 0 0 25.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported damage from thunderstorm winds.  
Convective showers which crossed western New York during the evening hours produced winds which blew over a barn in North Collins. Several signs were also damaged. The winds downed trees on Bowers Road near Cassadaga. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

1 S Pleasantville

22 1107EST 0 0 12.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

1 S Victoria

22 1112EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

Ellery Center

22 1114EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees and wires down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Chautauqua County**

1 N Cherry Creek

22 1137EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Spotters reported trees downed in Cherry Creek.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County**

2 W Collins Center

22 1141EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees along West Becker Road.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cattaraugus County**

1 N Leon

22 1143EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees down by thunderstorm winds.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
NEW YORK, West										
Cattaraugus County 1 S Cattaraugus	22	1151EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Monroe County 2 SW Pt Pleasant	22	1217EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported wires downed by thunderstorm winds on Laser Street.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Monroe County 1 SE Northeast Henrietta	22	1219EST			0	0	50.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds that were blocking Brighton-Henrietta Town Line Road.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County 1 W Machias	22	1220EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees and wires downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Wayne County 1 SE West Walworth	22	1230EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported power lines downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Wayne County 1 S Williamson	22	1235EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Wayne County 1 S Palmyra	22	1245EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Allegany County 1 SE Houghton	22	1250EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Jefferson County 1 SE Watertown	22	1325EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)	
	Thunderstorm winds downed a large tree in the City of Watertown.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Oswego County 1 S Mexico	22	1337EST			0	0	20.00K	0.00K	Thunderstorm Wind (50EG)	
	Thunderstorm winds downed a large tree which damaged a truck.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Oswego County 1 S Parish	22	1347EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									



# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
NEW YORK, West										
Oswego County Redfield	22	1350EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Oswego County 1 N Altmar	22	1352EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Oswego County 1 S Orwell	22	1353EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County 1 S Randolph	22	1402EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County 1 W Little Vly	22	1409EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Lewis County 2 NE Osceola	22	1410EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds. The trees damaged a house.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Lewis County 3 ENE Osceola	22	1412EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Thunderstorm winds downed a tree which fell on a car on Osceola Road.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County 1 NW Delevan	22	1415EST			0	0	15.00K	0.00K	Thunderstorm Wind (50EG)	
	Thunderstorm winds blew siding off a house.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Cattaraugus County 3 E Ellicottville	22	1421EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Lewis County 2 NW Constableville	22	1427EST			0	0	10.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									
Lewis County 1 W Beaches Bridge	22	1429EST			0	0	8.00K	0.00K	Thunderstorm Wind (50EG)	
	Law enforcement reported trees downed by thunderstorm winds.									
	Note: The estimated wind gust of 50 knots is equivalent to 58 mph.									

# Storm Data and Unusual Weather Phenomena

August 2017

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

### NEW YORK, West

#### **Lewis County**

##### **1 N Tallcottville**

22 1430EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Wyoming County**

##### **1 S Pike**

22 1433EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Lewis County**

##### **1 W Lyonsdale**

22 1437EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County**

##### **Caneadea**

22 1443EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Allegany County**

##### **1 NE Belfast**

22 1445EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Livingston County**

##### **1 E Nunda**

22 1446EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed trees and flipped a carport.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Ontario County**

##### **1 E Farmington**

22 1505EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

##### **1 S Cato**

22 1542EST 0 0 8.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cayuga County**

##### **1 SE Ira**

22 1548EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County**

##### **1 SE Watertown**

22 1648EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Jefferson County**

##### **Carthage**

22 1712EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Law enforcement reported trees downed by thunderstorm winds.

Three waves of severe storms moved across western and north-central NY making for an almost 8-hour severe event. The first thunderstorms which developed over northeast Ohio and northwest Pennsylvania moved across the western southern tier. The second round of thunderstorms developed mid-afternoon again across the western southern tier. These storms then moved across western New York to the eastern Lake Ontario region. The third wave of storms developed along an advancing cold front during the evening hours over the Niagara Peninsula then moving across western New York. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### OHIO, North

#### Ashtabula County

##### 1 N Windsor

02 1343EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a few trees and some utility lines near Windsor.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Seneca County

##### Tiffin

02 1414EST 0 0 0.00K 0.00K Hail (0.75)  
Penny sized hail was observed.  
A cold front moved across northern Ohio on August 2nd. Scattered thunderstorms developed along this front. At least one of the thunderstorms became severe.

#### Seneca County

##### 1 E Tiffin

03 1844EST 0 0 0.00K 0.00K Hail (0.75)  
Penny sized hail was observed.

#### Seneca County

##### 1 E Tiffin

03 1844EST 0 0 0.00K 0.00K Thunderstorm Wind (52EG)  
A trained spotter estimated thunderstorm winds gusts at 60 mph.

Scattered thunderstorms developed on August 3rd. At least one produced some small hail and gusty winds. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.

#### Trumbull County

##### Vernon

##### Orangeville

04 1126EST  
1129EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)

Thunderstorm winds downed multiple trees in the Vernon Center and Orangeville areas.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Medina County

##### 1 SSW Windfall

04 1215EST 1 0 25.00K 0.00K Thunderstorm Wind (50EG)  
A vehicle traveling down River Styx Road near Interstate 71 was struck by a falling tree knocked down by thunderstorm wind gusts. The tree land on the front half of the passenger cabin killing the 28 year old mother driving. Her baby in the back seat was not injured. F28VE

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Lorain County

##### 1 NNE Oberlin

04 1220EST 0 0 2.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorms winds downed several large tree limbs.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Richland County

##### Lucas

04 1240EST 0 0 25.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed some trees and power lines in the Lucas area.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Trumbull County

##### Girard

04 1312EST 0 0 35.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees. A couple homes sustained damage from fallen trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Portage County

##### Ravenna

04 1400EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a few large tree limbs across the county.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### Portage County

##### Kent

04 1412EST  
1415EST 0 0 25.00K 0.00K Thunderstorm Wind (50EG)

Thunderstorm winds downed a few trees in the Kent area. Some power outages were also reported.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### OHIO, North

#### **Geauga County** **2 ENE Parkman**

04 1435EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Geauga County** **2 ENE Parkman**

04 1435EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Stark County** **Waynesburg**

04 1604EST 0 0 0.00K 0.00K Funnel Cloud  
A trained spotter reported a funnel cloud.  
An area of low pressure moved across the central Great Lakes on August 4th forcing a strong cold front across the region. A line of thunderstorms developed in advance of the front late in the morning. A second line of storms developed right along the front beginning around midday. Both lines produced severe weather.

#### **Cuyahoga County** **1 SSW Beachwood** **1 S Pepper Pike**

10 1710EST 0 0 2.00M 0.00K Flash Flood  
1930EST

An isolated thunderstorm developed on an afternoon lake breeze on August 10th. This storm, though small in structure and spatial coverage, had a high rainfall rates. The rain started around 5 pm and ended around 7 pm. The storm peaked around 6 pm where 0.94 or rain was recorded in 10 minutes (rainfall rate of 6.36/hr) in a real-time rain gauge in Beachwood just west of Pepper Pike. The storm total rainfall in Beachwood was 3.26, with an unofficial reading of 4.5 in Pepper Pike. The storm resulted in widespread road closures, flooded basements, yards, garages, and minor flooding on first floors. Over 200 homes and businesses experienced water damage, primarily from backed up storm drainage into basements.

During the afternoon and early evening of August 10 an isolated storm cell formed along the lake breeze over eastern Cuyahoga County. The storm produced torrential rainfall, measured over 4 inches per hour. The high rainfall rates combined with suburban development and higher terrain resulted in isolated flash flooding in the Pepper Pike community.

#### **Lake County** **Concord**

11 1015EST 0 0 2.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a couple of trees near Concord.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Cuyahoga County** **Shaker Hgts**

11 1654EST 0 0 0.00K 0.00K Hail (0.88)  
Nickel sized hail was observed.  
A broken line of thunderstorms developed over northern Ohio on August 11th. There were a couple reports of damage from this line.

#### **Medina County** **1 S Lafayette**

17 1524EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several large tree limbs and knocked over a large wooden swing set.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Medina County** **2 SSW Medina**

17 1527EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a large tree.  
Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Trumbull County** **1 SSW Fowler** **Nutwood**

17 1811EST 1.04 100 0 0 50.00K 0.00K Tornado (EF1)  
1819EST

A funnel cloud formed east of Warren from a thunderstorm moving northeast across Trumbull County. The funnel was observed for many minutes and passed a few miles north of the Youngstown-Warren Regional Airport. A tornado eventually developed and touched down just northwest of the intersection of State Routes 193 and 305 near Fowler. A mobile home near that location was knocked off it's foundation and lost some metal sheeting. The tornado crossed State Route 193 and moved northeast across a wooded area. Over 100 trees were snapped or uprooted in the woods with a clear convergent pattern evident. Most of the trees were hardwood and wind speeds were estimated to be at least 90 mph. The tornado lifted before reaching Sodom Hutchings Road after being on the ground for just over a mile. The damage path was more than 100 yards in width some of time. The damage was intermittent for the first portion of the tornado track.

# Storm Data and Unusual Weather Phenomena

August 2017

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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## CORRECTIONS

### OHIO, North



*A picture of tree damage from an EF-1 tornado that developed near Fowler in Trumbull County, Ohio on August 17th, 2017. Photo courtesy of NWS.*

#### **Trumbull County**

(YNG)Youngstown Muni

17	1900EST							
	1920EST	0	0	0.00K	0.00K			Funnel Cloud

A weather observed at the Youngstown-Warren Regional Airport observed a funnel cloud for around 20 minutes. The funnel developed just east of the airport and moved east. No touchdown was observed.

A warm front lifted across northern Ohio on August 17th as an area of low pressure moved across the northern Great Lakes. A cluster of thunderstorms developed in advance of this front and moved across northern Ohio during the afternoon and early evening hours. One of thunderstorms produced a tornado in Trumbull County. A second storm produced a funnel cloud nearby. Most of the tornado damage was from downed trees.

#### **Knox County**

2 E Fredericktown

19	1315EST	0	0	15.00K	0.00K			Thunderstorm Wind (50EG)
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Thunderstorm winds downed a few trees and some power lines along Montgomery Road east of Fredericktown.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Mahoning County**

1 SE New Buffalo

19	1343EST	0	0	0.00K	0.00K			Hail (1.00)
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Hail the size of quarters was observed.

#### **Stark County**

2 S Alliance

19	1345EST							
	1346EST	0	0	0.00K	0.00K			Hail (0.88)

Penny to nickel sized hail was reported.

#### **Stark County**

Waynesburg

19	1353EST	0	0	0.00K	0.00K			Hail (1.00)
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Hail the size of quarters was observed.

#### **Knox County**

2 SW Monroe Mills

19	1407EST	0	0	0.00K	0.00K			Hail (1.00)
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Hail the size of quarters was observed.

A cold front moved across northern Ohio on August 19th causing scattered showers and thunderstorms to develop. A couple of thunderstorms became severe.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### OHIO, North

#### **Sandusky County Clyde**

21 1438EST 0 0 0.00K 0.00K Hail (0.75)  
Penny sized hail was observed.

#### **Sandusky County Green Spgs**

21 1439EST 0 0 0.00K 0.00K Hail (1.00)  
Hail the size of quarters was observed.

#### **Trumbull County Niles**

21 1509EST 0 0 0.00K 0.00K Hail (1.00)  
Nickel sized hail was observed.

#### **Erie County Huron**

21 1526EST 0 0 0.00K 0.00K Hail (1.00)  
Hail the size of quarters was observed.  
A line of thunderstorms moved across northern Ohio. There were a few reports of severe weather.

### PENNSYLVANIA, Northwest

#### **Erie County Waterford**

04 1119EST 0 0 15.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a large tree. The tree damaged a parked vehicle.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Crawford County Springboro**

04 1120EST 0 0 0.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Erie County 1 SE Middleboro**

04 1128EST 0 0 1.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed a tree.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Crawford County Conneaut Lake**

04 1157EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Crawford County Saegertown**

04 1241EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Crawford County Townville**

04 1258EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed several trees.

Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

#### **Crawford County Cochrannton**

04 1420EST 0 0 10.00K 0.00K Thunderstorm Wind (50EG)  
Thunderstorm winds downed at least six trees.

An area of low pressure moved across the central Great Lakes on August 4th forcing a strong cold front across the region. A line of thunderstorms developed in advance of the front late in the morning. A second line of storms developed right along the front and moved across western Pennsylvania later in the afternoon. Both lines produced severe weather. Note: The estimated wind gust of 50 knots is equivalent to 58 mph.

### TEXAS, Central Southeast

#### **TXZ237**

#### **Brazoria**

07 1010CST 2 0 0.00K 0.00K Rip Current  
Two people drowned due to rip currents. M67IW, M46IW



# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
TEXAS, Central Southeast										
Walker County 4 NW Loma	07	1145CST			0	0	8.00K	0.00K	Thunderstorm Wind (52EG)	
A carport was flattened with some damage to an adjacent structure.										
A thunderstorm produced strong wind gusts that caused some damaged. Note: The estimated wind gust of 52 knots is equivalent to 60 mph.										
Matagorda County 1 WNW S Texas Nuclear Pland	10	0852CST 0854CST			0	0	0.00K	0.00K	Funnel Cloud	
A funnel cloud was reported near the South Texas Nuclear Plant.										
A funnel cloud was sighted in Matagorda County.										
Galveston County 2 ENE Galveston	18	0735CST			0	0	0.00K	0.00K	Funnel Cloud	
A funnel cloud was observed near Harborside Drive on Galveston Island.										
Galveston County 2 ENE Galveston	18	0739CST			0	0	0.00K	0.00K	Funnel Cloud	
A second funnel cloud was observed near Harborside Drive on Galveston Island.										
Two funnel clouds were sighted on Galveston Island.										
TXZ176-195>198-200-211>212-214-226-235>237	Austin - Brazoria - Brazos - Burleson - Chambers - Grimes - Jackson - Liberty - Madison - Matagorda - Waller - Washington - Wharton									
	25	1200CST								
	29	0000CST			0	0	4.866B		Tropical Storm	
Galveston County 3 ENE Galveston	25	1318CST 1319CST	0.12	20	0	0	0.50K		Tornado (EF0)	
Funnel cloud sighting with fence damage near Ferry Road.										
Brazoria County Perry Lndg	25	1430CST 1431CST	0.23	30	0	0	30.00K	0.00K	Tornado (EF0)	
Very brief tornado touched down near HWY 36 with numerous trees snapped or downed. Barn also damaged.										
Matagorda County 4 SSE Sargent	25	1508CST 1514CST	2.18	50	0	0	500.00K	0.00K	Tornado (EF1)	
A brief yet strong tornado moved onshore along the coast in Sargent causing significant damage to one home and overturning a motor home. Numerous trees were snapped and/or downed along the path as well as minor roof damage to several homes and businesses.										
Brazoria County 2 W Bailey Prairie 3 NNE East Columbia	25	1711CST 1720CST	3.98	50	0	0	100.00K		Tornado (EF0)	
A high-end EF-0 tornado touched down east of West Columbia damaging numerous trees... roofs...and outbuildings in a neighborhood off of highway 35. A barn and several outbuildings were also destroyed on the east side of the Brazos River. Damage described by property owner. Property was flooded.										
Brazoria County Oyster Creek	25	2053CST			0	0	0.00K	0.00K	Funnel Cloud	

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

#### **Brazoria County**

<b>1 S Danbury</b>	25	2144CST								
<b>3 E Chenango</b>		2152CST	4.76	50	0	0	100.00K		Tornado (EF0)	

The tornado began in Danbury and damaged a barn along with several trees off of County Road 207. The tornado then crossed Hwy 35 and moved over an open field. The tornado then snapped and/or downed several trees along County Rd 45 before lifting at the Crocodile Encounter on County Rd 48.

#### **Brazoria County**

<b>1 W Liverpool</b>	25	2328CST								
<b>5 SE Manvel Coyle Arpt</b>		2337CST	4.31	50	0	0	50.00K	0.00K	Tornado (EF0)	

A tornado touched down just west of Liverpool. It took down 4 power poles on highway 35 along with several trees near the Gulf Coast Speedway. The tornado then traveled across generally open field before damaging some barns and outbuildings as well as trees on County Road 511.

#### **Jackson County**

<b>5 W Morales</b>	25	2345CST								
<b>3 W El Toro</b>	26	0245CST			0	0	100.00K	0.00K	Flash Flood	

County roads 283, 284, 401, and 127 north of the town of Edna were inundated with flood waters.

#### **Brazoria County**

<b>3 SSW Iowa Colony</b>	25	2350CST								
		2357CST	1.57	50	0	0	500.00K	0.00K	Tornado (EF0)	

A strong EF-0 tornado touched down just west of Juliff. It struck a fairly new subdivision along county road 56 and highway 288. Damage was mostly confined to roofs... fences...and several trees snapped and/or downed. Damage path crossed county line from Brazoria to Fort Bend County.

#### **Fort Bend County**

<b>2 ESE Juliff</b>	25	2350CST								
		2357CST	1.57	50	0	0	500.00K	0.00K	Tornado (EF0)	

A strong EF-0 tornado touched down just west of Juliff. It struck a fairly new subdivision along county road 56 and highway 288. Damage was mostly confined to roofs... fences...and several trees snapped and/or downed. Damage path crossed county line from Brazoria to Fort Bend County.

#### **Fort Bend County**

<b>1 NNE Sugarland Jct</b>	25	2356CST								
		2359CST	1.46	100	0	0	500.00K		Tornado (EF1)	

Tornado tracked across Sienna Plantation subdivision downing trees and damaging roofs on about 25 homes. Vieux Carre Ct and Steve Ct were hardest hit.

#### **Fort Bend County**

<b>4 SSE House</b>	26	0000CST								
<b>6 SSE Juliff</b>		0200CST			0	0	0.00K	0.00K	Flash Flood	

There was water over roadways FM 655 and CR 521 near the town of Rosharon.

Major record level flooding of both the Brazos and San Bernard Rivers caused significant home flooding from Richmond to Rosharon. Massive flooding occurred in Tierra Grande subdivision along the San Bernard River in southwestern Fort Bend County. Home flooding occurred at Valley Lodge in Simonton, along Edgewood and Baudet Roads in Richmond, along Bar, Barker, Cumings, Sixth Street, Avenue B and Rio Brazos Roads in Rosenberg. Sections of FM 2759 as well as the Grand River, Rivers Edge and Pecan Estates in Thompsons flooded. Many countywide roads became inundated in flood waters including, but not limited to, Highway 90A, Pitts Road, FM 1489, FM 723, FM 1093, FM 359, SH 6 feeder roads, Sienna Parkway, Carrol Road, McKeever Road, Knights Court, Miller Road, river Oaks Road, Thompsons Ferry Road, Strange Drive, Greenwood Drive, Second Street and low lying roads in Quail Valley in Missouri City. Due to record pool levels in Barker Reservoir, homes in Cinco Ranch flooded. Big Creek flooding in Needville caused the flooding of homes on Ansel Road.

### **TXZ213**

#### **Harris**

26	0000CST			36	0	10.0B		Tropical Storm
30								



# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
TEXAS, Central Southeast										
Wharton County 4 S Egypt	26	0110CST								
		0112CST	1.45	30	0	0	0.00K	0.00K	Tornado (EF0)	
	Brief touchdown. Tornado Damage Signature on radar.									
Fort Bend County 5 W Clodine	26	0112CST								
		0114CST	0.11	30	0	0	30.00K	0.00K	Tornado (EF0)	
	Roof damage to a home near Westpark Tollway and Grand Parkway.									
Jackson County 12 WSW Morales 10 WSW El Toro	26	0245CST								
		0530CST			0	0	100.00K	0.00K	Flash Flood	
	Numerous roads and bridges north of Highway 59 and west of FM 822 were inundated with flood waters.									
Harris County 2 S Lake Houston	26	0330CST								
		0332CST	1.02	30	0	0	100.00K	0.00K	Tornado (EF0)	
	Report of tornado touchdown resulting in damage to trees, fences and roofs in Lakeshore and Summerwood subdivisions. Tornado initially sighted by the public over southern portions of Lake Houston.									
Fort Bend County 3 WSW Katy	26	0357CST								
		0400CST	0.4	50	0	0	200.00K	0.00K	Tornado (EF1)	
	Tornado appeared to touch down at an RV and boat storage facility then cross Interstate 10. It then damaged Pepperl Fuchs facility on north side of Interstate. Tornado crossed from Fort Bend into Waller County.									
Waller County 3 WSW Katy	26	0357CST								
		0400CST	0.4	50	0	0	200.00K	0.00K	Tornado (EF1)	
	Tornado appeared to touch down at an RV and boat storage facility then cross Interstate 10. It then damaged Pepperl Fuchs facility on north side of Interstate. Tornado crossed from Fort Bend into Waller County.									
Matagorda County 23 WNW Pledger 6 NW (PSX)Palacios Muni A	26	0545CST								
		0815CST			0	0	0.00K	0.00K	Flash Flood	
	Flooded and impassable roadways with sections of SH 60 from FM 2668 and FM 521 near Wadsworth. Portions of SH 35 near Bay City were flooded. The El Dorado, Oak Grove, and Tres Palacios subdivisions along the Tres Palacios River flooded. Major flooding occurred in Bay City along the Colorado River as levees were over topped by two feet.									
Harris County 1 WSW Louetta 1 NNE Jersey Village	26	0600CST								
		1600CST			0	0	0.00K	0.00K	Flash Flood	
	Sections of US 290 were closed due to flooding between the 610 Loop and FM 529 in Jersey Village.									
Brazos County 2 WSW Enright	26	0705CST								
		0706CST	0.16	20	0	0	0.00K	0.00K	Tornado (EF0)	
	Tree down at property on Olympia Buddy Road. A brief spin up.									

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

#### **Matagorda County**

1 NNW Blessing	26	1200CST								
4 NE Markham	27	1700CST			0	0	0.00K	0.00K	Flash Flood	

Sections of SH 35 were closed due to flash flooding.

#### **Polk County**

4 NW Onalaska	26	1215CST								
11 SW Lake Livingston Dam		1430CST			0	0	300.00M	0.00K	Flash Flood	

There was high flood water on roads FM 3126 and FM 356 along the eastern shore of Lake Livingston.

The lowest homes and businesses within close vicinity of the lake, Trinity River and Long King Creek flooded. Roads along the southern end of Lake Livingston such as FM 3278 were inaccessible, FM 3128 and FM 1988 near Long King Creek were flooded. Major lowland flooding occurred on the Trinity River near Goodrich.

#### **Galveston County**

3 E Port Bolivar Arpt	26	1315CST								
1 ESE Rollover		1430CST			0	0	0.00K	0.00K	Flash Flood	

Low lying sections of Highway 87 on the Bolivar Peninsula were flooded due to rain.

#### **Harris County**

4 WSW Houston Weiser Arpt	26	1450CST								
4 S Cypress		1457CST	0.94	50	0	0	500.00K	0.00K	Tornado (EF1)	

Trees downed and roof damage near Berry Center and Lone Oak Subdivision.

#### **Harris County**

2 SE Cypress	26	1520CST								
		1522CST	0.52	50	0	0	30.00K	0.00K	Tornado (EF0)	

A second tornado spotted near Hwy 290 and Barker Cypress.

#### **Harris County**

3 NW Cypress	26	1600CST								
		1730CST			0	0	0.00K	0.00K	Flash Flood	

Flash flooding was reported in and around the town of Cypress.

#### **Wharton County**

1 NNW East Bernard	26	1623CST								
		1626CST	0.54	30	0	0	50.00K	0.00K	Tornado (EF0)	

Trees down along a southeast to northwest path. Horse trailer overturned. Tornado caught on video.

#### **Fort Bend County**

Kendleton	26	1840CST								
1 NW Katy	29	2000CST			3	0	8.00B	50.00K	Flash Flood	

There were numerous road closures around the Rosenberg and Richmond areas. Some of these roads included Highway 90 at Highway 36 and Lane Drive, Lane Drive at Mustang Road and I-69 at FM 762 and Reading Road. Major record level flooding of both the Brazos and San Bernard Rivers caused significant home flooding from Richmond to Rosharon. Massive flooding occurred in Tierra Grande subdivision along the San Bernard River in southwestern Fort Bend County. Home flooding occurred at Valley Lodge in Simonton, along Edgewood and Baudet Roads in Richmond, along Bar, Barker, Cumings, Sixth Street, Avenue B and Rio Brazos Roads in Rosenberg. Sections of FM 2759 as well as the Grand River, Rivers Edge and Pecan Estates in Thompsons flooded. Many countywide roads became inundated in flood waters including, but not limited to, Highway 90A, Pitts Road, FM 1489, FM 723, FM 1093, FM 359, SH 6 feeder roads, Sienna Parkway, Carrol Road, McKeever Road, Knights Court, Miller Road, river Oaks Road, Thompsons Ferry Road, Strange Drive, Greenwood Drive, Second Street and low lying roads in Quail Valley in Missouri City. Due to record pool levels in Barker Reservoir, homes in Cinco Ranch flooded. Big Creek flooding in Needville caused the flooding of homes on Ansel Road. Flooding being reported in or within homes in Missouri City with water rescues being conducted off of the Westpark Tollway in the Jeanetta Sharptown area. M631W, M65VE, F58VE

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

#### Fort Bend County

2 WSW Hobby	26	1915CST								
2 NNE Stafford		1923CST	5.78	100	0	0	2.00M	0.00K	Tornado (EF1)	

Damage to 28 homes in the Woodland West subdivision. Damage path extends from Stafford into Missouri City. The worst of the damage was high end EF1.

#### Fort Bend County

7 N Stafford	26	1945CST								
1 WNW Trammells		2200CST			0	0	0.00K	0.00K	Flash Flood	

Flooding being reported in or within homes in Missouri City with water rescues being conducted off of the Westpark Tollway in the Jeanetta Sharpstown area.

#### Waller County

2 E Prairie View	26	1945CST								
3 NNE Waller		2215CST			0	0	0.00K	0.00K	Flash Flood	

Multiple lanes of Highway 290 at the FM 2920 intersection near the town of Waller were closed due to flooding. In the southern part of the county, sections of FM 3318 near the Brazos River flooded and became inaccessible. There was significant countywide home flooding along the various creeks/bayous and their tributaries.

#### Brazoria County

8 WNW Pearland	26	2135CST								
4 NW Damon	29	2200CST			0	0	2.00B	100.00K	Flash Flood	

Flash flood waters, from sheet flooding and bayous/creeks coming out of banks, completely inundated hundreds to thousands of homes and businesses. Roads and highways in and around Pearland and south into Manvel, or east of Highway 288 along Highway 6, were flooded and therefore closed for long time periods. Major record flooding of the Brazos, San Bernard and Oyster Creek caused the flooding of hundreds to thousands of vicinity homes, vehicles and businesses. Numerous Roads and homes were inundated with flood waters on east side of Oyster Creek including the Columbia Lakes, Mallard Lakes, Great Lakes, Riverside Estates and Bar X subdivisions as well as homes along CR 39. Other county roads that became impassable due to high flood waters include, but are not limited to, FM 1462, Highways 35 and 90, FM 950, CR 25, 380A, CR 42 and FM 521. The Phillips refinery outside of the town of Sweeny took on water from the west near Little Linville Bayou. Hanson Riverside County Park along the San Bernard River southwest of West Columbia was inundated and water over-topped the Phillips Terminal. Areas around Alvin also flooded.

#### Harris County

1 E Joyce	26	2145CST								
1 SSW Minnetex	29	2200CST			36	0	10.00B	100.00K	Flash Flood	

There were numerous water rescues within Houston and the surrounding suburbs. Flood waters completely inundated thousands of homes and businesses. Roads and highways in and around Houston were flooded and therefore closed for long time periods. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. There were numerous water rescues within Houston and the surrounding suburbs. Roads and highways in and around Houston inundated and closed due to flash flooding.

Some of the reported flooded roads in Pasadena were Vista Street, Shafer Street, Fairmont Drive and Strawberry Road. M33BO, M45BO, M40BO, M33BO, M25BO, M31BO, M65IW, M42IW, M54IW, M62IW, M24IW, F73IW, M58IW, M67IW, M49IW, M66IW, F29IW, M58IW, F89PH, F77PH, F71PH, M64PS, F48PS, M71PS, F76VE, M45VE, M60VE, F81VE, M84VE, M8VE, M14VE, F6VE, F16VE, F32VE, M43VE, M82VE, F38VE, M25IW

#### Galveston County

1 N San Leon	26	2200CST								
2 SE Texas City	30	0000CST			3	0	10.00B	10.00K	Flash Flood	

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

There were numerous water rescues across western and central Galveston County. Flood waters completely inundated hundreds to thousands of homes and businesses in League City, Dickinson and Santa Fe. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads. There were numerous water rescues and flooded homes within the Friendswood, Pearland and Dickinson areas. M54IW, M59IW, M83IW, M64PH, F80PH, F69PH

#### Harris County

1 NNE Acre Homes  
3 SSW Webster

26	2200CST			0	0	0.00K	0.00K	Flash Flood
29								

There were numerous water rescues within Houston and the surrounding suburbs. Flash flood waters, from sheet flooding and bayous/creeks coming out of banks, completely inundated hundreds to thousands of homes and businesses. Roads and highways in and around Houston were flooded and therefore closed for long time periods. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### Brazoria County

6 W Iowa Colony  
3 N Manvel

26	2230CST			0	0	0.00K	0.00K	Flash Flood
29								

There were numerous water rescues within the county; from Pearland down to the Angleton-Lake Jackson area. Flash flood waters, from sheet flooding and bayous/creeks coming out of banks, completely inundated hundreds to thousands of homes and businesses. Roads and highways in and along the Highway 288 corridor were flooded and therefore closed for long time periods.

Major record flooding of the Brazos, San Bernard and Oyster Creek caused the flooding of hundreds to thousands of vicinity homes, vehicles and businesses. Numerous Roads and homes were inundated with flood waters on east side of Oyster Creek including the Columbia Lakes, Mallard Lakes, Great Lakes, Riverside Estates and Bar X subdivisions as well as homes along CR 39. Other county roads that became impassable due to high flood waters include, but are not limited to, FM 1462, Highways 35 and 90, FM 950, CR 25, 380A, CR 42 and FM 521. The Phillips refinery outside of the town of Sweeny took on water from the west near Little Linville Bayou. Hanson Riverside County Park along the San Bernard River southwest of West Columbia was inundated and water over-topped the Phillips Terminal.

#### Harris County

9 WNW Hockley  
14 SW Katy

26	2230CST			0	0	0.00K	0.00K	Flash Flood
29								

There were numerous water rescues within Houston and the surrounding western suburbs. Flash flood waters, from sheet flooding and bayous/creeks coming out of banks, completely inundated hundreds to thousands of homes and businesses. Roads and highways in and around Houston were flooded and therefore closed for long time periods.

Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### Harris County

1 W Clear Lake City

26	2300CST							
	2302CST	0.03	30	0	0	50.00K	0.00K	Tornado (EF0)

Damage to awning at gas station. Funnel cloud sighted in the area at the time.

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

#### Harris County

Clinton Park	26	2330CST								
2 SE Greens Bayou	30	0000CST			0	0	0.00K	0.00K	Flash Flood	

There were numerous water rescues, with people being stranded within their attics and roofs, in south Houston and surrounding communities. Flash flood waters, from sheet flooding and bayous/creeks coming out of banks, completely inundated hundreds to thousands of homes and businesses. Roads and highways in and around south Houston and Pasadena were flooded and therefore closed for long time periods.

Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### Colorado County

3 ENE Alleyton	27	0000CST								
1 N Bernardo		0245CST			0	0	0.00K	0.00K	Flash Flood	

Flash flooding closed sections of FM 949 just off of Interstate 10.

#### Grimes County

1 WNW Navasota	27	0030CST								
		0300CST			0	0	0.00K	0.00K	Flash Flood	

Flooding inundated roadways in Navasota. Road 515 at Highway 105 was covered with flood waters and impassable.

#### Wharton County

1 ESE East Bernard	27	0043CST								
		0047CST	2.27	50	0	0	300.00K	0.00K	Tornado (EF1)	

Tornado began as a weak EF0 in East Bernard then tracked NW across SH 90 where it strengthened to EF1 snapping the trunks of several large mature oak and pecan trees. A house suffered significant brick facade damage to one side of the home. Four apartments were damaged on college street.

#### Wharton County

4 NE Lissie	27	0145CST								
1 WSW El Campo Arpt		0630CST			0	0	0.00K	0.00K	Flash Flood	

Sections of FM 1164 near Highway 90 were closed due to inundating flood waters.

There widespread catastrophic flooding from both the Colorado and San Bernard Rivers. Highway 59 was closed due to the flooding of the Colorado River between Hungerford and El Campo. Major flooding occurred along the Colorado River in the town of Wharton with homes, businesses and vehicles being inundated along the River Reach, Hobben Oaks, Bear Bottom, Elm Grove, River Valley and Pecan Valley subdivisions. County wide flooding of roads include, but are not limited to, Sunset Street, Elm Street, FM 102, North Alabama Road, US 59, CR 135, CR 150, CR 166, CR 133, CR 153, CR 102, CR 232, CR 244, CR 228, CR 137, FM 249 and FM 640. There was significant home flooding in the towns of Glenflora, Peach Acres and Orchard. The San Bernard River flooding caused sections of roads Highway 90A, FM 2919, FM 442, CR 151, CR 1096 and CR 1010 to go under water.

#### Matagorda County

2 SW Pledger	27	0200CST								
		0515CST			0	0	0.00K	0.00K	Flash Flood	

High rainfall lead to the flash flooding and eventual closure of FM 1301 at FM 1728 in Pledger.

# Storm Data and Unusual Weather Phenomena

										August 2017
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm	
CORRECTIONS										
TEXAS, Central Southeast										
Grimes County										
3 SE Todd Mission	27	0300CST 0530CST			0	0	0.00K	0.00K	Flash Flood	
Flash flooding caused road closures around Magnolia. Roads FM 1784 and FM 1486 were inundated with flood waters and closed.										
Galveston County										
2 SSE Kemah	27	0303CST 0307CST	0.73	30	0	0	200.00K	0.00K	Tornado (EF0)	
Trees down, minor roof damage in Bacliff. Fences down.										
Chambers County										
6 NNW Beach City 3 SSW Eminence	27	0345CST 1100CST			0	0	0.00K	0.00K	Flash Flood	
Sections of I-10, FM 565 at I-10 and SH 146 at Cherry Point Drive were all flooded and therefore closed across the county. Major lowland flooding occurred along the Trinity River. Extensive flooding was observed in the Milam Bend subdivision (Baytown) along Cedar Bayou.										
Liberty County										
6 WNW Cottonwood 7 N Rye Station	27	0345CST 1100CST			0	0	0.00K	0.00K	Flash Flood	
Roadways SH 321 at US 90, the exit ramp at FM 1010 from the SH 105 and US 59 southbound were closed due to flooding. There was record level, major flooding along the Trinity River with numerous flooded roads near the river including FM 787. Many homes were flooded north of the town of Liberty. Major flooding was also observed on the east fork of the San Jacinto River that caused significant flooding in Cleveland, Williams and Plum Grove. Numerous homes and businesses along the Highway 59 feeder roads, various roads in the town of Liberty, Wallace Road off of Highway 146, FM 1725, FM 2090, CR 388, CR 381, CR 3880, CR 332, CR 3664, CR 361, CR 3610, CR 3611, CR 3661, CR 349, CR 3612 and CR 3600 were flooded.										
Walker County										
7 E Hawthorne 6 S Loma	27	0345CST 1100CST			0	0	0.00K	0.00K	Flash Flood	
Portions of FM 1791 southwest of Huntsville and FM 1375 west of New Waverly were closed due to flood waters inundating the roadway. Moderate flooding occurred along the Trinity River. Roads in the Deep River Plantation and Green Rich Shores subdivisions along Highway 980 and FM 3478, with the lowest homes in the Green Rich Shores subdivision, flooded. There was major lowland flooding along Bedias Creek that caused some roads to become inaccessible.										
Harris County										
2 E Bellaire Jct	27	0915CST 0916CST	0.08	20	0	0	50.00K	0.00K	Tornado (EF0)	
Windows blown out Torchy's Tacos.										
Harris County										
2 ESE White Oak Acres 1 W Houston Hgts	27 28	1000CST			0	0	0.00K	0.00K	Flash Flood	
The local media reported over 2,000 high water rescues within the warned area. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.										

# Storm Data and Unusual Weather Phenomena

Location	Date	Time	Path	Path	Number of		Estimated	Crops	Character of Storm	August 2017
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

#### Harris County

9 WNW Tomball  
4 N Spring

27	1245CST							
28	0015CST			0	0	0.00K	0.00K	Flash Flood

There were numerous reports of flooded homes, businesses and vehicles from Tomball to Spring in northern Harris County. Streets in and around Butera Road southwest of Stagecoach were impassable due to flooding. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### Chambers County

2 SSW Mont Belvieu

27	1300CST							
28	0315CST			0	0	0.00K	0.00K	Flash Flood

Sections of Highway 99 the Grand Parkway were inundated with flood waters.

#### Washington County

9 NW Burton

27	1345CST							
28	0015CST			0	0	0.00K	0.00K	Flash Flood

Sections of FM 2780 south of Lake Somerville and the town of Union Hill were closed due to flooding.

#### Harris County

2 NW Westfield

27	2245CST							
28	0615CST			0	0	0.00K	0.00K	Flash Flood

Flooding was occurring at and around the FM 1960 and I-45 intersection as Cypress Creek topped banks. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### Chambers County

1 W Mont Belvieu

28	0030CST 0600CST			0	0	0.00K	0.00K	Flash Flood
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Sections of Interstate 10 across Chambers County were closed due to flood water inundation.

#### Harris County

1 SSW Pasadena  
1 WSW West Park

28	0030CST 0630CST			0	0	0.00K	0.00K	Flash Flood
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Numerous roads and highways were still closed due to high flood waters including, but not limited to, the Loop 610 near Highway 225, SH 249 in northwestern Houston and FM 1960 near Highway 69. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.



# Storm Data and Unusual Weather Phenomena

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## CORRECTIONS

### TEXAS, Central Southeast

#### **Madison County**

<b>2 W Midway</b>	28	0030CST							
<b>12 SSE Connor</b>		0315CST			0	0	0.00K	0.00K	Flash Flood

Sections of FM 247 south of Midway between FM 1428 and FM 2989 were closed due to flooding.  
There was major lowland flooding along Bedia Creek that caused some roads to become inaccessible.

#### **Harris County**

<b>2 NW Westfield</b>	28	0920CST							
	29	0115CST			0	0	0.00K	0.00K	Flash Flood

There was flooding through the neighborhoods between I-45 and the Hardy Tollway along FM 1960. Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

#### **Chambers County**

<b>2 E Hankamer</b>	28	1045CST							
<b>Monroe City</b>		1330CST			0	0	0.00K	0.00K	Flash Flood

Sections of FM 1724 south of I-10 were closed due to flooding.

#### **Brazoria County**

<b>1 S Anchor</b>	28	1130CST							
<b>1 W Angleton Cameron Arp</b>		1515CST			0	0	0.00K	0.00K	Flash Flood

Sections of FM 523 near Highway 288 north of Angleton was closed due to flooding. Major record flooding of the Brazos, San Bernard and Oyster Creek caused the flooding of hundreds to thousands of vicinity homes, vehicles and businesses. Numerous Roads and homes were inundated with flood waters on east side of Oyster Creek including the Columbia Lakes, Mallard Lakes, Great Lakes, Riverside Estates and Bar X subdivisions as well as homes along CR 39. Other county roads that became impassable due to high flood waters include, but are not limited to, FM 1462, Highways 35 and 90, FM 950, CR 25, 380A, CR 42 and FM 521. The Phillips refinery outside of the town of Sweeny took on water from the west near Little Linville Bayou. Hanson Riverside County Park along the San Bernard River southwest of West Columbia was inundated and water over-topped the Phillips Terminal.

#### **Chambers County**

<b>Anahuac</b>	28	1215CST							
<b>3 NE Anahuac Arpt</b>		1500CST			0	0	0.00K	0.00K	Flash Flood

Parts of FM 562 south of Anahuac were closed due to flooding.

#### **Brazoria County**

<b>5 WSW Iowa Colony</b>	28	1300CST							
		1645CST			0	0	0.00K	0.00K	Flash Flood

Sections of FM 521 near FM 1462 in the Rosharon area were closed due to flooding. Major record flooding of the Brazos, San Bernard and Oyster Creek caused the flooding of hundreds to thousands of vicinity homes, vehicles and businesses. Numerous Roads and homes were inundated with flood waters on east side of Oyster Creek including the Columbia Lakes, Mallard Lakes, Great Lakes, Riverside Estates and Bar X subdivisions as well as homes along CR 39. Other county roads that became impassable due to high flood waters include, but are not limited to, FM 1462, Highways 35 and 90, FM 950, CR 25, 380A, CR 42 and FM 521. The Phillips refinery outside of the town of Sweeny took on water from the west near Little Linville Bayou. Hanson Riverside County Park along the San Bernard River southwest of West Columbia was inundated and water over-topped the Phillips Terminal.



# Storm Data and Unusual Weather Phenomena

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## CORRECTIONS

### TEXAS, Central Southeast

#### **Fort Bend County**

##### **3 NE Fulshear**

28	1515CST								
	1800CST			0	0	0.00K	0.00K	Flash Flood	

Sections of FM 1463 and FM 359 between Fulshear and the Grand Parkway were closed due to flooding.

Major record level flooding of both the Brazos and San Bernard Rivers caused significant home flooding from Richmond to Rosharon. Massive flooding occurred in Tierra Grande subdivision along the San Bernard River in southwestern Fort Bend County. Home flooding occurred at Valley Lodge in Simonton, along Edgewood and Baudet Roads in Richmond, along Bar, Barker, Cumings, Sixth Street, Avenue B and Rio Brazos Roads in Rosenberg. Sections of FM 2759 as well as the Grand River, Rivers Edge and Pecan Estates in Thompsons flooded. Many countywide roads became inundated in flood waters including, but not limited to, Highway 90A, Pitts Road, FM 1489, FM 723, FM 1093, FM 359, SH 6 feeder roads, Sienna Parkway, Carrol Road, McKeever Road, Knights Court, Miller Road, river Oaks Road, Thompsons Ferry Road, Strange Drive, Greenwood Drive, Second Street and low lying roads in Quail Valley in Missouri City. Due to record pool levels in Barker Reservoir, homes in Cinco Ranch flooded. Big Creek flooding in Needville caused the flooding of homes on Ansel Road.

#### **Brazoria County**

##### **1 NW Brazoria**

28	1700CST								
	2245CST			0	0	0.00K	0.00K	Flash Flood	

Parts of SH 36 and FM 521 around the town of Brazoria were closed due to flooding.

Major record flooding of the Brazos, San Bernard and Oyster Creek caused the flooding of hundreds to thousands of vicinity homes, vehicles and businesses. Numerous Roads and homes were inundated with flood waters on east side of Oyster Creek including the Columbia Lakes, Mallard Lakes, Great Lakes, Riverside Estates and Bar X subdivisions as well as homes along CR 39. Other county roads that became impassable due to high flood waters include, but are not limited to, FM 1462, Highways 35 and 90, FM 950, CR 25, 380A, CR 42 and FM 521. The Phillips refinery outside of the town of Sweeny took on water from the west near Little Linville Bayou. Hanson Riverside County Park along the San Bernard River southwest of West Columbia was inundated and water over-topped the Phillips Terminal.

#### **Liberty County**

##### **2 S Cleveland Muni Arpt**

28	2220CST								
29	0300CST			0	0	0.00K	0.00K	Flash Flood	

Sections of FM 163 in Tarkington Prairie were inundated with flood waters.

#### **Liberty County**

##### **1 S Liberty**

##### **1 W Ames**

29	1039CST								
30	0800CST			0	0	0.00K	0.00K	Flash Flood	

Portions of FM 563 were covered with high water and had become impassable.

#### **Galveston County**

##### **3 ENE Galveston**

29	1158CST								
30	1200CST			0	0	1.00K	0.00K	Flash Flood	

Areas along Highway 87, or Ferry Drive south of Harborside Drive, were flooded and impassable.

#### **Chambers County**

##### **2 ENE Hankamer**

##### **4 NW Winnie**

29	1425CST								
31	1200CST			0	0	0.00K	0.00K	Flash Flood	

Sections of Interstate 10 west of Winnie were inundated and closed due to high flood waters.

#### **Chambers County**

##### **2 SSE Monroe City**

29	1714CST								
31	0600CST			0	0	0.00K	0.00K	Flash Flood	

Flooding occurred over Texas Roads 61 and 65 just east of Anahuac.

#### **Harris County**

##### **2 WNW Westfield**

29	1804CST			302					
31	0600CST			0	0	0.00K	0.00K	Flash Flood	

# Storm Data and Unusual Weather Phenomena

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property			

## CORRECTIONS

### TEXAS, Central Southeast

FM 1960 at Interstate 45 and surrounding roadways within local neighborhoods were inundated with flood waters and impassable.

Catastrophic flooding occurred on nearly every one of the 22 watersheds in Harris County. 10 out of the 19 bayous in the county reached record crests and flooding. There was widespread flooding along Buffalo Bayou and upstream and downstream of both Addicks and Barkers Reservoirs due to record level pool elevations. There was major flooding of hundreds of homes within numerous neighboring subdivisions along the San Jacinto River and the East Fork of the San Jacinto River. Lake Conroe's releases and backwater flow from Lake Houston also contributed to the widespread flooding across the northern and northeastern sectors of the county.

Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and a moderate storm surge near Matagorda Bay. In some of the heavier bands rain fell at a rate of over 5 inches per hour. This copious record amount of rain over a led to catastrophic flooding. Thousands of homes, businesses, and roads were flooded due to flash flooding and sheet flow from long duration intense rain. Main stem rivers and adjoining tributaries, creeks and bayous reached full capacity and came out of their banks and this also contributed to the massive flooding across southeastern Texas.