Storm Data and Unusual Weather Phenomena - November 2019

Date/Time Deaths & **Event Type and Details** Location Property & Injuries Crop Dmg

ARKANSAS, Northwest

BENTON COUNTY --- 1.9 NW BENTONVILLE BRANCH J [36.35, -94.15], 1.6 ENE BENTONVILLE BRANCH J [36.34, -94.09], 1.9 SSE BENTONVILLE

BRANCH J [36.31, -94.10], 2.6 WSW BENTONVILLE BRANCH J [36.31, -94.16]

11/07/19 02:00 CST 0 Flood (due to Heavy Rain) 0 11/07/19 08:00 CST Source: County Official

Several roads were reported closed due to flooding.

Showers and thunderstorms developed during the afternoon of the 6th across central and eastern Oklahoma, and became more widespread and intense during the evening and overnight. This precipitation continued into the morning hours of the 7th across most of eastern Oklahoma and northwestern Arkansas. Widespread one to three inch rainfall amounts occurred from this activity, with three to five inches falling across portions of northeastern Oklahoma and far northwestern Arkansas. This heavy rainfall resulted in localized flooding.

(AR-Z001) BENTON

n 11/26/19 20:20 CST High Wind (MAX 50 kt)

0 11/26/19 20:25 CST

A strong storm system translated into the Southern Plains from the Southern Rockies on the 26th, resulting in a very strong surface pressure gradient developing across northeastern Oklahoma and northwestern Arkansas by the evening. The gradient wind was enhanced by the evaporative cooling processes associated with an area of high-based showers that developed across the region. Very little of this rain reached the ground, as there was a deep layer of dry air between the cloud base and the ground. Westerly wind gusted to 45 mph across much of the area but was higher in some locations. The ASOS unit at the Northwest Arkansas Regional Airport (XNA) measured peak wind gusts of 58 mph.

OKLAHOMA, Eastern

TULSA COUNTY --- 2.4 SSE BROKEN ARROW ARPK [36.02, -95.85], 2.5 SSE BROKEN ARROW ARPK [36.02, -95.85], 2.6 SSE BROKEN ARROW ARPK [36.02, -95.85], 2.5 SSE BROKEN ARROW ARPK [36.02, -95.85]

11/07/19 05:00 CST 0 Flood (due to Heavy Rain) 11/07/19 08:00 CST n Source: Broadcast Media

The intersection of E 101st Street S and S Garnett Road was closed due to flooding.

ADAIR COUNTY --- 0.9 SE WATTS [36.11, -94.56], 2.1 N WATTS [36.15, -94.57], 3.0 NW WATTS [36.15, -94.61], 1.7 W WATTS [36.12, -94.60]

11/07/19 15:30 CST 0 Flood (due to Heavy Rain)

0 Source: Official NWS Observations 11/08/19 03:45 CST

The Illinois River near Watts rose above its flood stage of 13 feet at 3:30 pm CST on November 7th. The river crested at 17.06 feet at 10:00 pm CST on the 7th, resulting in moderate flooding. Farmlands and permanent campgrounds were flooded from the Arkansas border to Fidler's Bend. The river fell below flood stage at 3:45 am CST on the 8th.

CHEROKEE COUNTY --- TAHLEQUAH [35.92, -94.97], 1.3 ESE PARK HILL [35.86, -94.93], 3.8 SSE ELLERVILLE [35.98, -94.87], 3.6 SSE MOODYS [35.98, -94.93]

> 11/07/19 21:30 CST Flood (due to Heavy Rain)

0 11/09/19 02:30 CST Source: Official NWS Observations

The Illinois River near Tahlequah rose above its flood stage of 11 feet at 9:30 pm CST on November 7th. The river crested at 14.46 feet at 6:00 pm CST on the 8th, resulting in moderate flooding. Access roads east of the Combs Bridge were impassable. The river fell below flood stage at 2:30 am CST on the 9th.

Showers and thunderstorms developed during the afternoon of the 6th across central and eastern Oklahoma, and became more widespread and intense during the evening and overnight. This precipitation continued into the morning hours of the 7th across most of eastern Oklahoma. Widespread one to three inch rainfall amounts occurred from this activity, with three to five inches falling across portions of northeastern Oklahoma. This heavy rainfall resulted in localized flooding in Tulsa County, as well as moderate flooding along the Illinois River.

(OK-Z055) WASHINGTON, (OK-Z059) PAWNEE, (OK-Z060) TULSA, (OK-Z061) ROGERS, (OK-Z062) MAYES, (OK-Z067) WAGONER

11/26/19 17:50 CST 15K High Wind (MAX 57 kt)

11/26/19 19:35 CST 0

> 01/31/2020 Page 1 of 2 Printed on:

Storm Data and Unusual Weather Phenomena - November 2019

Location Date/Time Deaths & Property & Event Type and Details Injuries Crop Dmg

A strong storm system translated into the Southern Plains from the Southern Rockies on the 26th, resulting in a very strong surface pressure gradient developing across northeastern Oklahoma and northwestern Arkansas by the evening. The gradient wind was enhanced by the evaporative cooling processes associated with an area of high-based showers that developed across the region. Very little of this rain reached the ground, as there was a deep layer of dry air between the cloud base and the ground. Westerly wind gusted to 45 mph across much of the area but was higher in some locations. The Oklahoma Mesonet site near Pawnee measured peak winds of 58 mph, and the site near Copan measured peak wind gusts of 63 mph. The ASOS units at the Bartlesville Airport and the Tulsa International Airport both measured peak wind gusts of 66 mph. In addition to these measured gusts, the high wind also resulted in damage to trees, barns, and power lines across portions of Mayes, Wagoner, and Rogers Counties.

| WAGONER COUNTY 2.0 WNW COWETA [35.96, -95.68] | | | |
|---|--------------------|-----|---------------------------|
| | 11/29/19 18:53 CST | 10K | Hail (1.25 in) |
| | 11/29/19 18:53 CST | 0 | Source: Trained Spotter |
| | | | |
| ROGERS COUNTY 4.2 SSW INOLA [36.10, -95.9 | 53] | | |
| | 11/29/19 19:02 CST | 5K | Hail (1.25 in) |
| | 11/29/19 19:02 CST | 0 | Source: Public |
| | | | |
| ROGERS COUNTY 1.0 N INOLA [36.16, -95.50] | | | |
| | 11/29/19 19:07 CST | 30K | Hail (2.00 in) |
| | 11/29/19 19:07 CST | 0 | Source: Amateur Radio |
| MAYES COUNTY 3.5 NW PRYOR CREEK ARPI | [36.25, -95.38] | | |
| | 11/29/19 19:13 CST | 25K | Hail (1.75 in) |
| | 11/29/19 19:13 CST | 0 | Source: Emergency Manager |
| | | | |
| MAYES COUNTY 3.0 W PRYOR [36.30, -95.37] | | | |
| | 11/29/19 19:17 CST | 0 | Hail (1.00 in) |
| | 11/29/19 19:17 CST | 0 | Source: Emergency Manager |

With the approach of an upper level storm system, thunderstorms developed over eastern Oklahoma during the evening of the 29th as warm, moist, and unstable air was lifted over a warm frontal boundary that was located over northern Texas. Strong wind shear that was present in the unstable elevated air mass resulted in the development of a supercell thunderstorm that produced hail up to two inches in diameter.

Page 2 of 2 Printed on: 01/31/2020