Storm Data and Unusual Weather Phenomena - October 2021

OKLAHOMA, Panhandle

(OK-Z001) CIMARRON, (OK-Z003) BEAVER

10/01/21 00:00 CST
10/31/21 23:59 CST
0
0
Drought

Farmers around the combined Oklahoma and Texas Panhandles were wrapping up harvest of corn, sorghum and cotton towards the end of the month. Winter wheat was being planted with early planting emerging and growing well with the exception of areas classified in severe drought (D2). Some winter wheat fields were being planted with hopes of moisture in the near future. Supplemental feeding did continue on a small scale.

CIMARRON COUNTY --- 3.0 SSE BOISE CITY [36.69, -102.50]

10/12/21 18:20 CST
10/12/21 18:20 CST
0
Thunderstorm Wind (MG 52 kt)
Source: Mesonet

TEXAS COUNTY --- 10.6 NE EVA [36.92, -101.78]

10/12/21 19:10 CST
10/12/21 19:10 CST
0
Thunderstorm Wind (MG 54 kt)
Source: Mesonet

TEXAS COUNTY --- 4.5 E HOUGH [36.86, -101.49]

10/12/21 19:49 CST
10/12/21 19:49 CST
0
Hail (1.00 in)
Source: Emergency Manager

TEXAS COUNTY --- (GUY)GUYN MUNI ARP [36.68, -101.50]

10/12/21 19:58 CST
10/12/21 19:58 CST
0
Thunderstorm Wind (MG 58 kt)
Source: ASOS

TEXAS COUNTY --- 5.6 S OPTIMA [36.67, -101.36]

10/12/21 20:14 CST
10/12/21 20:14 CST
0
Hail (1.75 in)
Source: Public

TEXAS COUNTY --- 4.4 ENE HOOKER [36.90, -101.15]

10/12/21 20:24 CST
10/12/21 20:24 CST
0
Thunderstorm Wind (MG 50 kt)
Source: Mesonet

BEAVER COUNTY --- 0.7 N FORGAN [36.91, -100.53]

10/12/21 21:18 CST
10/12/21 21:18 CST
0
Thunderstorm Wind (EG 56 kt)
Source: Emergency Manager

Sheeting from a metal roof was lifted halfway off of the Forgan City Hall. Time was estimated based on radar.

BEAVER COUNTY --- 2.9 WSW BALKO [36.62, -100.73]

10/12/21 21:18 CST
10/12/21 21:18 CST
0
Thunderstorm Wind (EG 52 kt)
Source: Public

Flag pole at Balko school was violently bending. Report was received through social media.

A strong upper level low pressure system dipped to near Southern Nevada and Four Corners area as it developed, before lifting northeast to western Nebraska by Tuesday October 12th providing significant lift in the atmosphere favorable for thunderstorm development. A dryline trough extended from the central Oklahoma Panhandle south to southeast near Borger and Clarendon in the afternoon. Scattered high-based and weak showers and thunderstorms developed across the western Panhandles in advance of a Pacific cold front but west of the dryline. A few of these produced strong wind gusts which were caused by evaporation of some or all of the rain as it fell through the very dry lower levels of the atmosphere, resulting in dry microburst/downburst processes. There were multiple instances of severe wind gusts reported with dissipating showers or virga. Storms strengthened as they reached and crossed the surface dryline across the north central Panhandles and much better low level moisture and overall instability became available. With very strong wind shear good instability in place, these storms became organized into line segments and a few storms exhibited brief supercell structure. An anticipated tornado threat ended up being limited by more stable air near the surface and a strong cap limiting storm formation away of the frontal boundary, despite other very favorable parameters. Hail became the main reported impact of these storms as they tracked east into the overnight hours as they also expanded south. Most of the severe storm
reports occurred with clusters of storms in the central Oklahoma Panhandle and along or just south of Highway 60 from Amarillo to Higgins.

(OK-Z001) CIMARRON, (OK-Z002) TEXAS

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Deaths &amp; Injuries</th>
<th>Property &amp; Crop Dmg</th>
<th>Event Type and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/27/21 09:55 CST</td>
<td>0</td>
<td></td>
<td>High Wind (MAX 59 kt)</td>
</tr>
<tr>
<td>10/27/21 14:55 CST</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A vigorous low pressure system crossed the plains during the overnight hours ushering a strong front through the area. The combination of rapidly deepening low to the east and high pressure surging into the area in its wake led to a prolonged period of severe winds across the area. Sustained winds reached 40 to 50 mph and some areas saw gusts of 65 mph or more. Little to no damage with reported.

(OK-Z002) TEXAS

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<tr>
<th>Date/Time</th>
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<th>Property &amp; Crop Dmg</th>
<th>Event Type and Details</th>
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</thead>
<tbody>
<tr>
<td>10/28/21 12:04 CST</td>
<td>0</td>
<td></td>
<td>High Wind (MAX 53 kt)</td>
</tr>
<tr>
<td>10/28/21 12:04 CST</td>
<td>0</td>
<td></td>
<td></td>
</tr>
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</table>

A strong upper level system slowly departing the area produced a second day of strong to severe winds in the Texas and Oklahoma Panhandles. The system led to winds out of the northwest to north with sustained speeds of 30 to 40 mph mainly in the eastern half of the combined Panhandles. Isolated severe wind gusts of 55 mph or more also occurred both the Oklahoma and Texas Panhandles.

TEXAS, North Panhandle

(TX-Z013) CARSON

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<thead>
<tr>
<th>Date/Time</th>
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</thead>
<tbody>
<tr>
<td>10/01/21 00:00 CST</td>
<td>0</td>
<td></td>
<td>Drought</td>
</tr>
<tr>
<td>10/12/21 15:00 CST</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
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Farmers around the combined Oklahoma and Texas Panhandles were wrapping up harvest of corn, sorghum and cotton towards the end of the month. Winter wheat was being planted with early planting emerging and growing well with the exception of areas classified in severe drought (D2). Some winter wheat fields were being planted with hopes of moisture in the near future. Supplemental feeding did continue on a small scale.

DEAF SMITH COUNTY --- 3.5 N HEREFORD [34.87, -102.40]

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<tr>
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</thead>
<tbody>
<tr>
<td>10/01/21 16:50 CST</td>
<td>0</td>
<td></td>
<td>Hail (1.00 in)</td>
</tr>
<tr>
<td>10/01/21 16:55 CST</td>
<td>0</td>
<td></td>
<td>Source: Emergency Manager</td>
</tr>
</tbody>
</table>

Hail was 2 inches deep for one mile on U.S. Highway 385 between County Road 9 and CR 10.

An upper level low moved from north central to northeast New Mexico during the late afternoon and early evening hours. A small upper level disturbance in the southeast quadrant of the low moved north-northeast across east central New Mexico and the southwest Texas Panhandle. This disturbance provided enough lift, instability, and wind shear to help produce a severe thunderstorm just north of Hereford, TX. This storm produce accumulating hail up to 1 inch in diameter.

(TX-Z020) COLLINGSWORTH

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<tbody>
<tr>
<td>10/02/21 00:00 CST</td>
<td>0</td>
<td></td>
<td>Drought</td>
</tr>
<tr>
<td>10/31/21 23:59 CST</td>
<td>0</td>
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MOORE COUNTY --- DUMAS MUNI ARPT [35.85, -102.02]

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<tr>
<th>Date/Time</th>
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<tbody>
<tr>
<td>10/12/21 18:55 CST</td>
<td>0</td>
<td></td>
<td>Thunderstorm Wind (MG 53 kt)</td>
</tr>
<tr>
<td>10/12/21 18:55 CST</td>
<td>0</td>
<td></td>
<td>Source: AWOS</td>
</tr>
</tbody>
</table>

Is believed that this gust was due to a 'virga bomb'.

HANSFORD COUNTY --- 11.1 N SPEARMAN [36.36, -101.18]

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<td>Thunderstorm Wind (MG 52 kt)</td>
</tr>
<tr>
<td>10/12/21 20:24 CST</td>
<td>0</td>
<td></td>
<td>Source: Mesonet</td>
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<tbody>
<tr>
<td>POTTER COUNTY --- (AMA)AMARILLO INTL A [35.22, -101.72]</td>
<td>10/12/21 20:44 CST</td>
<td>0</td>
<td>Thunderstorm Wind (MG 55 kt)</td>
<td>Source: ASOS</td>
</tr>
<tr>
<td></td>
<td>10/12/21 20:44 CST</td>
<td>0</td>
<td></td>
<td>This gust was due to a 'virga bomb'.</td>
</tr>
<tr>
<td>POTTER COUNTY --- 1.8 ESE AMARILLO [35.19, -101.79]</td>
<td>10/12/21 21:04 CST</td>
<td>0</td>
<td>Thunderstorm Wind (EG 56 kt)</td>
<td>Source: Law Enforcement</td>
</tr>
<tr>
<td></td>
<td>10/12/21 21:04 CST</td>
<td>0</td>
<td></td>
<td>Small area of damage around the 6 blocks along and near Humphreys Highlands Elementary School. The damage consisted of mostly 1 to 3 inch diameter tree limbs with a few large limbs. Also, there was damage to shingles and weak or loose structures was also noted.</td>
</tr>
<tr>
<td>CARSON COUNTY --- 5.3 SSW PANHANDLE [35.28, -101.42]</td>
<td>10/12/21 22:11 CST</td>
<td>0</td>
<td>Hail (1.00 in)</td>
<td>Source: Public</td>
</tr>
<tr>
<td>GRAY COUNTY --- 6.5 SE KINGS MILL [35.42, -100.98]</td>
<td>10/12/21 22:56 CST</td>
<td>0</td>
<td>Hail (1.75 in)</td>
<td>Source: Emergency Manager</td>
</tr>
<tr>
<td>GRAY COUNTY --- 0.9 NE LEFORS [35.44, -100.81]</td>
<td>10/12/21 23:03 CST</td>
<td>0</td>
<td>Hail (1.00 in)</td>
<td>Source: Trained Spotter</td>
</tr>
<tr>
<td>LIPSCOMB COUNTY --- 0.6 W HIGGINS [36.12, -100.03]</td>
<td>10/12/21 23:36 CST</td>
<td>0</td>
<td>Hail (1.25 in)</td>
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(TX-Z008) HUTCHINSON | 10/19/21 12:30 CST | 0 | Wildfire |
| (TX-Z007) MOORE     | 10/26/21 17:05 CST | 0 | Wildfire |
| (TX-Z007) MOORE     | 10/27/21 05:00 CST | 0 | Wildfire |

Dry and windy conditions along with a worsening drought resulted in a large wildfire in Hutchinson County in the early afternoon hours.

A worsening drought along with windy and dry conditions created an environment for large wildfires. A very large wildfire occurred in Moore county near Dumas in the late afternoon and early evening.
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The Texas A&M Forest Service mapped the perimeter of the Blue wildfire using GIS. No damages were reported.

(TX-Z002) SHERMAN, (TX-Z004) OCHILTREE, (TX-Z007) MOORE, (TX-Z008) HUTCHINSON, (TX-Z010) HEMPHILL, (TX-Z012) POTTER, (TX-Z014) GRAY, (TX-Z017) RANDALL COUNTY, (TX-Z018) ARMSTRONG, (TX-Z019) DONLEY, (TX-Z020) COLLINGSWORTH

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<td></td>
<td>High Wind (MAX 56 kt)</td>
</tr>
<tr>
<td></td>
<td>10/27/21 08:45 CST</td>
<td>0</td>
<td>10/27/21 14:00 CST</td>
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A vigorous low pressure system crossed the plains during the overnight hours ushering a strong front through the area. The combination of rapidly deepening low to the east and high pressure surging into the area in its wake led to a prolonged period of severe winds across the area. Sustained winds reached 40 to 50 mph and some areas saw gusts of 60 mph or more. Some isolated damage and power outages occurred due to the winds.

(TX-Z020) COLLINGSWORTH

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<td></td>
<td>High Wind (MAX 50 kt)</td>
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<tr>
<td></td>
<td>10/28/21 13:02 CST</td>
<td>0</td>
<td>10/28/21 13:02 CST</td>
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