

Storm Data and Unusual Weather Phenomena - July 2014

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

FREMONT COUNTY --- 67.1 NNW BARTLETT [41.83, -96.05]

07/05/14 02:55 CST	0			Thunderstorm Wind (EG 52 kt)
07/05/14 02:55 CST	0			Source: COOP Observer

In addition to the hail, the observer estimated winds to 60 mph.

HARRISON COUNTY --- 2.1 N RIVER SIOUX [41.83, -96.05]

07/05/14 02:55 CST	0			Hail (1.00 in)
07/05/14 02:55 CST	0			Source: COOP Observer

MONTGOMERY COUNTY --- 0.5 E ELLIOTT [41.15, -95.16], 0.6 E ELLIOTT [41.15, -95.16], 0.6 E ELLIOTT [41.15, -95.16], 0.5 E ELLIOTT [41.15, -95.16]

07/05/14 05:00 CST	0			Flash Flood (due to Heavy Rain)
07/05/14 07:00 CST	0			Source: Emergency Manager

Heavy rainfall of nearly 5 inches was reported in the Elliot area. The heavy rainfall led to the collapse of an abandon building in the downtown district of Elliot.

MONTGOMERY COUNTY --- 0.4 WNW RED OAK [41.02, -95.24], 0.8 NNW RED OAK [41.03, -95.24], 0.7 N RED OAK [41.03, -95.23], 0.2 N RED OAK [41.02, -95.23]

07/05/14 05:30 CST	0			Flash Flood (due to Heavy Rain)
07/05/14 07:30 CST	0			Source: Emergency Manager

Heavy rainfall to near 5 inches resulted in localized flash flooding in Red Oak. The flooding resulted in the closing of U.S. Highway 34 for a short time during the morning.

FREMONT COUNTY --- 0.7 NW RIVERTON [40.69, -95.58], 0.7 NNW RIVERTON [40.69, -95.58], 0.8 N RIVERTON [40.69, -95.57], 0.3 NNW RIVERTON [40.68, -95.57], 0.5 NW RIVERTON [40.68, -95.58]

07/05/14 18:30 CST	0			Flood (due to Heavy Rain)
07/05/14 18:30 CST	0			Source: Law Enforcement

Local law enforcement reported that the intersection of 250th and J64 was closed due to high water.

Thunderstorms developed shortly after midnight over eastern Nebraska and moved east into western Iowa. Marginal instability and shear limited the overall severe weather threat from these thunderstorms, but deep moisture, repeated thunderstorms, and a slow movement to the complex, heavy rain was widespread across far northeast Nebraska and western Iowa. General rainfall amounts ranged from 1 to 2 inches, but isolated locations received between 4 and 5 inches of rainfall. This lead to some localized flash flooding as well as river flooding.

MILLS COUNTY --- 2.1 N BALFOUR [41.05, -95.68]

07/07/14 17:24 CST	0			Hail (1.00 in)
07/07/14 17:24 CST	0			Source: Trained Spotter

MONTGOMERY COUNTY --- 0.9 SE RED OAK [41.01, -95.22]

07/07/14 17:30 CST	0			Hail (0.88 in)
07/07/14 17:30 CST	0			Source: Emergency Manager

FREMONT COUNTY --- 3.4 ESE ANDERSON [40.78, -95.54]

07/07/14 18:35 CST	0			Thunderstorm Wind (EG 52 kt)
07/07/14 18:35 CST	0			Source: Trained Spotter

Pea size hail was also reported from the spotter in addition to the strong winds.

A seasonably strong shortwave trough moved into the northern Plains during the day on Monday July 7th. This allowed for a cold front to advance southeast across eastern Nebraska and western Iowa during the late afternoon and evening hours. Due to persistent clouds, as well as frontal passage the previous day resulting in limited moisture, the atmosphere was only moderately unstable for July standards. A band of elevated showers and thunderstorms slowly intensified as they moved southeast across the area. The thunderstorms become the most intense over far southwest Iowa and southeast Nebraska closer to a stalled frontal boundary. The thunderstorms quickly moved into northeast Kansas and northwest Missouri by late evening ending the severe weather threat.

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NEBRASKA, East				
NEMAHA COUNTY --- 2.8 N PERU [40.52, -95.74], 1.6 WSW BROWNVILLE [40.39, -95.68], 2.3 SSW NEMAHA [40.30, -95.68], 8.1 SE NEMAHA [40.25, -95.55], 8.3 ESE NEMAHA [40.28, -95.53], 5.1 NE PERU [40.54, -95.67]				
	07/01/14 00:00 CST		2K	Flood (due to Heavy Rain)
	07/07/14 11:00 CST		0	Source: Official NWS Observations
<p>This flooding carried over from June when heavy rain in late June and early July brought prolonged flooding along the Missouri River from around Brownville downstream to Rulo. At Brownville the river crested around 36 feet, on July 3rd, fell below flood stage briefly on July 4th and 5th, and reached a second crest a little over 34 feet late on the 6th before falling below flood stage on the 7th. Flood stage at Brownville is 33 feet. The flooding impacted a few county roads in the area.</p>				
RICHARDSON COUNTY --- 2.2 NNW BARADA [40.25, -95.60], 5.1 N RULO [40.12, -95.45], 2.4 S RULO [40.02, -95.44], 4.6 SE RULO [40.01, -95.36], 5.7 E RULO [40.04, -95.32], 8.3 NNE RULO [40.16, -95.37], 6.7 NE BARADA [40.30, -95.50]				
	07/01/14 21:30 CST		5K	Flood (due to Heavy Rain)
	07/07/14 11:00 CST		0	Source: Official NWS Observations
<p>Heavy rain events in late June and early July brought prolonged flooding along the Missouri River from around Brownville through Rulo. At Rulo the river crested around 18.5 feet on July 3rd, fell briefly below its 17 foot flood stage on the 4th and 5th and then reached a second crest around 18 feet late on the 6th. The river fell below flood stage midday on the 7th. The flooding impacted a few county roads and cabins along the River.</p>				
<p>Several heavy rain events in June and early July brought continued or renewed flooding along the Missouri River from around Brownville downstream through Rulo.</p>				
THURSTON COUNTY --- 1.5 SSE PENDER MUNI ARPT [42.10, -96.72]				
	07/05/14 01:27 CST		0	Hail (0.75 in)
	07/05/14 01:27 CST		0	Source: Emergency Manager
CEDAR COUNTY --- 1.4 N WYNOT [42.77, -97.17], 1.0 NW WYNOT [42.76, -97.18], 0.6 NE WYNOT [42.75, -97.16], 1.2 NNE WYNOT [42.77, -97.16]				
	07/05/14 11:45 CST		0	Flood (due to Heavy Rain)
	07/05/14 11:45 CST		0	Source: Law Enforcement
<p>Water over rural roads were reported by the Wynot Fire Department.</p>				
<p>Thunderstorms developed shortly after midnight over eastern Nebraska and moved east into western Iowa. Marginal instability and shear limited the overall severe weather threat from these thunderstorms, but deep moisture, repeated thunderstorms, and a slow movement to the complex, heavy rain was widespread across far northeast Nebraska and western Iowa. General rainfall amounts ranged from 1 to 2 inches, but isolated locations received between 4 and 5 inches of rainfall. This lead to some localized flash flooding as well as river flooding.</p>				
SALINE COUNTY --- 0.9 NE DORCHESTER [40.66, -97.11]				
	07/07/14 01:22 CST		0	Hail (0.75 in)
	07/07/14 01:22 CST		0	Source: Emergency Manager
NEMAHA COUNTY --- 1.3 WNW HOWE [40.33, -95.84]				
	07/07/14 02:44 CST		0	Hail (1.00 in)
	07/07/14 02:44 CST		0	Source: Public
BUTLER COUNTY --- 0.9 SE BELLWOOD [41.34, -97.24]				
	07/07/14 16:55 CST		0	Hail (0.75 in)
	07/07/14 16:55 CST		0	Source: Trained Spotter
LANCASTER COUNTY --- 2.5 ENE ROKEBY [40.74, -96.69]				
	07/07/14 18:53 CST		0	Hail (1.00 in)
	07/07/14 18:53 CST		0	Source: Public
LANCASTER COUNTY --- 0.5 E BENNET [40.68, -96.49]				
	07/07/14 19:12 CST		0	Hail (1.00 in)
	07/07/14 19:12 CST		0	Source: Trained Spotter

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LANCASTER COUNTY --- 0.5 W BENNET [40.68, -96.51]				
	07/07/14 19:13 CST	0		Hail (0.75 in)
	07/07/14 19:13 CST	0		Source: Trained Spotter
RICHARDSON COUNTY --- 4.8 N RULO [40.12, -95.43], 2.0 N RULO [40.08, -95.43]				
	07/07/14 19:33 CST	0		Hail (0.88 in)
	07/07/14 19:36 CST	0		Source: Public
SALINE COUNTY --- 0.5 W WILBER [40.48, -96.96]				
	07/07/14 19:38 CST	0		Hail (1.00 in)
	07/07/14 19:38 CST	0		Source: Emergency Manager
GAGE COUNTY --- 1.3 WSW CLATONIA [40.46, -96.85]				
	07/07/14 19:45 CST	0		Hail (1.75 in)
	07/07/14 19:45 CST	0		Source: Social Media

The report was received from Facebook.

GAGE COUNTY --- 0.5 W PICKRELL [40.38, -96.73]				
	07/07/14 19:52 CST	0		Hail (0.88 in)
	07/07/14 19:52 CST	0		Source: Trained Spotter
GAGE COUNTY --- 1.1 W BEATRICE [40.27, -96.75]				
	07/07/14 19:54 CST	0		Hail (0.75 in)
	07/07/14 19:54 CST	0		Source: Law Enforcement

JEFFERSON COUNTY --- 0.9 NE HEDRIX [40.19, -97.24]				
	07/07/14 20:04 CST	0		Thunderstorm Wind (EG 52 kt)
	07/07/14 20:04 CST	0		Source: Trained Spotter

Spotter estimated wind speeds greater than 60 mph with small tree limbs down.

JEFFERSON COUNTY --- 0.5 W POWELL [40.22, -97.29]				
	07/07/14 20:05 CST	0		Hail (1.00 in)
	07/07/14 20:05 CST	0		Source: Emergency Manager

GAGE COUNTY --- ODELL [40.05, -96.80]				
	07/07/14 20:30 CST	0		Thunderstorm Wind (EG 52 kt)
	07/07/14 20:30 CST	0		Source: Trained Spotter

A trained spotter estimated winds between 50 and 60 mph.

RICHARDSON COUNTY --- FALLS CITY [40.07, -95.60]				
	07/07/14 20:34 CST	0		Hail (1.00 in)
	07/07/14 20:34 CST	0		Source: Emergency Manager

A seasonably strong shortwave trough moved into the northern Plains during the day on Monday July 7th. This allowed for a cold front to advance southeast across eastern Nebraska and western Iowa during the late afternoon and evening hours. Due to persistent clouds, as well as frontal passage the previous day resulting in limited moisture, the atmosphere was only moderately unstable for July standards. A band of elevated showers and thunderstorms slowly intensified as they moved southeast across the area. The thunderstorms become the most intense over far southwest Iowa and southeast Nebraska closer to a stalled frontal boundary. The thunderstorms quickly moved into northeast Kansas and northwest Missouri by late evening ending the severe weather threat.

KNOX COUNTY --- 8.0 NNW CROFTON [42.83, -97.55]				
	07/26/14 10:24 CST	0		Thunderstorm Wind (MG 55 kt)
	07/26/14 10:24 CST	0		Source: Mesonet

The gust was measured near Weigland Marina at Lewis and Clark State Recreational Area.

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KNOX COUNTY --- 8.6 NNW CROFTON [42.84, -97.56]				
	07/26/14 10:24 CST		0	Hail (1.50 in)
	07/26/14 10:24 CST		0	Source: Public
KNOX COUNTY --- 0.9 SW WINNETOON [42.51, -97.96]				
	07/26/14 11:12 CST		0	Thunderstorm Wind (MG 52 kt)
	07/26/14 11:12 CST		0	Source: Emergency Manager
The emergency manager reported large tree branches blown down.				
KNOX COUNTY --- 1.5 W CREIGHTON [42.47, -97.91]				
	07/26/14 11:15 CST		0	Hail (0.88 in)
	07/26/14 11:15 CST		0	Source: Emergency Manager
KNOX COUNTY --- 1.5 W CREIGHTON [42.47, -97.91]				
	07/26/14 11:15 CST		0	Thunderstorm Wind (EG 52 kt)
	07/26/14 11:15 CST		0	Source: Emergency Manager
Trees were reported downed in the city of Creighton.				
PLATTE COUNTY --- 0.9 NE HUMPHREY [41.69, -97.49], 4.0 S HUMPHREY [41.62, -97.50]				
	07/26/14 13:25 CST		0	Hail (1.75 in)
	07/26/14 13:28 CST		0	Source: NWS Employee
Hail to 1 inch in diameter was reported in the town of Humphrey, and the hail continued south of town where the public reported hail up to golf ball size.				
PLATTE COUNTY --- 3.5 S CRESTON [41.65, -97.36]				
	07/26/14 13:26 CST		0	Hail (1.00 in)
	07/26/14 13:26 CST		0	Source: Public
BUTLER COUNTY --- RISING CITY [41.20, -97.30], 1.0 S RISING CITY [41.19, -97.30]				
	07/26/14 14:26 CST		0	Hail (1.75 in)
	07/26/14 14:26 CST		0	Source: Trained Spotter
Several reports from trained spotters and the public reported hail up to golf ball size from Rising City to just south of the city of Rising City.				
BUTLER COUNTY --- 2.1 NNE SURPRISE [41.13, -97.31], 0.6 ENE SURPRISE [41.10, -97.31]				
	07/26/14 14:45 CST		0	Hail (2.75 in)
	07/26/14 14:46 CST		0	Source: COOP Observer
A trained spotter just north of the town of Surprise reported hail up to baseball size. The hail continued south into town where reports of golf ball to hen egg size hail were reported.				
SEWARD COUNTY --- 3.1 W STAPLEHURST [40.97, -97.23]				
	07/26/14 14:49 CST		0	Hail (4.25 in)
	07/26/14 14:49 CST		0	Source: Law Enforcement
Isolated thunderstorms developed within a warm air advection pattern during the late night over eastern South Dakota. These thunderstorms moved southeast into better instability and shear over far southeast South Dakota and intensified. A broken line of supercells then moved into northeast Nebraska by mid morning and continued southward to near the Interstate 80 corridor before dissipating in the mid afternoon. These thunderstorms were responsible for large hail and isolated reports of damaging winds, mainly in northeast Nebraska.				
ANTELOPE COUNTY --- 0.5 W CLEARWATER [42.17, -98.19]				
	07/31/14 15:50 CST		0	Hail (1.00 in)
	07/31/14 15:50 CST		0	Source: Trained Spotter
ANTELOPE COUNTY --- ELGIN [41.98, -98.08]				
	07/31/14 16:20 CST		0	Hail (0.75 in)
	07/31/14 16:20 CST		0	Source: Trained Spotter

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BOONE COUNTY --- PETERSBURG [41.85, -98.08]				
	07/31/14 16:45 CST		0	Hail (1.00 in)
	07/31/14 16:45 CST		0	Source: Trained Spotter

A weak weather disturbances move southeast into the mid Missouri River Valley during the late afternoon time frame. Although instability was limited, good surface heating and residual late July moisture was sufficient for isolated thunderstorm development during the afternoon. The majority of these were non-severe, but isolated large hail did occur in parts of northeast Nebraska.