

# Straight-line Wind Damage South-central Iowa May 17, 2004

by

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The National Weather Service in Des Moines Conducted a storm survey on wind damage in Mahaska, Wapello, and Monroe counties on May 18, 2004. The damage was produced by a microbursts in thunderstorms on the evening of May 17. A summary of damage at various sites follows along with representative photographs of the damage.

One mile east of Eddyville on 340<sup>th</sup> St. along the Wapello-Mahaska county line was the hardest hit area. Two farmstead received extensive damage around 9:15 p.m. A microburst likely occurred on the farmstead located along the north side of the road (western-most farmstead), followed by a damage path spreading one-quarter mile east-southeast to a farmstead along the south side of the road (eastern-most farmstead). By definition, a microburst is a strong downdraft in a thunderstorm which produces damaging straight-line winds.

At the northern farmstead, several farm outbuildings were destroyed. An empty grain bin was picked up, turned upside down, and tossed 30 yards to the northeast. Two other grain bins and a machine shed were severely damaged. A barn and a hog shed were completely destroyed. The roof of a garage was also blown off. A brick house sustained windwo damage and a displaced roof. Power poles and a few trees were downed. Automobiles and farm equipment sustained severe damage. A 2" x 12" piece of wood, 14 feet long was driven through a vehicle.

At the southern farmstead, two farm outbuildings were destroyed. Three poles rooted five feet into the ground were lifted complete out of the ground. The roof of a shed was peeled back.

Pieces of the outbuildings from the northern farmstead spread out to the east and southeast up to 150 yards in width near the southern farmstead. Length of the visible damage path was around ½ mile. Persons in both farmsteads reported the duration of the strongest winds to be from 20 to 30 seconds. Maximum winds were estimated to be around 80 mph.

## Mahaska County Farmstead Photographs



Outbuildings, looking northeast



Barn on Wapello Co. side of road, looking south-southeast



Pole leaning southeast



Looking east toward 2<sup>nd</sup> farmstead



Roof of house displaced



Looking west toward destroyed garage



Looking east toward 2<sup>nd</sup> farmstead



Looking west-northwest





Looking north to destroyed garage



Looking north

## Mahaska County Farmstead Photographs



Southwest wind blew down outbuilding, looking southeast



Hole left over after pole was removed by wind



Barn remnants looking southeast



Looking from the Wapello Co. farmstead back to the northwest toward the Mahaska Co. farmstead





Destroyed barn between the two farmsteads

A line of thunderstorms first produced damage in Bussey around 8:55 p.m. Sporadic tree and powerline damage continued eastward across extreme southeast Marion county, southwest Mahaska county, and extreme northern Monroe county. This damage is likely due to straight-line winds. Following extensive damage one mile east of Eddyville around 9:15 p.m., winds diminished rapidly below severe criteria (58 mph or greater).

