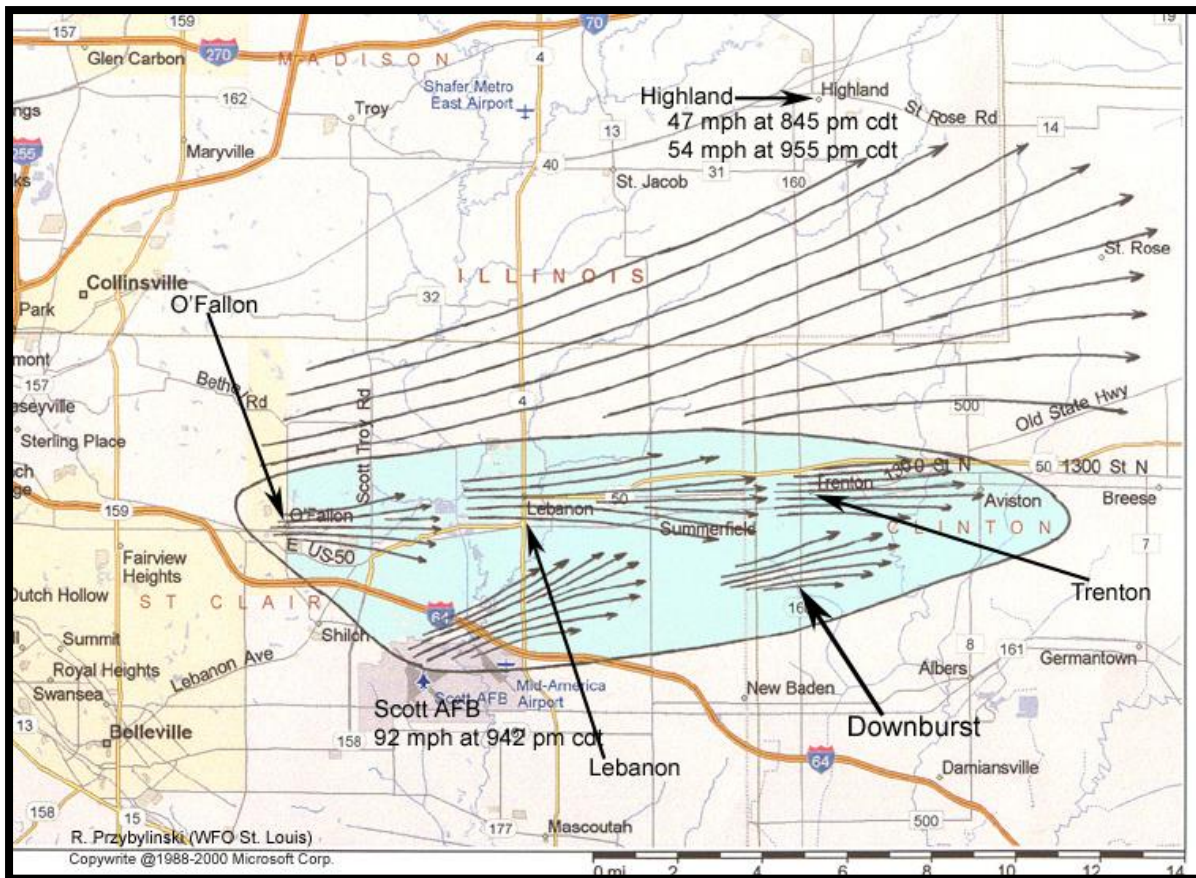


# Downburst Winds Over Southwest Illinois

July 5<sup>th</sup>, 2004

## Overview

A NWS survey team found considerable downburst wind damage over portions of southwest Illinois. Below is a map of the July 5<sup>th</sup>, 2004 downburst event. Downburst winds within the shaded light blue represent the greatest degree of wind damage. Based on damage to structures and trees, wind speeds were estimated between 65 and 85 mph. Wind speed estimates north of the shaded blue region over extreme northern St. Clair, extreme southeast Madison and northern Clinton counties in Illinois varied between 55 to 65 mph. This region experienced three episodes of severe convective lines and bow echoes on July 5<sup>th</sup>, 2004. Weather spotters observed two funnel clouds over extreme northwest Clinton County along the leading edge of the second convective line (bow echo) between 8:30 and 8:45 PM CDT. The funnels descended about half way to the ground but never touched down. The greatest degree of wind damage occurred with the third convective line segment between 9:30 and 10:15 PM CDT. Wind speed information at Highland, Illinois was taken from the weather station at the Highland Fire Department. We wish to extend our thanks to the O'Fallon, Illinois Police Department, Trenton Illinois Police Department, Highland Fire Department, and severe storm spotters for their assistance during the damage assessment. The images below are a small sample of the damage done by downburst winds produced by the second and third convective systems during the evening of July 5<sup>th</sup>, 2004.



Mapping of the July 5<sup>th</sup>, 2004 downburst event over parts of southwest Illinois. Downburst winds within the shaded light blue represent the greatest degree of wind damage with this event. Based on damage to structures and trees wind speeds were estimated between 65 and 85 mph. Wind speed estimates north (above) the shaded blue region over extreme northern St. Clair, extreme southeast Madison and northern Clinton counties varied between 55 to 65 mph.



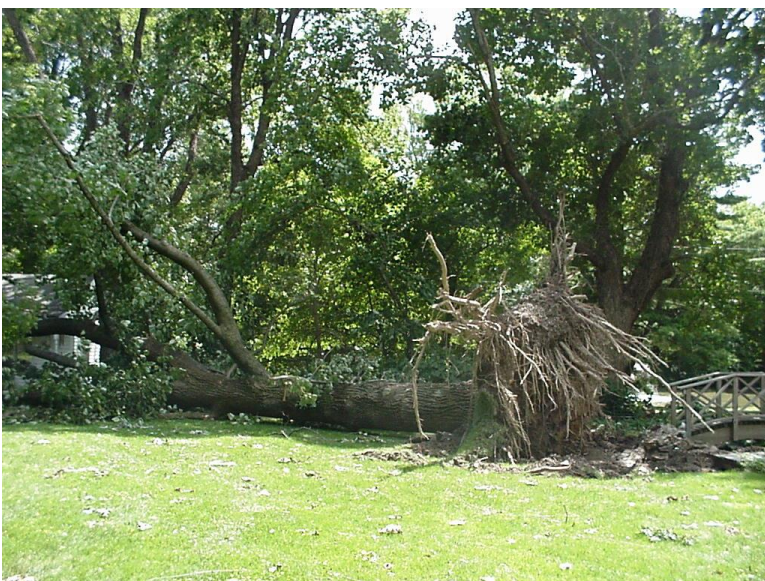
## Damage Photos



**Damage to a machine shed on a farmstead 1 mile west of Lebanon, Illinois. Viewing north.**



**Additional tree damage 3 miles north of Mid America Airport along Illinois Route 4.**



**One of several large trees uprooted 3 miles north of Mid America airport along and east of Illinois Route 4. This area of tree damage was associated with the downburst crossing Interstate 64 and Illinois Route 4.**



## Damage Photos



Tree damage near the west side of the O'Fallon, Illinois Police Department complex. Viewing south.

Additional tree damage over the southeast part of O'Fallon. Many of the large limbs and trees down occurred along the southern half of the city of O'Fallon and southward to Interstate 64.





## Damage Photos



**Damage to one of two homes over the southern part of the town of Summerfield, Illinois. The west side of the roof from this home is severely damaged. Viewing south. Several large trees were uprooted southwest from this location.**



**Damage to one of several homes due to fallen trees in the town of Trenton, Illinois. Many of the trees were originally 40 to 50 feet tall. Viewing northeast.**

**Corn partially flattened 3 miles south of Trenton along Illinois Route 160 in western Clinton County. Viewing east.**

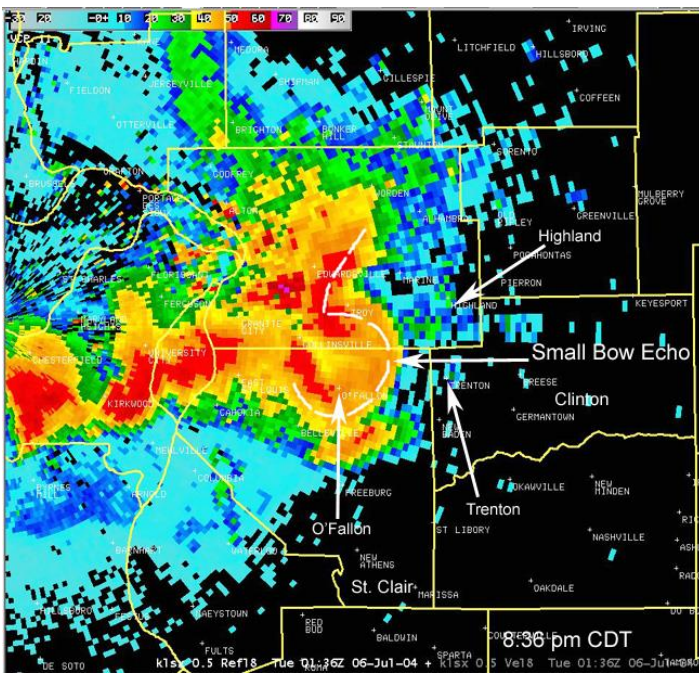


**Additional tree damage near the north side of Trenton, Illinois (western Clinton County).**

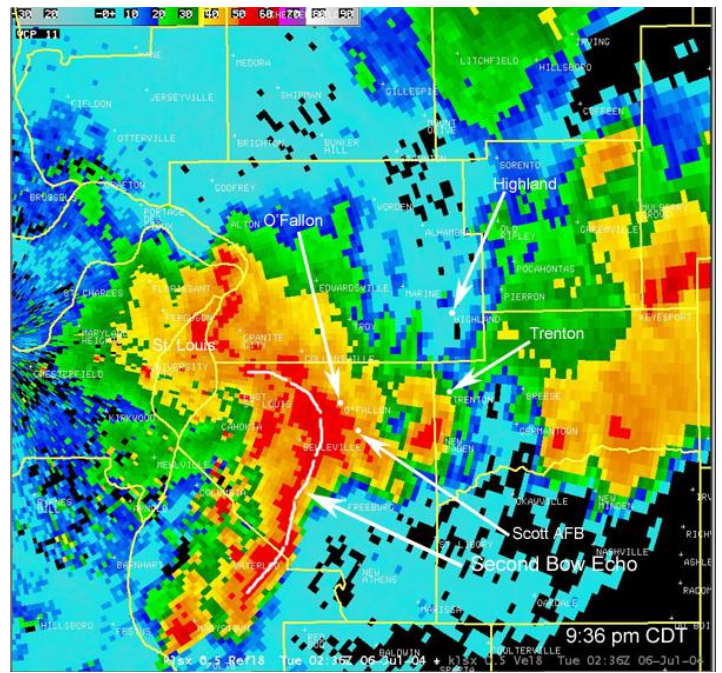




# Radar Data

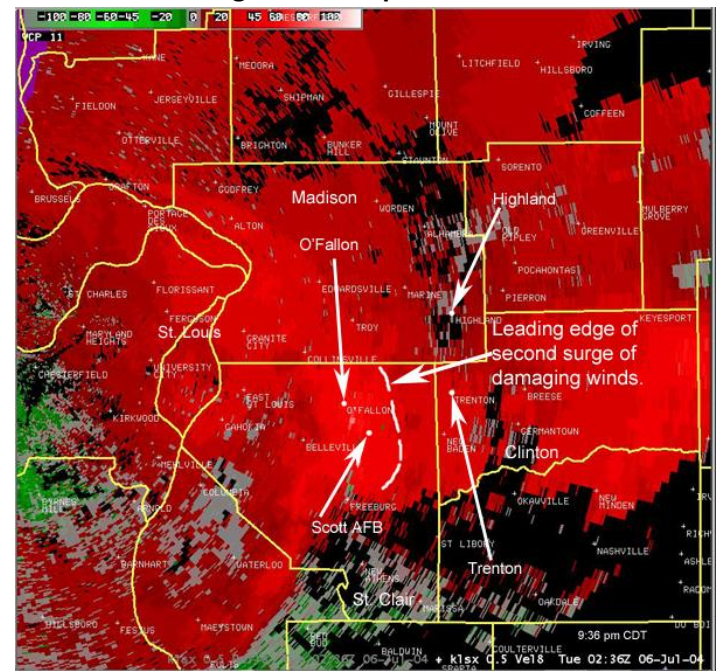
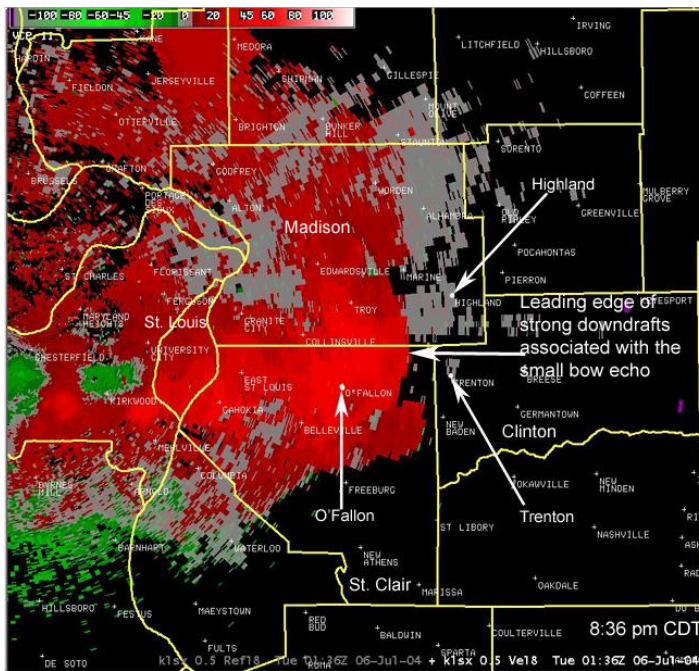


Low-level plan view reflectivity image from WFO St. Louis taken at 8:36 pm reveals the second bow echo moving east across St. Clair county in southwest Illinois.



Low-level plan view reflectivity image from WFO St. Louis taken at 9:36 pm reveals the third bow echo moving east across St. Clair county in southwest Illinois.

Shows low-level base velocity image from KLSX radar at 836 PM CDT.



Shows low-level base velocity image from KLSX radar. A very small group of very bright red pixels just southeast of O'Fallon, Illinois represents an area of 93 kts detected by the Doppler radar (outbound velocities). At 942 PM CDT, the wind instrument at Scott AFB recorded a gust of 92 mph.

Please note that while the severe weather data presented in this event synopsis has been quality controlled, it is still considered unofficial. Official reports & statistics for severe weather events can be found in the **Storm Data** publication (<http://www.ncdc.noaa.gov/IPS/sd/sd.html>) or **Storm Events Database** (<http://www.ncdc.noaa.gov/stormevents/>), available from the National Centers for Environmental Information (NCEI) web page [formerly the National Climate Data Center (NCDC)].

More detailed tornado track information can be accessed using the National Weather Service Damage Assessment Toolkit for all tornadoes beginning in 2012. <https://apps.dat.noaa.gov/StormDamage/DamageViewer/>

***Any questions regarding this event review should be address to [w-lsx.webmaster@noaa.gov](mailto:w-lsx.webmaster@noaa.gov)***