

Tornadoes – short lived, but destructive

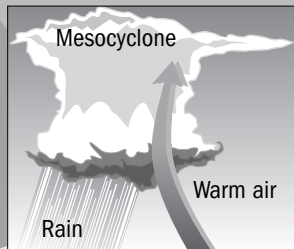
The Tristate is beginning what's historically been the busiest time of year for tornadoes.

How tornadoes form

The most destructive and deadly tornadoes are spawned by supercells – rotating thunderstorms that include rising rotating winds, or an updraft of air, which is called a mesocyclone. Changes in humidity and temperature, as well as unstable air, contribute to the formation of the mesocyclone.

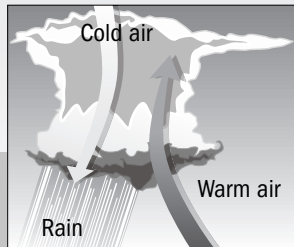
The beginning

When ground and air temperatures vary greatly, warm air rises rapidly, condenses and forms ominous thunderheads.



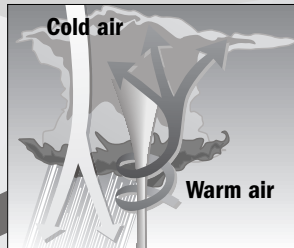
Updraft

Strong winds develop within thunderclouds. Warm, moist air is forced to rise when it meets with cool dry air moving in the opposite direction.



Spinning out

Winds cause the warm air to spin faster and faster as it rises, creating a funnel.



On the move

Because a tornado is like a vacuum, most are black from the dust and dirt sucked up from the ground. Red dirt will make a tornado red, and water vapor condensed by low pressure can make them white.

Tornado power

The late Theodore Fujita, a professor at the University of Chicago, developed the Fujita tornado scale (F scale) in 1971 to classify tornadoes according to wind speed and damage.

F0 40-72 mph
Chimney damage, tree branches, signs broken

F1 73-112 mph
Mobile homes pushed off foundation or overturned, trees snapped

F2 113-157 mph
Considerable damage, roofs torn off small buildings, mobile homes demolished, trees uprooted

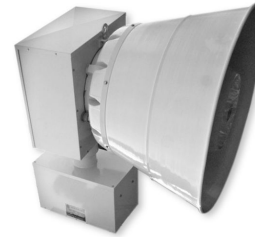
F3 158-206 mph
Roofs and walls ripped from homes, trains and cars overturned

F4 207-260 mph
Well-constructed walls leveled, cars thrown

F5 261-318 mph
Homes and buildings lifted off foundations, thrown considerable distances; ground scoured of grass and trees

F6 More than 318 mph
Very unlikely

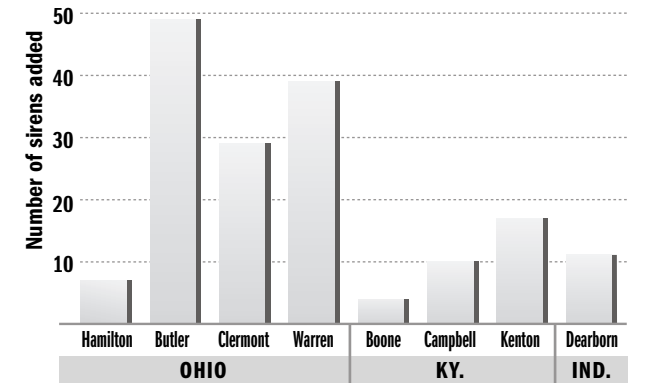
Sirens provide early warning



- Alert people to seek information from TV or radio about imminent severe weather.
- Activated by county emergency management officials, or police/fire dispatchers.
- Produce up to 128 decibels, and can be heard up to a mile away.
- Weigh more than 500 pounds.

Weather sirens

Since the 1999 tornado, many communities have added sirens.

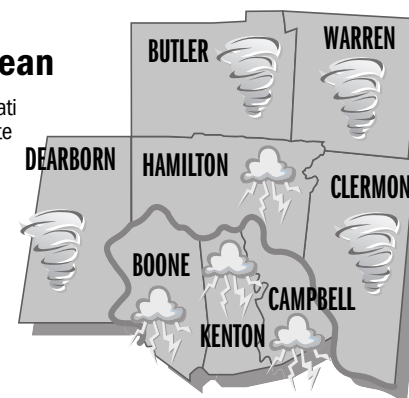


Total number of sirens

County	Hamilton	Butler	Clermont	Warren	Boone	Campbell	Kenton	Dearborn
OHIO	187	80	58	55	28	19	34	31
KY.								
IND.								

What sirens mean

Greater Cincinnati counties activate sirens – a steady tone for 3-5 minutes – for different reasons. Here are why sirens sound in each county:



Tornado warning

A tornado has been spotted, or radar has indicated that one has formed. Go to a basement or a windowless interior space on the lowest floor and listen to a battery-operated radio.

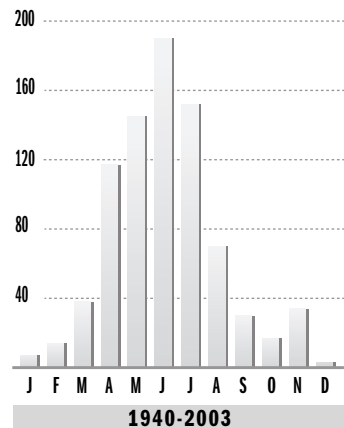


Tornado warning/Severe thunderstorm warning during a tornado watch

Severe thunderstorms that could spawn tornadoes are in your area. Go to a basement or a windowless interior space on the lowest floor and listen to a battery-operated radio.

Ohio tornadoes

Data collected since 1940 shows that Ohio residents are most susceptible to tornadoes in April through July.



The Tristate's seven deadliest tornadoes

The strongest reported tornado in this region hit 30 years ago today.

DATE	COUNTIES	LEVEL	FATALITIES/INJURIES	DAMAGES	DESCRIPTION
April 23, 1968	Clermont, Brown, Clinton	F4	1/33	\$2,500,000	Touched down near Glen Este and moved northeast, passing east of Perintown and Newtonsville. Crossed briefly into Brown and Clinton counties, lifting near Westboro. The death occurred in Clermont County.
Aug. 9, 1969	Hamilton, Clermont	F4	4/247	\$2,750,000	Began in Wyoming moving southeast through Reading, Madeira and Indian Hill, and into Clermont County. Continued through Milford and Perintown before ending north of Williamsburg.
April 3, 1974	Ohio, Boone, Hamilton	F5	3/210	N/A	Moved north of Rising Sun, crossing the Ohio River at Belleview, Ky. Then moved west of Burlington, and crossed the Ohio River again at Saylor Park. Continued through Mack, lifting near Dent along Interstate 74. All deaths occurred in Hamilton County.
April 3, 1974	Hamilton, Butler, Warren	F4	2/39	\$5,000,000	Moved from Elmwood Place, through Reading, Sharonville and Pisgah. Tornado lifted about four miles north of Mason. The two deaths occurred in Warren County. Tornado produced from storm that created Saylor Park tornado.
May 4, 1990	Butler	F2	1/5	\$250,000	Touched down briefly near Maud, a mile north of West Chester.
Nov. 22, 1992	Carroll, Gallatin	F4	1/10	\$2,500,000	Moved northeast from Worthville, crossed the Ohio River into Switzerland County, then back across the Ohio ending east of Rabbit Hash.
April 9, 1999	Hamilton, Warren	F4	4/65	\$82,000,000	Moved from Blue Ash through Montgomery, Symmes Township and Loveland. Continued through Twenty Mile Stand before lifting west of Maineville. All deaths occurred in the Blue Ash/Montgomery area.