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How Do Tornadoes Appear?

The deadliest storms

The tornadoes are short and small storms, but the most violent of all types. They emerge and evolve over the inland continental areas. The best conditions of tornado formation appear when a cold air current chokes with a mass of wet warm air, giving birth to enormous dark clouds (called cumulonimbus). These clouds generate a thunder storm, in which the warmer air ascends, creating a powerful current. In the upper part of the storm, the strong winds starts rotating increasingly rapidly, forming a vortex. In the US, tornadoes are also called twisters, due to the funnel-shaped air whirls. The wind in the "funnels" has a speed of over 300 km per hour. The rapidest speed recorded inside a tornado was of 450 km (280 mi) per hour; it was measured in Wichita Falls, Texas, in 1958. The vortex rotates in increasingly tight spirals, raising speed and ascending to the clouds. Then, the tornado descends from the clouds, reaching the ground with great violence. The tornadoes last just about one hour, advancing on the ground with 10 km (6 mi) to 560 km (350 mi) per hour. The winds destroy anything on their way and raise also cars, trains, roofs and people in the air, with the dust that makes the tornado visible. The objects are "aspired" in the vortex and transformed into deadly projectiles and thrown back to the ground. The air pressure inside the tornado is low; the low pressure of the tornadoes and the high pressure of the building make the latter simply explode. In 1989, a tornado killed this way 1,300 people in Bangladesh. A tornado touches the ground on an area with a diameter of a few meters up to 1 km (0.6 mi) and it can move over a short distance or several kilometers. A tornado lasts usually several minutes, but stronger ones can last over one hour. A storm lasting several hours can generate more tornadoes over an extended area. The tornadoes rotate clockwise in the Southern Hemisphere and oppositely in the Northern Hemisphere, but some do not obey these rules. In tropical waters, water spouts appear. Even if included in the category of weak tornadoes, these water columns, with diameters up to 30 m (100 ft), represent a great danger for the vessels found on their way. Tornadoes produce enormous damages and the most powerful and frequent occur in temperate areas of US, western Europe, Japan, India, South Africa, Argentina and Australia. In the center of US, about 500-600 powerful tornadoes occur every year at the beginning of the spring, most of them concentrated in the Tornado Alley in Texas, Oklahoma, Kansas and Iowa. Tornadoes are hard to predict, but the largest tornadoes are detected using radars based on the Doppler effect. This is a top 10 deadliest tornadoes in the US history: 1. March 1925 in Missouri, Illinois, Indiana 689 dead 2. 9-19 February 1884 southern US 600 dead 3. 2-6 April 1936 Mississippi, Georgia, South Carolina, Arkansas 419 dead, 1,800 wounded 4. 3-4 April 1974 Alabama, Georgia, Ohio, Michigan, Wisconsin 350 dead 5. 21-22 March 1952 Arkansas, Missouri, Alabama, Tennessee 343 dead, 1,400 wounded 6. June 1953 Texas, Michigan, Ohio, New England 321 dead 7. 7 May 1840 Natchez, Mississippi over 300 dead 8. 11 April 1965 Indiana, Illinois, Ohio, Michigan, Wisconsin 271 dead, 5,000 wounded 9. 21 March 1932 Alabama 268 dead, 1,000 wounded 10. May 1987 Texas the destruction of the city Saragosa