

Tornado Facts

- Tornadoes can occur almost **anywhere in the world**.
- Most form during the months of **April and May**.
- 99% of all tornadoes in **Northern Hemisphere** rotate **counterclockwise**.
- Duration: **a few minutes**.
- Average diameter 250 feet (80 m), average travel length 4 miles (6 km).
- Funnel can travel with speeds ranging from zero up to ~70 mph, ~30 mph on average.
- Wind speeds within vortex are *usually* less than 110 mph (180 km/h).
- The **most extreme tornadoes**: wind speeds of more than **300 mph (480 km/h)**, stretch more than **2 miles (3 km) across**, and stay on the ground for dozens of miles (more than 100 km).
- Which state has highest frequency of tornadoes?









TEXAS!

Tornado Classification

Tornadoes are classified into 6 categories F0 – F5 using the (Enhanced) Fujita scale.

- In rating tornadoes, only surface wind speeds, or the wind speeds indicated by the damage resulting from the tornado, are taken into account.
- Rating is based on the **amount of damage**, ranging from “**weak**” F0 to “**violent**” F5.
- Outside Tornado Alley, and North America in general, **violent tornadoes are extremely rare.**

	Damage: Incredible	EF5
	Windspeeds: Greater than 322km/h (200mph)	
	Damage: Devastating	EF4
	Windspeeds: 267-322km/h (166-200mph)	
	Damage: Severe	EF3
	Windspeeds: 218-266km/h (136-165mph)	
	Damage: Considerable	EF2
	Windspeeds: 178-217km/h (111-135mph)	
	Damage: Moderate	EF1
	Windspeeds: 138-177km/h (86-110 mph)	
	Damage: Light	EF0
	Windspeeds: 105-137km/h (65-85mph)	

F0 and F1 Category



- **“Weak” winds (<110 mph), little or no structural damage.**
- **Stay on the ground for a mile (1.6 km) or less.**
- **Damage: tree branches snapped, chimneys toppled, signs torn down, siding torn away, windows broken, roof damaged.**
- **In the United States, 80% of tornadoes are F0 and F1.**

F3 Category



- **“Very Strong” winds (136-165 mph).**
- **Severe structural damage and serious risk to life.**
- **Damage: most trees uprooted, trains overturned, roofs torn off, walls demolished, unanchored homes swept away.**

F5 Category



- “Violent” winds (200+ mph, *max of 319 mph observed*).
- Rare: ~0.1% (less than 1% are F4 and F5 combined).
- **Incredible damage**: bark peeled off trees, houses lifted off foundations and completely demolished, vehicles travel greater than 300 feet (100 m) through the air.

US Tornado Frequency

Number of Reported U.S. Tornadoes by EF Rating for the time period between 2/2007 and 12/2012

