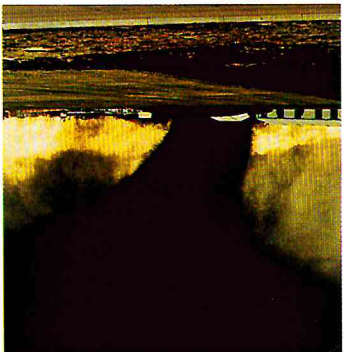


tornado distribution While tornadoes can occur at any time and at any place, there are some times and locations where they are more likely to form. Most tornadoes—especially violent ones—form in the spring during the late afternoon and evening, when the temperature contrasts between polar air and tropical air are the greatest. Large temperature contrasts occur most frequently in the central United States, where cold continental polar air collides with maritime tropical air moving northward from the Gulf of Mexico. These large temperature contrasts often spark the development of supercells, which are each capable of producing several strong tornadoes. More than 700 tornadoes touch down each year in the United States. Many of these occur in a region called “Tornado Alley,” which extends from northern Kansas through Oklahoma, Kansas, and Missouri.

tornado classification Tornadoes vary greatly in size and intensity. The **Fujita tornado intensity scale**, which ranks tornadoes according to their path of destruction, wind speed, and duration, is used to classify tornadoes. The Fujita scale was named for Japanese tornado researcher Dr. Theodore Fujita. The scale ranges from F0, which is characterized by winds of up to 180 km/h, to the incredibly violent F5, which can pack winds of more than 500 km/h. Most tornadoes do not exceed the F1 category. In fact, only about 1 percent reach F4 or F5. Those that do, however, can lift entire buildings from their foundations and toss automobiles and trucks around like toys. The Fujita scale is shown in Table 13.1.

Fujita Tornado Intensity Scale		Photo of Tornado	
Table 13.1		Photo of Tornado	
Weak (F0 and F1) 80 percent of all tornadoes Path: up to 4 km Duration: 1–10 min Wind speed: 70–180 km/h			
Strong (F2 and F3) 19 percent of all tornadoes Path: 24 km + Duration: 20 min + Wind speed: 181–332 km/h			
Violent (F4 and F5) 1 percent of all tornadoes Path: 80 km + Duration: 1 h + Wind speed: 333–512+ km/h			

Concepts in Motion
Interactive Table To explore more about the Fujita tornado intensity scale, visit glencoe.com.