

December 3, 1978 Bossier City Tornado

If it Happened Today...

Pierre Bossier Mall, the Louisiana Boardwalk, and several casinos have become part of the Bossier City landscape since the 1978 tornado. Residential development has also occurred north of Interstate 220 as the city expands northward. Because of this, we wished to examine what would happen if the 1978 Bossier City tornado occurred in 2008.

How?

In order to accomplish this, a reanalysis of Dr. Fujita's track map was completed using GIS software. The initial track was modified slightly based upon modern aerial photography and damage reports listed in local newspapers. The resulting track maps are shown in the series of images below.

December 3, 1978 Bossier City Tornado

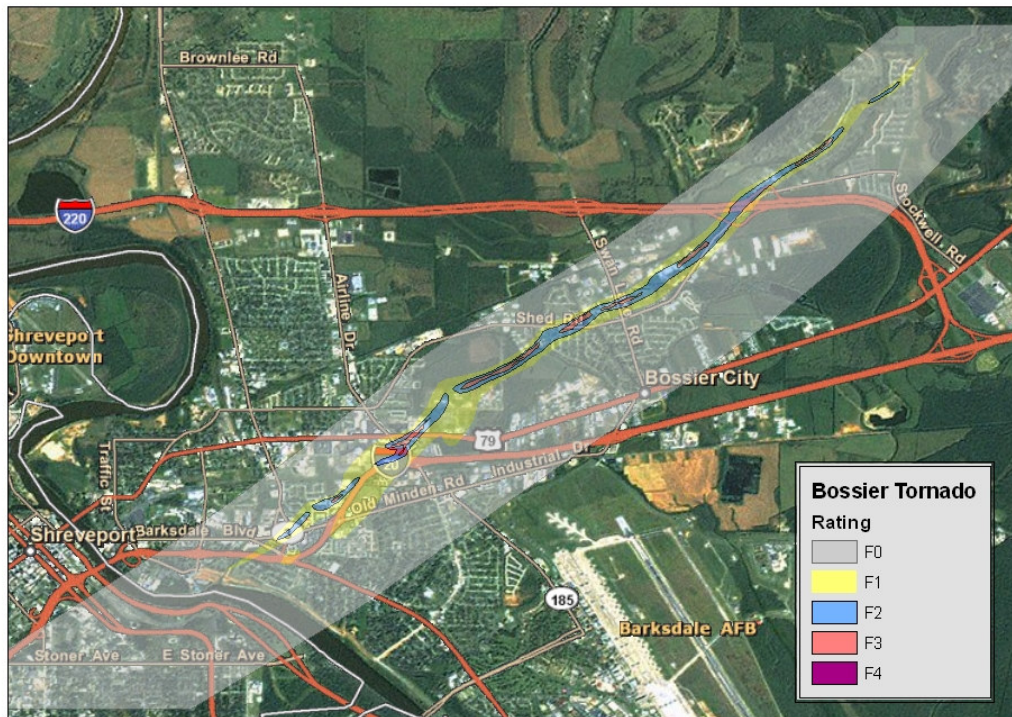


Figure 1. Overview of Bossier City tornado track. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Bossier City Tornado - Touchdown Location

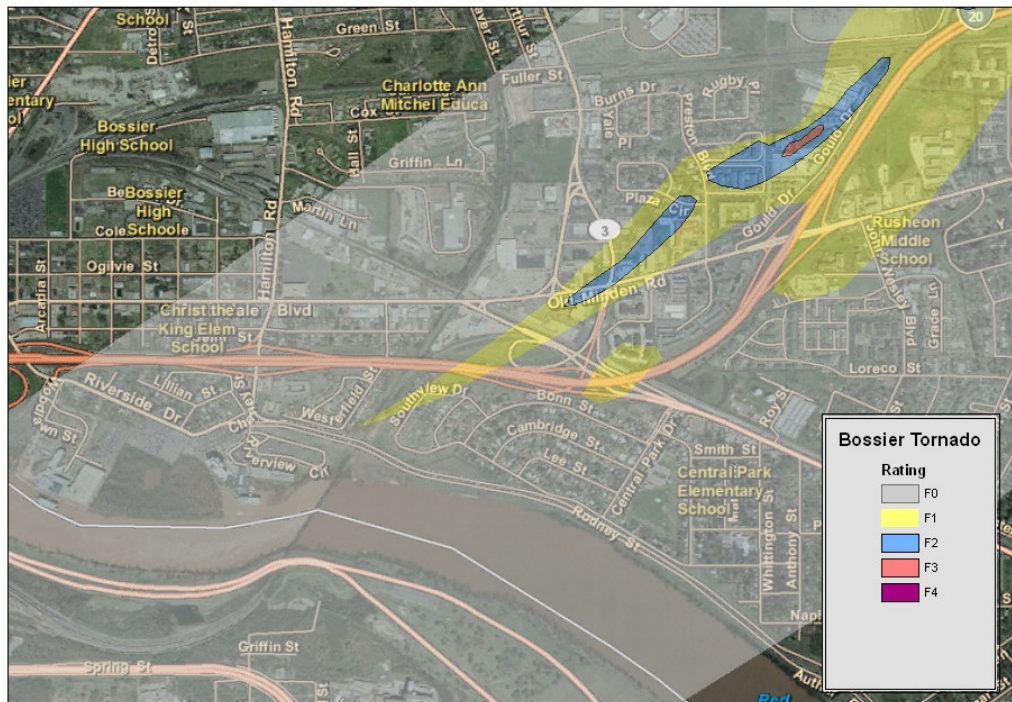


Figure 2. Portion of the Bossier City tornado track showing the approximate touchdown location. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Bossier City Tornado - Benton Road Area

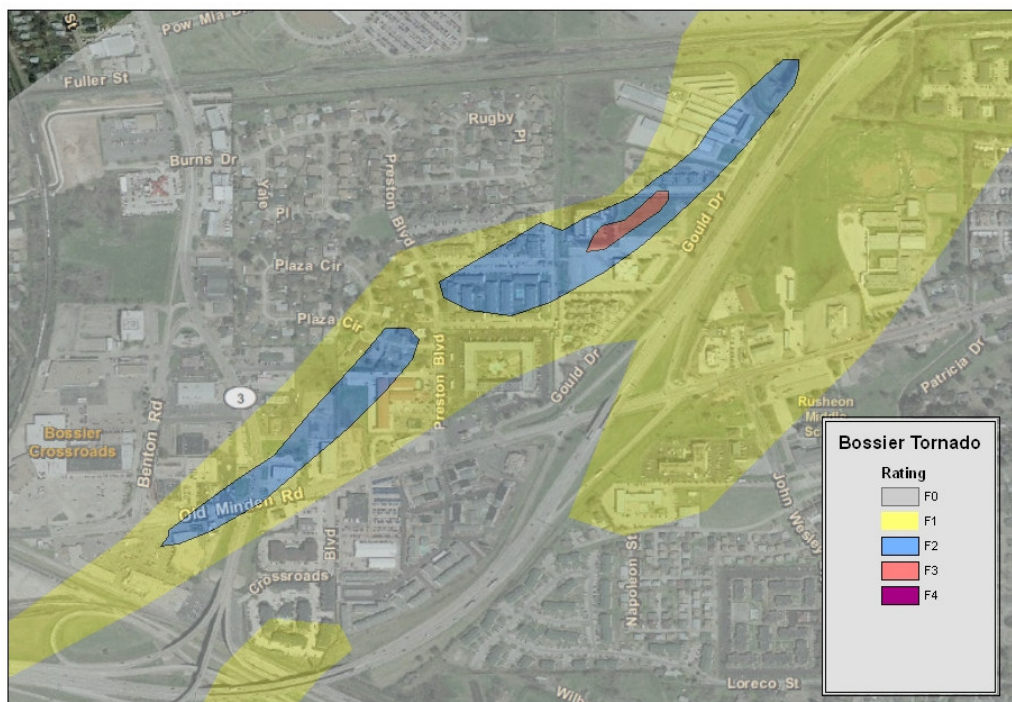


Figure 3. Portion of the Bossier City tornado track showing damage in and around Benton Road. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Bossier City Tornado - Airline Drive Area

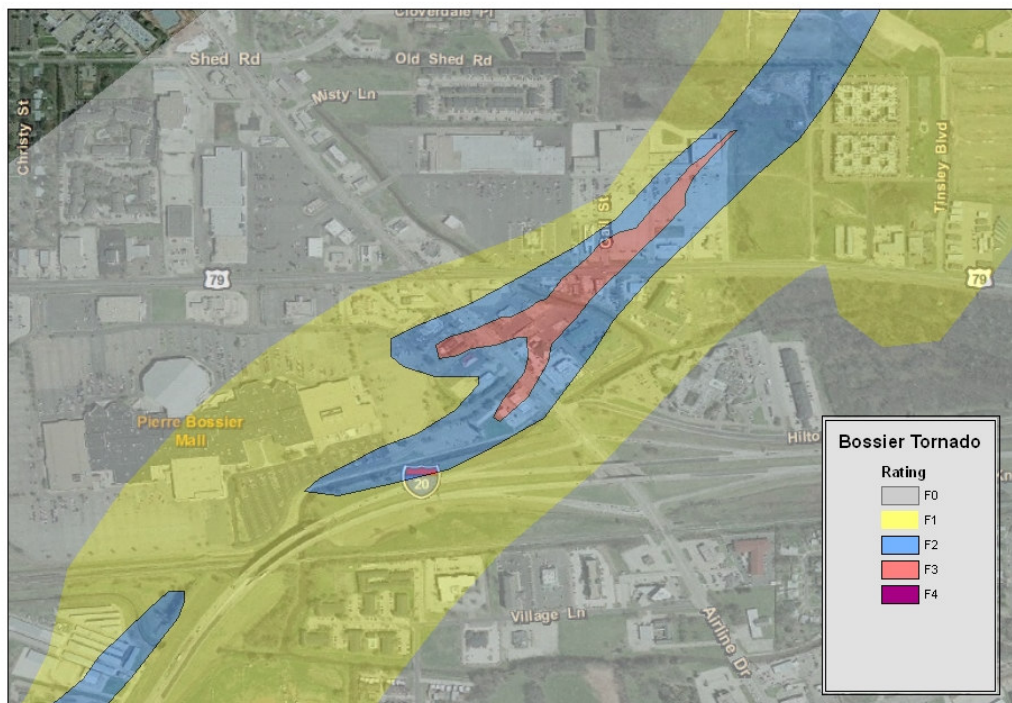


Figure 4. Portion of the Bossier City tornado track showing damage in and around Airline Drive. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Bossier City Tornado - Meadowview Area

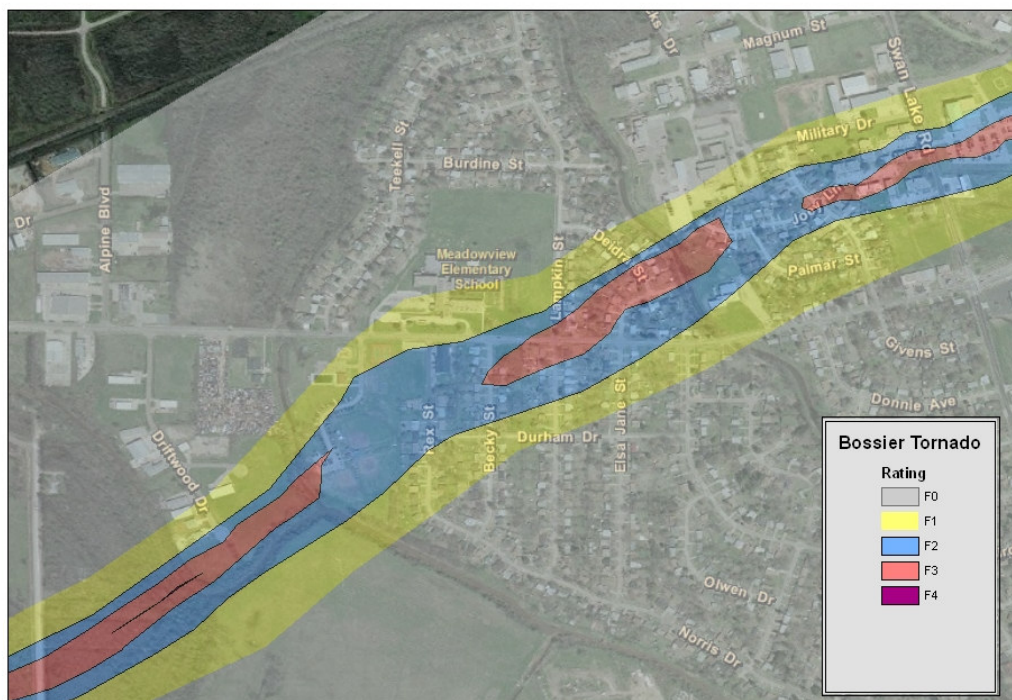


Figure 5. Portion of the Bossier City tornado track showing damage in and around Meadowview Elementary School. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Bossier City Tornado - Stockwell Place Area

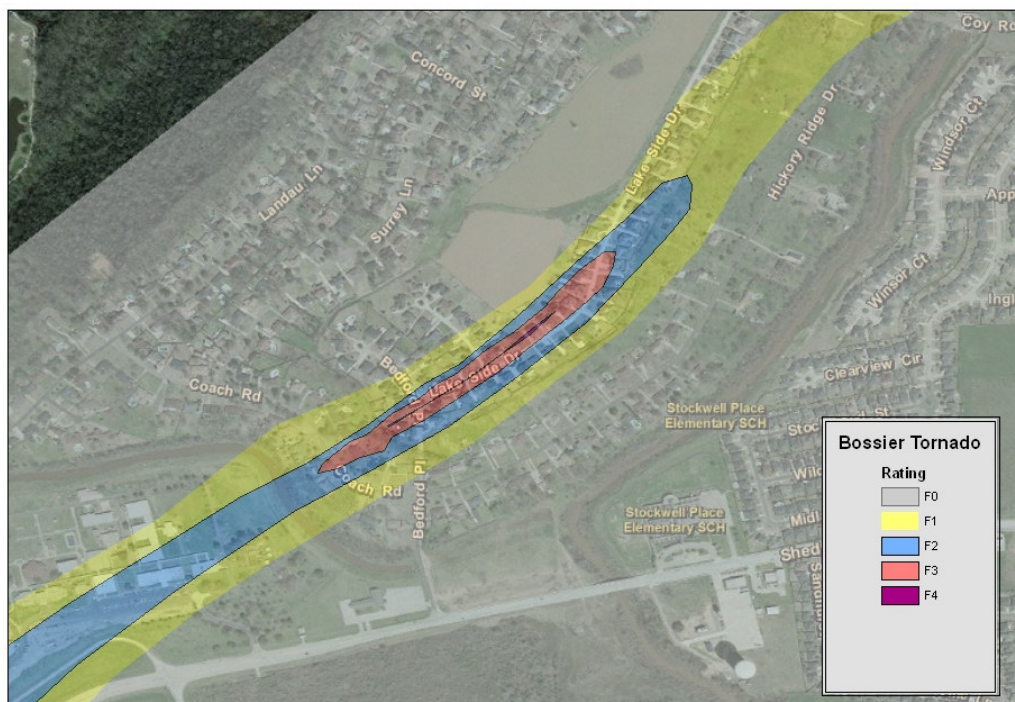


Figure 6. Portion of the Bossier City tornado track showing damage north of Interstate 220. Colors indicate the tornado's intensity. (Modified from Fujita, 1979)

Data from the 2000 census were overlaid once track maps were completed. Based upon this information, it is estimated that approximately 21,000 people could be affected by the tornado if it happened today. An estimated 5,000 people could be impacted by wind speeds greater than 73 miles per hour, which is the lower threshold for an F1 tornado.

Impacts

If the storm occurred today, there is the potential to see greater structural damage than in 1978. Newer structures, such as Pierre Bossier Mall, would likely suffer significant damage. Diamond Jacks Casino would probably see some damage as well, given its proximity to the initial touchdown location.

Many of the same structures which were damaged in 1978 would again receive damage as the tornado moves toward the northeast. The Heart of Bossier shopping center and other developments in the Benton Road and Old Minden Road corridors would likely experience major damage. Businesses along Airline Drive, between Interstate 20 and US-80 (Texas Avenue) would probably be completely destroyed by at least F3 strength winds. This would include such present-day businesses as Starbucks, Pizza Hut, Burger King, and the Howard Johnson motel. Newer developments along US-80, such as Chili's, Sonic, and Albertsons would also see a significant amount of damage.

An increased amount of residential development has been seen since 1978 in northeastern parts of Bossier City, in and around Red Chute, Stockwell Place, and Carriage Oaks. Because of this, there is a potential to see an increased amount of structural damage as the tornado crossed Interstate 220. Increased fatalities might also result.

There has been much speculation as to why the loss of life was not greater. The time of the tornado's occurrence clearly played a role. Just before 2 am, shopping centers and most restaurants were closed. Schools were not in session. Traffic along Interstate 20 and other major roadways was relatively light. If this storm had occurred during afternoon on a weekday, the number of fatalities would likely be much higher. In fact, according to former Official-in-Charge Ernest Ethridge, if the tornado moved through Bossier City a just a week earlier, there could have been a greater loss of life. Why? There was racing at the Louisiana Downs racetrack and area motels were almost filled to capacity.

Many more businesses, such as casinos and fast food restaurants are open 24 hours in 2008 than in 1978. There would also likely be an increased amount of traffic on area roadways in our faster-paced society. These two factors suggest the possibility that a violent tornado moving along the same path today has the potential to inflict a greater loss of life and structural damage than in 1978.

Violent tornadoes are rare and comprise less than 3 percent of all tornadoes annually. Events such as this one serve as a reminder that severe weather, including tornadoes, can and does occur any time of year across the Four State Region. Even with advanced technology providing more precise forecasts and warnings, you are urged to prepare in advance by having a safety plan when severe weather threatens your area. Consider purchasing a NOAA Weather Radio All-Hazards to keep you informed of conditions favorable for severe weather any time of year.