

Tornado Safe  
Rooms: Saving  
Lives and Houses in  
Tornado Alley

DR. ERNST KIESLING "FATHER OF THE SAFE ROOM"

Many tornadoes occur in Tornado Alley. Tornado Alley includes the states of Texas, Oklahoma, Kansas, South Dakota, North Dakota, Iowa, Missouri, New Mexico, Colorado and Minnesota. Tornadoes can destroy anything that comes in its path. Tornadoes are really dangerous because they can cause death and millions of dollars in property damage. Tornado winds are so strong that they can flatten a whole forest. The average is about 60 people killed by tornadoes every year, most of them from flying or falling trash or debris. The state of Texas has the most tornadoes with an average of 126 tornadoes in a year and Oklahoma has an average of 52 tornadoes per year. Oklahoma City has the most tornadoes as a city. On May 3<sup>rd</sup>, 1999 near Bridge Creek, Oklahoma, the tornado with the highest winds during a tornado was recorded with wind speeds of 302 miles per hour. Tornadoes have been documented in every state of the United States.

The top five deadliest tornadoes in Texas since 1900:

1. Waco - May 11th, 1953
2. Goliad - May 18th, 1902
3. Rock Springs - April 12th, 1927
4. Glazier-Higgins-Woodward - April 9th, 1947
5. Wichita Falls - April 10<sup>th</sup>, 1979

Safe rooms for protection from tornadoes help save lives, protect families from injuries and loss of homes and businesses and relieve anxiety. Dr. Ernst Kiesling, a research professor at Texas Tech University's National Wind Institute, saw the terrible damage of the deadly multi-state April 1974 tornado outbreak and asked himself "How did that bathroom remain standing when the house and everything else around it was destroyed?" Dr. Kiesling has spent most of his career at the Texas Tech University teaching and doing high wind safety research. He and his graduate students found out that the bathroom walls had been made stronger because of the plumbing. That helped them to do more research and come up the ideas of safe rooms – a room inside the home that provides lifesaving protection in tornadoes, even in winds up to 250 mph. Dr. Kiesling, Ph.D. is known to some as the *Father of the Safe Room*. He started the National Storm Shelter Association (NSSA) that helps with quality of safe rooms and storm shelters to make sure they will be strong enough to save the lives inside. Ernst's storm shelters and safe rooms have helped the lifesaving of thousands of tornado affected families. We can thank Dr. Ernst Kiesling for the idea of safe rooms and shelters that save lives and for starting the NSSA that helps the builders understand that safety also depends on how strong they are built to withstand a tornadoes devastation.