

ABSTRACT

THESIS: Individuals' Perspectives on Tornado Alley's Location and Their Decision to Take Shelter

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Advancements in tornado warning lead times and disseminations have greatly lowered the fatality rate; however, people are still losing their lives to tornadoes. Previously, Tornado Alley was a common term created and promoted by the media to be synonymous with the Great Plains, the area of the U.S. with the greatest tornado frequency. Even though this term is inaccurate and is being phased out within the meteorological community, it was once a familiar term that individuals might continue to use as guidance when deciding whether to seek shelter or not. This study attempts to address where the public identifies Tornado Alley and how a resident's location in relation to Tornado Alley affects their decision to take shelter during severe weather. It is important to understand how the public perceives tornado risk based on geographic location so that meteorologists can better convey the tornado threat, and ultimately save lives.

An online survey was administered to get a better understanding from the public about the factors that contribute to their decision to take shelter or not, specifically focusing on their

geographic proximity to Tornado Alley. It was observed that one's geographical location compared to their perception of Tornado Alleys' location had little to no factor when it came to their decision to seek shelter. Rather, the most important factor was their home included in the tornado watch/warning followed by living in a tornado-prone area, an area that experiences tornadoes frequently. It was also observed that most people's decision to take shelter did not change after viewing a map of Tornado Alley, reading its definition according to the NWS, or viewing a map of historical violent tornadoes per county.