

Advancing the Nation's Capability to Anticipate Tornado and Severe Weather Risk
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Recent tornado outbreaks over the U.S. have caused devastating societal impacts, prompting the need to identify and understand sources of predictability that may lead to extended range severe weather prediction. At present, tornado and severe weather outlooks do not extend beyond one week. The latest science gives evidence that tornado activity can be predicted further in advance than was previously believed and provides improved understanding of the links between large-scale climate variability and tornado activity. A recent grass roots effort amongst a small group of climate scientists has examined this issue in detail and disseminated their findings via a white paper. This white paper summarizes existing US tornado and severe weather prediction capability, outlines desired scientific advances, and presents an implementation plan combining research and institutional strategies for achieving those goals.