

National Advisory Committee on Windstorm Impact Reduction (NACWIR) Member



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Dr. Ashley is an atmospheric scientist and physical geographer with broad expertise in the risks of severe windstorms to humans. He is a Professor in the Department of Geography at Northern Illinois University. He has a PhD in Geography from the University of Georgia, and is an American Meteorological Society (AMS) Certified Consulting Meteorologist and a Forensic Meteorologist.

Dr. Ashley's research covers risk assessment and risk reduction for multiple natural hazards including:

- the increasing tornado risk due to growing populations and suburban sprawl,
- the increased risk associated with nighttime tornadoes,
- factors affecting mortality associated with tornadoes,
- factors affecting tornado paths, and
- tornadoes and mobile homes.

He has published numerous peer-reviewed articles in journals such as *Meteorological Applications*, *Natural Hazards*, *Weather*, *Climate and Society*, *Weather and Forecasting*, *The Professional Geographer*, and *the Bulletin of the American Meteorological Society*. The topics of his publications include societal factors leading to greater and more frequent weather disasters, observed and projected changes in U.S. tornado exposure, spatial-temporal characteristics of tornado path directions, estimating tornado impacts, changing dynamics of exposure and risk, tornado intensity assessments, fatalities associated with both convective and non-convective wind events, and the relationship between wind fatalities and warnings.

Dr. Ashley serves on the Scientific Steering Committee of the Verification of the Origins of Rotation in Tornadoes Experiment-Southeast (VORTEX-SE), a \$5M/year joint National Oceanic and Atmospheric Administration/National Science Foundation (NOAA/NSF) research project studying tornadoes in the southeast U.S. He is also a member of the AMS Board of Societal Impacts, and previously served on the AMS Tornado Policy Statement Drafting Team. He is a recipient of the AMS *Weather, Climate, and Society* Editor's Award.

In addition to his academic research, Dr. Ashley has worked to educate the public about tornado hazards and risks, including nighttime tornadoes, which are 2.4 times as likely to result in fatalities as those in the daytime. His study on that topic, published in *Weather and Forecasting*, suggests that the current warning systems that have led to overall declines in tornado death rates might not be adequate for overnight events.