

National Weather Service Employees Organization

## Advancing the Mission of Saving Lives – Investments in the National Weather Service Could Improve Tornado Warnings

(May 23, 2011) National Weather Service forecasters provided a 24-minute lead time for tornado warnings in Joplin, Missouri, almost twice the national average. However, the National Weather Service Employees Organization says that investments in weather service forecasting technology could provide even more time for residents to prepare and take cover during severe weather events.

"The 24-minute lead time is a great improvement over the average lead time of 13 minutes for tornado warnings. The meteorologists in the Springfield Weather Forecast Office are commended for their lifesaving work," said Dan Sobien, NWSEO President. "But in our age of advanced technology and communication, when new radars and modeling opportunities exist that can provide more lead time to get people out of the path of a storm, hundreds of people do not have to die because of a tornado event."

Sobien says the Joplin and Tuscaloosa tornadoes are examples of how the government's neglect to invest in NWS related infrastructure over the last 10 to 15 years has failed to provide the tools necessary to protect lives and property. He says that the tools forecasters use to issue tornado warnings are woefully inadequate and that the technology exists to provide lead times so far in advance of the storm that it would make the need for tornado warnings as we know them obsolete.

The much touted Doppler Weather Radar, also known as the Weather Service Radar or WSR-88D, was developed in 1988. Since that time, technological advances, including phased array radars developed by the Department of Defense, have been shown to increase the current lead time on tornado warnings by almost 50 percent. The much touted Warn on Forecast process utilizes Meso-scale modeling and has the potential to let forecasters know hours in advance where a thunderstorm would form and if it is likely to contain strong winds, hail, or even a tornado. With adequate staffing, local National Weather Service forecasters who understand local terrain and the model output, could be embedded with emergency managers and decision makers. In the event of a storm, the forecaster could provide emergency managers with the tornado track with some margin of error and people in the way of the storm could be evacuated hours before the tornado hits. This technology is being developed and tested right now, however without funding it will never be available.

The art and science of severe weather warnings made considerable progress during the 1980s

and 90s, going from almost zero lead time to average of about 13 minutes for tornado warnings. However, in recent years, that progress has stalled, even while the technological advancements have accelerated. If the country made the type of investment in the National Weather Service that it did in the 1980s, scenes like the ones in Missouri this week and in Alabama and Mississippi last month could be a thing of the past.

"I am very proud of my co-workers at the National Weather Service this tornado season. They saved many lives and having been there myself, I can assure you, they feel personally about every lost life," said Sobien. "I know that budgets are tight and there are many priorities, but if you put investing in the National Weather Service up to a vote today in tornado alley, I think the approval would be a landslide."

For more information visit<u>www.nwseo.org</u>.

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