CIWRO Teams at the Warning Decision Training Division

The CIWRO teams at the Warning Decision Training Division (WDTD) partner with National Weather Service (NWS) instructors to train NWS forecasters. With a goal of helping to improve NWS warning performance, CIWRO associates create training content and tools for the traditional classroom, on-line training lessons, technical reference documents, infographics, and simulations.

Training Content

WDTD training content focuses on the science, technology, and human factors involved with the warning decision-making process:

• Science: Incorporates both general data interpreting data from various platforms (e.g., WSR-88D, Multi-Radar/Multi-Sensor, or MRMS) and concepts from scientific research (e.g., tornadogenesis, flash flood conceptual models)

• Technology: Teaches forecasters to interact with operational systems (e.g., WSR-88D, AWIPS) so they can analyze data, prepare forecasts, and generate warnings for the protection of life and property

• Human Factors: Provides focus on topics (e.g., communication, situation awareness, cognitive overload) impacting the human being who makes the warning decision

For more information on warning decision training development, please contact Andy Wood (awood@ou.edu).

Training Tools

CIWRO also has developed a training tool around the AWIPS computer system called the Weather Event Simulator (WES). It provides forecasters the capability to view past, or archived, data events, either all at once, or minute-by-minute -- sort of a weather version of a flight simulator.

Each NWS office has a WES workstation that forecasters use to hone their forecast and warning skills as well as conduct research projects. CIWRO also is heavily involved in helping the NWS create a more accessible and flexible version of the WES using a cloud computing platform.

CIWRO staff helps to keep the WES up to date, preparing data archives, and producing simulations and case studies, as well as providing remote technical support to NWS offices to answer any questions. CIWRO also helps WDTD maintain a

world-class WES laboratory used to train forecasters on the latest methodologies in interpreting radar and other data and creating warnings for severe weather like tornadoes, hail, damaging winds, and flash flooding.

For more information on warning decision training tools (such as the WES), please contact Dale Morris (dmorris@ou.edu).

Peer Recognition

WDTD (including its CIWRO associates) has been peer-recognized for significant training efforts since 2010:

• 2021: National Weather Association Larry R Johnson Special Award for providing an innovative solution to continue training NWS operational meteorologists during the COVID-19 pandemic with the cloud-based warning decision-making workshops

• 2014: Department of Commerce Gold Medal for "developing and implementing Dual- Polarization technology on the Next Generation Weather Radar network to improve weather hazard warning services"

• 2012: National Weather Association Operational Achievement Group Award for Dual-Pol Radar Training