

Warning Decision Training

The CIMMS team at the Warning Decision Training Division (WDTD) partner with National Weather Service (NWS) instructors in the instructional design and development process. This process involves creating training content and tools for the traditional classroom, on-line training lessons, technical reference documents, infographics, and simulations. WDTD training content focuses on the science, technology, and human factors that impact the warning decision-making process. Science-based training covers both interpreting data from various platforms such as the WSR-88D and Multi-Radar/Multi-Sensor (or MRMS) and concepts from scientific research (e.g., tornadogenesis). Technology training provides NWS forecasters with the skills they need to interact with operational systems, such as the Advanced Weather Interactive Processing System (AWIPS) used to analyze data and observations, prepare forecasts, and generate warnings for the protection of life and property. Human factors training focuses on the human making the warning decision, including topics related to communication, situation awareness, and cognitive overload. For more information on warning decision training development, please contact Andy Wood (awood@ou.edu).

CIMMS also has developed a training tool for AWIPS 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 that forecasters use to hone their forecast and warning skills as well as conduct research projects. CIMMS staff help each office with keeping their WES up to date, preparing data archives, and producing simulations and case studies, as well as providing remote technical support to answer any questions. CIMMS staff also maintain a world-class laboratory of 28 WES workstations that the NWS uses to train both new and experienced 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)

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Figure: CIMMS research associates at WDTD perform a wide variety of training related functions. **Upper left:** WES support involves communicating with local WFOs to help address technical issues that arise. **Upper right:** Laboratory exercises used in WDTD training often are developed and facilitated by WDTD research associates. **Lower left:** CIMMS research associates assist high school students at a local science camp with radar analysis and warning issuance. **Lower right:** CIMMS research associates aid NWS forecasters with questions about the science, technology, and human factors of warning decision making.