

Leveraging Total Lightning and Convective Initiation Data for Impact-Based Decision Support Services

Brian C. Carcione, NWS Huntsville, AL

Traditionally, applications of total lightning and convective initiation products have focused upon their use for warning decision-making and situational awareness in WFO severe weather operations. However, these products also have significant utility for increasingly-important impact-based decision support services (IDSS). In April and June 2013, WFO Huntsville provided IDSS for several high-visibility outdoor activities, ranging from concerts to 27 April 2011 tornado outbreak anniversary activities. Total lightning data was particularly useful for the April events due to an active and unstable pattern; it also permitted forecasters to gain awareness of long-distance lightning flashes, which extended nearly 40 km but did not threaten any of the outdoor activities. GOES-R Convective Initiation data was used extensively to anticipate convective development for an outdoor concert in June. This presentation will detail the use of these products in these particular cases, and speculate on future IDSS-related tools and research.