

Improving Flash Flood Performance through Post Analysis and the development of Best Practices

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Success in flash flood performance is essential to each National Weather Service office in its quest to fulfill the mission of the agency. Unfortunately, flash flood characteristics vary greatly from region to region and in some cases from office to office, so universal, all-inclusive procedures and recommended practices are difficult to develop. Instead, it is essential that each Weather Forecast Office develop a series of “Best-Practices” to enhance their specific warning services to the public.

To this end, a series of guidelines were developed to aid in forecaster detection and reaction to developing flash flood events at WFO CTP. A significant component of these “best-practices” was the development of a database to allow examination of warnings issued and performance (POD, FAR and Lead Time) on a geographic scale (county-by-county). The data was compiled to aid forecasters in determining areas of high POD and lead-times verse regions of lower POD and shorter lead-times. These data revealed that certain geographical areas were better forecast than others.

In addition to the statistics, the data was used to reconstruct specific events. The goal is to improve the forecaster’s situational awareness and improve performance in future flash flood events.

This poster will present an overview of some developed “best-practice” ideas and concepts implemented at WFO CTP over the last several years. Special emphasis will be placed on analysis of historic warning and verification data to identify geographic patterns of high and low performance within the State College HSA. Also included will be specific case study examples of recent heavy rain events.