

JP2.2 NOAA/NWS UPDATED PRECIPITATION FREQUENCIES FOR THE OHIO RIVER BASIN AND SURROUNDING STATES

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1. STUDY UPDATE

The rainfall frequency atlases and technical papers published by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) serve as national standards for rainfall intensity at specified frequencies and durations in the United States. The Hydrometeorological Design Studies Center located in the Hydrology Laboratory of the NWS is updating the standards for the Ohio River basin and surrounding states published in NWS HYDRO-35 "Five- to 60-minute precipitation frequency for the eastern and central United States" (Frederick et al. 1977), Technical Paper No. 49 "Two- to ten-day precipitation for return periods of 2 to 100 years in the contiguous United States" (Miller 1964) and Technical Paper No. 40 "Rainfall frequency atlas of the United States for durations from 30 minutes to 24 hours and return periods from 1 to 100 years" (Hershfield 1961).

The study includes estimates for the following 13 states: Delaware, Illinois, Indiana, Kentucky, Maryland, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia. The study involved collecting data and performing quality control, compiling and formatting datasets for analyses, selecting applicable frequency distributions and fitting techniques, analyzing data, mapping and preparing reports and other documentation. HDSC analyzed durations from 5-minute through 60-days at return frequencies from 2-years through 1000-years using L-moments (Hosking and Wallis 1997). This poster paper presents selected results of the update. Separate posters/papers present the methodology used in this study, results for the Semiarid Southwest and the Precipitation Frequency Data Server (AMS paper J13.5 NOAA/NWS Precipitation Frequency Data Server), which will provide the final results via the Internet.

2. ACKNOWLEDGMENTS

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3. REFERENCES

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