DESCRIPTION OF STORM

An intense slow moving upper level trough over the Ohio Valley caused heavy rainfall over the Upper Monongahela River basin on November 4-5, 1985. On the same dates, a high-pressure ridge was located over the eastern seaboard, and a low-level jet stream originating in the Gulf of Mexico carried high amounts of moisture into the Upper Ohio Valley.

On the surface, an easterly moving trough, combined with a low pressure center originating off the South Carolina coast, formed an area of intense low pressure in the Tennessee Valley. Fed by an abundance of Gulf moisture, intense and widespread rainfall developed to the north of the low as warm, moist Gulf air overran the cooler air to the north.

This very slow moving low-pressure area moved northeastward to eastern West Virginia then turned on an east-northeasterly course across northern Virginia and northern Maryland. Extremely heavy showers and some thunder-showers developed during the November 4-5, 1985, period as the stream moved from eastern West Virginia to the Atlantic Coast.

Provisional rainfall data for many National Weather Service rain gages, furnished by the National Oceanic and Atmospheric Administration, are given in table 1. The location of the rain gage sites is shown in figure 1.