

# An Analysis of the Cattaraugus Creek Flash Flood of 26 June 1998

Scott M. Rochette and James A. Zollweg

Department of the Earth Sciences  
State University of New York, College at Brockport  
Brockport, NY

## ABSTRACT

During the early morning hours of 26 June 1998, a mesoscale convective system (MCS) containing severe thunderstorms moved through western New York state, resulting in large hail and damaging winds. Of much greater significance was the several inches of rain that fell from the storms, resulting in an extremely rapid rise of Cattaraugus Creek to two feet above flood stage. While no deaths or injuries occurred, the surging waters caused more than 100 boats to break loose from their moorings, which were subsequently shoved into Lake Erie. In addition, 37 Arcade residents needed rescue from rooftops and treetops, with more than 130 homes reporting damage in the village. Three counties were declared state and federal disaster areas, with damage estimates over \$7 million.

An ingredients-based methodology approach is employed to assess the meteorological conditions leading to the devastating storms. Standard surface and upper-air fields are used to diagnose the synoptic-scale environment, along with analyses of gridded data fields to assess specific fields of interest (stability, lifting mechanisms, etc.). Radar and satellite data are used to track the motion of the storm complex.