

1-1-2000

# An episode of elevated convective heavy rainfall: A numerical study

Scott M. Rochette

*The College at Brockport*, rochette@esc.brockport.edu

Follow this and additional works at: [http://digitalcommons.brockport.edu/esc\\_facpub](http://digitalcommons.brockport.edu/esc_facpub)



Part of the [Meteorology Commons](#)

---

## Recommended Citation

Rochette, Scott M., "An episode of elevated convective heavy rainfall: A numerical study" (2000). *Earth Sciences Faculty Publications*. Paper 11.

[http://digitalcommons.brockport.edu/esc\\_facpub/11](http://digitalcommons.brockport.edu/esc_facpub/11)

This Conference Proceeding is brought to you for free and open access by the Department of the Earth Sciences at Digital Commons @Brockport. It has been accepted for inclusion in Earth Sciences Faculty Publications by an authorized administrator of Digital Commons @Brockport. For more information, please contact [kmyers@brockport.edu](mailto:kmyers@brockport.edu).

**An Episode of Elevated Convective Heavy Rainfall:  
A Numerical Study**

Dr. Scott M. Rochette  
Department of the Earth Sciences  
State University of New York  
College at Brockport

Abstract

On 6 June 1993, a mesoscale convective system (MCS) produced >150 mm of rainfall over portions of Missouri. Examination of this event revealed that the thunderstorms that constituted the MCS were the result of the release of *elevated* convective instability. Previous investigations of this event focussed on the initial environmental conditions leading to the development of said instability and the resultant storms. In this study, a mesoscale numerical model is utilized to simulate the initial conditions of this event, with the intent of determining the model's ability to develop elevated convective instability and the ensuing storms. Model structure will be discussed, followed by a comparison of simulated vs. actual meteorological fields.