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

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

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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.