A PV-STREAMER'S ROLE IN PRODUCING A SUCCESSION OF HEAVY-RAIN-EVENTS

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A PV-streamer at 250 hPa, moving over the west central United States 25 June - 5 July, 1999 was visible on water vapor imagery as a narrow, elongated dark band. It sparked a series of mesoscale convective systems (MCSs) on successive days, producing heavy precipitation from Nebraska eastward and southeastward toward the coast along the Gulf of Mexico. The MCSs began as the PV-streamer moved off the central Rocky Mountains onto the Great Plains where it interacted with a surface front and a low-level jet. Each convective system interrupted the PV-streamer, and low and mid level vorticity accumulated along the front.