Case Studies of Norwesters During May 2009 Using WRF Model

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This paper summarizes preliminary results of thunderstrom prediction using very high resolution (3 Km) nested WRF model during May 2009. The forecast experiments are carried out for five thunderstorm cases reported on 3rd, 6th, 10th, 11th and 15th of May 2009 over different parts of eastern India and Bangladesh. An attempt is made to understand genesis, development and propagation, dynamical and thermodynamical structures and role of microphysical processes for intensification. The results suggest that the high resolution mesoscale models show some skill in advance prediction of the thunderstorm signature although not very accurately. The deep moisture convergence, rapid movement, strong vertical velocity, and CAPE characteristics are all very well captured in the model.