

## **Convective Storm Forecasting 1-6 Hours Prior to Initiation**

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One of the greatest difficulties in severe weather forecasting is deciding exactly where and when storms will form before convective clouds have begun to develop, specifically 1-6 hours before Convective Initiation (CI). The GOES-R ABI will have improved capabilities that will allow for the detection of low-level water vapor convergence, the tracking of low-level clouds on small scales, and the identification of ground-surface heating gradients caused by variations in antecedent rainfall and/or vegetation coverage, all of which play a role in the CI process by helping to form and sustain deep convection. Clear-sky radar echoes may also be used to locate regions of low-level convergence, and hence may provide additional information to help in CI forecasts. This presentation will provide the results of the project up to this point, including some promising findings based on simulated ABI imagery from the NSSL WRF model.