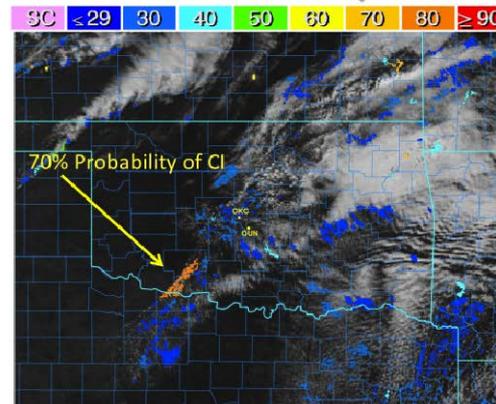# Development and Demonstration of the Fusion of GOES-R Legacy Sounding NearCasts with Convective Initiation Products to Improve Convective Weather Nowcasts
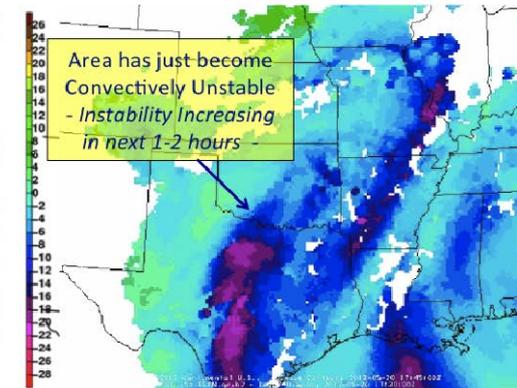
- GOES-R convective initiation (CI) algorithm is only product that provides CI information for convective storms
- CI algorithm currently over-forecasts due to little knowledge of convective environment parameters
- FY15-16 R3 project will improve CI algorithm nowcasts by incorporating GOES-R NearCast algorithm forecasts into the CI algorithm framework, effectively gaining the missing convective environmental information
- Methodology will maximize use of all GOES-R ABI capabilities
- Improved convective weather nowcasts will be available in formats compatible with AWIPS (II)/NAWIPS systems

GOES-R CI analysis (left) and NearCast Convective Instability forecast (right) valid 1730 UTC 20 May 2013 illustrating the complimentary nature of the two algorithm datasets

Improve convective initiation nowcasts via fusion of two established GOES-R algorithms

L. Cronce (UW-CIMSS), J. Mecikalski (UAH), and R. Petersen (UW-CIMSS)