View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by University of Missouri: MOspace


# Caleb Witt-Schulte

Atmospheric Science
Year in School: Senior
Hometown: Monett, Mo.
Faculty Mentor: Dr. Neil Fox, Atmospheric Science

Funding Source: CAFNR On Campus Research Internship

## Developing a nowcasting technique for splitting supercells by analyzing rapid update cycle model data

Caleb Witt-Schulte, Jeffre La Montia, & Neil Fox

The goal of this research project was to develop a nowcasting technique, or to at least find out which parameters are changed to help supercells split. This was first completed by overlaying Rapid Update Cycle (RUC) model data with the radar data, and analyzing the different parameters of the model data by using Steve Lack's program that was created for storm classification. This involved interpolating the radar data to fit into a grid for the model data. This way, in the end, when you were finished with all of the processing involved in converting the model data into text, you would be able to bring up a table with the different cells identified in it. In this table, you would be able to see the different near storm environment values that are associated with that cell. These values are associated with parameters like Convective Available Potential energy (CAPE), Storm Relative Helicity (SRH), and the winds at different levels. We then view this data and determine if there are any large changes in any of the values, that would help suggest if the supercell is getting ready to split.