

SIFT Lab pt. 2

SSEC Tech Camp

This is a form all students might rely on as they present their results!

You'll be giving a short presentation describing what you found. Do not stress about this, you'll only be talking about what you see, and therefore there really is no wrong or right answer, just you relating your group's observations. You can choose one person to give this, or you can cycle through group members.

Here are some questions you might want to consider as you look through the imagery on SIFT. You'll be standing in front of class while you do this, and speaking in a loud, clear voice so your fellow participants can hear. I'll be driving SIFT and doing exactly what you tell me to with it.

We are focusing on a region in Kansas, where the Storm Prediction Center has determined that a RSK (risk) of severe weather exists. 'SLGT' means a Slight risk; "ENH" means 'Enhanced'; there are also MDT and HIGH RSKs – moderate and high risk. Those adjectives all relate to how likely it is any one region will be within some kilometers of severe weather, and the severe weather expected depends on the environment. On this particular day in Kansas, the expectation was for Hail (vs. tornadoes or strong winds).

Questions to answer: What do you see in the visible imagery that helps define a boundary. And recall: convection preferentially does form along boundaries.

What do you see in the "Clean Window" band 13 (at 10.3  $\mu\text{m}$ ) that helps to define a boundary? Have you used the default enhancement here, or have you used a different one? Did you change the bounds to bring out features?

You were instructed to create the so-called 'Split Window Difference'. Did you change the default bounds the SIFT chooses when it creates the difference field? (Why do you think those default bounds are chosen, by the way?) What color enhancement have you chosen?

What does the Split Window Difference tell you? And why does it work?

What gas in the atmosphere is key to the absorption that is different between the two bands?

Which band is cooler because of this absorption?