Some guidelines for the Project Summary

A project summary concisely describes your research topic by clearly stating the goals of your effort defining the scientific problem, practical issue, or controversy you are trying to address. This should be done in 1-2 pages (paragraph form, no bullet points). Below are some points to consider for writing your project summary:

- State your problem. This is in the form of a question. Even in a daily weather briefing, we pose a question and seek to answer that question.

- Describe your motivation. Here you can discuss some references that motivate your work. This should not be a detailed literature review (save this for your presentation). Science is building upon the results of others, and there was something about the cases you have chosen that made you choose them. Convince the reader here that you will also be doing something interesting and worthwhile (we do not expect for it to be groundbreaking). If it is a case study where there is no previously published literature on the exact case, then find a similar case that you think might motivate the use of your diagnostics approach. Or, if it is a case that you think may have happened because of changing environmental conditions (such as global warming or effects of global warming), then find some references that discuss why it could be plausible for the event to have occurred now rather than before conditions changed.

- State your hypothesis. What do you think you are going to find? For example, when we look at weather events in a daily weather briefing, we start thinking about possible reasons why the weather event of interest is occurring. Was it because of QG forcing (i.e. cyclonic vorticity advection? temperature advection? vorticity advection by the thermal wind?)? Did the hurricane move in a certain direction because of the large scale wind pattern? Was background shear evident when a certain hurricane weakened? Did the storm form because of certain synoptic conditions? Did the storm cause other conditions to change?

- Describe your research plan. What data will you use for your analysis? What kind of plots do you envision? You should plan to do a thorough investigation of your case. If you think a hurricane weakened because of shear, showing a plot of shear at the same time of it weakening will not likely be enough to convince us that this was the cause. Think of your final presentation as your opportunity to present strong enough evidence that you think will convince us and your classmates that your hypothesis is correct.