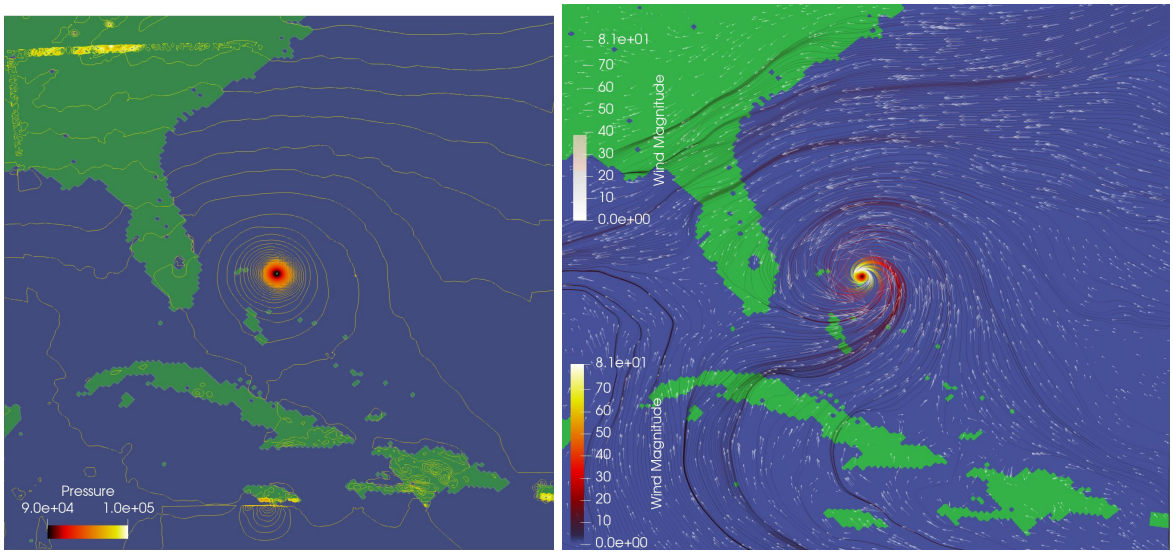
Sam Beebe
Visualization Assignment 5



For the land data I chose a color scheme of green to blue as these correspond to land and water in real life. To represent the wind velocity, I combined streamlines and glyphs. For glyphs I choose 2d arrows which were scaled by magnitude and resized so that the fit the area of the screen without overlapping. This increases cognition of the wind direction and velocity. I colored them all white because any color would interfere with the streamlines and are not necessary since the direction and magnitude were adequately represented already.

For the vector field representing the wind magnitude, I reduced the maximum number of sampled points to 2000 in order to reduce clutter while preserving the overall trend. I think this was a nice number because you can see the field direction for each area as well as the inward curl of the hurricane. The opacities for each data set were fine tuned so that no information is occluded for the viewer.

I found that the blackbody radiation preset provided a nice foundation that I tweaked in order to best represent the wind velocities. This color scheme contrasted very well with the blue and green background and did not interfere with the white glyphs representing the vector field. I found that this color preset also worked quite nicely for the pressure visualization which was very easy to create. I used the contour filter and added 100 steps in the value range [90007.1,104231]. These isocontours provide a complete overview of the dataset.