Adaptive Sampling

The primary science goal is to map three dimensional onshore intrusions of Warm Core Ring and Slope water that penetrates onto the continental shelf. These are typically found in a depth range of 10-30 m in June.

The initial sampling will involve a North-South CTD line at the longitude of the center of a Warm Core Ring. There is currently a Warm Core Ring in the vicinity of the Great South Channel so there is a good probability that it will be near the Pioneer Array when our cruise goes out. We will then do an alongshelf CTD section to define the lateral extent of the intrusion at the 100 m isobaths.

We will then use 3 REMUS 100 AUVs to map out the intrusions day to day. At night, we will be doing turbulence profiling in the intrusion to determine mixing characteristics. We will also be using the Long Range AUV over the outer continental shelf initially but then in a front-finding mode to see how well the behavior modes work for the Salinity Intrusions.