Hydrographic Operations

We will have a mixture of pre-determined station locations as well as 1-2 day segments where we sample adaptively using real-time data from gliders deployed concurrently with the Armstrong cruise. Here is a brief summary of operations.

1. Repeat hydrographic transects from the April 2017 cruise

We will repeat the CTD stations along two cross-shelf lines north and south of Cape Hatteras. These will run from the 15 m close to the coast to the 1000 m isobaths roughly.

2. Repeat sections crossing the Gulf Stream

We will repeat cross-stream transects that span the Gulf Stream. These will likely run from the 100 m isobaths to the 4000 m isobaths and will be aligned with PIES moorings that are at the bottom

3. Repeat section along the 200 m isobath spanning Cape Hatteras

We will repeat a long section from 34°N to 36°N that was sampled during the April 2017 cruise.

4. Adaptive sampling- shelf water moving eastward into the Gulf Stream

We will use glider data from Robert Todd (WHOI) to decide a feature of interest where the Shelfbreak Jet moves eastward and offshore and sample the jet with CTD and shipboard ADCP

5. Adaptive sampling- Hatteras Front

We will use real-time glider data and HF radar fields to sample across the Hatteras Front, which cuts across the continental shelf near Cape Hatteras.