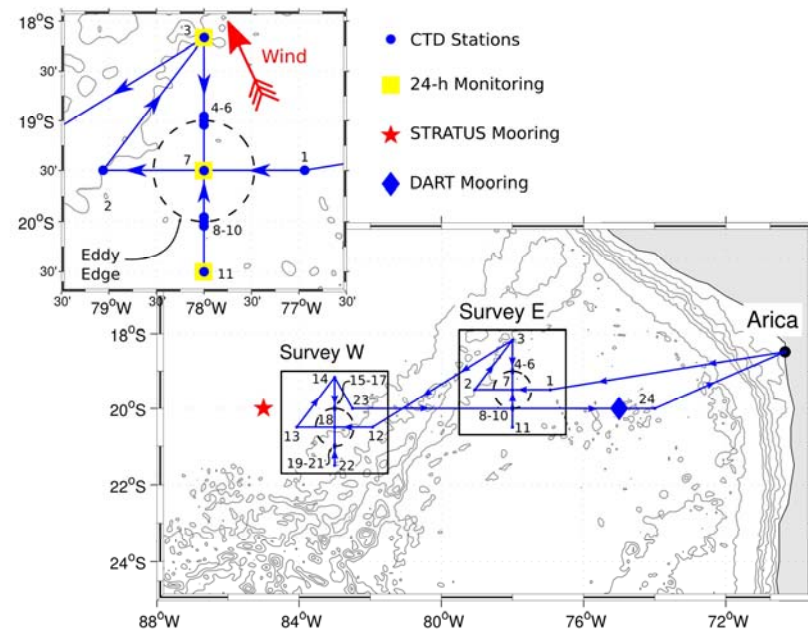
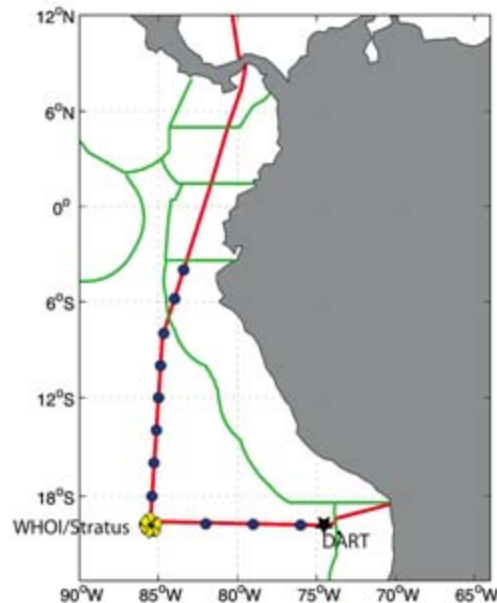


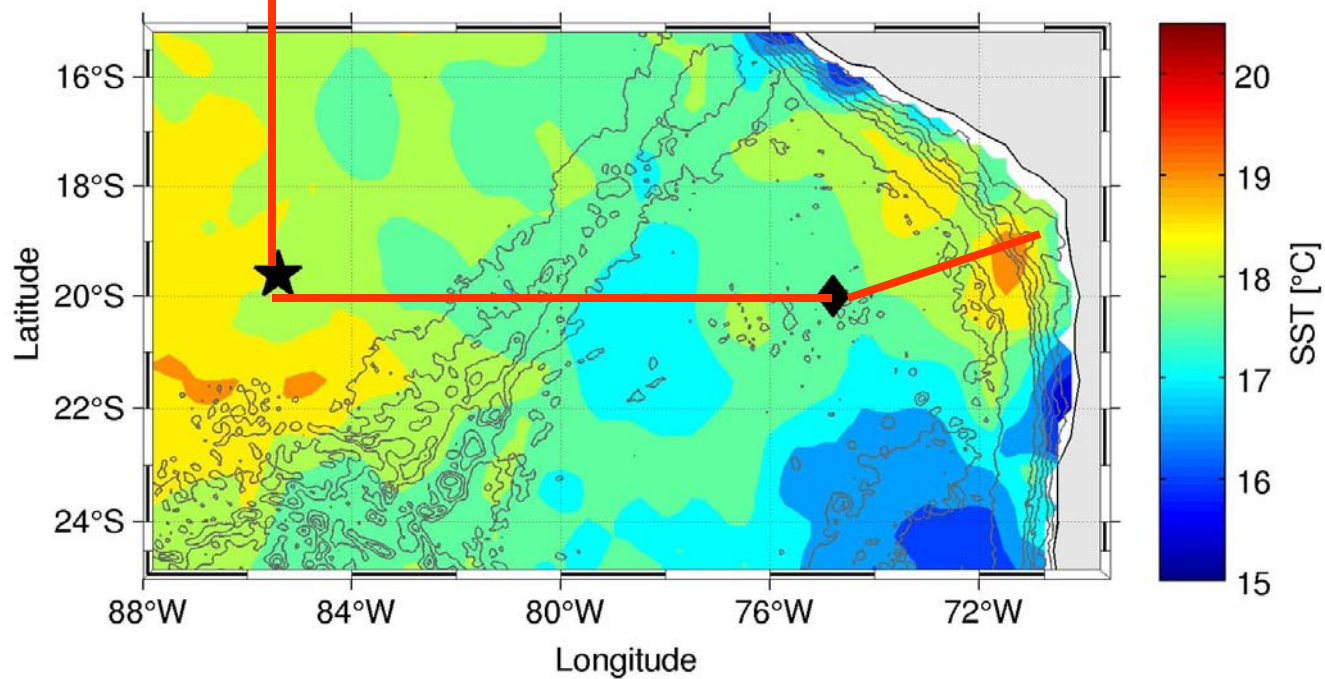
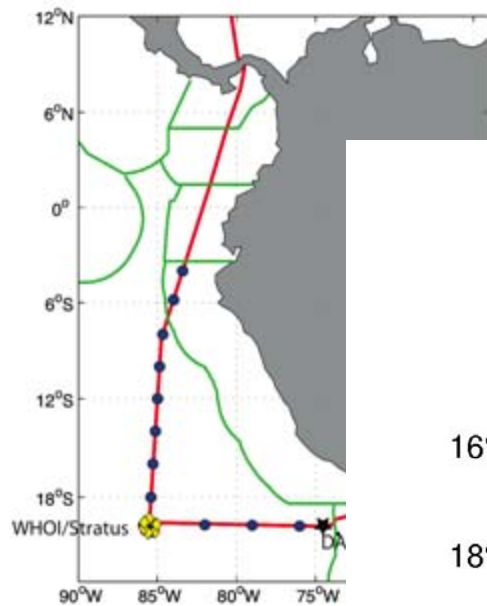
Ocean Measurements in Leg 1 and Leg 2 of VOCALS- REX

F. Straneo, R. Weller, C. Moffat, S. Whelan, N. Galbraith, J. Lord

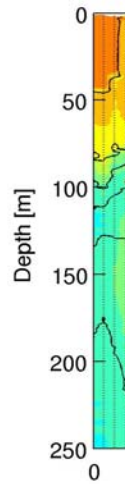


CRUISE TRACK LEG 1

SST from October 29th



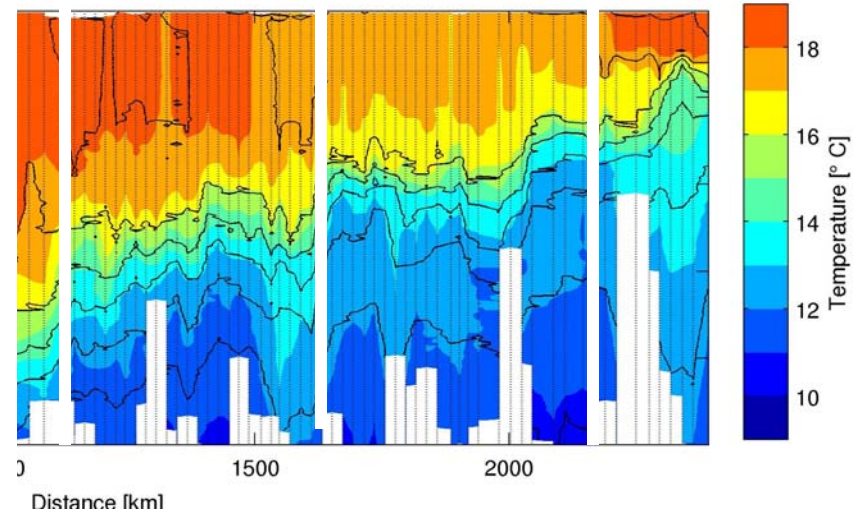
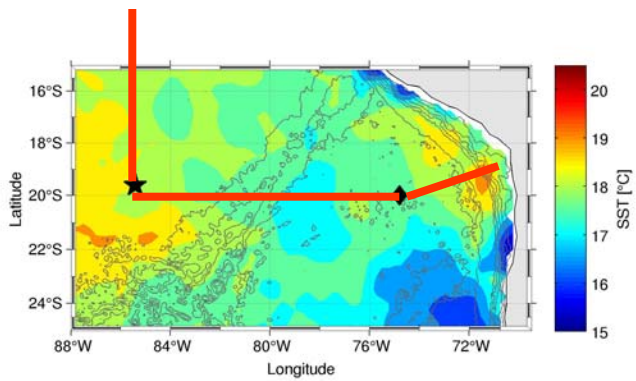
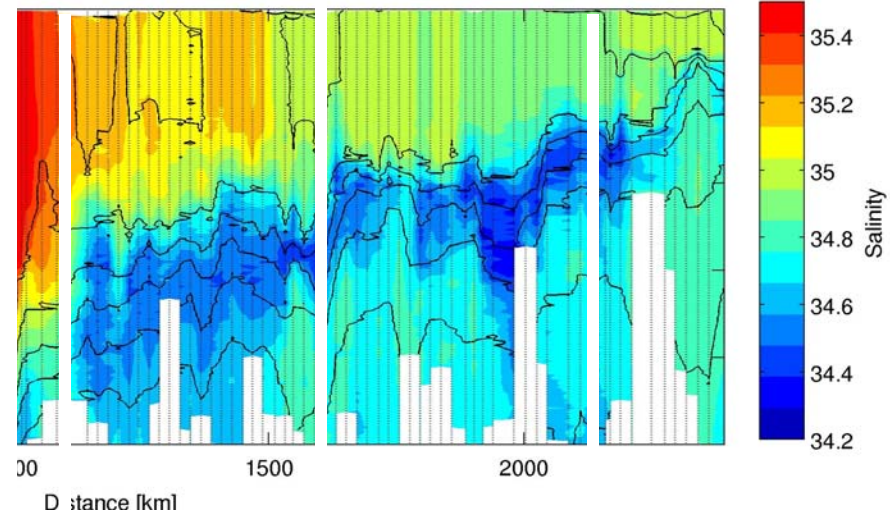
Zonal Section from Stratus to the Chilean EEZ



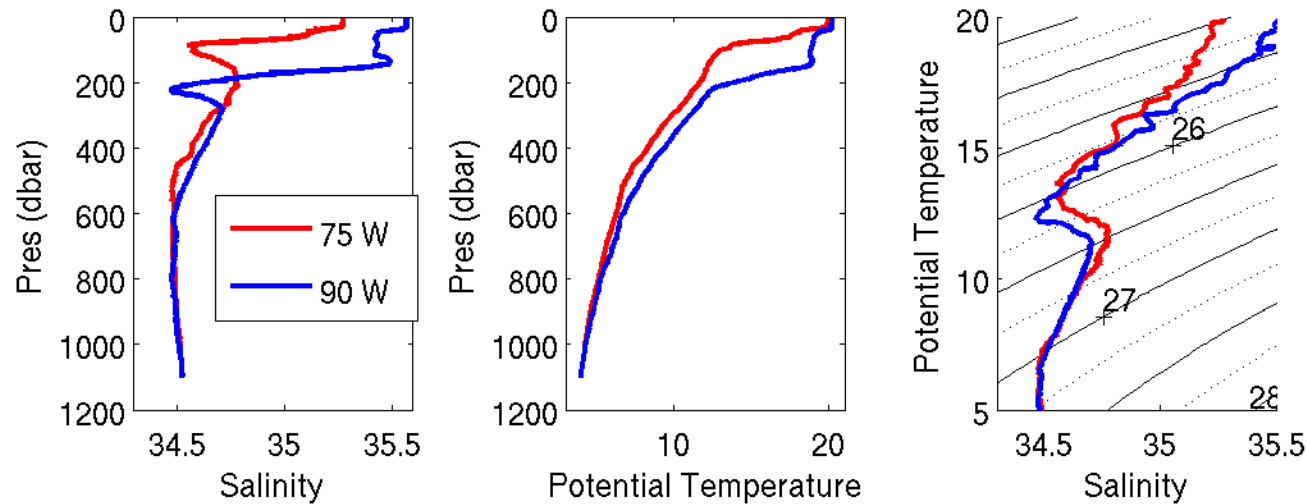
Stratus

Nazca R.

Dart



How to get mix/move some of the cold water which is close to the surface in the eastern zone to the mixed layer in the western zone?

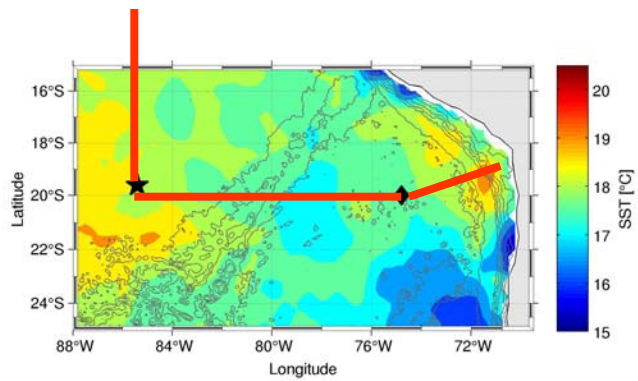
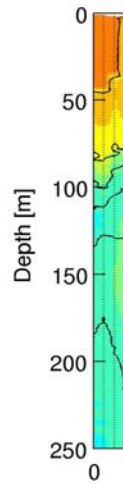


CTD data 2007

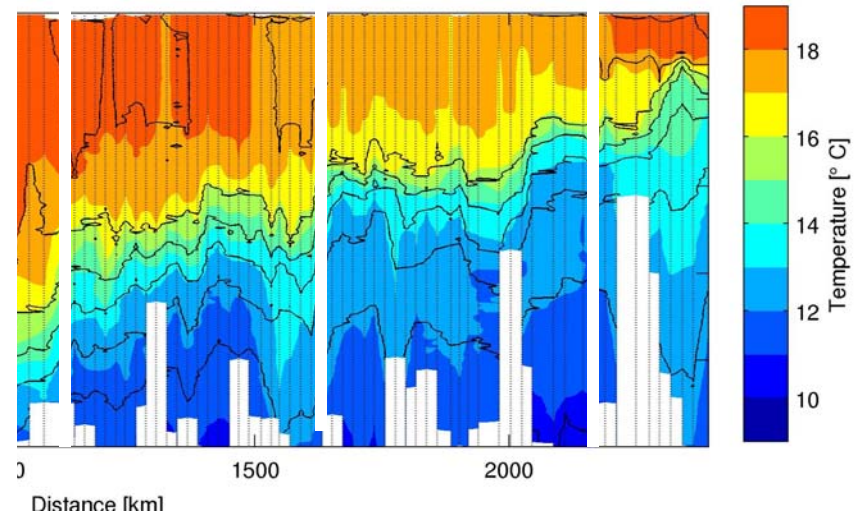
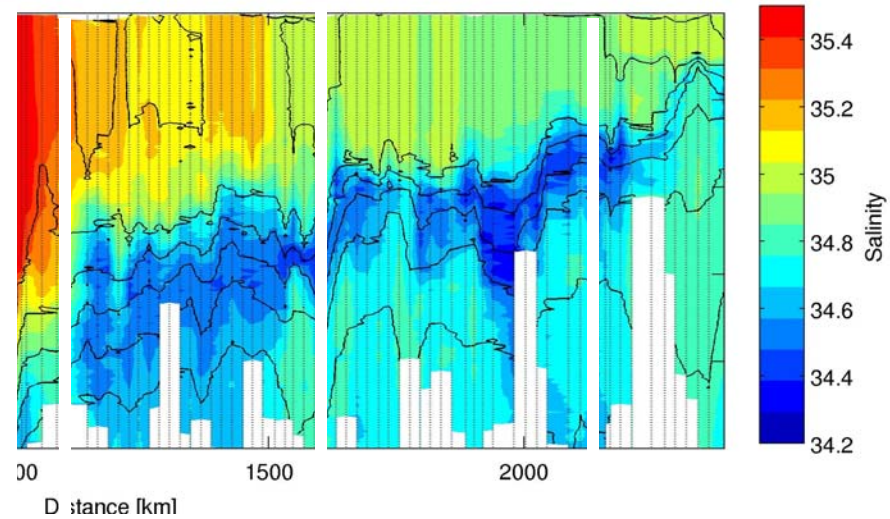
Hypotheses:

1. Vertical Mixing
2. Lateral Advection by Mesoscale Eddies
3. Ekman and Mean are thought small (Colbo and Weller, 2008)

Front at the Nazca Ridge:

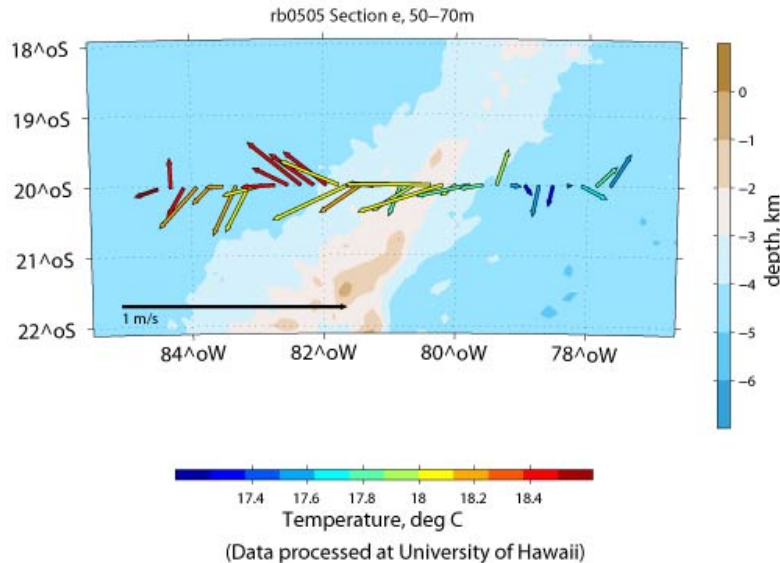


Stratus Nazca R. Dart



Influence of the Nazca Ridge on the westward spreading of cold, fresh upwelled water (and hence SST)

ADCP 2007

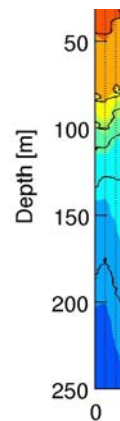
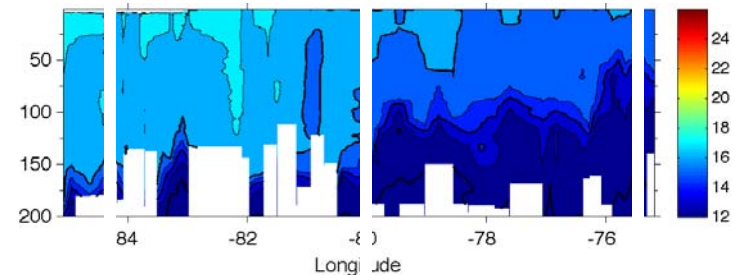


UCTD 2007

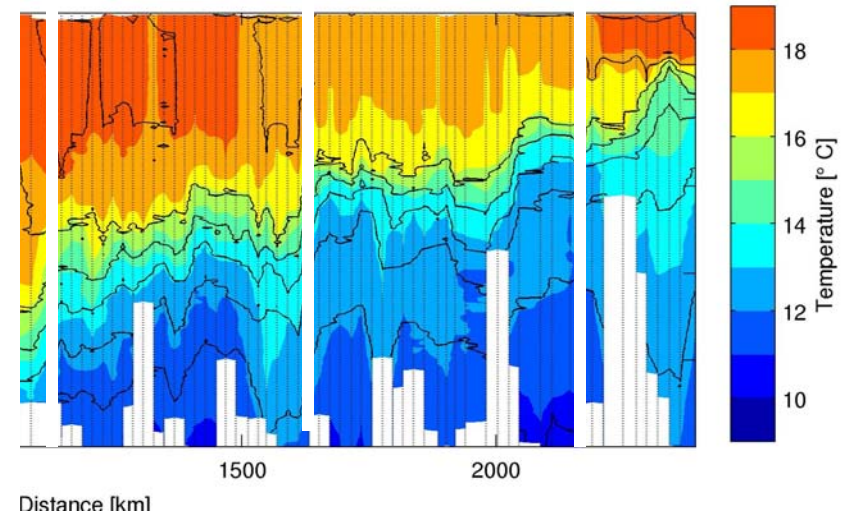
Stratus

Nazca R.

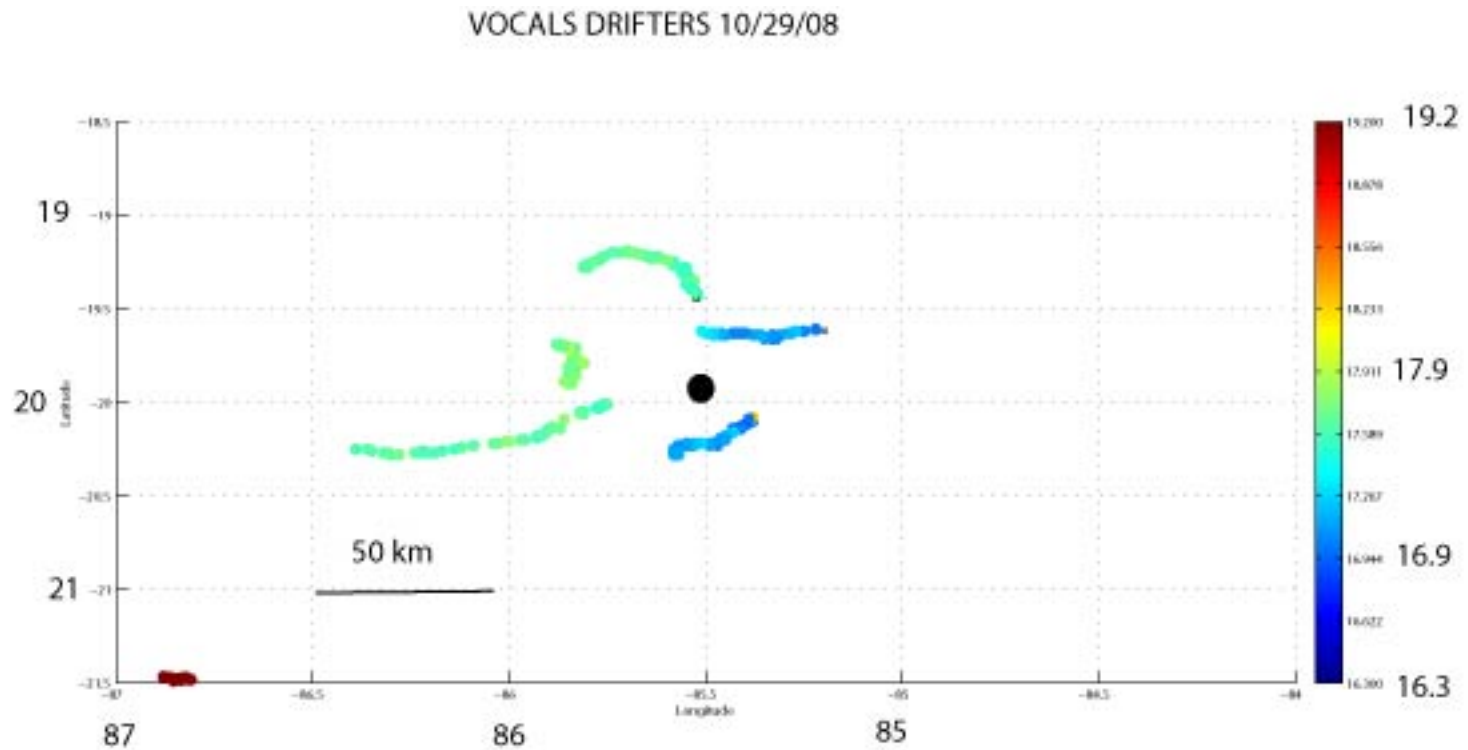
Dart



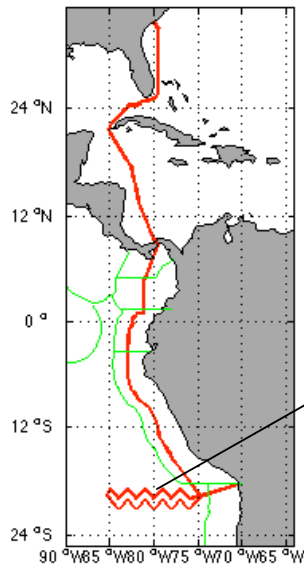
UCTD
2008



Dispersion of Drifters deployed around Stratus Mooring: Westward Ekman Drift plus Advection by Mesoscale Field



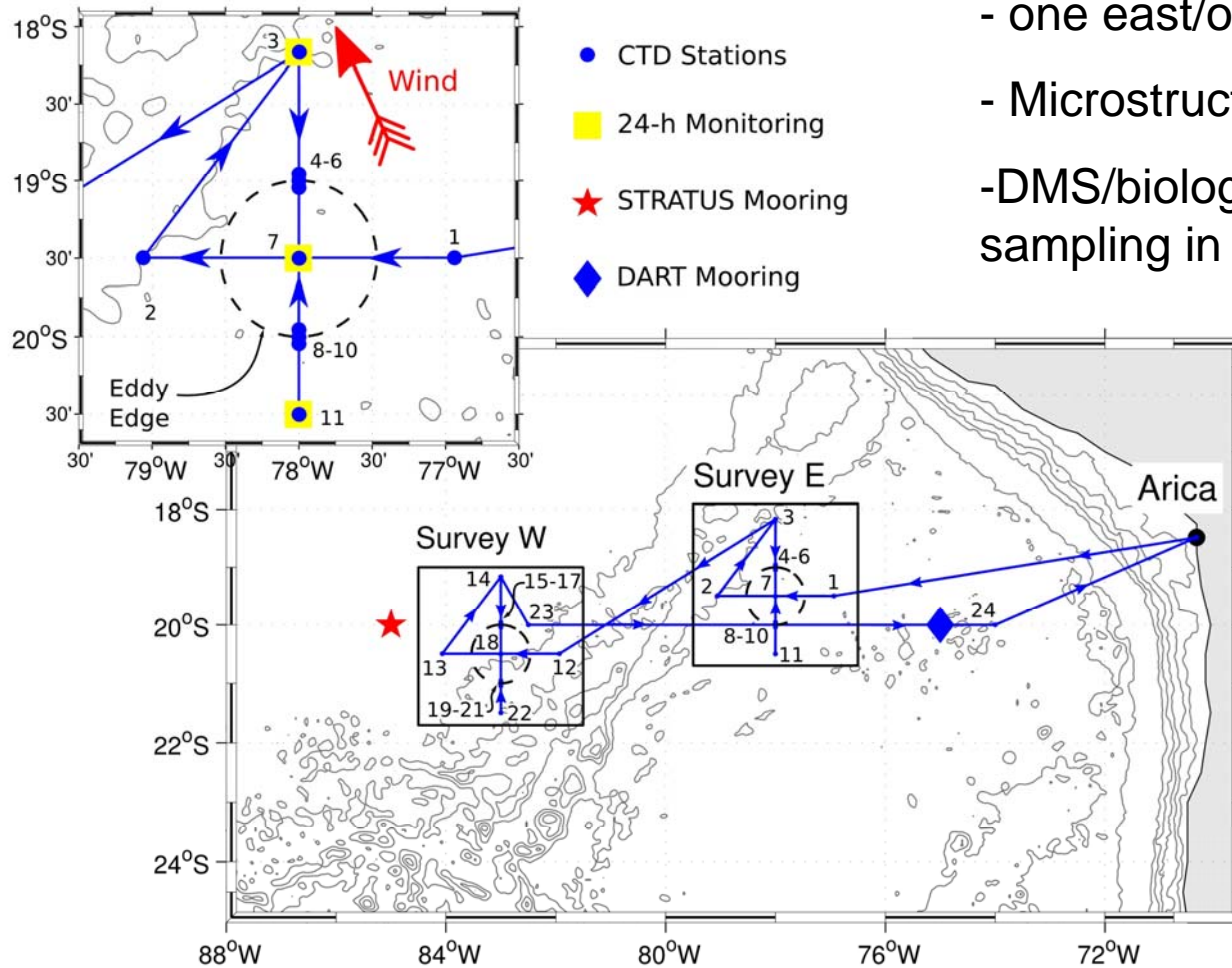
Original Leg 1 Plan



Large Scale Mapping of the SEP region between the DART/STRATUS MOORING and a latitudinal band of several degrees

- Box in the two buoys
- 3D large scale survey
- Identification of mesoscale features

Proposed Plan for Leg 2



- UCTD and CTD high-resolution sampling of 2 mesoscale features
- one east/one west of ridge
- Microstructure profiling within eddies
- DMS/biology/nutrient/plankton sampling in eddies and fronts

- Deployment in eddies of:
- 4 surface drifters
- 4 profiling floats (w Oxygen)