

Title: Coastal Observations off Delmarva

Abstract: The Mid-shelf area of the MAB has some of the most stratified continental shelf water on the planet and encompasses the location of the 1976 Anoxic Episode, where intense stratification was one important element of the synergism resulting in anoxia and extensive fish/shellfish mortalities (Campbell & O'Reilly,1988). Recent bi-weekly transects obtained from Coastal Ocean Buoy Cruises (COBY) cruises show a clear seasonal progression of the water column, with strong stratification during summer followed by mixing during late Fall, winter and spring. The scientific Objectives of this projects are:

- (i) To compile a climate data record of consistently calibrated global change parameters off the Delmarva shelf region.
- (ii) To quantify the extent of the stratification using the temperature and salinity measurements from CTD transects (local) and SST satellite measurements (regional).
- (iii) To correlate observed dissolved oxygen concentrations in bottom waters with amount of stratification, duration of stratification, nutrient loads, chlorophyll biomass, satellite ocean color, and primary productivity.

This project is a collaboration between scientists from the GSFC WFF Hydrospheric and Biospheric Science Laboratory, Millersville University and the MSC.

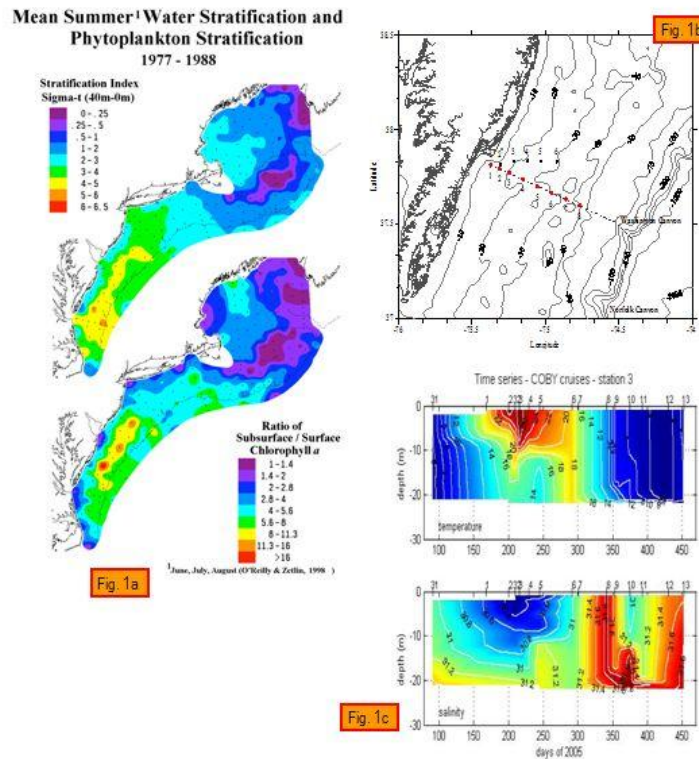


Fig. 1 a) Reproduced from O'Reilly & Zetlin, 1998, c) Time series of temperature & Salinity along the COBY transect (Reproduced from John Moisan, NASA), c) Map of Delmarva showing COBY cruises,