profile, and tow-yo (SeaSoar) modes), multiple moorings, and satellites (for sea surface temperature and altimetry). A novel aspect of the observational program was the deployment of an array of five moorings with meteorological and physical instruments covering a square (roughly 7 km X 7 km; e.g., see Dickey et al., 1998). The location was selected to be near the axis of the atmospheric Findlater Jet (see Figure 5.11 in Colling et al., 2001). The Findlater Jet occurs during the southwest monsoon with maximum wind speeds occurring in July. Its central axis moves over time. A mooring was placed at the center of the square (15° 30'N, 61° 30'E; Figure 9) and included multi-variable moored systems (MVMSs; also used on BTM) at four depths in the upper 80m. Important attributes of the MVMS are that it concurrently measures bio-optical and chemical as well as physical variables at sampling intervals of a few minutes for periods of up to 6 months. The array was designed to enable quantification of variability associated with the passage of mesoscale and other spatially varying features (see altimetry data in Figure 9).

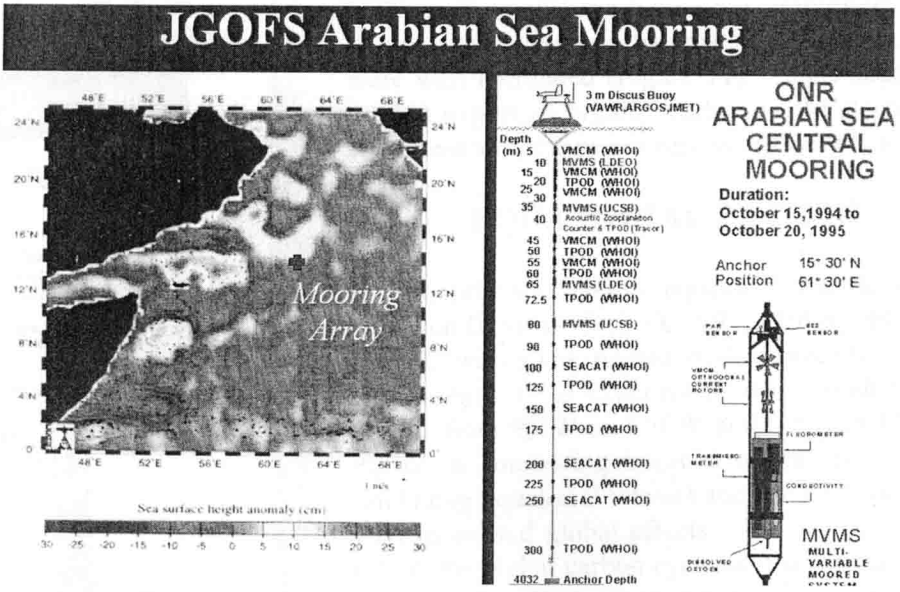

Figure 9. (Left). Sea surface height anomaly map derived from satellite altimetry data sets in the Arabian Sea. Location of a mooring array is indicated. (Right). The central mooring configuration and a multi-variable moored system (MVMS).

The physical mooring data featured two mixed layer deepening and shoaling cycles per year (Figure 10; Dickey et al., 1998b). The northeast (NE) monsoon was characterized by steady northeasterly winds of moderate intensity (~6 m/sec), surface cooling, and convection whereas the southwest