# NARROW SHELF COASTAL WATER

Along the eastern coast of South Africa, between Port Edward and Port Alfred, the shelf is very narrow (typically 12 to 25 km) and the continental slope is steep. This topography has a strong stabilizing effect on the Agulhas Current and minimizes sideways meandering (Lutjeharms and de Ruijter, 1996). Very little is known about the oceanography in this region, except that it will become the focus of a new project between Marine and Coastal Management and Rhodes University.

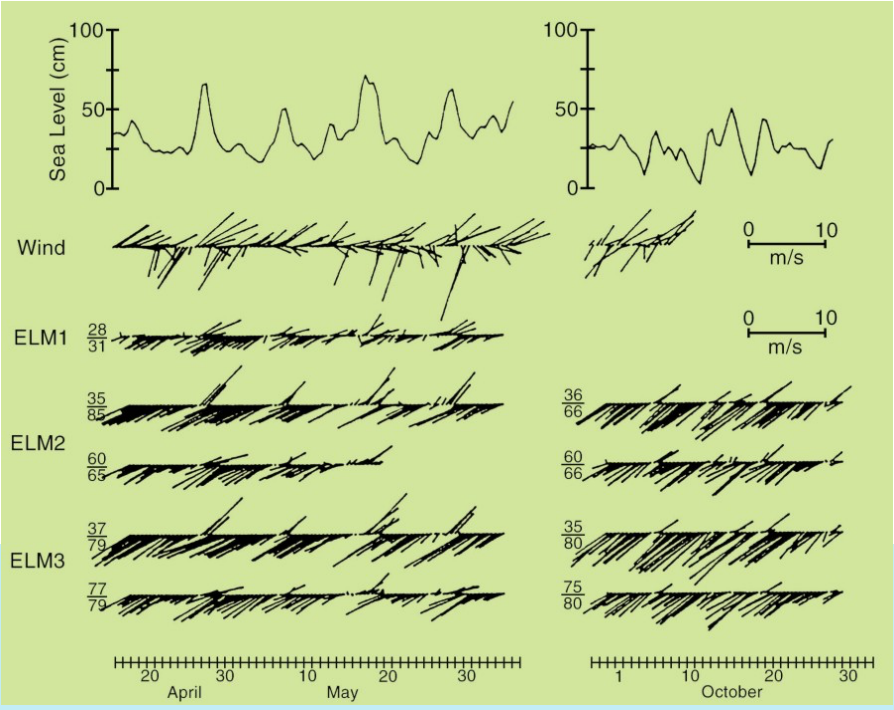


*Figure 1 - Filtered, 12-hourly time series of sea level, wind and currents made off East London. North is to the top of the page. Refer to Fig. 2. for positions of mooring sites. Numbers on the left indicate depth of meter on the top, and total water depth on the bottom. Currents are dominantly southward with regular reversals. (Diagram adapted from Schumann and Brink, 1990).*

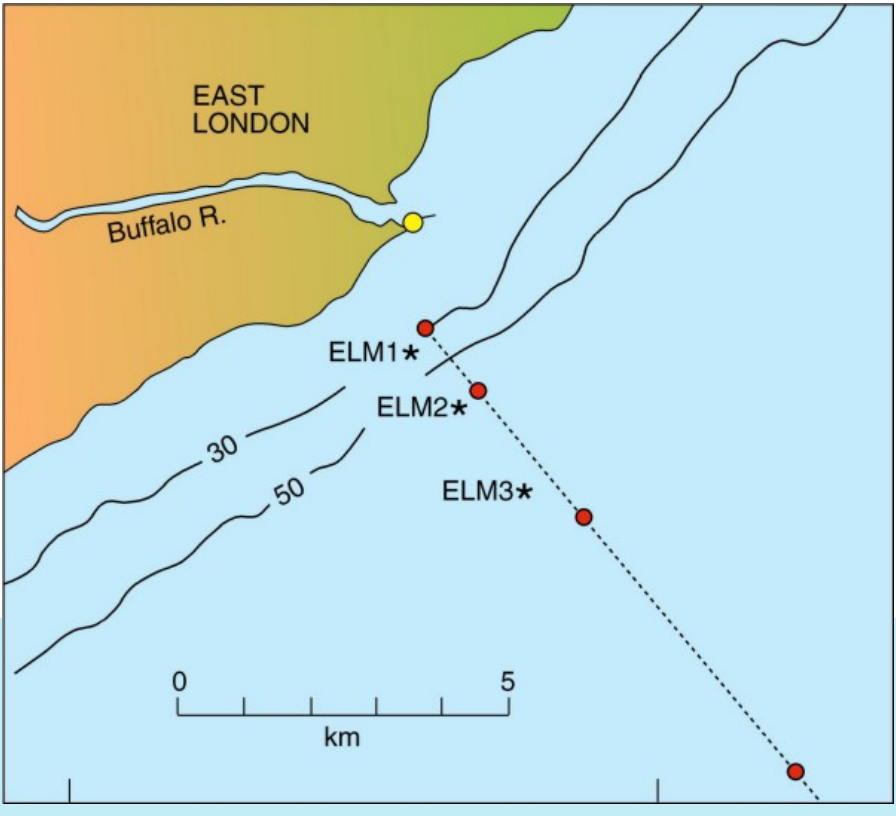


*Figure 2 - Bathymetry map off East London (South Africa) showing position of moorings (asterisks), the weather station (yellow circle) and ship stations (red circles). (Diagram adapted from Schumann and Brink, 1990).*

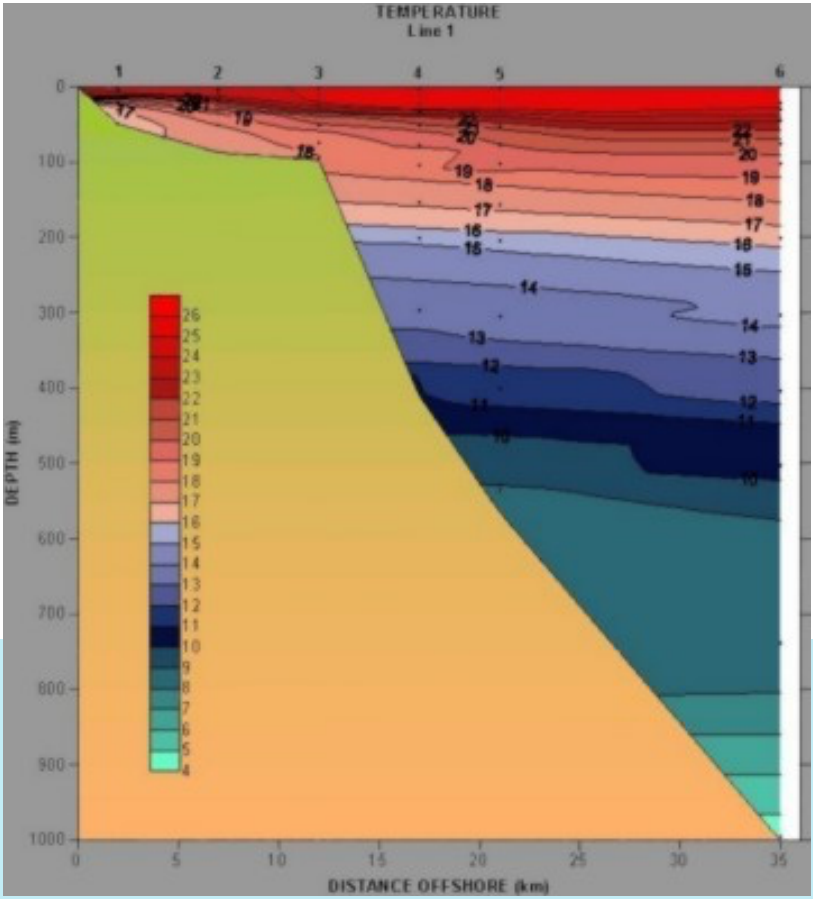


*Figure 3 - Temperature and salinity sections across the narrow shelf.*

**CLASSIC PAPER**

Schumann, E. H. and Brink, K. H. (1990). **Coastal-Trapped Waves off the Coast of South Africa**: Generation, Propogation and Current Structures. Journal of Physical Oceanography, 20: 1206-1218.

## Bibliography


- Lutjeharms, J. R. E. and de Ruijter, W. P. M. (1996). The influence of the Agulhas Current on the adjacent coastal ocean: possible impacts of climate change. Journal of Marine Systems, 7, 321-336.
- Beckley and van Ballegooyen (1992). Oceanographic conditions during three ichthyoplankton surveys. South African Journal of Marine Science, 12, 83-93.