

The surface circulation in the Sicily Channel

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Six hydrological cruises (March, April, May, July, August and October) were realized in the section between Cap- Bon and Mazara Dell Vallo during 2003 (our section covers only the half of the Channel). The analysis of thermohaline parameters, the daily composites NOAA/AVHRR images and the satellite track of drifter buoys allowed us to confirm that the AW inflowing into the Sicily Channel circulates along two principal ways. The first one is anticlockwise along the continental slope. The second is in the central part of the channel and its trajectory is more complicated and follows a multiple vortex structures. This circulation is permanent between Tunisia and Sicily and presents a very high variability. The incoming AW is in general warmer than resident water, and remained close to the Tunisian slope. The analysis of all this data confirms the necessity to complete those results by altimetric and thermohaline data in extended area around the strait. This allows us to better estimate the water masses transport across the Sicily Channel.