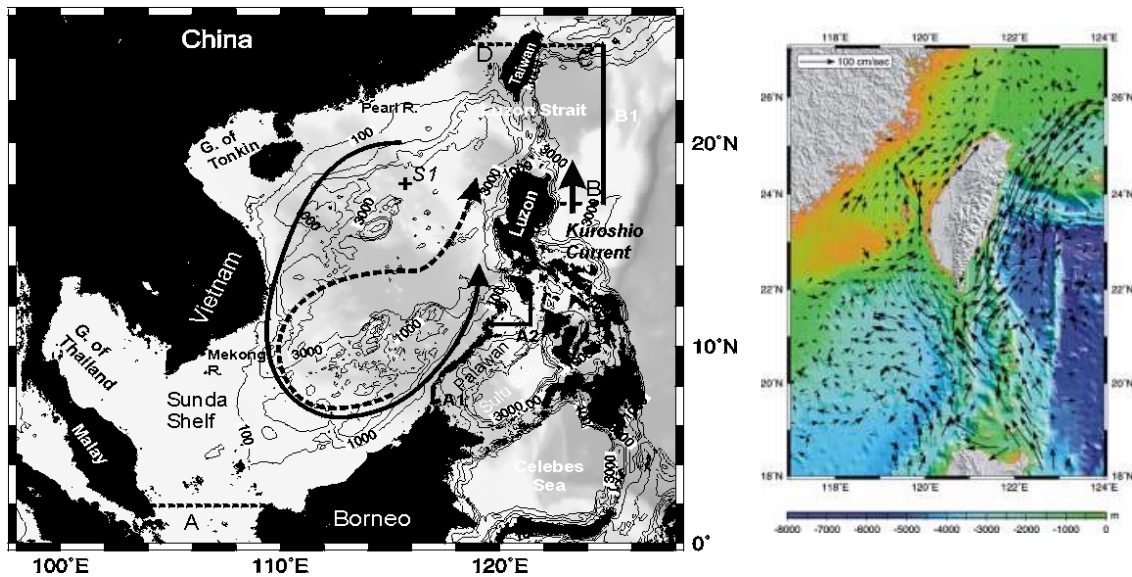


South East Asia Time-Series Station (SEATS)



The SEATS station (S1) is located at 18°N, 116°E about 700 km southwest of Taiwan, in the South China Sea (SCS), the largest ice-free marginal sea in the world. It has a wide continental shelf to the south, with significant runoff from several large rivers, including the Mekong and Pearl Rivers, and a deep (>3 000 m) basin. The SCS is subject to physical forcing of the alternating SE Asian monsoons, typhoons, strong internal waves and ENSO. SEATS station is potentially sensitive to climate change because of its locality between the “third” pole, namely the Tibet Plateau and the western Pacific warm pool, two of the most important heat engines of the global climate.

The pilot study of the SEATS project took place west of the Luzon Strait with bimonthly cruises between August 1998 and June 1999. Because the hydrography of that area is strongly influenced by the Kuroshio intrusion through the strait and by the monsoon-driven upwelling off northwest Luzon, and on the recommendation of the members of the “northern Pacific Ocean Fluxes Workshop and Planning of Long-Term Observation of the South China Sea”, the location of SEATS was changed to the S1 station mentioned above in August 1999.

On the map, the solid arrow indicates the circulation under NE monsoon, and the dashed arrow indicates that under SW monsoon. Solid and dashed lines indicate, respectively, closed and open boundaries of the coupled physical-biogeochemical numerical model for the SCS. The National Center for Ocean Research completed the submarine topographic map of the South China Sea, by request of the Ministry of Communications and Transportation, Taiwan, RoC.

