

Evolution of the Kuroshio large meander as seen by the altimetry data

D. Ambe (1), S. Imawaki (2), K. Ichikawa (2,3), T. Endo (4) and T. Hibiya (4)

(1) ESST, Kyushu University, (2) RIAM, Kyushu University, (3) JAMSTEC, (4) Tokyo University

In July 2004, the Kuroshio started to take the stable large meandering path for the first time during multi-altimeters mission since 1992. The absolute velocity field is prepared from the altimetry data and drifter trajectory data to precisely describe movement of the Kuroshio axis. A small meander of the Kuroshio advected downstream from Kyushu to Tosa-Bae Seamount southeast of Shikoku. When the tip of the meander flowed over Koshu Seamount, the meander started to move east of Tosa-Bae Seamount and rapidly grew to transit to the stable large meandering path, suggesting strong topographic control. Other conditions being considered to be related with the Kuroshio large meander, such as volume transport of the Kuroshio, are also discussed.