

The variation processes of the Kuroshio large meander in 2019

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In August 2017, the Kuroshio large meander event was developed for the first time since August 2005. The event persists through 2019. The southernmost latitude off Tokai Coast was 29.7N in April and June 2019. Kuroshio passed south of 30N for the first time since the 1975 - 1980 large meander event, which was the longest event since 1965. In July 2019, the Kuroshio axis move away off the southeastern coast of Kyushu and a small meander was developed. The small meander propagated eastward then the Kuroshio axis left far away off the southern coast of Shikoku. Temporarily Kuroshio flowed almost eastward from Kyushu. Relatively cold water accompanied with the small meander flowed eastward to the large meander region. The enhancement of the cold eddy trapped in the center of the large meander was observed with the cold water eastward propagation.

Operationally Japan Meteorological Agency (JMA) makes information concerned with oceanic conditions including the variation of Kuroshio path. The information includes the forecasts about fluctuations of Kuroshio axis. JMA's ocean circulation model predicted the eastward propagation of the small meander though it shaped a little irregular.

In this presentation, we will overview the variation processes of the Kuroshio large meander event especially appearing in 2019. We will also discuss the evaluation of JMA's model prediction.

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