Reintesification of the Kuroshio Large Meander in Summer 2018

*Toru Miyama¹, Yasumasa Miyazawa¹

1. Japan Agency for Marine-Earth Science and Technology, Application Laboratory

More than one year have passed since the Kuroshio large meander started in the end of August. It is already longer than the last event in 2004/2005 and the evert before the last in 1989/1990. If the strength of the cyclonic eddy that makes the large meander was defined with the minimum sea level height in 135-140°E 30-35°N of FRA-JCOPE 2 reanalysis (Miyazawa et al. 2009) (a smaller value means a stronger eddy), the cyclonic eddy was strengthened after the large meander started, and was weakened from spring in 2018. However, the eddy has been intensified since summer in 2018. The reintensification of the eddy was also found in the temperature field of the reanalysis. The same tendency can be confirmed by the observed absolute dynamic sea surface height (E.U. Copernicus Marine Service Information). Sekine (1985) reported that the spin-up of the cold eddy occurred from late spring to summer in the 1975-1980 Kuroshio large meander event. Therefore, the reintensification of the cold eddy in summer 2018 could play some role in that the current large meander event is becoming long one. In this talk, the situation and dynamics of the reintensification will be discussed.

Keywords: Kuroshio large meander, ocean reanalysis, eddy