Role of central Pacific in Typhoon characteristics

*Swadhin Behera[1], Masato Yasuike[2], Takuji Waseda[2]

1.Climate Variation Predictability and Applicability Research Group, Application Laboratory, JAMSTEC, 3173-25 Showa-machi, Yokohama 236-0001, 2.OTPE, University of Tokyo, Tokyo

In this study, we have investigated the roles of climate variations in some of the typhoon characteristics of northwest Pacific. The influence of El Nino/La Nina on the east-west shift of the typhoon genesis region is well known. In El Niño years, stronger typhoons tend to approach Japan traveling long distances over warm oceans since the genesis region shift eastward during those years. Interestingly, it is also noticed here that the genesis region shifts northward during El Nino Modoki years (such as 2004) as compared to El Nino years. Therefore, it is found that more number of typhoons approach Japan during the El Nino Modoki years. On the other hand, composite analyses about oceanic conditions in the years of less number of typhoon genesis have indicated La Niña Modoki. It is also found that the distance of movement, lifetime and lowest pressure of typhoons are more related to central Pacific heat content compared to conventional ENSO indices.

Keywords: Typhoon, ENSO Modoki, Central Pacific

