



A Study on the Characteristics of Typhoon Cloud Patterns and Route Change of Typhoon MAON and MUIFA

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In a typhoon event, one of the most emphasized points is the forecast of typhoon route, and the factor that changes the typhoon route is due to the change of synoptic field around the typhoon and deterioration of the typhoon structure.

In observational studies, it is clearly stated as a fact that typhoon moves towards the flow, which the general current of atmospheric middle-low layer is vertically averaged (Franklin 2003). The research of domestic and international typhoon includes characteristics analysis of Northwestern Pacific typhoon route based on Systematic Approach, and the forecast of typhoon route was implemented using systematic characteristic and dynamic linear model of the Systematic Approach and BATS forecast value.

Generally, when the typhoon passes the edge of the north Pacific high pressure, the component of westward movement occurs due to the earth rotation effectiveness (beta effect) in the southern tip of high pressure. And when the isobaric line of right semi-circle becomes dense by this beta effect, typhoon moves northwest because a shear-type relative vorticity drifts north, and when it joins the point of recurvature, it crosses the westerly belt of northern high pressure and moves northeast towards the direction of steering current. As for the research that considers the cloud pattern characteristics of this typhoon, we are trying to search for a method that can predict the route of typhoon by analyzing the relationship of the cloud pattern accompanied with typhoon based on the change of lower-layer wind field.

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