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CHARACTERISTICS OF WIND FIELD AND CORIOLI PARAMETERS IN INDONESIA DURING THE TROPICAL CYCLONE CEMPAKA AND DAHLIA EVENTS

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Abstract

In the period end of November to early December 2017 sequentially formed tropical cyclones Cempaka and Dahlia in western Indonesia. The occurrence of tropical cyclones Cempaka and Dahlia affect the dynamics of weather parameters around the territory of Indonesia. Based on these conditions, this study aims to simulate and analyze weather conditions in the form of wind (streamline) and Coriolis in Indonesia during the occurrence of Tropical Cyclone Cempaka and Dahlia. The data used in this research is the Global Forecast (GFS) is from 25 November - 4 December 2017 which is then processed using of the Weather Research and Forecasting (WRF) model to generate spatial data of 3 km x 3 km per hour. The results show that GFS model data can represent atmospheric conditions in Indonesia during Cempaka and Dahlia tropical cyclone events well. The analysis of wind conditions indicates the formation of wind convergence that has a pattern following the movement of tropical cyclones. The analysis of Coriolis force indicates a point with a significant gradient-value from the surroundings identified as the cyclone's center point and moves according to Cempaka and Dahlia tropical cyclone trajectory.