

## Abstract

We report on five-day typhoon intensity forecast guidance products developed by the Project Team for Improvement in Operational Forecasts and Analysis, which was established in September 2015 with staff members mainly from the Forecast Division of the Japan Meteorological Agency (JMA) and the Typhoon Research Department of the Meteorological Research Institute. Five kinds of guidance products have been developed: Statistical Hurricane Intensity Prediction Scheme (SHIPS), Logistic Growth Equation Model (LGEM) and Rapid Intensification Index (RII) as a statistical-dynamical approach, Coupled Hurricane Intensity Prediction System (CHIPS) as a dynamical approach that uses a simplified axisymmetric numerical model, and consensus as an ensemble approach using multiple guidance. The outline, technical development for operation at the JMA, forecast performance, and instructions for use are reported for each guidance product.

As one of the Project Team's activities, the developed guidance products were transferred to the Forecast Division and tested experimentally. Because the accuracy of operational typhoon intensity forecasts is expected to improve with the newly developed products, they are scheduled to become operational in March 2019. At the same time, the forecast length is scheduled to be extended from the current three days to five days.