

## Near real-time forecasts using global nonhydrostatic model on the Earth Simulator during intensive observations.

\*Mikiko Ikeda<sup>1</sup>, Tomoe Nasuno<sup>1</sup>

1. Japan Agency for Marine-Earth Science and Technology

Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has research vessels, various observation instruments and supercomputers and can approach research targets of marine and earth science both from in-situ observations and numerical simulations. We constructed near-realtime forecast system using the global nonhydrostatic model “NICAM (Nonhydrostatic ICosahedral Atmospheric Model)” on the Earth Simulator and used it during the research vessel “MIRAI” cruises over the Eastern Indian Ocean (MR17-08, MR15-04), as a part of an international campaign “YMC (Years of the Maritime Continent)” , led by JAMSTEC. We intend to promote understanding of the observed phenomena, as well as smooth execution of observation. During the “MIRAI” Arctic Ocean cruise (MR17-05C), we carried out near real-time forecasts targeted for the polar\_regions for the first time, as a pilot study toward optimization of dynamic observation.

We plan to continue verification of our forecast system in comparison on the globe, and to improve the system in the forthcoming field campaigns.

Keywords: weather forecast, intensive observation, global nonhydrostatic model, supercomputer