

Indian Ocean simulation results from NEMO global ocean model

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Abstract

A relatively newer version of Nucleus for European Modeling of the Ocean (NEMO) (v_3.2) ocean model was configured at NCMRWF high performance computing system at a coarser resolution. For initial study purpose, the global model resolution was kept at approximately 20 x 20 latitude/longitude coarser resolution to study the mean large-scale ocean circulation related features from the model simulations. In this simulation 31 vertical layers were used in the model. Out of these 20 layers were kept in the upper 500 meters of the ocean to take care of the tropical air-sea interaction realistically. Initial model conditions of temperature and salinity were prescribed from the Lavitus climatological value. Model was integrated from rest for 20 years with the monthly climatological data as forcing. Simulations were compared against observed climatological data.

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