

## ABSTRACT

The Bay of Bengal is potentially energetic for the development of cyclone storms and accounts for about 7% of the global annual total number of storms. These storms, in particular, the post monsoon cyclone that cross east coast of India or Bangladesh are highly devastating. Timely and reasonably accurate prediction of these storms can reduce loss of human lives and damage to properties. As far as single model forecast is concerned high resolution nonhydrostatic mesoscale models could possibly be most useful in prediction of these storms.

In this paper an attempt has been made to simulate very severe super cyclone MALA of April 2006 over Bay of Bengal. The performance of the model is evaluated towards radius height cross section of wind pattern, relative humidity, prediction of track and intensity of the storm. The intensity of the storm is examined in terms of pressure drop, strength of surface wind and rainfall associated with the storm.

The intensity of the storm both in terms of central mean sea level pressure and maximum strength wind is simulated reasonably well by the model. Intensity of the storm is better simulated in case the storm is initialized at less intense stage and has relatively longer path over the ocean.

