

*Effect of smoothing initial height field on vertical motion**

U. S. SINGH and H. S. RATHOR

Department of Geophysics, Banaras Hindu University, Varanasi

ABSTRACT

The adiabatic and diabatic vertical velocities at 800, 600 and 400 mb surfaces were computed 4-level geostrophic baroclinic model over the Indian region. The smoothing of initial height field in time and space following Shuman's technique has been done at each of the four levels 900, 700, 500 and 300 mb. The vertical velocities computed by using smoothed and unsmoothed height data have been compared.

It has been found that smoothing of the initial height field reduces the magnitude of diabatic vertical velocity much more than the magnitude of adiabatic vertical velocity.

*For details please refer—Singh, U.S. and Rathor, H.S., 1976, *Archiv Met. Geophys. Bioklima. Ser. A*, 25, pp. 55-65.