ABSTRACT

The Equivalent Barotropic model, which is being used by CAF Weather Central, is modified in two folds: adding the frictional and very long wave effects into the model, and the orographical effects which were already included in the model are changed by using the surface wind derived from the upper level in calculation. Numerical experiments show that each effect has some contributions to the numerical prediction, especially to the long wave term.

In the second part of this report, the important features of the boundary layer model are described. Also there are problems in developing this model, and we hope this can be solved in the future. For the purpose of Air Force operation, we think it is worth developing this model into operation.

Some numerical results are presented in this paper.