



Small-parametric nonlinear model of tropical regional cyclogenesis

N.S.Erokhin, N.N.Zolnikova, L.A.Mikhailovskaya

Space Research Institute of RAS, Moscow, Russia

The small-parametric nonlinear model necessary to describe the seasonal behaviour of regional tropical cyclogenesis is suggested. This model is based on the set of two coupled nonlinear equations for the wind velocity maximum and the ocean surface temperature inside the typhoon. Some parameters and the effective forcing depending on time are introduced. Numerical calculations have shown that this model is able to describe the typhoons forming stages, their quasistationary phases and damping if the incoming parameters are chosen correctly. The number of typhoons per the given season may be changed.