



Ocean Wave effects on the daily cycle in SST

Peter Janssen
ECMWF, Shinfield Park, Reading, United Kingdom (p.janssen@ecmwf.int)

article

Ocean Wave effects on the daily cycle in SST

Peter A.E.M. Janssen
E.C.M.W.F.,
Shinfield Park,
Reading, RG2 9AX,
U.K.
7 January 2011

Abstract

Ocean waves represent the interface between the ocean and the atmosphere, and, therefore, a wave model is needed to compute not only the wave spectrum, but is also required to determine the processes at the air-sea interface that govern the fluxes across the interface.

Here, starting from earlier results with the Turbulent Kinetic Energy Equation, a simple model is developed that allows for the inclusion of wave dissipation effects, effects of Langmuir turbulence and buoyancy on the simulation of the daily cycle in SST.