



Some characteristics of wave propagation observed during T-REX

Hector Teitelbaum (1), Mohamed Moustaqi (2), and Alex Mahalov (3)

(1) laboratoire de meteorology dynamique, atmosphere, PARIS, France (teitel@lmd.ens.fr), (2) Arizona state university USA,
(3) Arizona state university USA

T-Rex observation campaign took place in Owens Valley during March and April 2006. The radiosondes launched during this campaign include profiles of the horizontal wind components, temperature, humidity and pressure. The observations are used together with analysis from the European Center of Medium Weather Forecast (ECMWF), and simulations from the Weather Research and Forecasting Model (WRF) to extend the field data to regions that were not covered by measurements. These data are then used to study some characteristics of waves observed during T-Rex. We found cases where waves are modified as they approach critical levels, or as they propagate through refractive regions. We also present cases where waves are reflected at breaking levels, and other cases which show secondary wave generation by shear instability.