Abstract Submitted
for the DFD05 Meeting of
The American Physical Society

LES of a stratified bottom boundary layer SUTANU SARKAR, JOHN TAYLOR, UC San Diego — The response of a bottom boundary layer (BBL) to stratification imposed from above is studied using LES. The effect on near-wall turbulence is found to be weaker than that in stable atmospheric boundary layers. The entrainment decreases with increasing values of external N. Outer layer properties are modified. The effect of N on mean flow and turbulence properties will be quantified in the talk. The possibility of using the gradient Richardson number to parameterize momentum and buoyancy transport will be examined.

Sutanu Sarkar
UC San Diego

Date submitted: 10 Aug 2005 Electronic form version 1.4