1051-35-259   **Igor Kukavica*** (`kukavica@usc.edu`) and **Mohammed Ziane** (`ziane@usc.edu`). *Regularity of the primitive equations of the ocean.*

We prove the existence of global strong solutions of the primitive equations of the ocean in the case of the Dirichlet boundary conditions and variable boundary. We also discuss the dissipativity of the system and uniform gradient bounds for solutions. (Received August 25, 2009)