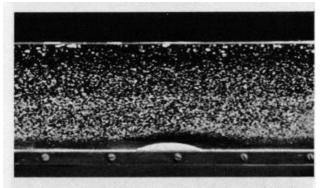
"Flow over Topography IV:

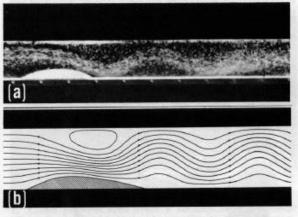
Continuously Stratified Flow"

Supercritical Flow

Lee Waves

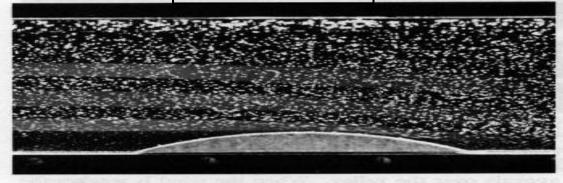


21. Supercritical flow of a continuously stratified fluid over an obstacle. The uneven distribution of tracer particles in this and subsequent pictures does not reflect the density distribution. The density distribution depends only on salt concentration and is nearly linear with height.



24. Experimental (a) and theoretical (b) flow of a continuously stratified fluid over an obstacle.

Jet Formation



25. Jet-patterns in flow of a stratified fluid over an obstacle. Notice that the fluid is stagnant with regard to the obstacle in a number of layers, with jets sandwiched between. (The jets are delineated by the lightened areas.) The first stagnant layer extends from the bottom to the level of the obstacle crest.

Continuously stratified flow exhibits supercritical and subcritical flows, lee waves, and also the formation of jets.