Depth and stratification influence on surface perturbations generated by a flow around obstacles

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Surface perturbations generated by a point dipole localized in the vicinity of the density interfere both above and beneath is taken to be an obsfacle stratified fluid flow of finite depth around underwater obstacles are studied. A point dipole interface both above and beneath it localized in the vicinity of the density is considered to be an obstacle. It is shown that the density interface induces blocking effect when perturbations propagate from the obstacle to the water surface.

Keywords: surface waves, flow around obstacles, density jump, two-layer flow, dipole.

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