The shoreline evolution under the storm action

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The bottom and shoreline reformations are often the consequences of the littoral processes. Therefore choosing the new harbors places one has to take account of their characteristics. The problems associated with sediments and abrasions are difficult to solve completely. The follow-up operation of the sea hydro-technical structures takes considerable costs. In that way the significant topics in applied hydrodynamics are both the study sediment transport and shoreline bottom profile change. In this report we consider a shoreline deformation arising under storm waves action. A model of specific object was built in the hydro flume. The series of experiments on shoreline reforming due to the storm waves were fulfilled. We used as a basis for calculations the theoretical model derived by Prof. Yu. Aleshkov (2002). The initial problem for nonlinear parabolic equation was solved using marching technique. The numerical solution was used for the shoreline change prediction and was compared with the experimental results. The coincidence between the theory and experiments was quite satisfactory.