

FEATURES OF THE ACOUSTIC "MUDSLIDE" EFFECT FORMATION FOR LONG-RANGE SOUND PROPAGATION FROM THE SHELF TO THE DEEP SEA

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The acoustic "mudslide" effect is one of several consistent and predictable acoustic propagation effects that occur in a range-dependent ocean environment. As a consequence of this effect, a bottom-located source in the shallow sea can emit significant acoustic energy to the axis of the underwater sound channel (USC) in the deep sea, which can further propagate over considerable distances. The possibility of placing sound sources near the coast when solving problems of acoustic ranging, tomography of the structure and dynamics of water, etc. significantly increases the efficiency of technical and methodological implementation. The paper presents the results of numerical experiments on studying the dependence of the formation of the "mudslide" effect on the characteristics of underwater sound channels and bottom inclination angles in the shelf zones of acoustic paths connecting the source and receiver of acoustic energy.

Keywords: underwater acoustics, acoustic "Mudslide" effect, deep sea, underwater sound channel.

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