

COASTAL MONITORING OF THE VERBYANAYA SPIT BY SATELLITE DATA

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The Verbyanaya spit is the south-western part of the sea edge of the Kuban river Delta, which was formed during the last 200 years. Complex monitoring studies including analysis of remote sensing data and cartographic material were performed for estimation of modern development trends of this accumulative form, coastal dynamics, the intensity of erosion-accumulative processes and the effectiveness of coast protection structures. The coastal dynamics of the Verbyanaya spit during last 150 years was determined by combined action of natural and anthropogenic factors. For last half a century the coastline of spit western part came forward to 200-400 m and the east spit coast retreated to 30-200 m. Economic development of adjacent area (natural gas exploration and production) has caused the need to stabilize the coast, and coastal protected dam was built in 2007. Monitoring showed that spit coast stabilized after creation of the dam, but changes of the underwater slope relief continued. Currently Verbyanaya spit develops as natural-anthropogenic system.

Key words: Sea of Azov, accumulative form, remote sensing, delta, relief, coastal dynamics, monitoring.

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