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Assimilation satellite altimetry data in flood wave propagation model of the Caspian Sea

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In this research simple flood wave propagation model was based the Saint-Venant equations represented a good way to describe problems concerning with flood waves propagations in open channels. For solution of this task the Caspian Sea was approximated as channel with a rectangular section. Channel axis coincided with the sea longitudinal axis or location of descending pass 092 of satellites TOPEX/Poseidon and Jason-1/2. Altimetric measurements of this satellites permit to define more exactly empiric parameters of the flood wave (propagation speed amplitude et al.) which are solution of the model. Also it allows estimating of effective evaporation. In this approach it is possible to consider as an integrated difference between sea surface heights between previous and the subsequent cycles altimetric measurements. Results of calculations have confirmed well conformity given calculated by other researchers and the model. As is shown than interannual variability of flood wave speed in the North Caspian was well correlated with interannual the Caspian Sea level variability. However for the Middle and Southern Caspian Sea interannual variability of flood wave speed become in an antiphase to interannual sea level change.
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