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The main characteristics of the method to forecast sea level with a lead time of 72 hours for the southwestern part of the Bering Sea are considered. Spatiotemporal variations in storm surges within the Bering Sea and adjacent areas are calculated using a two-dimensional numerical hydrodynamic model of the coupled water and ice dynamics. The model forcing is implemented using the data on surface air pressure and wind, which are predicted by the WRF-ARW atmosphere model. Tidal elevations are calculated only at coastal points, 11 major tidal harmonic constituents are used. Information about the distribution of the ice cover within the study object is formed based on the Global Forecast System data. A technological line of the forecasting method operates in automatic mode. The results of the comparison of sea level forecasts and observations at Nikol'skoye, Ossora, and Korf (Tilichiki) tide gages indicate that the developed forecast method complies with the requirements of the Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet).

Keywords: forecast method, sea level, Bering Sea, numerical hydrodynamic model, storm surge, tide, ice cover, forecast skill scores

Tab. 5. Fig. 5. Ref. 17.