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Verification of numerical forecasts of sea ice thickness for the Caspian Sea and the Sea of Okhotsk in the 2023/2024 winter / Nesterov E.S., Zhupanov V.D., Maksimov A.A., Fedorenko A.V. // Hydrometeorological research and forecasts. 2025, no. 3 (397), pp. 92-100.

The 16-day forecast of sea ice thickness for the Caspian Sea and the Sea of Okhotsk was implemented on the basis of the CICE viscoplastic sea ice model using three-hour forecast fields of surface temperature, humidity, wind speed, precipitation, and incoming solar radiation from the WRF-ARW nonhydrostatic atmosphere model as forcing. The forecast is computed at the points of the 0.25° regular latitude-longitude grid. The values of sea ice thickness on the 7th and 14th forecast days were compared with the measured sea ice thickness from the Bol'shoi Peshnoi marine coastal station in the Caspian Sea and five stations in the Sea of Okhotsk, as well as with the data of the GDAS analysis (NCEP), Sigrid-3 maps (RSC Planeta), and sea ice maps (Hydrometcentre of Russia) for the entire Sea of Okhotsk. The comparison of the simulation results with observational data showed that the model satisfactorily reproduces the growth and melting of sea ice.

Keywords: Caspian Sea, Sea of Okhotsk, CICE model, sea ice thickness

Tab. 2. Fig. 2. Ref. 16.