

DOI: <https://doi.org/10.37162/2618-9631-2023-1-6-20>

Improved dynamic statistical method for forecasting monthly surface air temperature /
Vilfand R.M., Kruglova E.N., Kulikova I.A., Khan V.M. // Hydrometeorological research and forecasts, 2023, no. 1 (387), pp. 6-20.

The possibility of improving the dynamic statistical method for forecasting monthly air temperature using modern hydrodynamic models and statistical methods in operational practice of the Hydrometeorological Research Center of Russia is substantiated. The technology for monthly forecasting of surface air temperature anomalies based on the combination of the improved scheme of medium-range forecasts of weather elements for 15 days and the SL-AV model output forecast data for 16–30 days is presented. Forecast skill scores obtained in real time for 326 stations located on the territory of Russia are given. Advantages of the proposed approach are shown, especially in the case of significant air temperature anomalies. The results are supposed to be used in the technology of long-range forecasting at the Hydrometeorological Research Center of Russia.

Keywords: surface air temperature, monthly forecasts, statistical correction, verification

Tab. 2. Fig. 10. Ref. 11.