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Regional features of changes in the normals of the main climatic parameters in Russia /

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The regional features of changes in the normals of the main climatic parameters (air temperature, precipitation, water vapor tension, sea level pressure) on the territory of Russia are studied for three 30-year periods: 1961–1990, 1981–2010, and 1991–2020. Climate normals are calculated in accordance with the WMO requirements. In addition to the difference in the normals for stations, the values averaged over the territory of quasihomogeneous climatic regions are calculated. Seasonal changes in the regime of the main climatic parameters in certain regions of Russia over the past decades are revealed. In the last thirty years, a slowdown in warming in all seasons has been revealed on the territory of Russia. Summer precipitation normals for 1991–2020 decreased in most of the country, however, a significant increase in precipitation was found in the southern regions of Yakutia, the Amur region, and Primorye. For the regime of sea level pressure, the greatest changes are revealed in winter. The differences in climatic normals obtained in the present study can be considered as one of the indicators of climate change that are differently manifested in different regions of Russia. The information can be useful for developing preventive adaptation measures under changing climate.

Keywords: climate, climate normal, air temperature, precipitation, air pressure, partial water vapor pressure, regional features

Tab. 2. Fig. 9. Ref. 13.