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The automatic identification of objects associated with various extreme weather events (EWE) on seasonal and intraseasonal timescales is done based on surface air temperature and precipitation datasets (NCEP/NCAR daily reanalysis fields for the Northern Hemisphere). Some features of the spatial and temporal variability of the extreme characteristics of temperature and precipitation regimes are considered in the context of climate change. An inventory of extreme events is carried out for the Northern Hemisphere in 1981–2019 depending on the spatial extent, duration, and intensity of EWEs. The years with the most striking events are noted, and a brief description of their specific features is given. The results will be used to analyze the EWE predictability in the context of the verification of long-range weather forecasts.

Keywords: extreme weather events, climate change, identification of extreme events, long-range weather forecasts.

Tab. 5. Fig. 6. Ref. 13.