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Meteorological conditions of extreme low water level in the northeastern part of the Caspian Sea in April 2019 / Stambekov M.D. // Hydrometeorological Research and Forecasting, 2021, no. 3 (381), pp. 53-63.

Atmospheric circulation processes that caused an extreme sea level drop in the area of the Kashagan offshore oil field in the northeastern part of the Caspian Sea in April 2019 are reviewed and analyzed. It is found that an increase in pressure and wind gradients over the Northern Caspian region led to the occurrence of the set of severe weather events related to each other. An extreme sea level drop caused by the downsurge driven by strong wind was recorded in the area of the Kashagan oil field. Behind the cold front, the cold advection occurred, causing a dramatic air temperature drop by 13 °C. A high temperature contrast and high relative humidity led to the abnormal amount of precipitation of 33 mm per two days.

Keywords: water level, severe weather events, downsurge, northeastern part of the Caspian Sea

Tab. 1. Fig. 3. Ref. 16.