



On the cloudiness and cloud types around the Black Sea, Caspian Sea and Aral Sea regions

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Ten years (2000-2010) of cloud ground observations from 332 synoptic stations (with 3h time resolution) for the regions around the Black Sea, the Caspian Sea and the Aral Sea were analyzed. The considered variables were: total cloud cover (TCLD), cloud cover from low or middle clouds (LMCLD), low cloud type (LCLD), middle cloud type (MCLD) and high cloud type (HCLD).

Data analyses were carried out for the whole dataset and several subsets: cloudless observations, 1-layer observations, and multi-layer observations. For the whole dataset, the analyses included frequency of cloudy observations, frequency of multilayer observations, and mean TCLD. We studied also frequency of 1-layer of clouds only, and frequency of each type of clouds (low, middle, high).

Results show a large spatial and seasonal variability with respect to TCLD, cloud types and the frequency of multilayer cloud observations. Moreover, over the ten-year period, the evolution of the annual mean TCLD is investigated, showing a positive trend in the northern region of the Black Sea.

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