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Experimental methods are considered for identifying squalls in three intensity gradations according to the DMRL-C network data and refining the speed of gusts during a squall using numerical modeling. Particular attention is paid to the identification of severe squalls. The series of severe squalls on July 29, 2023 in the Middle Volga region was analyzed. The results of the verification of squalls using observational data from weather stations and wind gust speeds recorded by automatic weather stations are presented.

Keywords: radar monitoring, squall, wind gust, wind speed, severe weather event, DMRL-C data, verification

Tab. 2. Fig. 6. Ref. 14.