



The physical statistics analysis of the contributing factors of the low level clouds development

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In this article studying of conditions of low level clouds development and applicability of individual predictive factors in prognostic models are considered. In this purposes advective variations of temperature (**A**), radius of isobars (**R**), ground pressure Laplasian (ΔP), horizontal gradient of air pressure (**grad P**) are calculated. It is shown, that the consideration of advective variations of temperature and humidity, radius of curvature of isobars, ground pressure Laplasian and a vertical movements allows to survey conditions of low clouds development comprehensively. At presence of clouds main values of advective variations of temperature during cold and warm air advections were $-0.63^{\circ}C/h$ and $0.53^{\circ}C/h$ appropriately. At the above stated conditions main values of advective variation of a dew-point was $-0.50^{\circ}C/h$ and $0.62^{\circ}C/h$. At the absence of low clouds main advective variations of temperature and dew-point were $-0.15^{\circ}C/h$ for cold air advection, and $-0.03^{\circ}C/h$ for warm air advection.

References:

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