



## **Results of validation of maps AE\_DySno (AMSR-E/Aqua Daily L3 Global Snow Water Equivalent EASE-Grids) for European part of Russia in 2003-2005**

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In 2005 we have made a validation of daily maps AE\_DySno (AMSR-E/Aqua Daily L3 Global Snow Water Equivalent EASE-Grids) and brightness temperatures of 19h, 37h, 19h-37h (SSM/I F13) for any test areas of the European part of Russia (winters 2003/2004 and 2004/2005). We carry out the existential analysis of retrieved values of SWE (AE\_DySno) and ground snow courses data for open area test sites (tundra of Sub-Polar Ural and forest-steppe of river Oka basin). We have found out that remote values of SWE is overstated in 2 and more times of the ground SWE data in a steppe zone at the end of winter. This fact is caused by the sharp change of microwave properties of snow structure after thawing weather as a result of occurrence of a rigid snow planks. In regions with more cold winter (tundra zone) the same gallops are observed in the beginning of winter (there is excess of retrieved values in 2-3 times). During the subsequent stable cool period of winter it is not observed significant changes of retrieved SWE. In the extremity of winter in tundra zone the ground values of SWE are exceeds in 2-3 times the retrieved AMSR-E data. The model in global algorithm in maps AE\_DySno inadequately reflects values of a water equivalent in the European part of Russia, confirming only presence of a snow cover if the temperature at a surface is negative. Magnification of a difference of brightness temperatures on 18GHz and 36GHz within winter happens spasmodically and is not connected with gradual magnification of ground SWE due to growth of height of a snow cover, but sharp discrete modifications of stratification of snow cover because of cycles of a thawing - freezing. The model requires serious completion.