

Satellite sensor AMSU-A provides passive measurements of the radiation emitted from the earth's surface and the atmosphere. The radiances contain temperature and humidity information, but in order for this information to be directly assimilated in a numerical weather prediction (NWP) system, biases between the observed radiances and those simulated from the model first guess must be corrected. After the introduction we recall a notion of analysis, data assimilation and implementation in numerical model ALADIN, which is used by the Czech Hydrometeorological Institute. Then we introduce two radiance-bias correction schemes so-called Harris and Kelly method and variational correction method VarBC. In the last part of my thesis are presented the results of both correction methods for satellite measurements, available in one month periods, and effect of correction demonstrated on the figures.