The most important role for numerical mesoscale models is a quality of initial data. In fact, a more precious model is more sensitive to small changes in initial and boundary conditions. Although task of building an objective analysis with adequate spatial resolution is solved, mismatches in terrestrial data can significantly degrade the quality of atmospheric processes forecasting. Particularly it is important for radiative and PBL processes.

The main source of terrestrial data for WRF model is a dataset from USGS. But in fact, not for all territories this dataset provides actual information that allows to use it in tasks of operational use. Among other it is necessary to note a problem with large freezing water bodies, which is marked as water surface. Indeed, in the summer time in nature those effects which the model attributed to water bodies can be seen. But in the winter, when the surface is covered with ice and snow, any water effects cannot be considered.

These problems were accounted in development of WRF-based numerical weather prediction operative technology in Primorsky department of Russian NWS (liability zone 40-50 N 130-140 E). As a result technology of automatic change terrestrial data in initial datasets was realized.

Applying of this technology allows increase quality of the air temperature forecasts in the winter time. In addition in the near future it is planned to make complete update of terrestrial data that should significantly improve the forecasts quality in summer time too.