

## **Role and place of validation and ground-truthing in Earth remote sensing technologies**

Alexander Astashkin, A. V. Grishin, V. K. Saulsky  
Central Research Institute for Machine-Building (TSNIIMASH)

margun@tsniimash.ru

We consider some questions of validation, ground-truthing, creation of thematic test sites and mobile devices complex to provide undersatellite measurements of spectral characteristics of test objects. Until recently, the development of spaceborn remote sensing systems in Russia concentrated on the improvement of remote sensors. At the same time, many other problems of supplying remote data with appropriate imagery conditions and informational characteristics of board devices, providing of data calibration and validation, the development and systematization of methods for spectral analysis and thematic interpretation were in the shadow. The basic tendency of modern space tools development for remote sensing, together with improving of linear resolution, is to increase the number of spectral channels, so that precise earth surface characteristics could be obtained. It allows as well to expand applications of space-born information. Therefore, one of the key problems is to provide a radiometric calibration and validation of remote sensing data.