

An evaluation of IKONOS basic panchromatic product for the satellite map of a mountainous area.

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This paper deals with the question whether the basic panchromatic product of IKONOS is fit for the image map in scale 1:20 000 of a mountainous area in Southern Poland. The intended design of this map depends on high quality image of the area with all ground features including footpaths, separate trees and rocks easy perceived. As the map is meant mainly for tourism its only advantage over the traditional map is to present the terrain up-to-date and in the most detailed manner possible in its scale. The project has a limited budget and this is the main reason for selecting cheaper solutions. IKONOS data are available at different levels of accuracy and also at different prices. The basic panchromatic product CARTERRA Geo 1m P has two advantages: it is the cheapest and one does not need to supply DEM and GCPs to Space Imaging which would be a problem in my case. Theoretically the 1m resolution satellite image is very attractive in comparison to aerial photographs at least because one need not to seam many images to cover the area of a map sheet. It seems suitable for this kind of map even having low positioning accuracy which can be improved with the use of the DEM. In practice not only a problem of the positioning accuracy arises. The clouds and shadows pose quality problems as well. Finally, the processing of 11-bit per pixel image requires a slightly different approach. The paper presents some remarks on processing the new kind of data together with the results of solving problems. Examples originate from Tatra mountains selected as the test area for the project No 9T 12E 019 17 financed by the Polish Research Committee (KBN).