Assessment of Positional Accuracy of Topographic Maps and Plans of Banja Luka (Bosnia and Herzegovina) of Different Editions

Mladen Amović, Slavko Vasiljević (Bosnia And Herzegovina) and Dragoljub Sekulović (Serbia)

Key words: Cartography; Standards; Topographic maps and plans; positional accuracy; quality of geographic information; NSSDA

SUMMARY

The quality of data on topographic maps (TM) and plans is implied by the degree of thematic and geometric deviations of the presented data from their actual position. To determine the geometric (positional) accuracy is usually applied deductive method of questioning. As one of the elements of quality of the TM, positional accuracy is particularly noted in relation to other elements in both their impact on the use of the value of the finished product, and by the exactness of the determination and quantification. In classical cartography, it was almost a synonym for quality of the maps. Positional accuracy of geographic information is an important quantitative element of their quality, regardless of whether they are in digital or analog form. In the paper points is represented the need for evaluation of positional accuracy of geographic information, describes the current standard for evaluating the accuracy and show the results of applying on the raster topographic maps and plans. Under the positional accuracy is implied the coincidence of the position of a point in a set of geographic information, respectively in the model of geospace - maps, database, orthophoto etc, with the real position of that point in space. It can be either external (absolute) or inner (relative), depending on whether a match is determined at the position in the coordinate system (absolute accuracy) or in the other sub-set (relative accuracy). When it comes to assessing the positional accuracy of Geographical Data, ISO family of standards defines some basic principles and general procedures. American national standard for spatial data accuracy - NSSDA applies to digital data in raster and vector form, through which they will be evaluated raster topographic maps and plans of the city of Banja Luka (Republic of Srpska, Bosnia and Herzegovina). Development history of cartography in BiH dated back to the time of the Bosnian kingdom, where was the first mention of the name of the place of Banja Luka (1494). The paper presents an unusual approach to the assessment of cartographic publications of the Banja Luka, where through this standard shows the quality of the topographic maps and plans of the Banja Luka. It was assessed positional accuracy of geographic information on topographic maps and plans in the period of 1881, 1936, 1942, 1945, 1969, 1977. and 2011. Based on this research, it was established the quality of publications published in the geographic space of the BiH where in this time frame there was not sufficient information and evidence as opposed to the developed European countries, where it was established by official records on the basis of the similar publications.