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Analysis of the state ellipsoid of Istria

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For the area of the Istrian County in the Republic of Croatia the official gooid has been established, from which gooid undulations can be interpolated for single points, and based on HDKS (croatian State Co-ordinate System) and ETRS the data have been published and put into use during 2004.

Geodetic company Geoservis, Pula, has in recent years in the absence of official geoid undulations calculated the altitude of points in a way that the local Istrian ellipsoid was based on around 150 identical points with WGS co-ordinates and altitudes determined in the official height system. Thus, the ellipsoid heights of the local ellipsoid directly became altitude heights. By publishing the data on official country geoid, the needs for using the previous technology using the local ellipsoid has been practically abolished.

In the article, an analysis (comparison) of altitudes will be given, acquired by the two mentioned methods in relation to the actual altitudes, established by precision levelling in accordance with the existing levelling network.