

# Study on the Minimum and Maximum Number of Control Points on the Ground when Making an Orthophoto Plane

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**Key words:** ground control point; pixel, precision; orthophoto plane

## SUMMARY

Currently, in Romania, flights are carried out to obtain the orthophoto plane for 170 cities, considered photogrammetric blocks. The pixel size is 4, 9 and 15 centimeters, depending on the type of city: municipality, county seat, municipality, city. In order to scale the orthophoto plan, the beneficiary requested that the number of control points on the ground be at least 20 for the county seat municipality and at least 10 for the municipality and city. Also, the minimum number of checkpoints is identical to that of ground checkpoints.

The beneficiary requested that ground control points and check points be pre-marked with white paint at certain dimensions.

The present study does a data processing starting from only five control points/block, then increasing the number of points until using all the measured points in the field.

Finally, the results obtained on the verification points are compared to determine if the accuracy of the orthophoto plane improves significantly depending on the number of control points on the ground and their distribution.

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