

## LLC "Center for Engineering and Geological Surveys and Design "Geosphere"



Our company was founded in 2009 and is focused on solving construction problems in the implementation of unique and technically complex facilities.

LLC "Center for Engineering and Geological Surveys and Design "Geosphere" today this dynamically developing company is represented in three regions including in the metropolis able to perform work in all regions RF and foreign has a wide range of experience in various fields of hydrotechnical, civil, oil and gas, transport, agricultural, power grid construction.

## We carry out a full range of engineering surveys for construction:

- engineering and geodetic surveys;
- engineering and geological surveys;
- engineering and environmental surveys;
- engineering-hydrogeological surveys;
- engineering-hydrometeorological surveys;
- engineering-geophysical surveys;
- engineering-hydrographic works in water areas;
- laboratory research physical and mechanical properties of soils;
- testing of piles;
- survey of soil bases of buildings and structures.

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109202, Moscow, Perovskoye highway, 21, Building 2 Tel: 8(906)746-94-97 The possibility of applying a blob while solving applied problems while conducting surveys and designing roads





At present, all over the world in the production of engineering surveys are widespread receive UAV (unmanned aerial vehicle) for aerial photography and compilation 3D models of terrain.

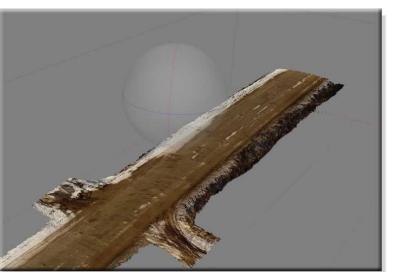
Use of specialized software allows automate the production and processing process aerial photographs, and the use of modern digital chamber with a three-axis stabilizer and

with the possibility of flying at extremely low altitudes allows you to get a very high quality material.

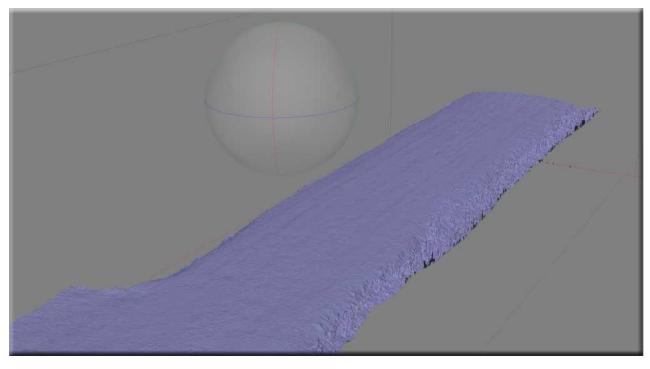
This technique is very suitable for road surveys.

Materials obtained by the result of the work:

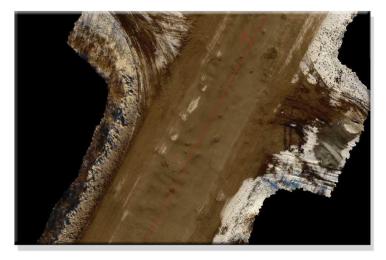
- Anorthophotomap with the possibility of its binding to given coordinates;
- 3d terrain model in various formats with the possibility of its import into other software products;
- maps of the heights of the object;
- texture map of the object.



The quality and accuracy of the resulting material is comparable to laser scanning of the terrain.



Materials received allow to solve a wide range of tasks and provide reliable data for design.



One pixel of the orthophotomap corresponds to 2-3 cm on the terrain, which makes it possible to apply it to assess the condition of an existing roadway (defect), and its binding to given coordinates allows solving the issues of territorial land management (identification of the right-of-way, guard zones, boundaries of adjacent land use). The 3D model allows to estimate the sizes of large potholes (more than 5-7 cm in depth) and to determine sections of the road with high fouling.

The combination of this type of work with the classical methods of engineering and geodetic surveys makes it possible to significantly accelerate and improve the quality of the materials obtained.

