POSSIBILITIES OF USING UNMANNED AIRCRAFT SYSTEMS TO CONTROL COMPLIANCE OF CONSTRUCTION RESULTS OF PIPELINE TRANSPORT FACILITIES WITH DESIGN SOLUTIONS

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The article presents the results of experimental studies of the use of aerial photography materials using unmanned aviation systems for three-dimensional modeling of pipeline transport facilities and the construction of the information model "How Built." An experiment was performed on three-dimensional modeling of the construction object on the basis of data obtained with the help of unmanned aircraft systems, accuracy of the obtained model was determined. The aim of the study is to develop a methodology for using unmanned aviation systems to control compliance of the results of construction of pipeline transport facilities with design solutions. The results of the pilot studies show that it is possible to use these unmanned aircraft systems to monitor deviations from the working documentation during construction works on the site. The proposed solution can be used as a methodological basis for monitoring the results of construction of pipeline transport facilities by design solutions within the framework of construction works.

Keywords: 3D model, information model, unmanned aerial system, land laser scanning, point cloud, objects of a pipeline transport, accuracy spatial, mean square error

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