SURVEY OF ARCHAEOLOGICAL SITES OF GORNY ALTAY USING UAV

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The article describes a methodology for determining the boundaries of archaeological sites using GPS survey and unmanned aerial vehicles (UAVs) with subsequent registration in the cadastral record. The method of georeferencing and photogrammetric processing of orthophotomaps using a system of control points has been tested. The digital photogrammetric program Agisoft Metashape (company Agisoft LLC, St. Petersburg) was chosen for the research. By means the program an orthomosaic was obtained with georeferencing with the Local Coordinate System (LCS-04). The result of the work was the construction of topographic plans and the determination of the boundaries of archaeological sites in accordance with the "Methodology for determining the boundaries of the territories of archaeological heritage sites, recommended for use by the letter of the Ministry of Culture of the Russian Federation No. 12-01- 39/05-AB dated 27.01.2012".

Keywords: orthophotomap, topographic plan, cadastral registration, unmanned aerial vehicles, spatial accuracy, root mean square error

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