COMPARATIVE EVALUATION EFFICIENCY OF MOBILE LASER SCANNING AND AERIAL SURVEYING FROM UNMANNED AERIAL VEHICLES FOR ROAD SURVEY

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The application of mobile laser scanning and aerial photography from unmanned aerial vehicles for shooting highways is considered. The aim of the research was to compare the results of shooting using mobile laser scanning systems and aerial photography from an unmanned aerial vehicle to determine the preferred option for shooting a highway. The experimental part of the research was carried out using the following equipment: scanning was performed using the Topcon IP - S2 Compact system, aerial photography was carried out from the GEOSCAN 201 unmanned aerial vehicle. Based on the comparative tests performed on the section of the A - 121 "Sortavala" highway, a comparative analysis of the data obtained for various indicators was carried out: the speed of the shooting stages, the cost of a set of equipment, the cost of shooting, and the accuracy of the results was evaluated. Practical recommendations for the application of these methods are given, their advantages and disadvantages are indicated.

Keywords: aerial photography, UAV, orthophotoplan, topographic plan, mobile laser scanning, mobile laser scanner, experimental section of the highway

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