Accuracy Analyses of High-Resolution Terrain Models Derived from UAV in River channels and High Mountains

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We use both fixed-wing and roto unmanned aerial vehicles (UAV) to obtain high-resolution terrain models over parts of Mao-Luo stream and Hui-Sun forestry areas(shown in the figure) , Nantou County, Taiwan, and the results are gorgeously evaluated by several ground check points with high accurate coordinates. The Mao-Luo stream and Hui-Sun forestry are river channel and high mountain topographies, respectively. In addition, Pix4Dmapper is used to generate 3D point clouds and Digital Surface Models (DSM) aided with high-accuracy control points covered by pre-made aerial targets. Couples of field UAV surveys are going to carry out by March. The purpose of the research is to analyze the feasibilities estimating accurate earthwork variations by UAV technique due to river channel sedimentation and high mountain landslides.

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