

## ***Interactive comment on “The Role of Unmanned Aerial Vehicles (UAVs) In Monitoring Rapidly Occuring Landslides” by Servet Yaprak et al.***

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A native English speaker revised the manuscript. The term ‘breakdown’ was used instead of ‘subsidence’. 1. Line 33 was edited as “Soil drifts are caused by two main factors, human and environmental effects in general. Human factors can be controlled; however, it is very difficult to control factors originating from topography and soil structure (Turner et al., 2015).” 2. Line 38 was edited as “The main reasons for the increase in landslide disasters are that they become more susceptible to instability of surface land because of extreme destruction of natural resources, deforestation, increased urbanization and uncontrolled land use.” Additional statements can be found in the revised paper. 3. Additional statements can be found in the revised paper. 4. Additional statements can be found in the revised paper. The literature cited regarding the UAVs

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are relatively old. More recent, plenty amount of papers can also be cited. 5. Line 42-44 was revised as “The main reasons for the increase in landslide disasters are that they become more susceptible to instability of surface land because of extreme destruction of natural resources, deforestation, increased urbanization and uncontrolled land use. Triggering can occur faster because of short or long periods of heavy rain, earthquakes, or subterranean activity (Lucier et al., 2014).” 6. Cxx 7. The multicopter was used for this study was designed and produced by the department of Geomatics Engineering at Gaziosmanpaşa University (GOP) and Teknomer Company in Techno park. Teknomer is one of the most important UAV producer companies of Turkey. Teknomer brand UAVs can be seen at <http://akteknomer.com/> net address. This UAV was not produced only for this study. TEKONOMER GEO V2 multicopters have been producing for photogrammetric observation companies. 8. These points coordinates were added the Table 3. 9. Figure 5 was deleted. 10. Figure 7 was deleted. 11. 000 12. The soil motion change in the landslide area hadn’t been seen exactly in the aspect map. Because of this, it was deleted. Instead of aspect map excavation and replacement of the earth material was investigated with DoD map which generated with integrated of first and last DSMs. In addition, in order to obtain landslide deformations, the DoD was applied by subtracting the first UAV-DSM from the last UAV DSM. Also seventy three sample points 3D displacements was investigated with DoD map. It has been seen that the displacement direction and displacement values of sample points are compatible with two methods. 13. Object points are sample points which was selected on the study area. 14. Sample points location have changed between first and last observation periods. This displacement is three-dimensional (Y,X and H). The displacement of the sample point in the horizontal position (slip) was named horizontal displacement. 15. Additional statements can be found in the revised paper. 16. Total periodic precipitation amounts was submitted for observation dates. A correlation between precipitation events and landslide activity has not been studied.

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