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Comment

## ***Interactive comment on* “Brief Communication “The use of UAV in rock fall emergency scenario” by D. Giordan et al.**

### **Anonymous Referee #2**

Received and published: 7 September 2014

**General comments** The paper presents the description of a methodology for the quick monitoring of rock fall phenomena using micro-UAV. The presented methodology is of interest for many applications and well describe the suitability of UAV for this kind of applications. You propose a time-sheet for the delivery of different products (visual inspection, 3D model, etc.) that are completely in accordance to similar studies performed with UAVs. The paper is usually clear and most of the elements are well-written. Anyway, I have some comments that should be considered for the final version of the paper.

**Specific comments** The introduction is quite complete. Anyway you should add more references for the different UAV applications. UAV are nowadays used for thousands of different applications, please list some of these. pp. 3. You mention the solid

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image, but most of the readers couldn't know what you mean. In the test there are several references to this product, but there isn't a clear explanation. Please, put all the references of the solid image together and briefly describe it. You must also provide evidence of the used algorithm/software to generate them. You mention that you use the go-pro for the photogrammetric processing. This camera has 2 different problems: the first is the resolution (as you mentioned), the second is the big image distortion and the poor radiometric content. Please add this second aspect in the paper. Due to the low image quality, your 3D model could be nice-looking, but I believe it would be so accurate as it seems. pp. 7: I agree that your way to georeference the data (using on board data) is just sufficient to provide a rough scale of your 3D model. Anyway, the use of GCP must be performed too. I think that a 3D model performed in such a way is not sufficient to take accurate measurements of your area. pp. 8: If you use these GCP for multi-temporal analysis, some of them could be displaced between epochs due to the landslide. Probably in this case, a photogrammetric registration of the images would be of help to match the data at different epochs.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 4011, 2014.

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