

Interactive comment on “Method and application of using unmanned aerial vehicle for emergency investigation of single geo-hazard” by Haifeng Huang et al.

Anonymous Referee #1

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In general

The paper describes a drone specifically design by the authors for emergency investigations. This UAV was been applied in 3 practical cases to demonstrate its efficacy. In my opinion, there are 3 limits in this paper: – The paper contains no mentions of Direct Photogrammetry (DF) approach, but In a drone specifically designed for emergencies and rapid mapping, this approach has to be applied. I suggest the use of DP techniques to measure directly in field external orientation parameters and the application of a post processing BBA to refine the external orientation parameters directly measured. Could this UAV be equipped with sensors for DF? In the case of affirmative answer, I suggest to the authors to include some

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details of this solution (kind of IMU/GNSS sensors, real time or post processing, used software tools, and so on); – Paper don't describe innovative approach to SfM survey using UAV: merely, there are some details of practical suggestions for UAV survey and some reports of applicative examples, actually known in scientific literature. To complete these descriptions, I suggest to complete the practical details including, in Paragraphs 5.1, 5.2 and 5.3, some information on number of acquired image, flight plan, time spent for the acquisition and post processing, number of points of dense point clouds, density of point cloud, obtained accuracy, ...; – The references don't include some important papers on the use of UAV for mapping, environmental application, rapid mapping and emergency investigation. For examples, I suggest: <http://link.springer.com/article/10.1007/s12518-014-0144-x> <http://www.mdpi.com/1424-8220/15/7/15717> <http://www.mdpi.com/2072-4292/8/9/779> <http://www.tandfonline.com/doi/pdf/10.1080/19475705.2016.1225229>

Detailed corrections: - Rows 110, 172, 179, 183, 220, 223, 246, 290, 301, 381, 384, 396, 411, 433, 467 Replace GPS with GNSS - Row 320 Replace facade in façade

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