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Interactive comment on "Usability of aerial video footage for 3D-scene reconstruction and structural damage assessment" *by* Johnny Cusicanqui et al.

Anonymous Referee #2

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The paper "Usability of aerial video footage for 3D-scene reconstruction and structural damage assessment" provides a very good insight on the use of video data to assess structure damages in 2D and 3D. Two datasets are used here, corresponding to earthquakes of Tainan 2016 and Pescara del Tronto 2016. Cutting-edge techniques are explored for the purpose of pots-earthquake structural damage assessment. The complete processing is complex, and many options are considered: oblique vs nadir, resolutions, phots vs videos, random vs wise frame selection, etc. It's of course impossible to test all the combinations and one can also expect is that each input dataset has different properties. The paper is already dense in information, and by the way very well written. It gives some promising views on the potential of video footage for natural hazards and disaster analysis. I have then only some minor corrections to propose:

- Commercial softwares have been used (Pix4D, 3DFlow). People working with SfM know that various processing packages produces various results. Can you comment on that in the discussion – how do you think that results would have been different if other packages would have been used?

- WFS, RFS and IQI refers to 3DFlow functionmalities – Please explain shortly the principles and provides references.

- Please provide some extra information on the CNN model used (to avoid to have read Vetrivel et al 2017)

- How long would be the full process in an operational context? from the raw video footage arrival to a SDA

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2017-409, 2018.