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Interactive comment on "Active tectonics of the onshore Hengchun Fault using UAS DTM combined with ALOS PS-InSAR time series (Southern Taiwan)" *by* Benoit Deffontaines et al.

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We have done all suggested modifications suggested by both reviewers in the following manuscript where the changes had been highlighted in blue (please see the attached file: Hengchun_nhess_0412.pdf).

Please find below the answers to reviewer 1, (the one who has done comments in the text): Modification of english had been done on the whole text. Abstract: precision of the deformation of the Hengchun Fault, explanations are done in the text. 1. Introduction: we rewrite great part of the introduction in order to be much clearer, we follow the proposition of the reviewer (local shortening rate...). 2.HRDTM: Deffontaines et al, 2016A 3. Geology of the Hengchun area: We precise generally the

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text underlined and we answer all the questions. We were not aware of the Malavieille 2016 paper that we took into account herein. we clarified the unclear parts. We precise the offsets and the components. 4. Inputs of PS-InSAR: we added precision on the Kenting Fault, we modify the coherence, we precise what is suggested. 5. Discussion : We have modified the text that appear "to be hard", we precise the unclear features, we simplify and re-write what appear "to be a mess"... Yes oblique component of slip, and thrusting (not overthrusting). we precise our meaning. 6. Conclusions and perspectives : we hope to have proven herein the interest of the UAS DTM in order to have a precise structural photo-interpretation that combine with GPS and PS gives information on the active tectonics. We precise the unclear features, and re-write many part of the manuscript in order to be clearer. Figures: All the modification of the figures had been done: e.g. the DTM (Fig. 3) had been highly modified and helps now to settle the great interest of DTM UAS for structural interpretation. Field work photograph (Fig.5) had been simplified, the photo-interpretation (Fig.6) has been up-dated and much more explained in the text, the tectonic model (Fig.13) had been redrawn taking into account the topography (not flat). References : The following references had been added. Hooper, A., Segall, P., Zebker, H. (2007), Persistent scatterer InSAR for crustal deformation analysis, with application to Volcán Alcedo, Galapagos, J. Geophys. Res, 112, B07407, doi: 10.1029/2006JB004763. Hooper, A. (2009), StaMPS/MTI Manual, version 3.1. Delft Institute of Earth Observation and Space Systems Delft University of Technology, The Netherlands. Malavieille, J., Mollic, G., Gentia, M., Dominguez, S., Beyssac, O., Taboada, A., Vitale-Brovaroned, A., Lu, C.-Y., Chen, C.-T., 2016. Formation of ophiolite-bearing tectono-sedimentary mélanges inaccretionary wedges by gravity driven submarine erosion: Insights from analogue models and case studies, Journal of Geodynamics, 100, pp.: 87–103, http://dx.doi.org/10.1016/j.jog.2016.05.008. Tsan, S.F., 1974A. The Kenting formation : a note on Hengchun Peninsula stratigraphy. Proc. Geol. Soc. China, 17: 131-133. Tsan, S.F., 1974B. Stratigraphy and structure of the Hengchun Peninsula, with special refrence to a Miocene Olistotstrome. Bull. Geol. Surv. Taiwan, 24, pp.: 99-108 (in

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Chinese with English abstract).

Please also note the supplement to this comment:
http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2017-55/nhess-2017-55-AC1-supplement.pdf

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