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Interactive comment on “Detailed quantification of delta subsidence, compaction and interaction with man-made structures: the case of the NCA airport, France” by O. Cavalié et al.

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I forgot in the previous reply to attach the updated version. Please find in attached the updated figures (3 and 4). We also added a paragraph (see below) in the discussion (just before the conclusion) to describe the outcomes of the oedometer tests carried out by Dan et al. (2007):

"In addition, the oedometer tests carried out by Dan et al. (2007) sediment samples from the same area (i.e near S1), demonstrated the action of freshwater flows in the compaction's acceleration. Actually, fresh water injection during oedometer tests gen-

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erates more rapid and extensive formation compared to the same tests without fluid injection. Moreover, fluid circulation would generate leaching and physicochemical re-organizations within sediments (Dan et al., 2007) inducing a greater compaction as well. The preferential water flow directions in the Var delta, towards the East and West corners of the airport platform (Potot, 2011), are in good agreement with subsiding zones, S1 and S3, locations. And the drains, installed in those areas (Fig 4c) to help the fluid circulation through the sediments, must participate also to increase the compaction rate. To summarize: the faster subsidence rate measured in S1, the uneven distribution of sediments deposits around it, the recent landslides in the area, and the steepening of flanks are all processes that could bring this section of the margin closer to destabilization. "

O. Cavalié

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 3761, 2015.

NHESD

3, C1482–C1485, 2015

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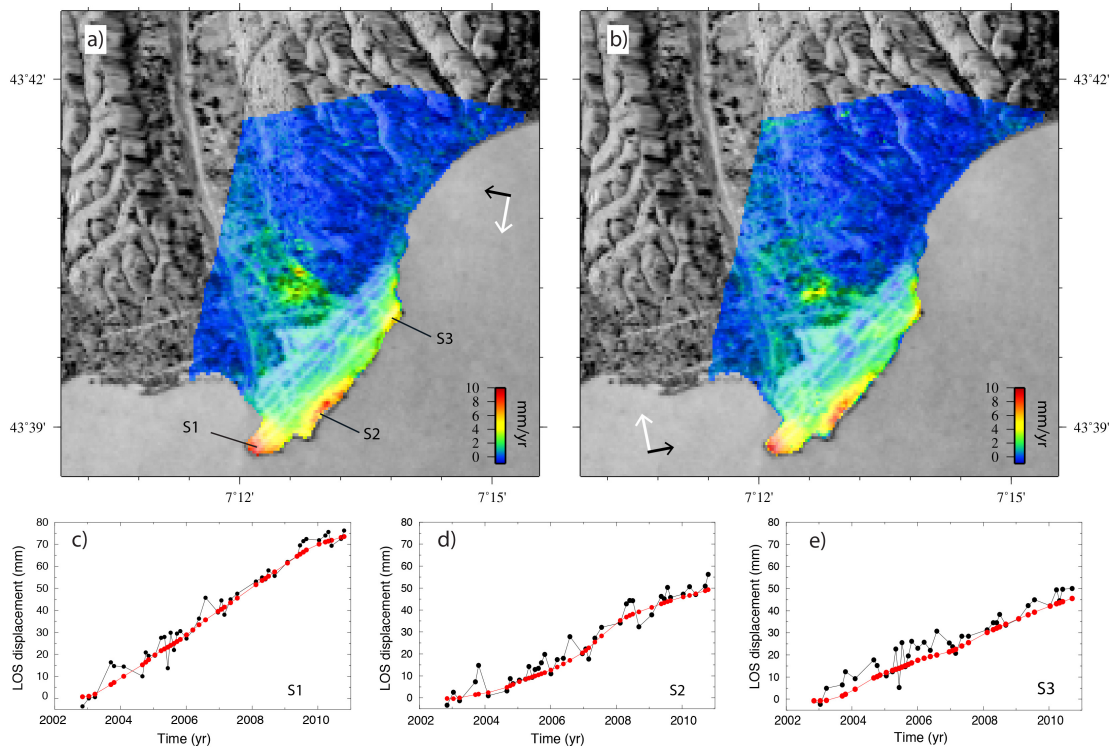


Fig. 1.

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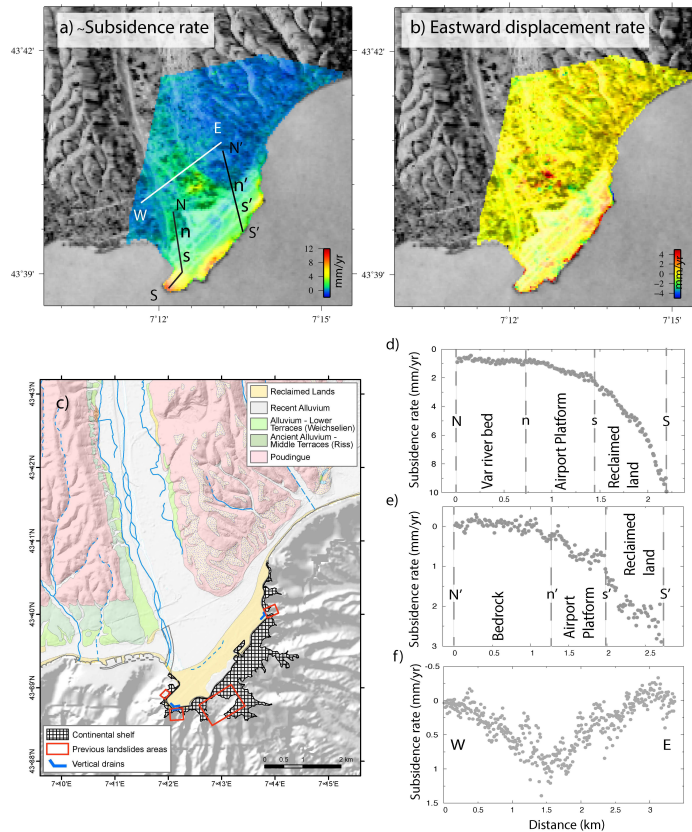


Fig. 2.