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NHESSD

3, C2299–C2300, 2015

Interactive Comment

## Interactive comment on "Evaluation of coastal vulnerability to flooding: comparison of two different methodologies adopted by the Emilia-Romagna Region (Italy)" by L. Perini et al.

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We have checked the information on the accuracy of the RTK-GPS survey described in the paper by Gallien et al. (2011). In the paper it is reported: Abstract: "A real time kinematic (RTK) survey instrument with an error of approximately 1 cm (RMSE) is found to be suitable for barrier height measurement, but an error of approximately 15 cm (RMSE) typical of aerial laser scanning or LiDAR is found to be inadequate". Conclusions: "Therefore, to accurately map flood inundation caused by ca. 1–2 m amplitude tides typical of California, barrier heights should be surveyed with a vertical RMSE less than  $\sim$ 1 cm for use in flood mapping models. This level of accuracy can be





achieved with precision surveying instrumentation such as the RTK technology used here, but LiDAR survey data with a vertical RMSE of ~15 cm is inadequate". We have modified the sentence in brackets on page 4333 as follows: "Through comparison between model grids based on GPS-RTK surveys (RMSE of ~1 cm) and an aerial LIDAR (RMSE of ~15 cm)...".

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 4315, 2015.

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