

This paper presents results obtained with pretty standard hazard assessment methodology. The results are of local interest to emergency management authorities and coastal population of El Salvador, but it does not provide new scientific ideas that could improve on existing hazard assessment methodology. The reliability of the methodology employed in the study has recently been put into question after the recent tsunami events of Sumatra (2004) and Japan (2011), where the same methodology grossly underestimated the hazard. In any case, although the results reflect the limitations of the methodology the work done by the authors seems to be thorough and detailed.

I believe this paper can be published (after a significant amount of editorial modifications) with the understanding that even if no ground breaking results are presented, the information found can be quite useful to the local population and authorities.

I believe the scientific quality of the paper would improve greatly if the authors provided all or some of the following items affecting the overall quality of the paper:

1-Validation of the historical cases they model with deep water measurements from DART systems whenever available, particularly for far-field scenarios. This would add to the credibility of their sources.

2-Validation of the 2012 El Salvador event with inundations results from UNESCO/IOC field survey.

3-Discussion regarding any possible discrepancies in the characterization of the local sources with those of NOAA's propagation data base for the area (see Gica, 2008).

5-Inclusion of current speed in the presentation of results. Currents during a tsunami have proven to reach damaging levels even without associated flooding.

Of less importance, but still requiring the attention of the authors would be the following two issues:

1-The authors should provide a definition for the term "human instability hazard" which they use throughout the paper and estimate in the calculations but is not obvious to the reader what is meant by it.

2-In equation 1, the authors refer to Strassers's relation relating M_w to rupture area, but the equation seems to only contain L (is L length?) how do you obtain total area from the relationship?

On a different note, the language used in the paper needs a major revision to conform to standard technical English. Many of the ideas are poorly expressed and hard to understand for the reader. In what follows, I will provide suggestions for the correction of clear grammatical errors and misuses of the language, but improvements in the text should not be restricted to the suggestions below. Correct forms to erroneous text are provided below.

line 3: "..There have been recorded 15 tsunamis..." should say "..there have been 15 recorded tsunamis..." line 5: it should read "...and can be approached from both..."

line 9: "..For the later..." should say "...For the latter..." line 15: "We used a hybrid..."

line 24: "Inside the Gulf of Fonseca"

line 37: "..There have been recorded 15 tsunamis..." should say "..there have been 15 recorded tsunamis..."

line 38: "...near the coast..."

line 44: "...damage to some infrastructure and several injured people who were, at the time, working..."

line 47: "These models..."

line 74: "...although commonly used values range between..."

line 81: "...considered local sources those located..."

line 84: "...as a characteristic..." line 118: "...in subduction zones, providing the mechanism responsible for..."

line 136_138: "To define the tsunamigenic seismic sources, the parameters of spatial location, orientation (strike and dip), and dimensions of the fault, in addition to the seismic rupture characteristics: rake and average slip, need to be provided."

line 144: "...and we divided the subduction zone interface into three parts..."

line 145: "...based on geomorphological features..."

line 148: "...From this point to the submarine..." line 149: "We have considered the San Jose..."

line 155: "The width of the fault has been obtained..."

line 159: "...August 2012 offshore of El Salvador..."

line 185: "Grid nesting is done in both..." line 215: "For the latter..." line 216: "due to the large extent of the coastal..." line 220: "...all of the considered scenarios in one single map. In this map each variable has a value..."

line 227-228: "The following variables are represented in the tsunami hazard map of El Salvador (Figure 4), for the whole coast..."

line 236: "...These punctual values at the coast have been used..."

line 252: "...where the minimum tsunami travel time is 25 minutes..."

line 256: "Three types of maps have been generated..." line 280: "...specially east of the municipality"

line 295: "For the whole country we used an empirical..." line 301: "...are a bit more conservative..."

line 307: "higher than that obtained with flooding models..."

line 338: "...both estimates based on the Synolakis..."

line 359: "...empirical relationships are a bit more conservative (more flooding)..."

Gica, E., M. Spillane, V.V. Titov, C. Chamberlin, and J.C. Newman (2008): Development of the forecast propagation database for NOAA's Short-term Inundation Forecast for Tsunamis (SIFT). NOAA Tech. Memo. OAR PMEL-139, 89 pp