

## ***Interactive comment on “USAR simulation system: presenting spatial strategies in agents’ task allocation under uncertainties” by Navid Hooshangi et al.***

### **Anonymous Referee #2**

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This paper provides an interesting perspective in the use of multi-agent simulation for the rescue in areas submitted to an earthquake. I think that paper could be shortened and the text should be precised. In its present form, I find difficult to understand what is multi-agent simulation reading this paper. I feel confuse about the scope of the first part (part 2) of the paper. Is it for explaining what is multi agent simulation? If it is the case, I (as reader) am not able to understand what is multi agent simulation. Or Is it dedicated to specialists of multi-agent simulation? if it is the case, the part concerning the general use of multi agent simulation has to be removed and the bibliography of the 2.3 should be developed (from line 156 to 176). Part 3 (case study): What data are available for this case study? Line 194 “The proposed methodology is a general approach to

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various phenomena.” This sentence is empty. Please remove or be clearer. Line 195: What are the characteristics of the environment which are known? What are the unknowns? Line 196: what controls the uncertainty for a person to be trapped and injured? How is it decided? Is it spatially controlled? Line 205: What can be the disruptions? Are there statistically defined? Line 210: I do not understand how injured agents can communicate with other agents. It is possible that injured agents blocked under the destroyed buildings are conscious and able to make some noise but this is rare. Line 260: “these relationships are based on expert opinion”. Could you add a reference?

In its present form, I do not recommend this paper for publication. Authors have to defined the audience for who they write, they have to be more precise in their description, and they have to shorten the paper

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