

## ***Interactive comment on “Why keep alert sirens in France?” by Johnny Douvinet et al.***

### **Anonymous Referee #1**

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#### General comments

The paper focus on the sirens French national alert system, highlighting limitations and constrains pending the ongoing upgrade of the whole system. The authors succeed in answering the main question thanks to a well structured research work, which, in my opinion, may be improved with some specific addresses. Authors make emerge the hard limitations in using sirens, mainly linked to the alerting chain, and its ancient origin. The comparison with two other contexts make emerge the necessity of improving the system, integrating with smarter and more powerful methods as underlined by the authors.

#### Specific comments

In my opinion some more efforts could be spent about spatial analysis, even considering the confidential limitations of the database. The authors considered the population

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coverage and in addition could be interesting to know if the spatial coverage is coherent with the spatial occurrence of various kind of hazard and in particular natural ones like flash floods and landslides. This could help answering the following questions: - Will the spatial distribution of sirens of the SAIP system assure the coverage in high hazard zones? - Will the density of sirens be appropriate? Maybe a dedicated figure representing spatial extent of possible hazards in the study area (foldable areas, landslide susceptibility areas, etc.), the spatial disposition of sirens and the population density would be helpful for a full comprehension of their mutual relationships. Some improvement should involve figures quality and readability, and in particular: in fig. 4, the NAN and SAIP sirens should be more distinguishable (different symbols or colors could be used).

#### Technical corrections

Some typing errors have been annotated on the paper.

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-390/nhess-2019-390-RC1-supplement.pdf>

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-390>, 2020.

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