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

**Johnny Douvinet et al.**

johnny.douvinet@univ-avignon.fr

Thanks for the general comments, and the technical corrections we will consider in the next version of the paper.

Please also find our answer to your specific comments. Surely, efforts should be spend about spatial analysis, considering for example the relation between natural risks (and their evolution) with the spatial coverage of sirens or the population, but such objective is for us impossible for several reasons: - even if we address the spatial location of risks at fine scale (we have the data for example on the city of Cannes, where flash floods occurred in november 2019 and in 2004 - see a focus in the figure 1 added in the discussion for your information), we do not have the precise date of the implementation of sirens (we only know that 5 NAN sirens cover the municipality of Cannes in 2010, and 6 are displayed in the SAIP system). In other terms, we do not know when each

NAN siren have been installed... - it is impossible to know if the density of sirens is appropriate, because more than the number of sirens per km or per inhabitants, the problem is due to 1) the evaluation of risks (we know that flash floods and wildfires will increase in the south of France, and location of sensitive areas are well-known, but is it usefull to compare this density while other riks can be more dangerous? is it also interesting to cumulate risks, whereas one risk can endanger many people and occur once every 20 years?) and 2) the importance of stakes the public bodies need to alert in real case (in a recent study, we measure that 187.000 residents can be exposed to a tsunami along the coastal lines in the south of France, whereas 17.650 residents are located in the spatial coverage of SAIP sirens...). Consequently, sirens are alerting tools displayed for many and many reasons, and no restrictive factors explain their usefulness... - in many areas, sirens do not exist, not only due to the weak importance of risks or to the population, but because sirens cannot exist all over the territory - we cannot present or adresse specific case study as the database can be used at regional scale (due to confidential reason). Hoping that these few comments will bring you satisfaction.

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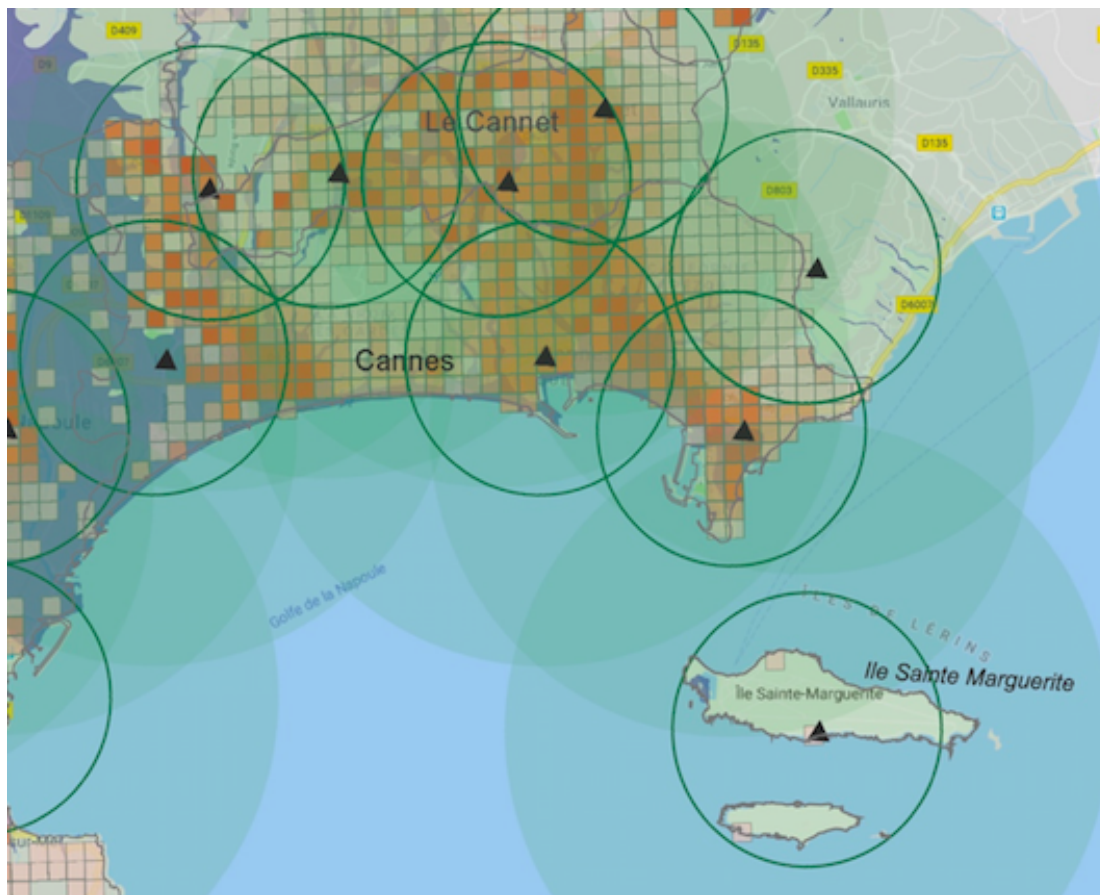
**Fig. 1.** one example at local scales (Cannes)