Comments to the revised version of the manuscript 'Frequency and intensity of palaeofloods at the interface of Atlantic and Mediterranean climate domains' authored by Wilhelm et al.

The authors addressed in detail and carefully my previous comments (Referee#2), I very much appreciate it. I still have a few comments to some of the changes.

A) Modifications according to my previous 'major remarks'

1) Deposit thickness as proxy for flood intensity

I am now more confident that the layer thickness can be used as flood-intensity proxy. This is thanks to your elaboration in the methods part (L.172-185) and in the discussion part (L.485-490). In particular the fact that grain sizes <100 µm are not affected by sediment storage in the flood plain and that the background sedimentation is constant over time are good arguments in favor of the layer thickness as flood-intensity proxy.

For the new version I have three (i-iii) remarks:

i) Grain-size data:
I still think that Figure 2 is not appropriate for visualizing the grain-size results. Even if it will be in landscape format in the final paper version, the grain-size results are simply too small in this figure illustrating the entire sediment sequence. I therefore persist on my previous proposition to add a zoom over a 10-20 cm long core interval (or whatever length seems to be best, hard to see) to demonstrate the grain sizes within flood layers and within the background sediment. There are former Wilhelm et al. papers that do this nicely, thus it will not be much work. It looks like adding the zoom to Figure 2 is difficult. The better solution is probably to add another figure. For the whole discussion about the best proxy for flood intensity this is definitely worth it.

ii) L. 162: What do you mean with 'grain-size proxies'? This is too vague. Either simply say grain-size analysis or elaborate more what you imply with 'proxies' in this context.

iii) L. 177: 'appears' instead of 'appeared'

3) XRF counts as quantitative indication of element concentrations

Thanks for now using the term 'intensities' instead of 'contents' when describing element counts in the XRF data. This is more correct.

There is still one sentence that caught my attention:
L.158: 'The areas of the element peaks obtained are proportional to the concentrations of each element (Tachikawa et al., 2011).'

This is a highly concluding sentence, implying that this situation applies to all sediment sequences and excluding all possible matrix, pore water, density etc. effects on the XRF counts. In addition, this sentence is supported by only one single study. You should therefore reformulate and possibly elaborate a bit more.
The present sentence could for instance be replaced with: 'Several studies could demonstrate that counts received from XRF core scanning are proportional to element concentrations if no important matrix effects due to pronounced lithology changes or variations of pore water volume and chemical composition are present (refs).'
-> Cartapanis et al. 2011, Paleoceanography, would be another study using an ITRAX scanner and applying calibration of counts through ICP-MS measurements.
However, I would propose you also search for a good reference working with lacustrine and not with marine sediments.

B) Further remark

Figure 4:
I am still wondering what MP stands for. Maximal peak? Would be a bit strange as a peak is usually maximal.
Why don't you just omit the abbreviations and write the terms out ('Chernobyl' and 'Bomb Peak'). There is enough space in the figure.