Clim. Past Discuss.,
doi:10.5194/cp-2017-11-AC1, 2017

Climate of the Past Discussions
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Interactive comment on "Post-glacial flooding of the Beringia Land Bridge dated to 11,000 cal yrs BP based on new geophysical and sediment records" *by* Martin Jakobsson et al.

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Received and published: 17 May 2017

We appreciate the positive and constructive comments by Referee #2. We follow the suggested revisions as specified below.

1. We note that we have omitted sedimentological/lithological descriptions of the two included sediment cores as pointed out by Referee #2. In the revised manuscript this is now included in Section "3.2 Sediment stratigraphy. Brief descriptions of the lithostratigraphies are added for each core before their sediment physical properties are presented.

2. More information about the age model construction, specifically regarding the

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adopted reservoir ages and their implications for the result is asked for in one way or another by all Referees. For this reason, we have decided to include a new figure that clearly shows the effects of adopting different reservoir ages, which is the critical component. The new figure, which we add as a panel C to the existing Figure 3, illustrates that we get the following approximate ages for the Bering Strait flooding for the following ΔR: 11ka for ΔR =50 years, 10.8 ka for ΔR =300 years, 10.5 ka for ΔR =500 years. We believe this clearly illustrates the effects of applying different ΔR. A draft of this figure is included in this response to Referee #2.

The specific comments below raised by Referee #2 call for the following minor revisions

3.2. Figure 3 is already mentioned in Section “2.5 Dating”, so is appears before Figure 4.

3.2. We do state the sub-division between Unit B1 and B2 is based on both magnetics susceptibility and bulk density. However, by switching the order they are mentioned, we emphasize that the change in magnetic susceptibility is more prominent.

3.3. We followed the suggestion and added the new panel C to Figure 3, as mentioned above. We do raise the possibility that the sharp transition in fact may contain a hiatus at the end of the third paragraph of Section “4 Discussion”.

We thank Referee # for noting the mistake we made regarding the sentence: ”. . . just below the increase in both density and p-wave velocity”. This is now changed to ” just below the upward decrease in both density and p-wave velocity”.

We removed the word ”gradual” from the sentence describing the changes in delta13Corg and bSi as suggested.

In the revised manuscript we will add some more discussion regarding the potential of a hiatus and what it implies. Finally, we will add where R5 is located in figure 6A.

Interactive comment on Clim. Past Discuss., doi:10.5194/cp-2017-11, 2017.

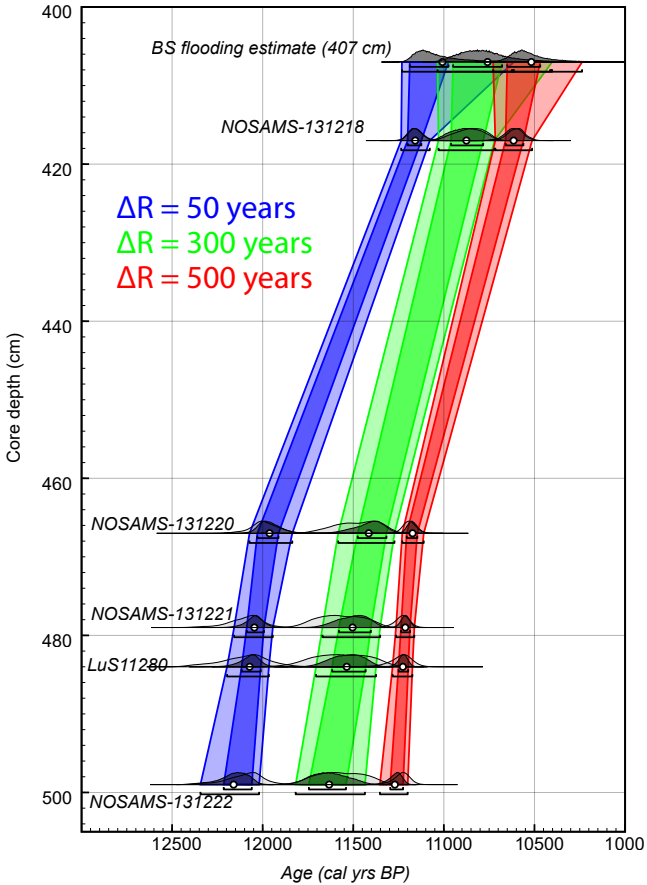

Fig. 1. Figure 3C (colors and size will be adopted to match the existing Figure 3).

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