We thank the Anonymous Referee #2 for providing comments on our manuscript. Below are point-by-point replies to these concerns.

It would be good if the author mentioned about anthropogenic effects during the measurement period. How the shipping noise are filtered and what method utilized. If the iceberg calving events and shipping noise occurred parallelly, special needs to be taken for analysis.

An observer present in the field throughout the data collection phase provides verification of the fact that no anthropogenic sound sources were active during the occurrence of calving events analyzed in this study. We did not use any detection algorithms to automatically detect calving events from the continuous acoustic dataset. This is on hold for the future study, where the calving flux from Hansbreen will be estimated, based on the methodology presented here.

I never see any branch of science under "ambient noise oceanography". It should either oceanography or physical oceanography, change the term accordingly. Perhaps the author can change to "Ambient noise analyses".

We agree that "ambient noise oceanography" could sound unfamiliar for the readers. We will change "ambient noise oceanography" to "acoustical oceanography", which was introduced in the late '70 by Clay and Medwin (1977).

It would be better if the author provide some photographs showing iceberg calvings.

In the revised manuscript we will refer to our previous paper, where the videos of different calving events are presented in the supplement (Glowacki et al., 2015).

Please check for repeated sentences (for e.g., bathymetry profile for two acoustic buoys).

We will check for repetitions and remove words if needed.

Mooring information is needed (eg. Taut mooring or some other), perhaps a mooring diagram is good to present.

We used simple, light moorings, which were recovered by divers. A single mooring system consisted of an anchor, short line and acoustic buoy with positive buoyancy. A short description of the mooring configuration will be added to the methods section of the revised manuscript.

How the author quantifies the noise datasets pertaining to only iceberg calving events.

We synchronized the acoustic recordings with camera images. Calving events were clearly and easily distinguishable from other noise sources because ice melt noise dominates the signal at frequencies between 800 Hz and 5 kHz, which is above of range of interest, and there were no ships, marine mammals or other sources of interference. See also answer for the comment #1.

The introduction part is too large. and I suggest the author reduce the introduction part significantly.

Our intension is to reach a broad scientific community and using of oceanographic tools to study glacier dynamics is an interdisciplinary endeavor. We want to ensure that glaciologists have a good introduction to acoustical oceanography, which they may not be familiar with. On the other hand, most acousticians are probably not familiar with the vocabulary and methods used in glaciology. The introduction is divided into sections to allow readers to chose whether to go through the specific subsections or not, which we believe will depend on their background knowledge and scope of interest. However, we understand the reviewer's concern on the paper length and we will carefully screen the introduction again for any unnecessary information.

PP No. 2, Line 20-25 are repeating at PP No. 3, Line 25-30.

We are not following this comment. The first segment (P2, L20-25) concerns difficulties in measuring calving fluxes, while the second one (P3, L25-30) focuses on some advantages offered by acoustical oceanography (low cost of the receivers; easy deployment; gathering continues data, even at harsh conditions). We believe that both topics should be covered in the introduction section.

PP. No. 6 Calibration methods of camera geometry?

Further information about camera geometry and image calibration have been provided in response to the similar comment from Reviewer 1.

PP. No. 7 Line 10, references required for the equation (2).

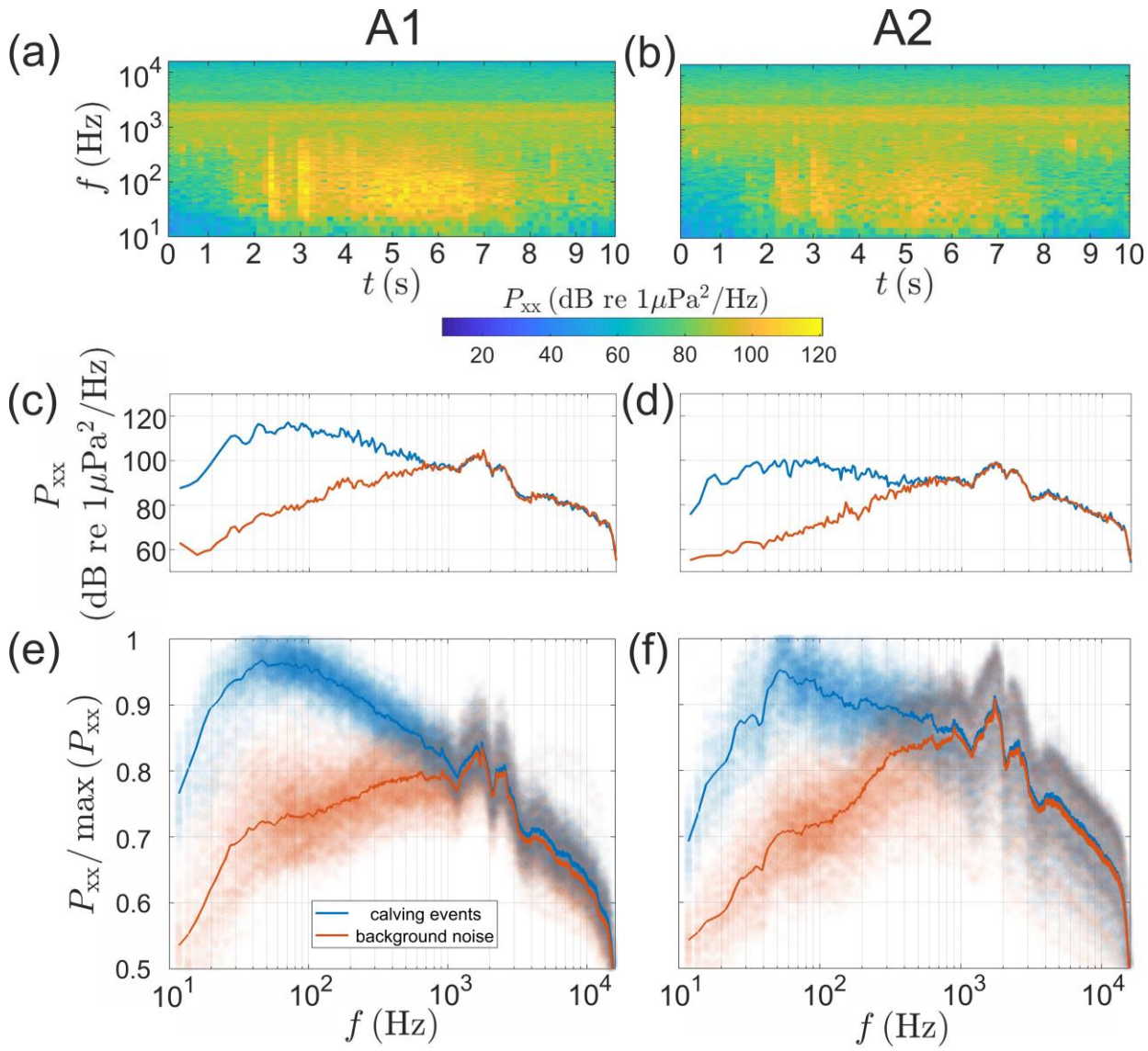
There are two references already given for this equation (Åström et al., 2014; Pętlicki and Kinnard, 2016). See Line 13, page 7. The equation is also supported by the 3rd reference to Dowdeswell and Forsberg (1992). See Line 9, page 7.

PP. No. 11 Line 15, references required and please elaborate it rather than simply writing as "calculated from".

The components of the equation are discussed in detail in the following text, see P11 L17-20. However, we agree with the Reviewer that adding a reference to a standard book on acoustical oceanography (Clay and Medwin, 1977) will be appreciated by the future readers. We will add it in the revised version of the manuscript.

Figure 6, labels are very small.

Agreed. An improved version of this figure is shown below.



5 What is the source for the frequency band observed at 1kHz (Figure a both A1 and A2)?

The peak observed in the frequency band (1-3) kHz is associated with the melt noise. See L25-27, P13 for more details and references.

PP. No. 13. Line 20. Iceberg calving events date and time stamp of occurrence are required.

Agreed. We will add date and time stamp for the calving event for which the spectrogram and spectrum is shown on panels a-d, Fig. 6.

PP. No. 14. Line 10. The part needs to be moved to the introduction but I don' think it is necessary.

Agreed. We will remove this sentence.

PP. No. 21. Mentioning references in the conclusion part is not necessary.

We believe that these references will help the readers to follow the conclusions and would like to retain them.

References

Åström, J. A., Vallot, D., Schäfer, M., Welty, E. Z., O'Neel, S., Bartholomaus, T., Liu, Y., Riikilä, T., Zwinger, T., Timonen, J., and Moore, J. C.: Termini of calving glaciers as self-organized critical systems, Nat. Geosci., 7, 874–878, https://doi.org/10.1038/ngeo2290, 2014.

Clay, C. S., and Medwin, H.: Acoustical oceanography: principles and applications, Wiley, New York, USA, 1977.

Dowdeswell, J. A., and Forsberg, C. F. The size and frequency of icebergs and bergy bits derived from tidewater glaciers in Kongsfjorden, northwest Spitsbergen, Polar Res., 11(2), 81–91, https://doi.org/10.3402/polar.v11i2.6719, 1992.

Glowacki, O., Deane, G. B., Moskalik, M., Blondel, Ph., Tegowski, J., and Blaszczyk, M. (2015), Underwater acoustic signatures of glacier calving, Geophys. Res. Lett., 42, 804–812, https://doi.org/10.1002/2014GL062859, 2015.

Pętlicki, M., and Kinnard, C.: Calving of Fuerza Aérea Glacier (Greenwich Island, Antarctica) observed with terrestrial laser scanning and continuous video monitoring, J. Glaciol., 62(235), 835-846. doi:10.1017/jog.2016.72, 2016.