Reply on RC1
Megha Chakraborty et al.

Listed below are the responses to individual comments:

- We have experimented with decision boundaries of magnitude 3 and 4. The accuracy, precision and recall values were found to be similar to what has been presented in the manuscript and did not show any clear dependence on the length of input data. A comment on this will be added to a revised version of the manuscript.
- The authors agree with the point raised by the reviewer and thank him for addressing it. We have analyzed the model performance for different source-to-site distances and observed that the model is indeed capable of performing reliably over a wide range of hypocentral distances. In other words, no clear dependence between the model performance and hypocentral distance can be observed. Shown below is the relevant figure which can also be added in a revised version of the manuscript.
- We noticed that the model is capable to perform correct classifications over a wide range of hypocentral distances and magnitude ranges suggesting that it is capable of learning the frequency characteristics of the waveforms. The use of Fourier spectrum in addition to waveform data was tested during our initial experiments, and it achieved results comparable to the model which used only waveform data as input waveform.
- We have analyzed the effect of hypocentral distance (figure above) and SNR (figure below) on the model performance. While we do not see any clear dependence on hypocentral distance, the SNR of the data seems to play a role in the classification of waveforms. The relevant plots will be included in a revised version of the manuscript. On the other hand, due to unavailability of the Information on focal mechanism in the metadata we were not able to experiment with this. However, the role of the