

The authors have improved the results (discussion) with regard to propagation modelling. Nevertheless, I still have doubts about the significance of this study. Therefore, please find additional comments below in order to improve the manuscript and the presentation quality.

Moderate comments:

1.) The overall discussion falls a bit short (what are the limitations of the methods, such as propagation model, e.g. compared to other models/methods such as PE modelling?)

The discussion was extended by the comparison of the geometrical acoustics approximation and full wave models.

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2.) The figures should still be improved; e.g. recently added figures (Fig. 5, 9) lack any labels or references (if applicable; for example, what is the data source?)

We have added labels, colormap and three fictitious points. Also data source.

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3.) Fig. 4: Do the increased amplitudes actually correlate with the storms? Lines 347-353 are too vague in this context.

The increased microbarom amplitudes occur in time windows when maritime storms with maximum wave heights of 10 m are predicted in the eastern North Atlantic. The text was modified.

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4.) Section 3.1.1: It remains a bit unclear if the propagation paths (simulations) are originating from the region of the streamer event (I assume yes) or even completely crossing the impacted region (which could also perhaps modify the propagation), and whether this detail is relevant or not (the text focuses on the tropospheric jet, which is assumingly affected/modified by the streamer).

The locations of the fictitious point sources were selected so that the sources are located under the jet-stream disturbance caused by the streamer event in the 6 November 2020 as well as in the 10 March 2021 simulations. The reason for such source localisation was to study whether the jet stream disturbance can catch and duct the radiated signal and to which distance/ region. The text was modified to more emphasize the location of the point sources.

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5.) Apparently, there is only one propagation simulation per case. This fact at least requires a discussion of how appropriate or representative that simulation is. What about the comparison of the propagation conditions between streamer event and calm period? You mention a "reference" simulation during a calm event in lines 398 to 400, but it is not clear if this reference situation is being assessed afterwards.

The simulation on 6 November at 00 UTC (streamer event) was compared to the simulation on 12 November 2020 at 00 UTC (calm day). In both cases, signals can propagate to Central Europe in the stratospheric and thermospheric waveguides from a point source located at

55N 15W. The text was modified to more emphasize the comparison of the model results on the calm day and during the streamer event.

The time points when the InfraGA simulations are run are located in the middle of the streamer event when it is expected that the phenomenon is at its maximum stage. Similarly, the time point of the InfraGA simulation is selected in the middle of the calm period between two streamer events in November 2020. The text in sections 3.1.1 and 3.1.2 was modified accordingly.

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Specific comments & technical corrections:

L237: OK, but which version (number) of PMCC do you use? (i.e., 5.x, 6.x, 7.x, ...)

DTK-GPMCC 6.3.0. However, it is not stated in the text as we do not consider the exact number of DTK-GPMCC a relevant information in the context of the study.

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Fig. 5: Axis labels and a legend (colormap) are missing. It would also be very helpful to depict the three "fictitious points" in this figure and the infrasound station locations! (among other reasons, to give an idea of the simulated propagation paths)

We have added labels, colormap and three fictitious points

L367 (and others, incl. Fig. 5 caption): "disturbance of the jet-stream" sounds ambiguous for a region where the jet stream slightly further north is apparently well established (strongest wind speeds if I interpret the colormap correctly).

There is a tongue-like disturbance of the jet-stream caused by the streamer event. The direction of tropopause winds is influenced – deviated by the streamer event.

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L378: Signal inclinations -> Wavefront inclinations

Rays were launched with inclinations of 2-45°. The text was modified //

L380: to the larger areas -> to extended areas around the stations

corrected

//

L387: the dots, i.e. signal ground reflections, are...

corrected in according to the comment of the other reviewer

//

L412: o -> from

corrected

//

L443: colorbar

corrected

//

Fig. 6: Use larger symbols for the stations

The current version of InfraGA software (downloaded in July/August 2023) does not enable the required modifications of graphics by user. We appologize that we are not able to meet this reviewer's request on larger symbol size in Figure 6 and in Figure 10.

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L450: A -> Another

corrected

//

L460: "window, the velocity" -> "window; this velocity"

corrected

//

L503: (Figure 9)

corrected

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Fig. 9: See for Fig. 5 above.

We have added lables, colormap and three fictious points

//

L531: colorbar

corrected

//

This is the 2nd revision of the manuscript. In this paper, an attempt is made to relate streamer events during 15 months of analysis, particularly in the Northern Atlantic region, with signatures seen in infrasound and gravity wave recordings from ground-based microbarometer recordings in the Czech Republic, and in local ionospheric Doppler soundings. Comparison of these recordings during streamer events and during more calm conditions without obvious streamers did not reveal a significant streamer signature in the records. The authors. However, found a more disturbed gravity wave propagation during streamer events, although the signature is not strong. Nevertheless, the results may be of interest to the community, although a possible use of local observations for a quick identification of streamers still remains questionable.

In the revised version, the authors have sufficiently responded to my concerns. In my opinion, the paper may be published after some corrections:

L 14: condition -> conditions

L40: consider: "...dynamical processes in the atmosphere relevant in this context..."

L42: consider: the main -> one of the main

L58: they -> Eyring et al. (2003)

L60: strong -> strongly

corrected

L98: consider "performed" -> "performed here"

corrected

//

L101: The dedicated -> Dedicated

corrected

//

L108: possible -> the possible

corrected

//

L116: the common acronym for Total Column Ozone is TCO. Suggest to use this here also.

corrected

//

L167: polar -> the polar

corrected

//

L267: so called F2 -> ionospheric F2

corrected

//

L 347-348: consider: "...available data such as meteorological charts..."

corrected

//

L367-268: consider: "disturbance, see Figure 5."

corrected

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L369 (Figure 5) Insert points (1)-(3) in the figure

We have added labels, colormap and three fictitious points

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Figures 5 and 9: add latitude and longitude axes. Provide source and acknowledge provider.

We have added labels, colormap and three fictitious points. Also data source

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L386: suggest: regions -> i.e., regions

corrected

//

L387: suggest adding "showing" before "signal"

corrected

//

L443-446, Caption Figure 6 (also for Figure 10): Colorbar -> The colorbar; Red -> Red color; are in blue -> are shown in blue

corrected

//

L493 modelled on -> modelled for

corrected

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