

Response to Reviewer 2:

We thank the reviewer for the positive evaluation of the study and for the helpful comments concerning fragment identification and accessibility of the observations. We have carefully considered these concerns and will revise the event selection, figures, and data access materials accordingly. Our detailed responses are provided below.

This paper shows Global Citizen-Science Observations of Fragmented Aurora-Like Emissions, the existence and the confirmation of FAEs in different aurora regions is one step forward to fully understand FAEs.

1. However, to identify FAEs from some photos cited in this paper is very hard. The specifications of the camera vary widely, which can make the aurora photo quite different. Some aurora rays can also be very bright at low altitude, which could show like Fig1b and fig1e, or even like Figure 6. A clear event, like Figure 3, is suitable for this study.

We agree that the wide variation in camera equipment, exposure settings, processing, and viewing geometry can affect how fragments appear in citizen-science photographs, and that bright auroral rays can sometimes resemble fragment-like structures in a single image.

To reduce the risk of misidentification, the candidate events were visually screened using the available images, associated metadata, descriptive information, and, where available, consecutive images or videos. In this assessment, we considered the small spatial scale of the features relative to the surrounding auroral arcs and, where image sequences were available, differences in their motion and evolution timescales compared with nearby auroral structures. We have re-examined the complete event dataset considering the reviewer's comment. We agree that Event 15 (Figure 1e) is ambiguous because the available images do not allow a sufficiently confident distinction between the marked feature and nearby auroral structures. We will therefore remove Event 15 from the event table and analysis and replace Figure 1e with a clearer example.

We will also replace Figure 1b with a clearer photograph of the same fragment, taken simultaneously by another observer from a different viewing angle (Event 21; observation available at: <https://www.taivaanvahti.fi/observations/show/131254>). This image more clearly shows that the feature is morphologically distinct from the surrounding auroral rays.

For the Manitoba event (Figure 6), we examined the complete available image sequence. The fragments appear restricted in spatial scale and differ in morphology, motion and temporal evolution from the nearby rays and we therefore retain this event in the dataset.

We will revise the manuscript wording to reflect the limitations of image-based identification and update the event count, figures, table, supplementary material, and relevant text consistently.

2. It is hard to find all the events of Appendix A from <https://www.taivaanvahti.fi/>, it suggested to upload all the event photos as the Supplementary.

We agree that the observations should be easier to locate and inspect. Direct hyperlinks to the corresponding Skywarden observations were included in the submitted manuscript but were not retained when the manuscript was processed into the preprint version. We will ensure that Table A1 contains direct, clickable hyperlinks to all Skywarden event records in the revised manuscript.

We will also provide 1024-pixel quicklook images for all events as indexed supplementary material, labelled by event number and UTC time. Where feasible, we will also include downscaled versions of the associated videos. In addition, all observations included in the revised study will be tagged in Skywarden with *#fae2026MielkeEtAl*, allowing readers to retrieve the complete set of events through the Skywarden search function independently of individual links.

The supplementary material will make the images considered in this study directly available, while the Skywarden links and tag will preserve access to the complete original observations, including their metadata, submitted descriptions, and original context.