

Interactive comment on “Tomography-like retrieval of auroral volume emission ratios for the 31 January 2008 Hotel Payload 2 event” by C.-F. Enell et al.

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The original title of the manuscript, which emphasized more on atmospheric composition than on the tomography-like retrieval method, was changed as suggested by the editor. The title may be changed again to reflect the fact that the retrieval method itself is not the main point of this paper, but the retrieved relative 3-D volume emissions. The first coauthor (Gustavsson) with coworkers have discussed the tomography-like methods, their application and their errors in several publications.

Since only relative volume emissions are considered, the absolute calibration and the absolute units of the retrieved block-of-blobs emissions are not crucial in this work. It

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is true that absolute intensity calibration of imagers and intercalibration across Northern Scandinavia are important issues and the authors plan to address this in future publications.

The problems we encountered in the Hotel Payload 2 event retrieval were caused by the unfavourable geometry, as we attempted to look towards the ocean from central North Scandinavia. Since there was an imager at the Skibotn station in northern Norway, close to the latitude of Andøya, we were still able to retrieve the 5577 and 4278 emissions as the auroral arc passed over that latitude. Simultaneous 6300 retrieval failed, however, because the maximum emission was north of the common volume and because a larger block of blobs would have to be used. Since only the relative blue to green ratio is used for the conclusions, we will exclude the 6300 tomography from this report.

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