

Interactive comment on “Ship emissions measurement in the Arctic from plume intercepts of the Canadian Coast Guard Amundsen icebreaker from the Polar 6 aircraft platform” by A. A. Aliabadi et al.

A. A. Aliabadi et al.

amir.a.aliabadi@gmail.com

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In the previous author responses, the precision of CO₂ measurements in section 2.2.2 was inconveniently left out. The complete paragraph is corrected in the manuscript and provided below:

"During the ship emission measurements the CO₂ (CO) data achieved a precision (1 sigma, 1 Hz) of 0.02 ppmv (2.3 ppbv). The stability of the instrument was calculated to 0.62 ppmv (4.7 ppbv), respectively, before applying the post flight data correction. Note that stability was based on the mean drift between two subsequent calibrations which

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were performed during the flights. The stability was mainly affected by temperature variations. These instrumental drifts were corrected after the flights assuming a linear drift. Hence, the total uncertainty relative to the working standard of 0.62 ppmv (5.23 ppbv) could be regarded as an upper limit. As can be seen in figure 8, the instrument precision of the CO₂ and CO measurements allowed for identifying the ship emission plumes and further calculations of emission factors."

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