

## ***Interactive comment on “Estimating the climate significance of halogen-driven ozone loss in the tropical marine troposphere” by A. Saiz-Lopez et al.***

### **Anonymous Referee #1**

Received and published: 13 December 2011

In this article an analyses of the influence of VSL halocarbons, and reactive iodine and bromine species on tropospheric ozone is provided. In the end the authors assess the radiative impact of the halogen-driven ozone loss. To my knowledge this is the first article trying the quantify radiative impact of VSL halocarbons and reactive iodine and bromine. As the paper is well written and structured, I encourage the publication of this article in ACP after only a few minor revisions.

Only one scientific question remains:

Section 3.3/Fig. 5: Your simulation including halogens reproduces very well the ozone loss at Cape Verde. But, if I understand correctly, your model does not include release

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of bromine from sea salt. So if including this additional emission, I would expect that the ozone loss will be overestimated. Please comment on this.

Additional comments:

- page 32008 line 23 ff.: what is “a flat diurnal cycle”? A flat cycle is constant, so better write something like “without diurnal cycle” or do you mean a cycle with a smaller amplitude?
- Fig.1: Did I deduce correctly from the other annotations, that the dashed line is the simulated mixing ratio and the continuous lines are the measurements? Please add this information straightforwardly to the caption.

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Interactive comment on Atmos. Chem. Phys. Discuss., 11, 32003, 2011.

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