*Supplement of*

# Importance of reactive halogens in the tropical marine atmosphere: A regional modelling study using WRF-Chem

**Badia et al., 2017**

Correspondence to: Alba Badia (a.badia-moragas@uea.ac.uk)

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Figures S1 and S3

# 1 Figures
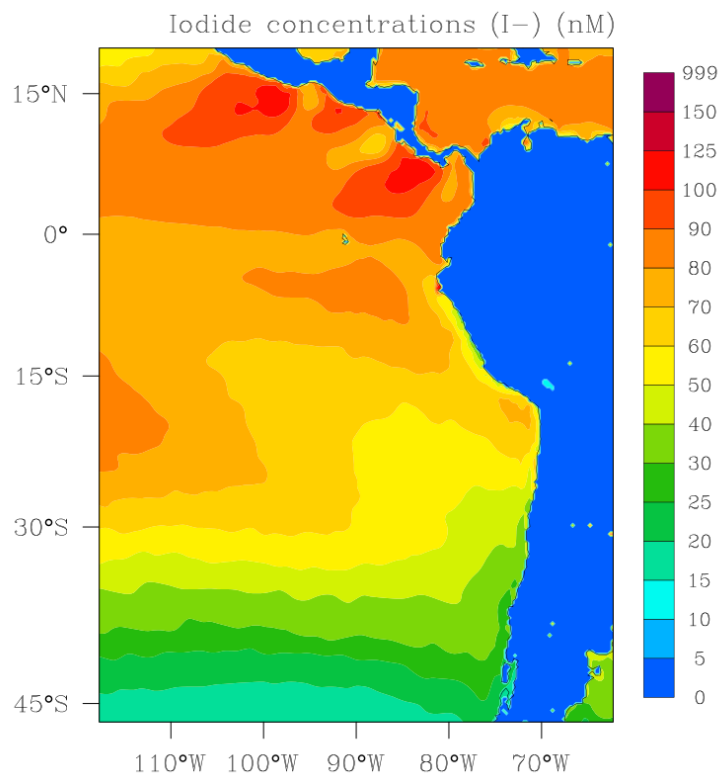
Iodide concentrations (I−) (nM)

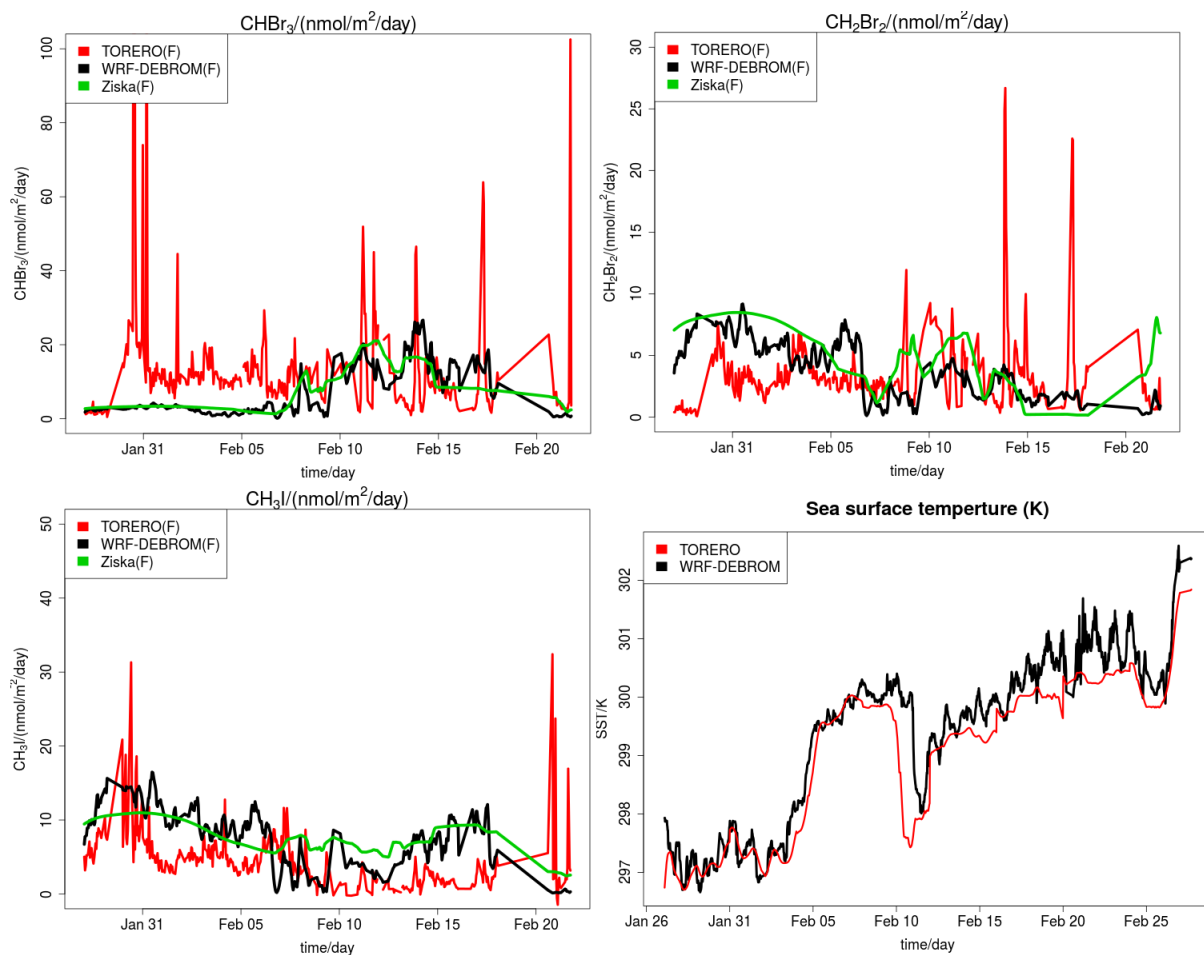Figure S1: Mean oceanic surface iodide concentrations (I$^-$) during January and February 2012.

Figure S2: Time series of $CHBr_3$ (top left), $CH_2Br_2$ (top right) and $CH_3I$ (bottom left) emission fluxes (left axis, in nmol/m$^2$/day) derived from the measurements (red line, TORERO(F)), the online fluxes (black line, WRF-BASE(F)) and the fluxes from the Ziska et al. (2013) climatology (green line, ZISKA(F)).
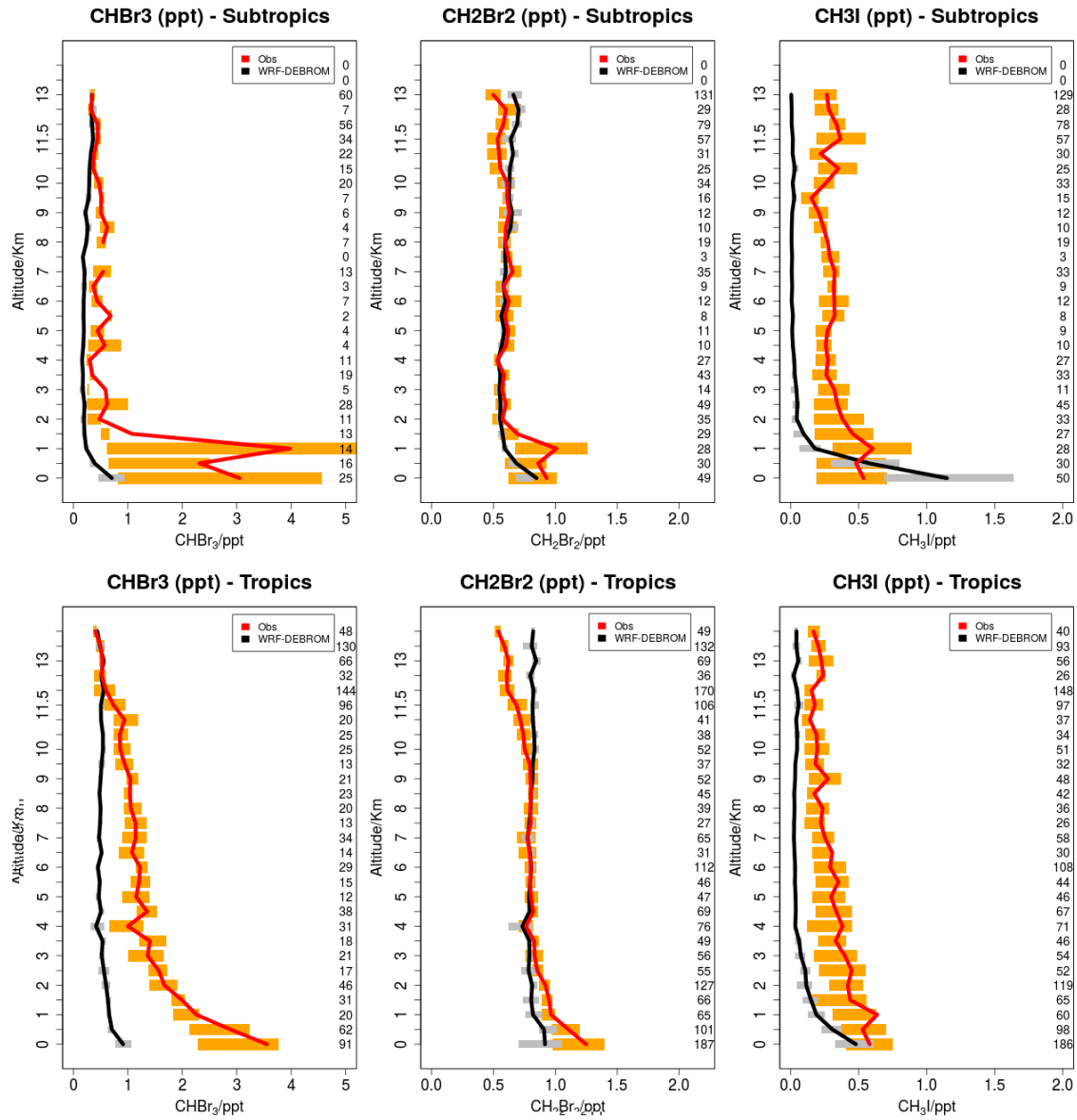
Figure S3: Mean vertical profile of CHBr$_3$ (left), CH$_2$Br$_2$ (middle) and CH$_3$I (right) in ppt over the subtropics (top) and tropics (bottom). 16 flights from the TORERO campaign (red line) are compared to the WRF-Chem simulation DEBROM (black line). Orange and grey horizontal bars indicate the 25th-75th quartile interval for the observations and WRF-DEBROM simulation, respectively. Values are considered in 0.5 km bins and the number of points for each altitude is given on the right side of each plot.

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# References

F. Ziska, B. Quack, K. Abrahamsson, S. D. Archer, E. Atlas, T. Bell, J. H. Butler, L. J. Carpenter, C. E. Jones, N. R. P. Harris, H. Hepach, K. G. Heumann, C. Hughes, J. Kuss, K. Krüger, P. Liss, R. M. Moore, A. Orlikowska, S. Raimund, C. E. Reeves, W. Reifenhäuser, A. D. Robinson, C. Schall, T. Tanhua, S. Tegtmeier, S. Turner, L. Wang, D. Wallace, J. Williams, H. Yamamoto, S. Yvon-Lewis, and Y. Yokouchi. Global sea-to-air flux climatology for bromoform, dibromomethane and methyl iodide. *Atmospheric Chemistry and Physics*, 13(17):8915–8934, 2013. doi: 10.5194/acp-13-8915-2013. URL http://www.atmos-chem-phys.net/13/8915/2013/.