



Supplement of

The global impact of the transport sectors on atmospheric aerosol in 2030 – Part 1: Land transport and shipping

M. Righi et al.

Correspondence to: M. Righi (mattia.righi@dlr.de)





Fig. S1: Annual average large-scale mean surface-level concentrations of POM. The first row shows the values for 2000: total concentration (REF₂₀₀₀, left), the concentration induced by land transport ($\Delta_{2000}^{\text{LAND}}$, middle) and the concentration induced by other sources (NOLAND₂₀₀₀, right). The other rows show the changes in the same quantities between 2000 and 2030 for the four RCPs, as given in Eqs. (2)–(4) in the paper. Grid points where the difference is not statistically significant according to a uni-variate t test (5 % error probability) are hatched.

Land transport impacts on SO₄



Fig. S2: As in Fig. S1, but for sulfate concentrations.

Land transport impacts on NH₄



Fig. S3: As in Fig. S1, but for aerosol ammonium concentrations.



Shipping impacts on BC

Fig. S4: Annual average large-scale mean surface-level concentrations of BC. The first row shows the values for 2000: total concentration (REF₂₀₀₀, left), the concentration induced by shipping ($\Delta_{2000}^{\text{SHIP}}$, middle) and the concentration induced by other sources (NOSHIP₂₀₀₀, right). The other rows show the changes in the same quantities between 2000 and 2030 for the four RCPs, as in Figs. 3–5 in the paper. Grid points where the difference is not statistically significant according to a uni-variate t test (5 % error probability) are hatched.

Shipping impacts on POM



Fig. S5: As in Fig. S4, but for POM concentrations.

Shipping impacts on NH₄



Fig. S6: As in Fig. S4, but for aerosol ammonium concentrations.