Supplementary Materials:

Bio-Aerosols Negatively Affect *Prochlorococcus* in Oligotrophic Aerosol-Rich Marine Regions

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NOAA HYSPLIT MODEL

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Figure S1. - Air mass back trajectories derived from backward trajectories model NOAA/ARL HYSPLIT-4 (www.noaa.gov) showing the course and origin of the aerosol used for the laboratory and field experiments 72 h prior its collection. The different colors show the altitude of the air masses

during transport; 100 m (green), 250 m (blue) and 500 m (red). More details can be found in the lower panel.



Figure S2. – Prokaryotes (bacteria and archaea) abundance in sterile filtered seawater (FSW, grey, 0.22 μ m) following addition of 'UV-killed' (white, 48 h) and 'live' (yellow) aerosols collected in February 2015. Cells were first stained with the nucleic acid SYTO9 for 10 min in the dark before counted using an Attune®Acoustic Focusing Flow Cytometer (Applied Biosystems) equipped with 488 and 405 nm lasers at 25 μ l min⁻¹ using a discrimination threshold of green fluorescence and forward-scatter. The letters above the bars represent statistically significant differences (ANOVA, P < 0.05) for mean values of prokaryotes in the different treatments (n=3).