**Interactive comment on** “Coastal and open ocean aerosol characteristics: investigating the representativeness of coastal aerosol sampling over the North-East Atlantic Ocean” by M. Rinaldi et al.

Anonymous Referee #1

Received and published: 17 December 2008

The manuscript lacks scientific rigor. The hypotheses are not well stated or tested. Neither are the goals or objective explicitly stated. The differences between the open ocean and coastal measurements are not quantified in terms of a quantitative difference (anomaly) and statistical significance of that difference. The conclusions do not show progress over the results discussed in the literature summary in the introduction. Without more information about the height of the sampling inlets compared to the surf plumes near the coast or the breaking wave plumes on the open ocean, and the trajectory connection between the ship and land station, it is difficult to tell what the data
represent and whether a difference is to be expected at all. The ship’s location was dictated by “highly biologically active sea waters, as monitored by satellite”. Did this affect the representativeness of the sampling in any other way?

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 19035, 2008.