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Autore	Deetz Konrad
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Sommario/riassunto	By using COSMO-ART, highly resolved process study simulations for 2-3 July 2016 are conducted to assess the aerosol effect on the meteorological conditions of southern West Africa. The meteorological phenomenon Evening Monsoon Flow Enhancement (EMFE) is identified as highly susceptible to the aerosol direct effect, leading to a spatial shift of the EMFE front. In a second aerosol feedback chain the aerosol variation leads to a temporal shift of the stratus-to-cumulus transition.