

6.212 The Copernicus Atmosphere Monitoring Service (CAMS).

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Abstract:

The Copernicus Atmosphere Monitoring Service (CAMS) delivers several operational services to address environmental concerns such as the air quality at the global and European scales, the health of ecosystems, the levels of stratospheric ozone, and the distribution of dust, sand, smoke and volcanic aerosols. CAMS delivers a large set of products that support policymakers, business, scientists and citizens, and that provide enhanced atmospheric environmental information.

The poster discusses the information generated by the CAMS system including daily near-real-time analyses and forecasts of global atmospheric composition. It also provides consistent multi-annual global datasets of atmospheric composition from reanalyses with a model/assimilation system. Daily near-real-time European multi-model air quality analyses and forecasts, reanalyses providing consistent annual datasets of European air quality and other policy-relevant products are also made available. In addition, CAMS provides solar and UV radiation fields that support the planning, monitoring, and efficiency improvements of solar energy production. Quantitative information on UV irradiance for downstream support applications related to health and ecosystems. Greenhouse gas surface flux inversions for CO₂, CH₄ and N₂O allow the monitoring of their evolution in time. Climate forcing from aerosols, long-lived (CO₂, CH₄) and shorter-lived (stratospheric and tropospheric ozone) compounds is also derived.