



Evaluation of an experimental 10 day ozone forecast with the CTM Chimere

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Elevated ozone concentrations are harmful for the health of people and have a negative influence on crop production. In order to reduce this elevated ozone concentrations, it can be useful for a policy maker to have an instrument which makes it possible to take measures already a few days in advance of the event. With this knowledge in mind, an evaluation of a 10 day ozone forecast has been established, using the CTM CHIMERE. This model was forced by ECMWF meteorological fields and by the EMEP emission database. The simulation domain covers Western Europe with a spatial resolution of 0.5 degree. The observations, used to validate the Chimere model are deduced from an advanced interpolation method, which provides every hour an ozone value which takes into account the representativeness of the location the user is interested in. The ozone maps created with this algorithm have a spatial resolution of 5 km². The error statistics show a decline of the correlation between the observed- and the modeled ozone concentrations from 'day -1' until 'day +8' (from 0.85 until 0.31). This 10 days ozone forecast model setup has proven to be useful in the detection of elevated ozone concentrations, 8 days in advance.