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Operational forecasting of daily temperatures in the Valencia Region. Part I: maximum temperatures in summer.

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Extreme temperature events have a great impact on human society. Knowledge of summer maximum temperatures is very useful for both the general public and organisations whose workers have to operate in the open, e.g. railways, roadways, tourism, etc. Moreover, summer maximum daily temperatures are considered a parameter of interest and concern since persistent heat-waves can affect areas as diverse as public health, energy consumption, etc. Thus, an accurate forecasting of these temperatures could help to predict heat-wave conditions and permit the implementation of strategies aimed at minimizing the negative effects that high temperatures have on human health. The aim of this work is to evaluate the skill of the RAMS model in determining daily maximum temperatures during summer over the Valencia Region. For this, we have used the real-time configuration of this model currently running at the CEAM Foundation. To carry out the model verification process, we have analysed not only the global behaviour of the model for the whole Valencia Region, but also its behaviour for the individual stations distributed within this area. The study has been performed for the summer forecast period of 1 June - 30 September, 2007. The results obtained are encouraging and indicate a good agreement between the observed and simulated maximum temperatures. Moreover, the model captures quite well the temperatures in the extreme heat episodes.

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