

A comparison of surface fluxes between atmosphere and ocean using coupled and uncoupled air-sea interaction model

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Air-sea interaction in the Mediterranean area was analyzed using a two-way coupled atmosphereocean model. The length of simulation was one year (2002). The main topic was the verification of the surface fluxes, which come from the atmospheric part of the coupled model. This will presumably result in good prediction of SST. So the verification of the surface fluxes is done indirectly through the comparison between, area averages for the whole Mediterranean sea of the observed and simulated SST. Beside the verification of SST we looked in the verification of precipitation for a limited area where we had the precipitation data. The area is part of Serbia and Montenegro covering most of Serbia. Data was diurnal accumulated precipitation. Differences in precipitation between the coupled and the uncoupled integrations were small with slightly larger error for the uncoupled model. Differences were concentrated over the June, July and August period. During that period the SST in the uncoupled model was higher which led to larger latent heat fluxes and eventually to larger precipitations.