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## AN ASSESSMENT OF THE PERFORMANCE OF THE OCEAN COMPONENTS OF HADCM3 AND HADGEM1 MODELS IN THE SOUTHERN HIGH LATITUDES

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The performances of the ocean components of HadCM3 and HadGEM1 models in the southern high latitudes will be examined in this study. The modelled ocean temperature and salinity will be compared with their counterparts from the two datasets: World Ocean Atlas 1994 and World Ocean Atlas 2001. Both the horizontal distributions and the vertical structures of the ocean temperature and salinity will be compared between the two models and the two datasets. The simulated large-scale ocean currents will also be compared with other available datasets. The geographical locations and the rates of deep water or bottom water formations will be qualitatively validated against recent oceanographic observations. Preliminary results will be presented with respect to the possible causes of the model biases and their potential impacts on the simulation of the global ocean circulation.