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The use of a high-top model in predicting climate change

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Multiple ensembles for the HadGEM2 high-top (84km) model have been run from 1860-2100. Three different experiments have been undertaken, an all forcings run, a natural forcings only run and a GHG only run. These are compared with the corresponding runs from the HadGEM2 low-top model in an attempt to better understand how a fully resolved stratosphere projects onto tropospheric climate signals. In addition, detection and attribution techniques are applied to different fields in the stratosphere in an attempt to understand the relative importance of natural and GHG forcings on future climate change.