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The representation of storm tracks in the Hadley Centre climate models

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Mid-latitude cyclones are of interest as they provide much of the day-to-day variability at mid-latitudes. It is therefore important that climate models are able to represent these features well. Here two methods of analysis are used to assess the representation of the northern hemisphere storm tracks in HadGAM1 and HadAM3, the atmosphere only versions of the current and previous Hadley Centre climate models respectively. The current coupled model HadGEM1 is also considered. The results are compared to ERA40. On the whole the tracks are well represented in HadGAM1 and tend to be better represented in HadGAM1 than in HadAM3. Increasing horizontal resolution leads to a better representation of the storm tracks, in particular increasing the amount of secondary cyclogenesis in HadGAM1. Some differences in representation between HadGAM1 and HadGEM1 are also presented.