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The Detection and Attribution Model Intercomparison Project: CMIP6 highlights and plans for CMIP7

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The Detection and Attribution Model Intercomparison Project (DAMIP) coordinates single forcing climate model simulations for detection and attribution analysis and other applications. DAMIP simulations were carried out with fifteen climate models as part of CMIP6, and these simulations were used in at least 270 published articles. These simulations were also used directly in at least five chapters of the IPCC Sixth Assessment Working Group I Report, and they underpinned the estimate of anthropogenic attributable warming highlighted in the Summary for Policymakers of that report, and quoted directly in the UNFCCC Glasgow Climate Pact. For CMIP7, natural-only, well-mixed greenhouse gas-only, and aerosol-only simulations have been proposed as fast track DAMIP simulations, and planning of a broader set of experiments is currently underway. This talk will highlight key DAMIP results from CMIP6, and will discuss plans for the CMIP7 version of DAMIP. Comments and suggestions regarding the CMIP7 DAMIP experimental design will be welcomed.