

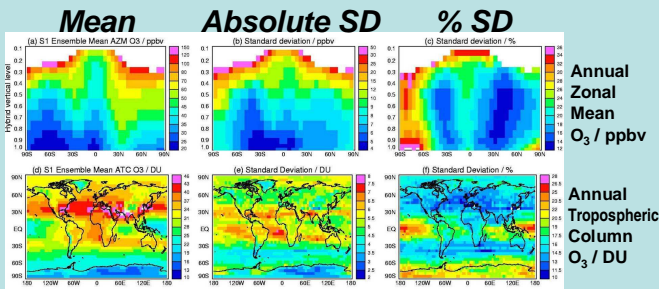
# Multi-model ensemble simulations of present-day and near-future tropospheric ozone

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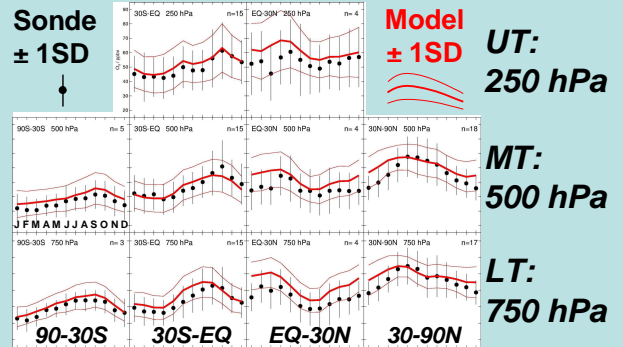
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Results from a large inter-comparison of global tropospheric ozone models are presented. Up to 26 models implemented anthropogenic emissions for 2000 & three 2030 scenarios; 10 climate-chemistry models also simulated the impact of climate change on O<sub>3</sub> in 2030.

## Year 2000 ensemble mean O<sub>3</sub>

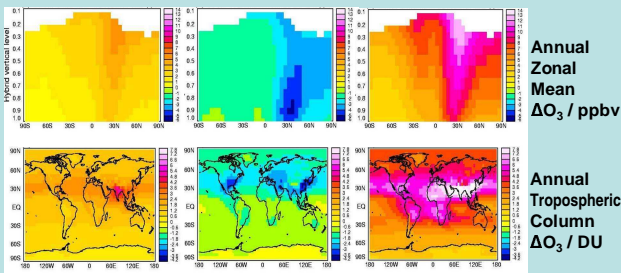


Ensemble mean/standard deviations indicate inter-model uncertainty



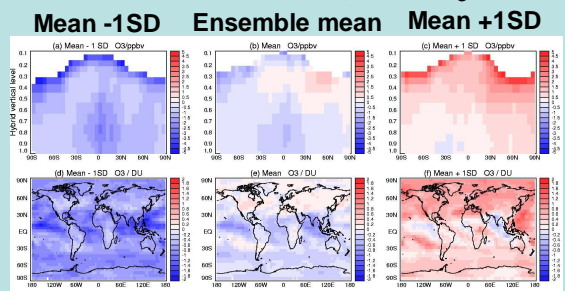
Ensemble mean model closely resembles ozone-sonde measurements

## Ensemble mean ΔO<sub>3</sub> 2000-2030 under 3 scenarios



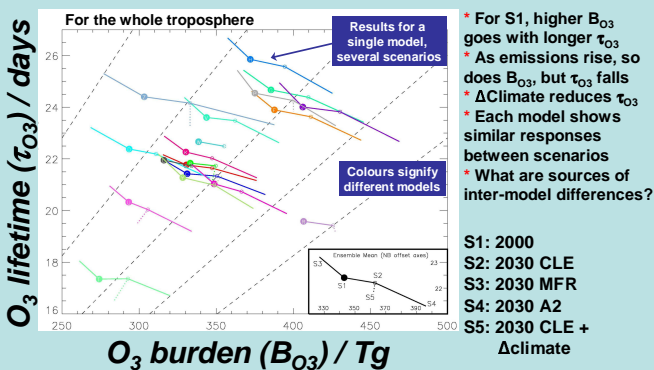
**'Likely'** IIASA CLE SRES B2 economy + Current AQ Legislation  
**'Optimistic'** IIASA MFR SRES B2 economy + Maximum Feasible Reductions  
**'Pessimistic'** IPCC SRES A2 High economic growth + Little AQ legislation

## Impact of climate change on O<sub>3</sub> in 2030

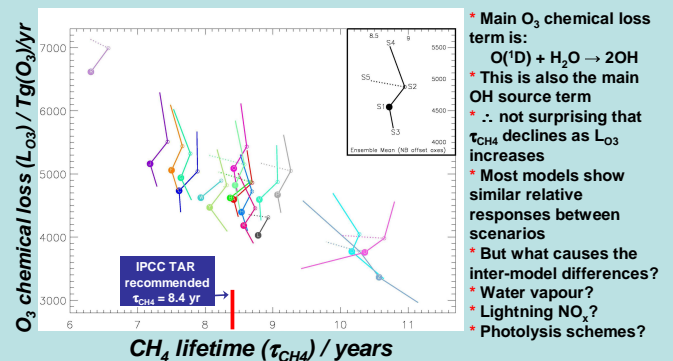


No consensus amongst models on sign of impact – some models have strong -ve water vapour feedback, others strong +ve stratospheric ozone influx feedback

## Global O<sub>3</sub> budget relations & sensitivities



## Global O<sub>3</sub> budget & CH<sub>4</sub> lifetime relations



These results are part of a paper submitted to JGR.  
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