

Interactive comment on “Global chemical weather forecasts for field campaign planning: predictions and observations of large-scale features during MINOS, CONTRACE, and INDOEX” by M. G. Lawrence et al.

Anonymous Referee #2

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General Comments This paper addresses the use of chemical weather forecasts as a tool for field campaign planning. It presents results from such forecasts during three major campaigns. It is well written and the presentation quality is high.

Specific comments 1. From Table 3, it is clear that the model overestimates CO levels during INDOEX, underestimates during CONTRACE and agrees well during MINOS. Some comments from authors why they think this is happening would be welcome. Can the discrepancies be attributed only to regional emission inventories or also to other factors (such as convection fluxes in the model during the different seasons that the campaign took place). How about pure advection in the model since CONTRACE

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plumes were coming from longer distances and INDOEX were more regional/local plumes?

2. In the paper there were detailed comparisons for MINOS and CONTRACE but there was no section for INDOEX specifically although INDOEX is mentioned as a campaign during which the model provided chemical forecasts. Why?

3. The paper demonstrates well the use of chemical weather forecasts in predicting amounts of CO and related tracers. How good do authors think chemical weather forecasts can be in predicting shorter lived tracers affected also by several chemical transformations? Would a regional model be better in predicting short lived tracer amounts?

Interactive comment on Atmos. Chem. Phys. Discuss., 2, 1545, 2002.

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