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Impact of improved ozone climatology on temperature bias at tropical tropopause layer

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A warm bias of Unified Model in tropical tropopause layer (TTL) was recently reported by the Met Office. The similar bias was found in the previous version of the KIAPS Integrated Model (KIM) system and the reduction of warm bias in the recent version of KIM was found. In this study, the reason of the reduced warm bias at TTL in KIM was investigated and the detailed process in a NWP model, leading the reduction of warm bias at TTL, was analyzed. Consequently, the impact of the updated ozone climatology on radiation budget in KIM was a one of driving force reducing the warm bias at TTL. The overview of this study will be presented in the conference.