

of Depositing and Non-Depositing Processes for Atmospheric Transport Modeling of Radionuclides

CTBTO runs FLEXPART operationally on a daily basis in backwards mode to estimate sources of aerosols and noble gases detected at over 80 stations distributed throughout the world. For simplicity, these runs are performed under the assumption of no convective or depositing processes. With the acquisition of enhanced computing resources, it is now possible to consider runs of higher complexity. In this poster we present initial experiments for assessing the performance of these runs - using FLEXPART and HYSPLIT in similar configurations - first comparing the effects of convection versus no-convection on passive tracers, then investigating the effects of wet, dry, wet+dry deposition, and convection, on depositing species. The experiments performed here represent a first step to understand the various issues and tradeoffs from increasing the sophistication of the model runs.

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