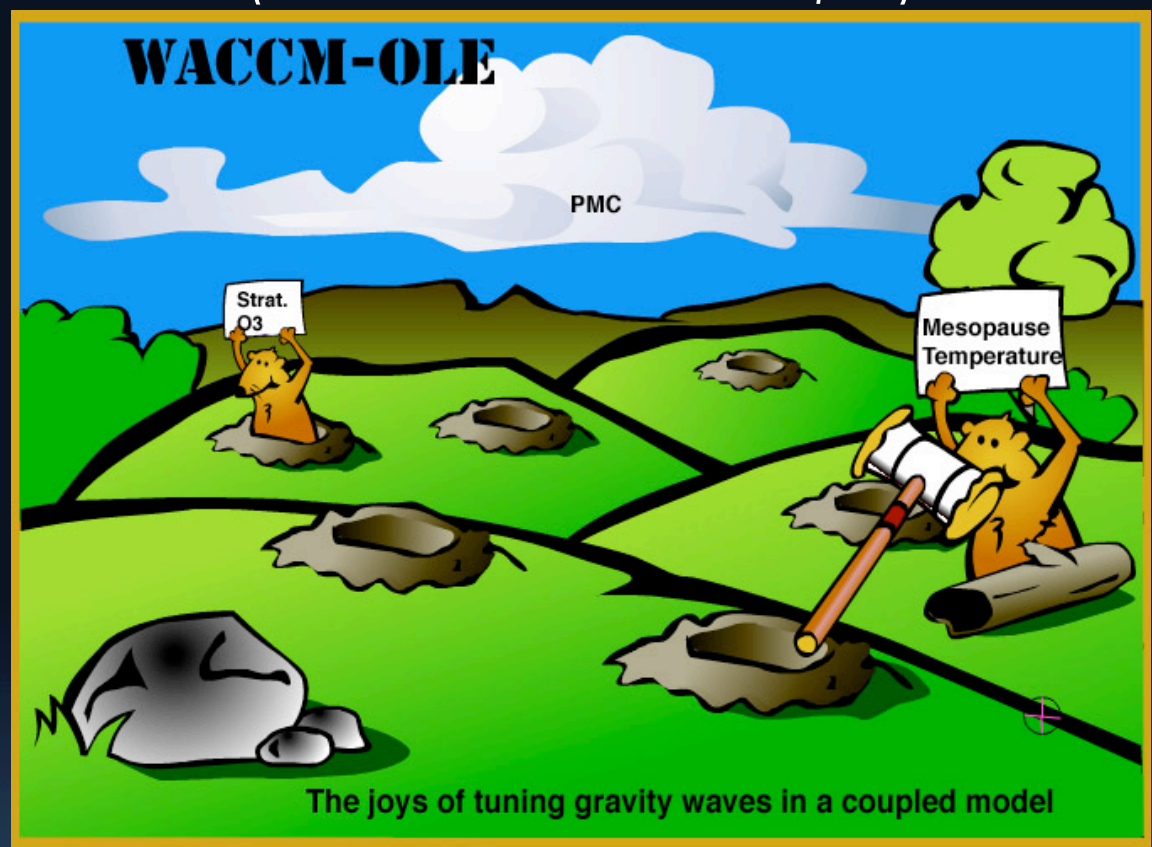# GW tuning is not easy!
(and often produces unwanted results)

(the *WACCMole Principle*)

WACCM is a high-top, highly-coupled model, where a change made to improve one aspect of the simulation can make something else worse

➢ Attempting to tune the GW source stress to improve the simulation of the SH winter stratosphere degrades the simulation of the summer mesosphere (and PMC) in both hemispheres

(courtesy D. Marsh)