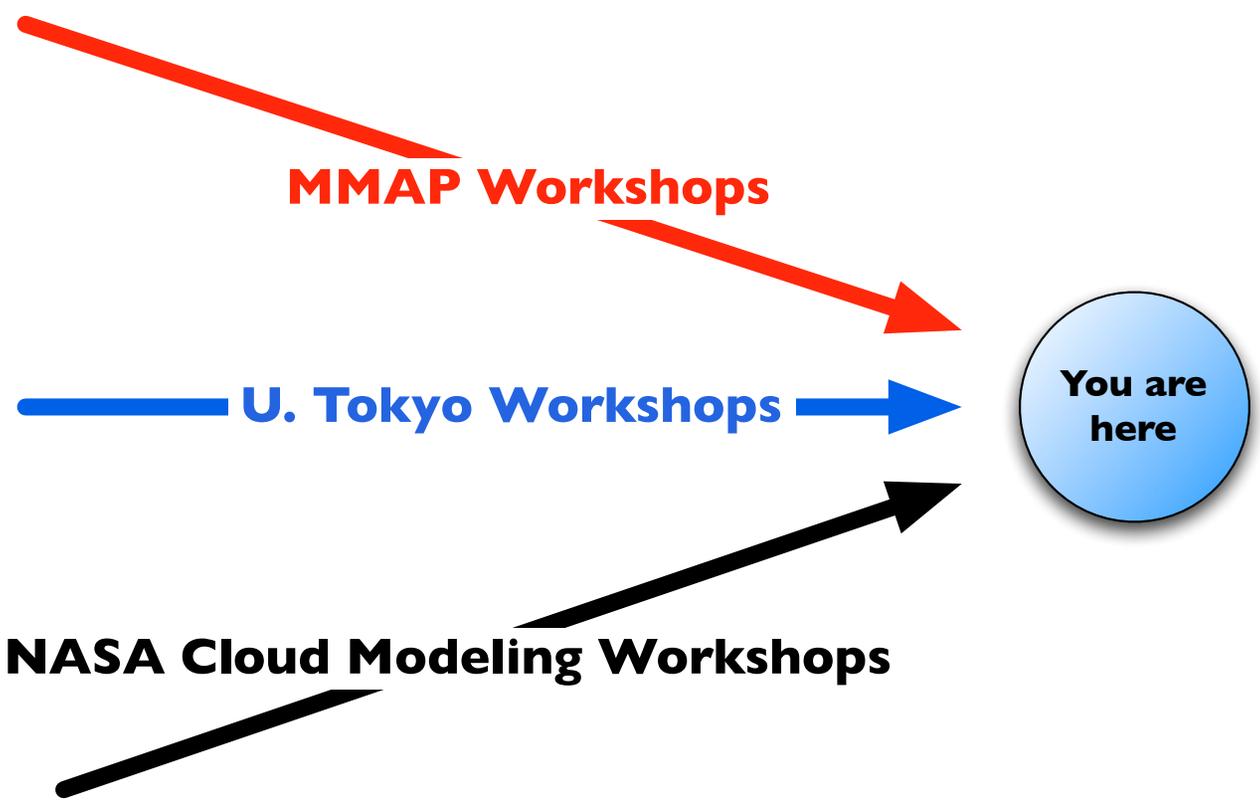




**Cloud Modeling 2005:  
Count the Clouds.**

# Thanks to:

- ◆ **The various agencies who fund us, and especially to NSF for supporting this Workshop**
- ◆ **Cindy Carrick and Lisa Casuto for making the arrangements for the Workshop**
- ◆ **Kelley Wittmeyer for Limbo Engineering.**



**MMAAP Workshops**

**U. Tokyo Workshops**

**NASA Cloud Modeling Workshops**

**You are here**

# Regarding MMAP

**I am optimistic.**

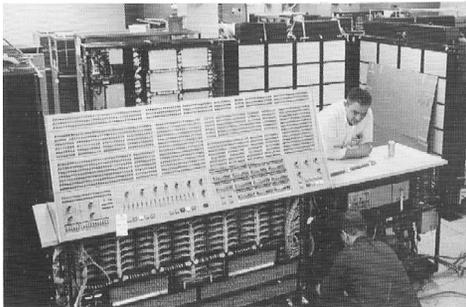
**This has been the Limbo Workshop.**



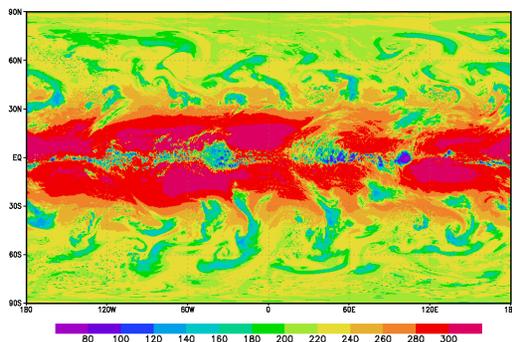
**Next time we will be in Heaven.**



# Exponential growth

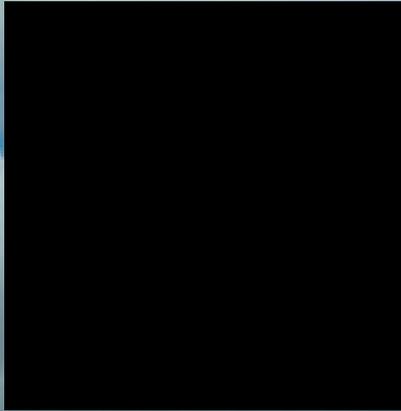


***When I was doing my dissertation during the 1970s, a global atmospheric model delivered about 10 simulated days per day, on an IBM 360/91 -- about 1 MF-year per simulated year. I analyzed a 10-day simulation in my thesis.***

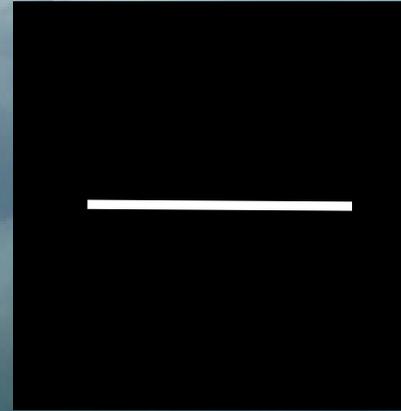


***During this Workshop, we will hear about 10-day simulations that run at the rate of 1 TF-year per simulated year.***

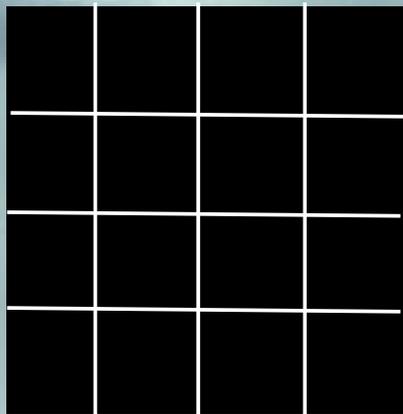
# Fantastic Four



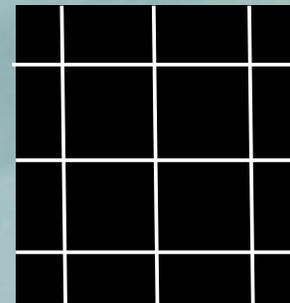
**GCMs With "Classical"  
Parameterizations**



**MMF**



**Global CSRM**



**DARE**

**The field is moving forward very rapidly.**

**Some people are going to be left behind.**

**Not us.**