



## **RICO: Met Office science aims**

**Phil Brown and Steve Abel 28/6/05**

## RICO Science aims



- **Cloud field statistics – validation of LES simulations used in development of mass-flux convection parametrization schemes.**
  - **cloud fraction**
  - **up/downdraft fraction**
  - **updraft buoyancy**
  - **LWC profile vs. adiabatic**
  - **variations with height**
  
- **precipitation efficiency – integrating precipitation impacts with mass-flux convections schemes**
  - **precipitation initiation algorithms for large-scale models**
  - **variations with cloud structure / organization / shear**
  - **partitioning of precipitation flux between cloud / updraft / environment**
  - **precipitation vs. entrainment contributions to LWC depletion**
  - **conditional sampling of precip.rate as function of cloud depth etc. for comparison with cloud-resolving models**