

GEWEX Upper Tropospheric Clouds & Convection PROcess Evaluation Study meeting

16 Nov 2015,

Room 2400, Central Tower (Tour Zamansky), Pierre and Marie Curie University, Jussieu, Paris

Agenda

9:00 coffee

9:30 Welcome /Introduction

9:45 Feedback hypotheses (*Moderator : G. Stephens*)

G. Stephens for V. Ramaswamy, NOAA/GFDL, Princeton University, USA :
Radiative balance in the upper troposphere : role of water vapour and clouds

T. Mauritsen, Max Planck Institute for Meteorology, Hamburg, Germany :
Climate/ hydrological sensitivities and IRIS effect

S. Bony, LMD, Paris, France :
Thermodynamical interpretation of the impact of convective aggregation on high cloud amount and large-scale circulations

discussions

10:30 Ressources (*Moderator: C. Stubenrauch*)

1) observations: cloud systems and atmospheric environment

J. Luo for W. B. Rossow, CUNY, New York, USA:
new ISCCP data set

R. Roca, LEGOS, France:
Mesoscale Convective Systems in the Tropics

R. Roca for D. Bouniol, CNRM, France:
Evolution of anvil properties along tropical deep convection life cycle

G. Sèze, LMD, France:
A multi-geostationary data set at full space and time resolution to observe high cloud cover in the tropics

Ch.-K. Teo, Earth Observatory, Singapore:
Saling characteristics of observed oceanic rainfall in the tropics

S. Protopapadaki & C. Stubenrauch, LMD, France:
Cloud systems in the upper troposphere derived from IR Sounders

discussions

Buffet lunch

2) including the atmospheric flow: Cirrus origin and life cycle

J. Luo, CUNY, New York, USA:
Lifecycle View of Tropical Deep Convection and Cirrus Clouds

B. Legras, LMD, France
Transport and mixing in the TTL: Convective Sources

R. Plougonven, LMD, France:

Effects of gravity waves on tropical cirrus clouds

A. Podglajen, LMD, France:

Real case-study of a tropical tropopause layer cirrus and its impact

3) processes and parameterizations (CRM, GCM)

Small scale process modelling

G. Stephens for S. Van Den Heever, Colorado State University, USA:

Deep Convection and Cirrus Anvils in CRM RCE Simulations

Coffee & discussions

Large scale development / evaluation of parameterizations

C. Risi, LMD, France:

Use of water vapour isotopic measurements to constrain moistening role of convection in UT

C. Rio, LMD / CNRM, France:

Representation of precipitation and clouds associated with deep convection in the LMDZ GCM

J. B. Madeleine, LMD, France:

High clouds in the LMDZ climate model: overview & future development

B. Gasparini, ETHZ, Switzerland:

Cirrus cloud formation mechanisms in ECHAM-HAM GCM

4) Radiative transfer

G. Stephens for T. L'Ecuyer, University of Wisconsin, USA:

Vertically-resolved radiative fluxes from CloudSat-CALIPSO

C. Stubenrauch & A. Feofilov, LMD, France:

Some elements on computing radiative heating effects of high-altitude cloud systems

Discussions on how we can advance on the subject by joining forces

18:30 end