Monsoon Cross-cut

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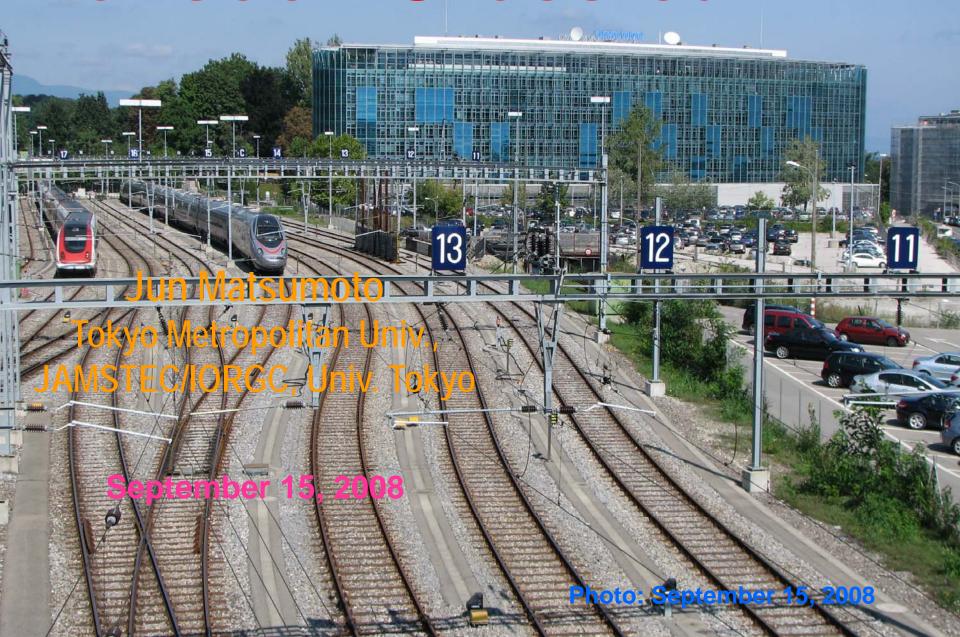
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Photo: September 15, 2008

Three levels of monsoon cross-cut

- **Global GEWEX/CLIVAR collaboration:**
  WCRP Pan-monsoon Study (IMS: International Monsoon Study)
   Chair: Tetsuzo Yasunari

- **Regional GEWEX/CLIVAR collaboration:**
  AMY (Asian Monsoon Years 2007-2012) :
  Co-Chair: Bin Wang (CLIVAR) & Jun Matsumoto (GEWEX)
  VAMOS, AMMA, LBA, LPB

- **Global GEWEX collaboration:**
  CEOP Monsoon (MONS):

Questions to be Addressed:

(i) Do our goals need to be updated?

(ii) What metrics should be used to summarize status?

(iii) What are the model products needed, what observational datasets?

(iv) How can we best coordinate RHP efforts to contribute to this Foci?

(v) What are plans for next 1-3 year period?

CEOP Monsoon (1)

- The ultimate goal of MONS is to clarify the role of land, ocean and aerosol on monsoon variability in order to help operational centers to improve forecasts of monsoon variability, in particular from intra-seasonal to inter-annual time-scales. To tackle this goal, it is needed to share common recognition of the need to advance knowledge of energy and water cycle processes in various monsoon regions over the major continents in the world.

CEOP Monsoon (2)

CEOP MONS will address the following questions by examining the land surface-ocean-atmosphere feedbacks that may affect the different stages of the monsoon precipitation by utilizing CEOP data:

- What are the characteristics of land-ocean-atmosphere interactions in the evolution and variation of monsoon system?
- How do the diurnal, intraseasonal, seasonal and inter-annual variations of monsoon interact with land surface?
- What is the impact of nearby high elevated heating onto the monsoon system?
- What is the role of the monsoons on extremes, such as floods and droughts?
- What is the role of human activity on changing the activity and/or characteristics of monsoons?

Questions to be Addressed:

(i) Do our goals need to be updated?

Yes, we revised some phrases in goal and questions

Questions to be Addressed:

(ii) What metrics should be used to summarize status?

Available data sets including model outputs covering both land and ocean

Model integration function

Participants (VAMOS, AMY, AMMA, modeling centers, research centers)

Questions to be Addressed:

(iii) What are the model products needed, what observational datasets?

Seasonal prediction model output

RCM products during AMY

Ocean data during CEOP-I (AIPO data)

MODIS monsoon region products

Questions to be Addressed:

(iv) How can we best coordinate RHP efforts to contribute to this Foci?

CEOP dataset + Local data for extreme events within each RHP region

Questions to be Addressed:

(v) What are plans for next 1-3 year period?

1. Within 1 year (Beijing 0810, Irvin 0901, Melbourne 0908), CEOP monsoon cross-cut including CLIVAR implementation plan (foci) should be constructed.

Players? CEOP-AEGIS…

2. Next 1 year: integrated dataset, modeling accomplish

3. Next 1 year: integrated analysis for MONS Phase-I for AMY period (?)