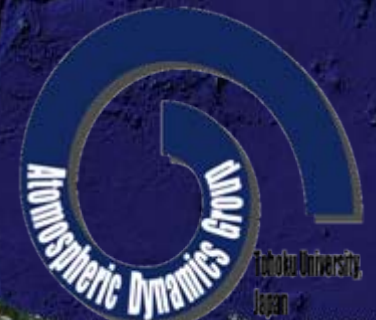


1st MAHASRI/AMY WS  
Yokohama/Tokyo, 2007.1.8-10

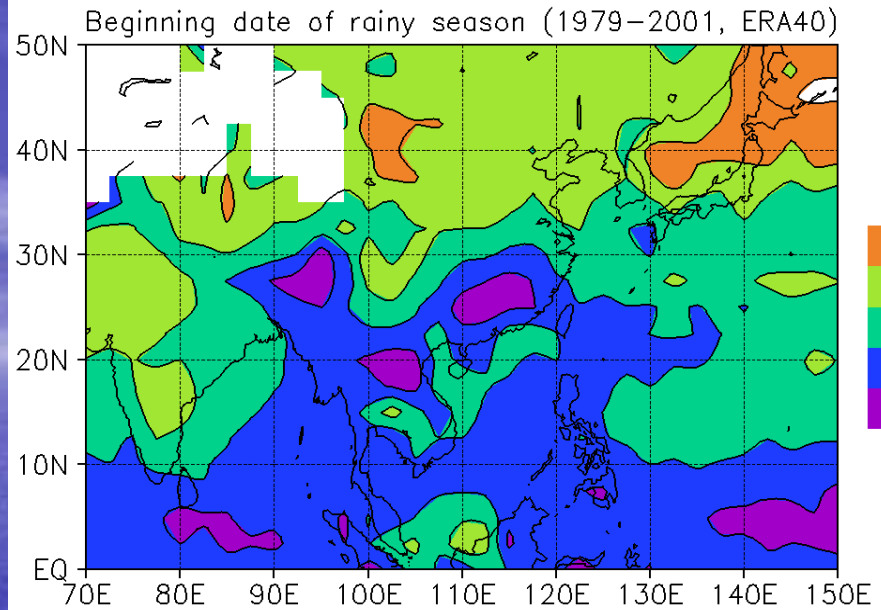
# Study on Monsoon Onset in South China (Huanan area) with a High-resolution Regional Weather Forecast Model System

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Tohoku University, Japan

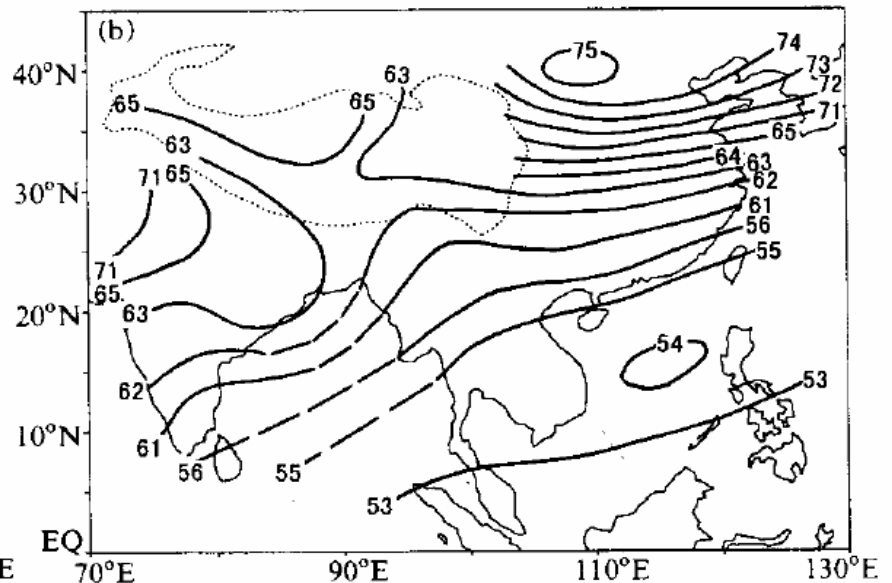
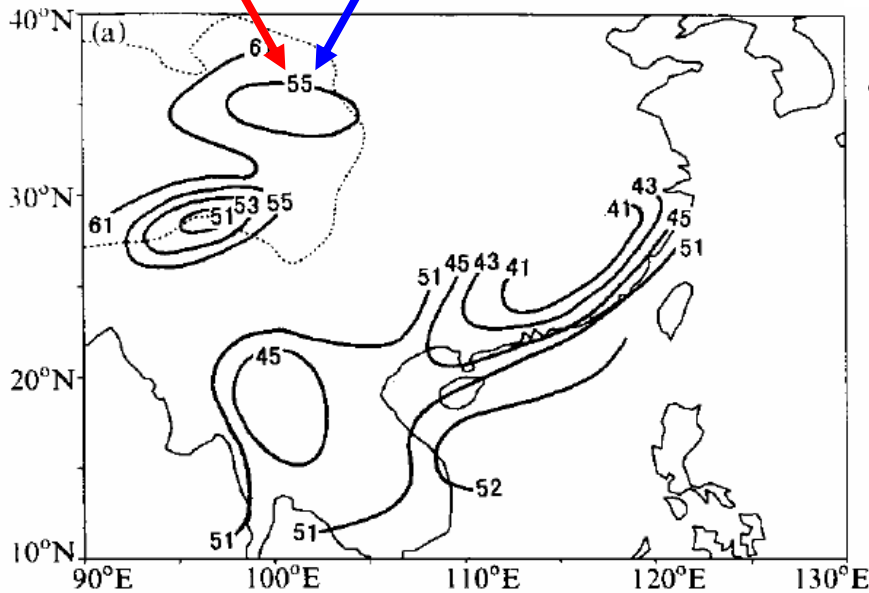




# Beginning date of rainy season

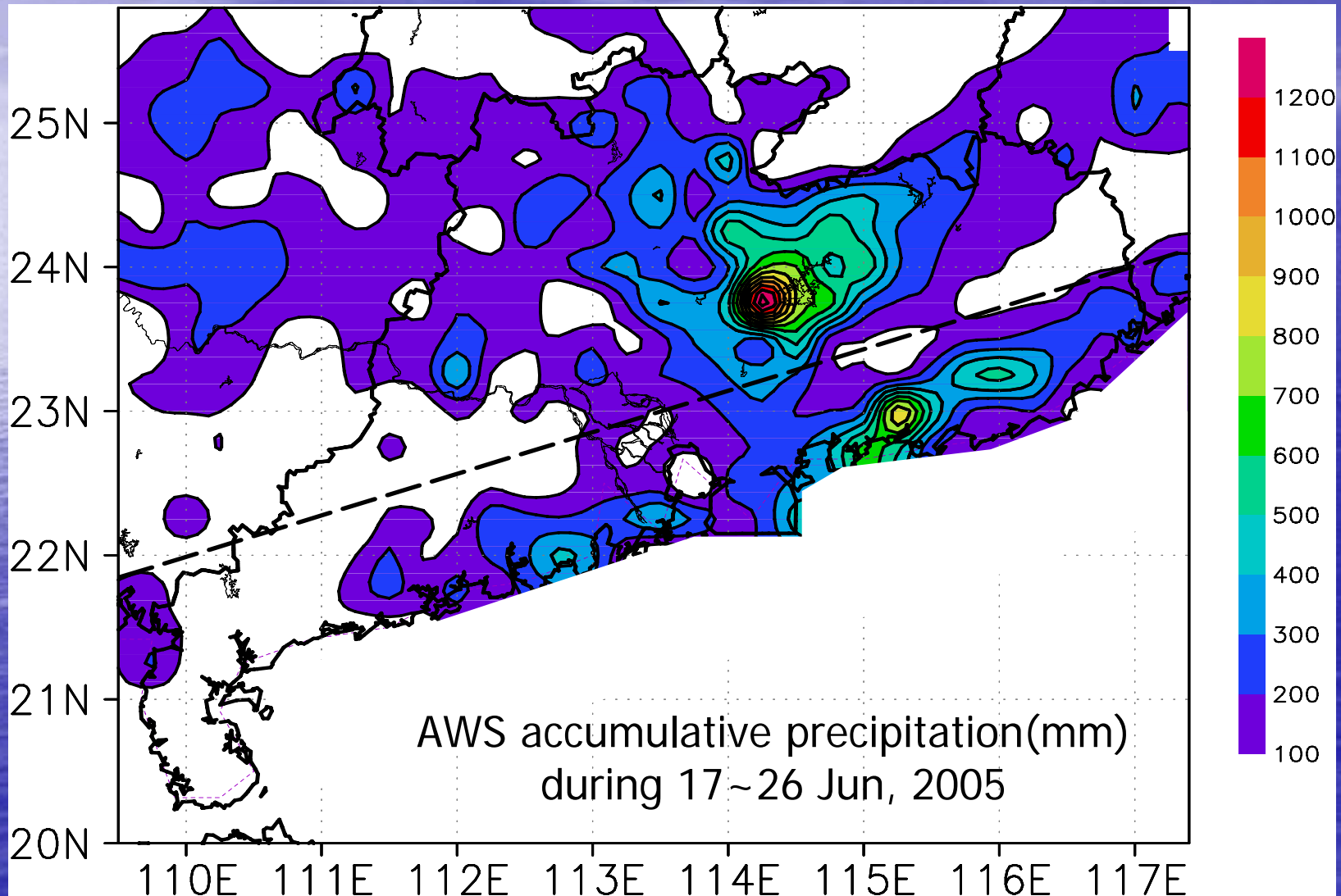


month pentad



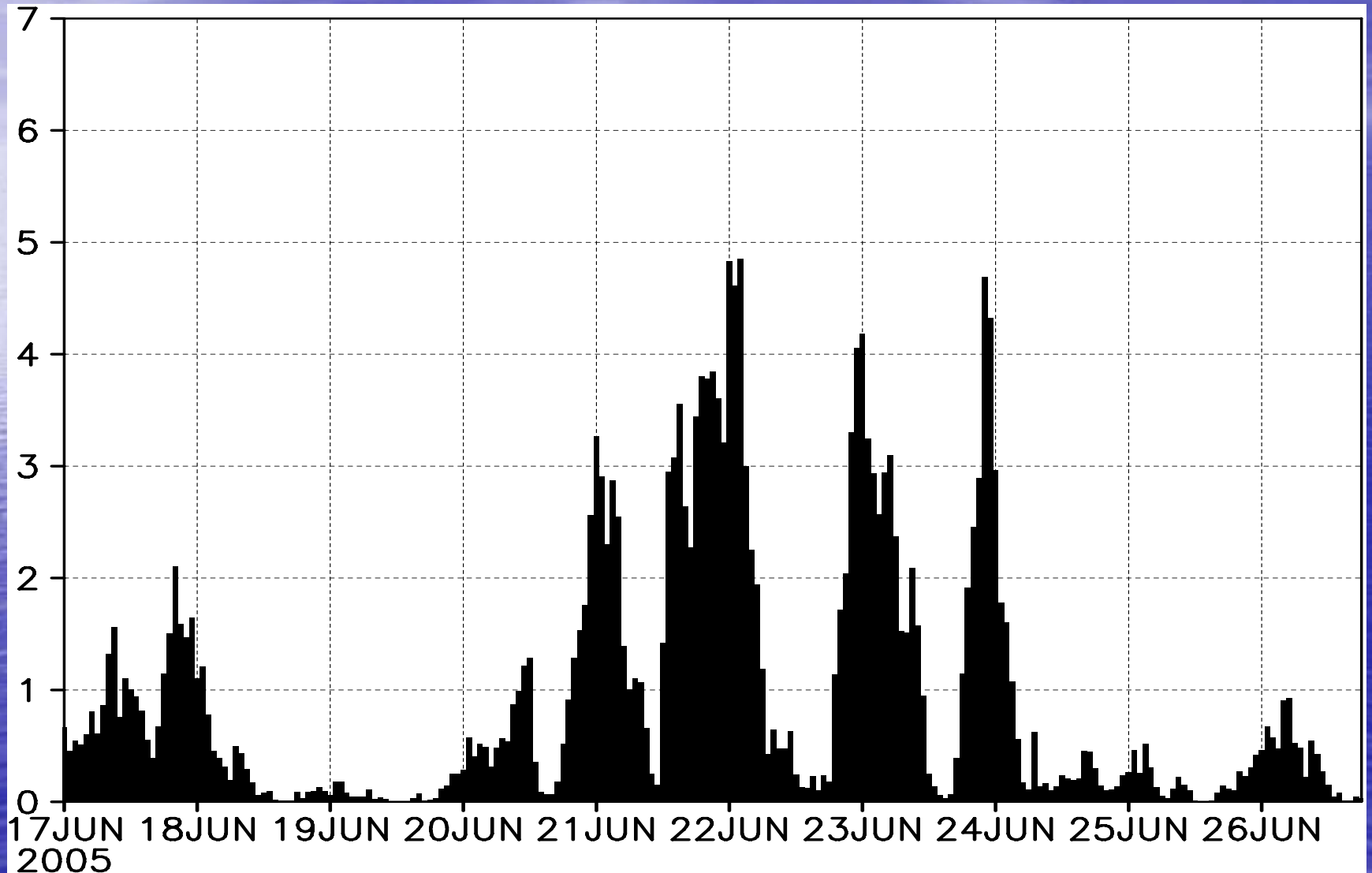
(a) subtropical monsoon onset; (b) after tropical monsoon onset  
(Chen et al, Cli. Envi. Res., 2000)

# Heavy flood over South China in June 2005



# Diurnal variation of the rainfall in coastal region

(mm/hr.)



# Target/Task

Monsoon onset events  
in South China (Huanan area)



Modeling, Understanding & Prediction



We are building up and testing

A high-resolution regional weather forecast model system

*Its name is ...*

**DS<sup>3</sup> = Down Scaling Simulation System**

DS<sup>3</sup>: a 'small' JMA

JMA

DS<sup>3</sup>

Model/Resolution

Global model (dx=40km)

NHM model (dx=15km→4km→1km)

Regional model (dx=20km)

Coupled with

Meso model (dx=5km)

CFD•LES model (dx~100m)

## *Next ...*

\*Modeling and validation of the monsoon onset events, diurnal variation of the rainfall in Huanan area, South China

(on going,,,)

\*Understanding its mechanism and prediction