

MAHASRI

Modeling Activity (planned)

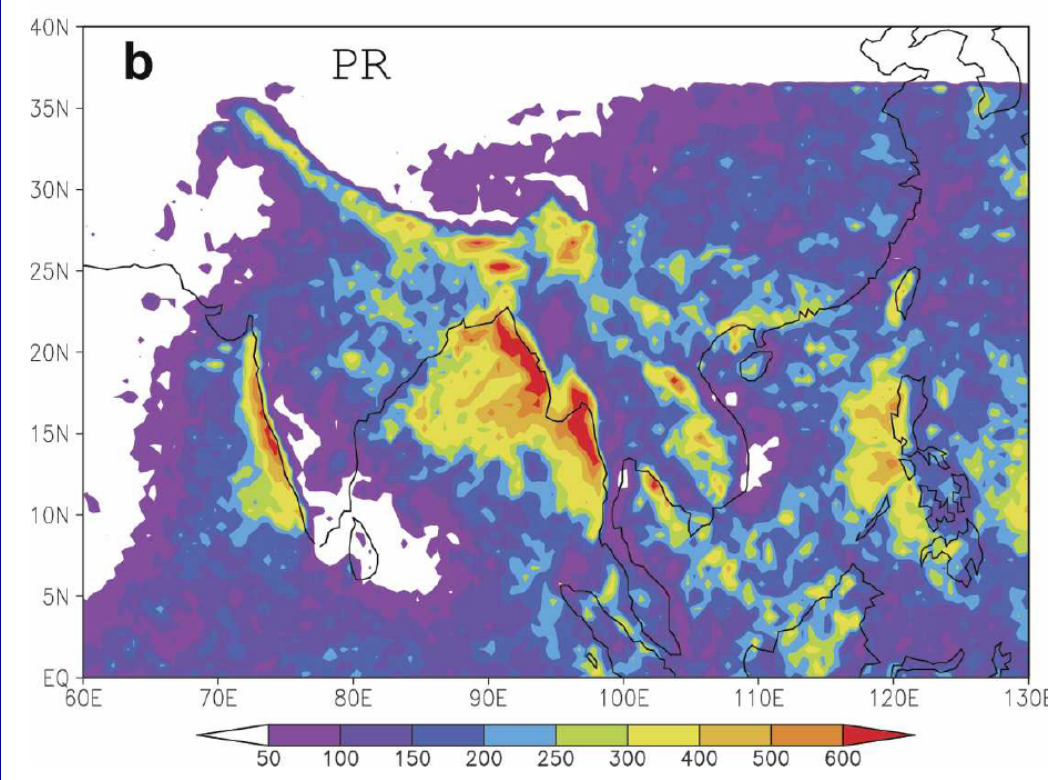
- Objective
 - To evaluate **topographic** forcing on atmospheric phenomena and **interactions** among atmosphere, land and **ocean**.
 - To reduce bias of **diurnal variation** of cloudiness and rainfall.
- Method
 - **Global** models
 - **Regional** models including **cloud-system resolving** models

JMA LRF Model Replacement (Plan)

- 1 months prediction
 - 2007: Improve initial data for ensemble fcst
 - 2008~ : dx=120km --> 60km
- 3 months prediction
 - 2007 : SST ensemble
- El-Nino prediction
 - 2007: Increase resolution:
 - T42L40, 2.5°L40 --> T95L40, 1°L50
 - 2008~ : develop unified 3-months & El-Nino prediction model with T159L60, 0.5°L60

TRMM (rainy season average)

Xie et al. 2006



Exp006
Fcst: 720.00 h
Terrain height AMSL
Total precip. since h 0

Valid: 0000 UTC Sun 01 Jul 01 (0700 LST Sun 01 Jul 01)

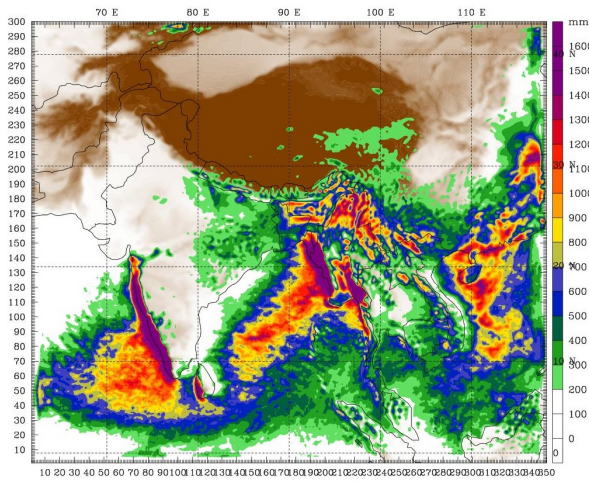
Exp006
Fcst: 768.00 h
Terrain height AMSL
Total precip. since h 0

Valid: 0000 UTC Wed 01 Aug 01 (0700 LST Wed 01 Aug 01)

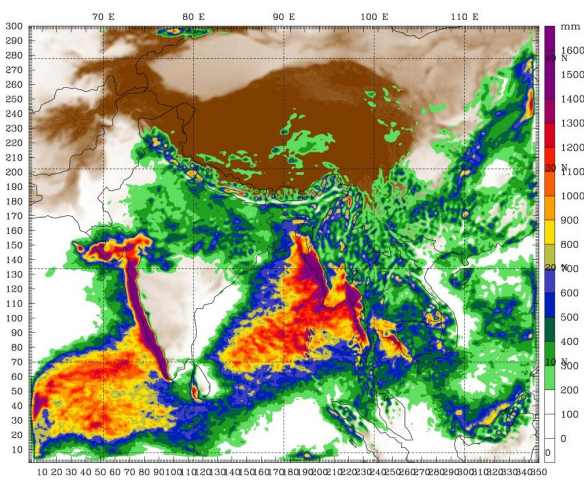
Exp006
Fcst: 768.00 h
Terrain height AMSL
Total precip. since h 0

Valid: 0000 UTC Sat 01 Sep 01 (0700 LST Sat 01 Sep 01)

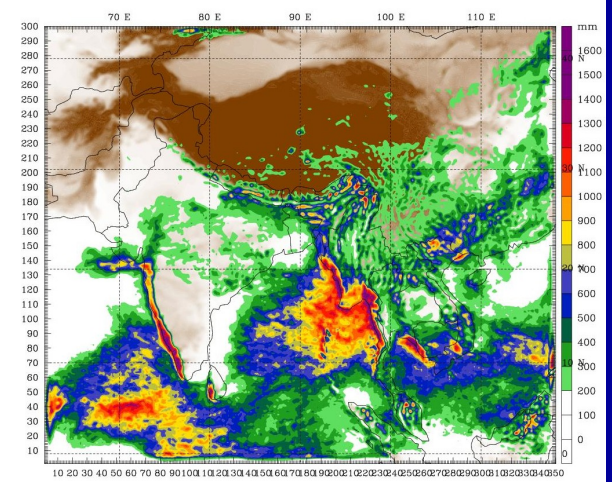
Regional model



Model info: V3.6.3 KF-2 MRF PBL Reisner 2 18 km, 44 levels, 30 sec

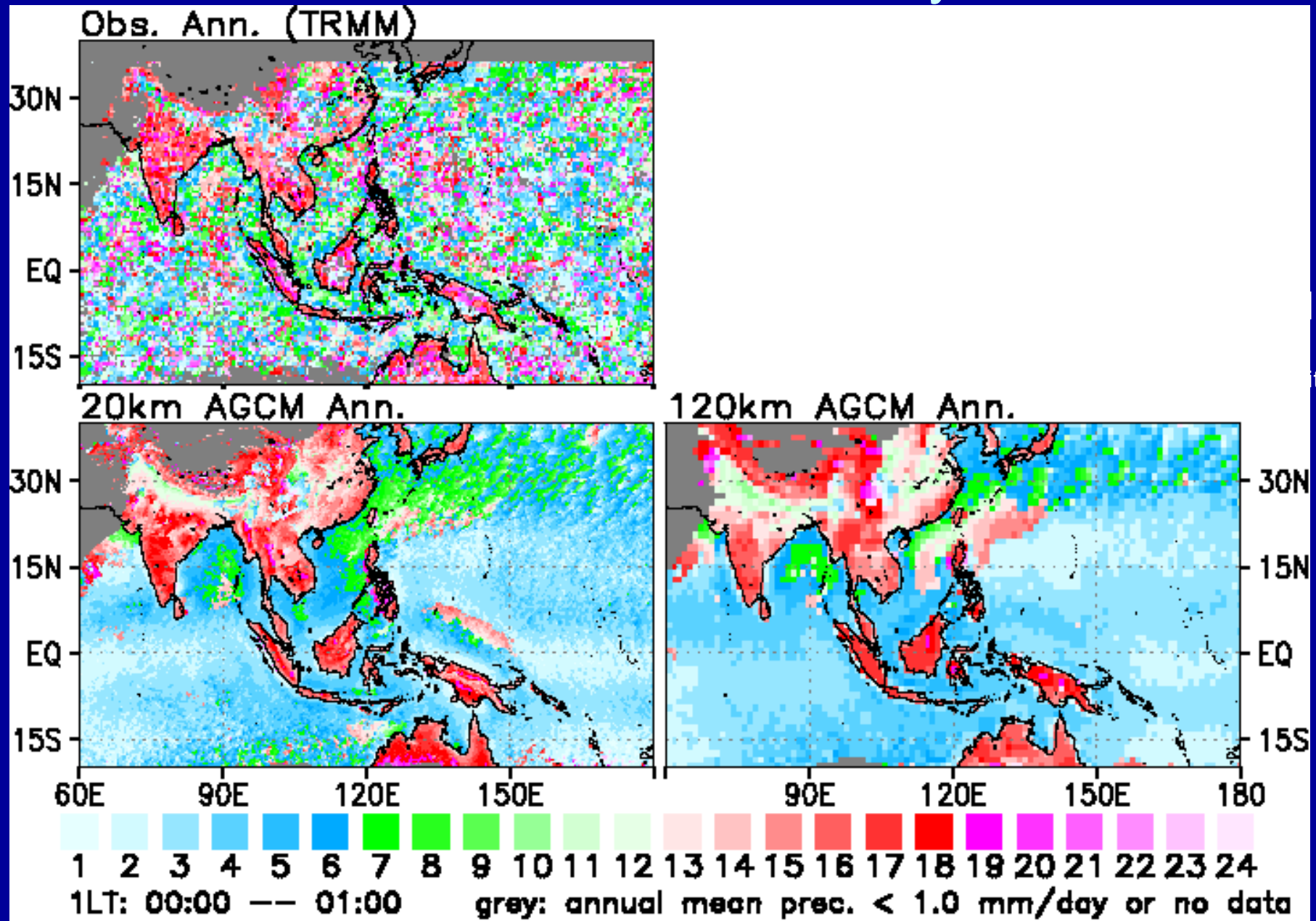


Model info: V3.6.3 KF-2 MRF PBL Reisner 2 18 km, 44 levels, 30 sec

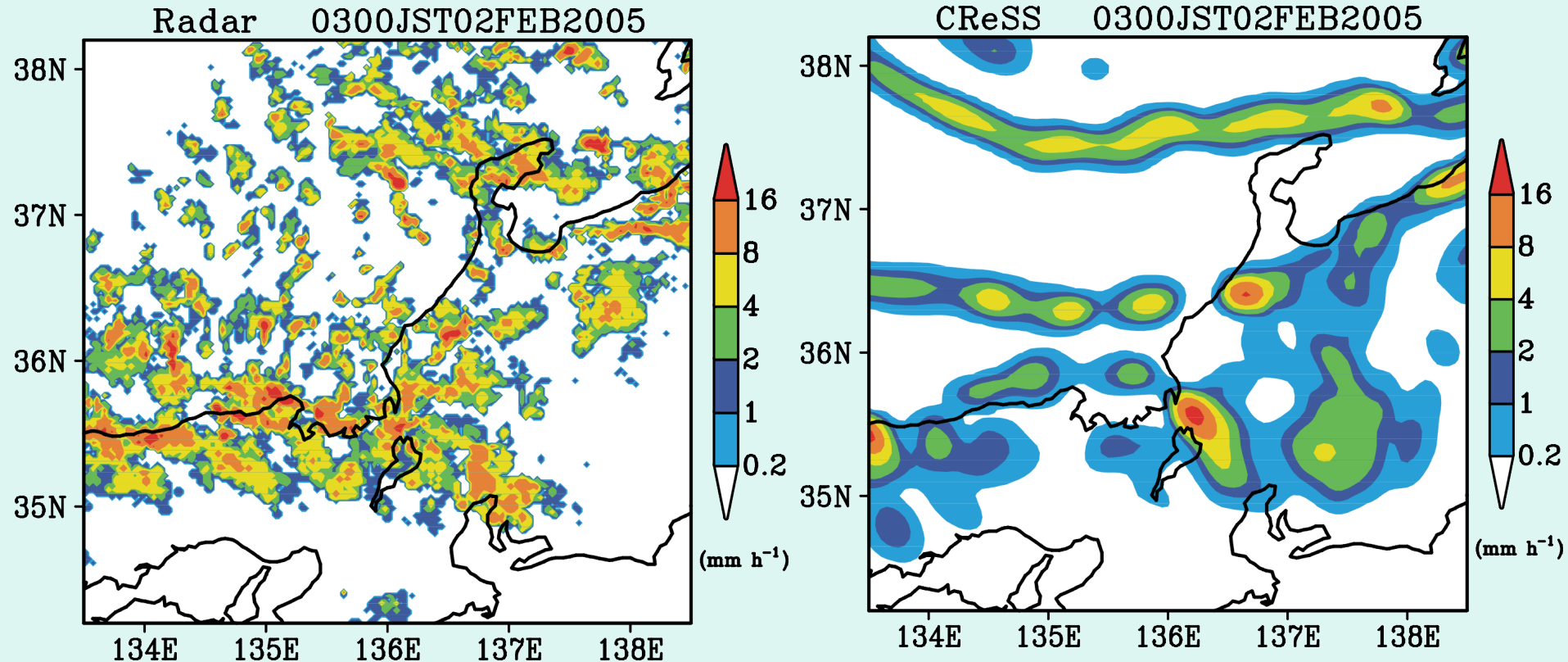


Model info: V3.6.3 KF-2 MRF PBL Reisner 2 18 km, 44 levels, 30 sec

Spatial distribution of peak localtime of annual mean rainfall diurnal variation by AGCM



Daily 12h fcst exp. by HyARC using CReSS



- 2005.02.02 snow storm
- Radar (left); CReSS simulation 5kmX500m (right)

http://www.rain.hyarc.nagoya-u.ac.jp/CReSS/fcst_exp.html