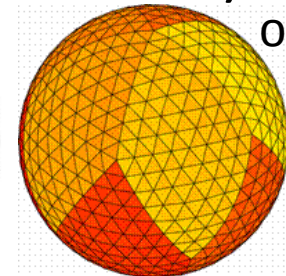
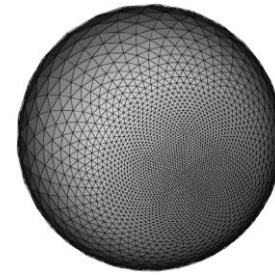


NICAM simulation plan (real-time forecasts)

Nonhydrostatic ICosahedral Atmospheric Model

stretched grid



original grid

Model: regionally stretched NICAM

Resolution: 14~28km mesh 90deg x 90 deg domain (center: 80E, 8S)

Length of forecasts: 7-days (5-days prediction)

Period: Oct. – Nov. 2011 → Mirai (e-mail)

(+ Sep., Dec. 2011, Jan.-Feb. 2012)

Frequency: 3 (or 6) times / week (CINDY web)

output data (< 1TB in total, within a year)

- **multi-level: every 6hr (snapshot)**

- u, v, w, t, p, rho, qv, dh

- **single-level: every 3hr (average)**

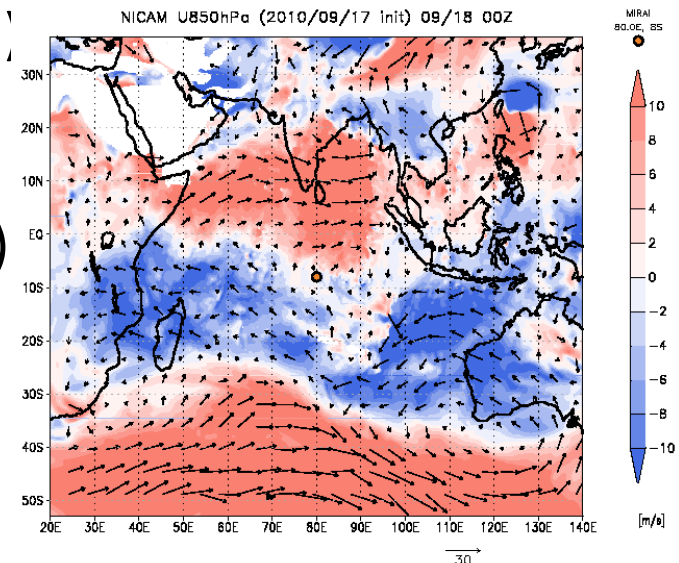
- IWP, LWP, TPW, olr, precip, slp, LHF,

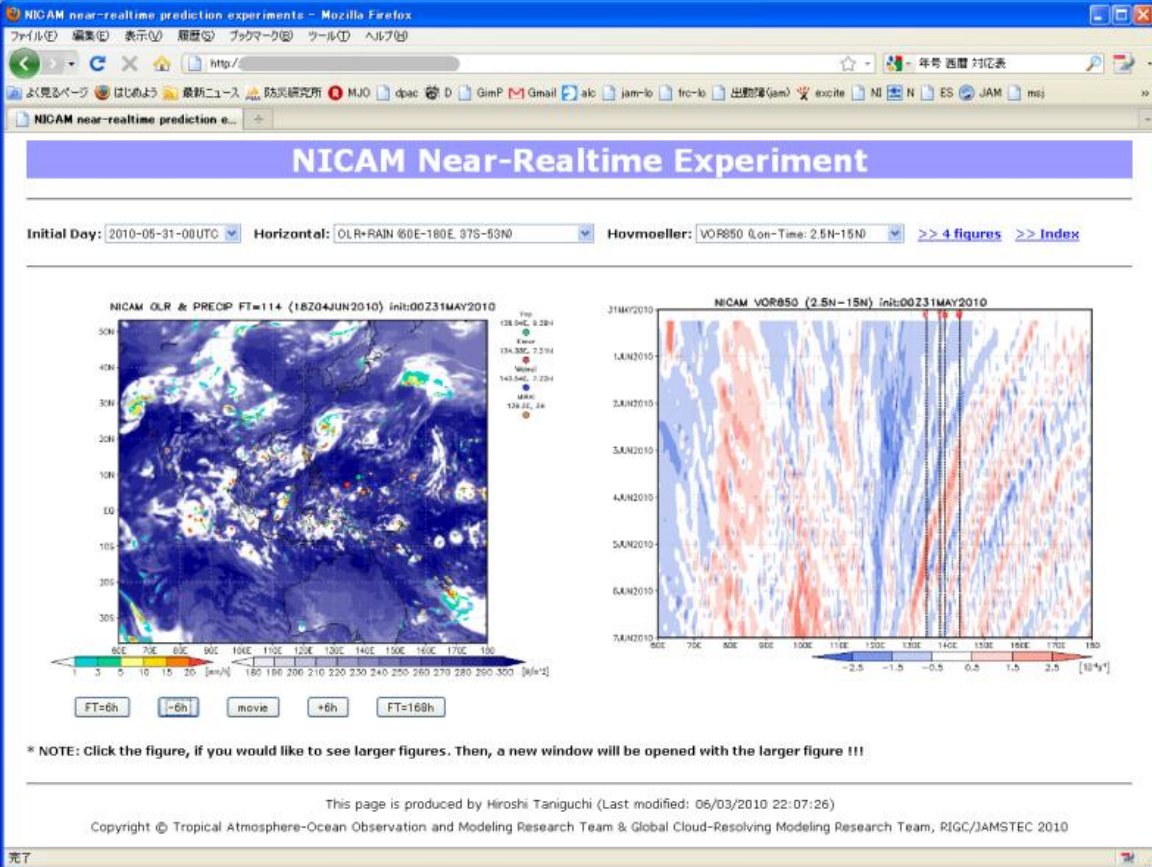
- q_{2m}, t_{2m}, u_{10m}, v_{10m}, t_{sfc}

(37N-57S, 20E-140E)

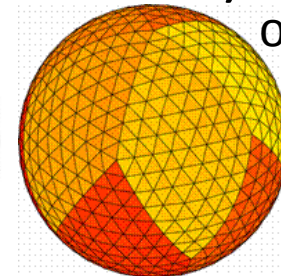
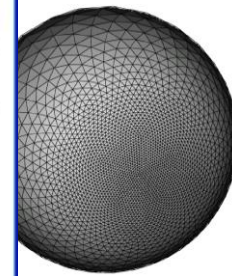
~14km mesh, 18 Plevel

- 2.5 deg daily data: U, V, Q, T (200, 500, 850, 925 hPa and surface),
(20N-20S) OLR, precipitation → RMM plots (realtime)



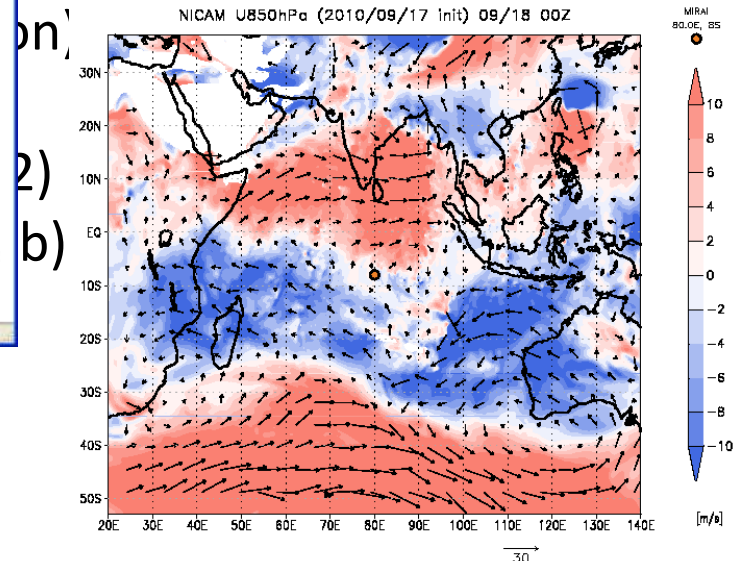


time forecasts)



original grid

domain (center: 80E, 8S)



- multi-level: every 6hr (snapshot)

- u, v, w, t, p, rho, qv, dh

- single-level: every 3hr (average)

- IWP, LWP, TPW, olr, precip, slp, LHF,

(37N-57S, 20E-140E)

- q_2m, t_2m, u10m, v10m, t_sfc

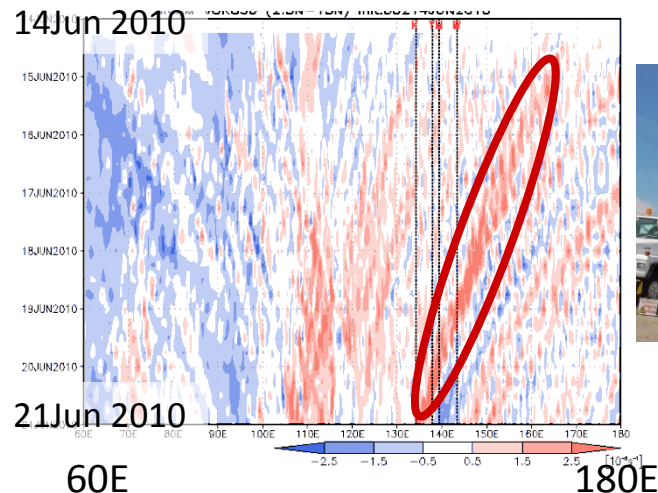
~14km mesh, 40 levels

- 2.5 deg daily data: U, V, Q, T (200, 500, 850, 925 hPa and surface),
(20N-20S) OLR, precipitation → RMM plots (realtime)

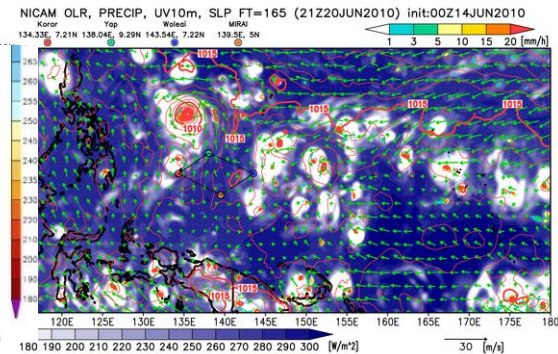
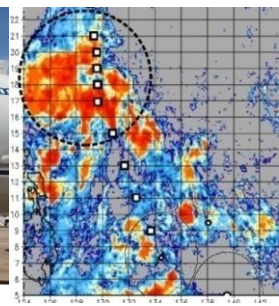
Realtime forecast PALAU2010 field experiment (stretch grid)

May-June 2010

Vorticity (850 hPa) 5N-5S



Aircraft observation (Moteki et al.)



NICAM forecast

Hindcasts of a MJO event (global 7/14-km grid)

2006/12/15-2007/1/16

Miura et al.(2007)

