

Fifth WRF Land Surface Modeling Workshop

**September 13-15, 2005
NCAR Foothills Campus**

Agenda (Draft, Revised September 11, 2005)

13 September, 2005

NCAR

9:00 Fei Chen (NCAR)

- Welcome

Session 1: Recent Progress in NWP land surface modeling

9:10 Fei Chen

- Overview of the unified Noah LSM in WRF: recent enhancement, test, and future plan

9:40 Ken Mitchell (NCEP/EMC)

- Thrusts of Noah LSM development and land data assimilation at NCEP: testbeds, recent lessons, WRF and GFS, validation, physics, calibration, vegetation, snowpack.

10:10 Break

10:30 Jimmy Dudhia (NCAR)

- Addition of the CLM3 land-surface model to WRF

11:00 Christa Peters-Lidard (NASA)

- High-Resolution Convective Modeling using WRF coupled to NASA's Land Information System (LIS)

11:30 Mukul Tewari (NCAR)

- Verifying 2005 Summer 4-km WRF realtime forecast

12:00 Lunch Break

13:00 Mike Ek (NCEP)

- Testing and evaluation of the final Noah LSM upgrade in the NCEP mesoscale Eta model: Insights into changing vegetation and soil classification

Session 2: WRF land state initialization and SI

13:30 Wei Wang (NCAR)

- New WRF Standard Initialization package

14:00 John Eyelander (AFWA)

- AFWA GLDAS Improvements

14:30 Kevin Manning (NCAR)

- NCAR High-resolution land data assimilation system (HRLDAS)

15:00 Break

15:15 Teddy Holt (NRL)

- Incorporation and use of the Noah LSM in COAMPS

Session 3: Enhancing land surface models

15:45 Dev Niyogi (U Purdue)

- Improving Vegetation/ Transpiration Representation in Noah

16:15 Dave Gochis (NCAR)

- The effects of hydrological enhancements in the Noah-based NCAR High Resolution Land Data Assimilation System

16:45 Susanne Grossman-Clarke (Arizona State University)

- Remote sensing derived land use/cover data for urban modeling in MM5 and WRF

17:15 Reed Maxwell (LLNL)

- Simulating water and energy fluxes using a coupled groundwater, surface water, land surface and regional climate model

17:45 Reception set up

18:00 Reception

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NCAR Foothills Lab: room #

9 – 12:00 Discussion Session: General land surface model coupling issues

- SI issues(new land surface fields)
- Land state initialization
- Treatment of albedo, roughness, emissivity

12:00-13:00 Lunch break

13:00 – 17:00 Discussion Session: Further requirements for implementing/improving the Unified Noah LSM at NWP centers (ARW, NMM, COAMPS)

13:00 Ken Mitchell

- Testing and evaluation of the Noah LSM (2.7.1) leading to its implementation in the NCEP Global Forecast System (GFS): Insights into soil moisture spinup and canopy resistance issues

13:30 Kevin Manning

- The Unified Noah LSM supported by NCAR/NCEP

14:00 – 17:00 Discussion

- adapting the unified Noah at NCEP, NRL, NCAR, AFWA
- CVS configuration
- Calling argument

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9:00 – 17:00 Discussion Session: Further requirements for implementing/improving the Unified Noah LSM at NWP centers (ARW, NMM, COAMPS)

- realtime and retrospective of coupled testing
- data sets (flux stations) for evaluation
- evaluate the coupled model bias as function of landuse types
- action items