

DMIP 2

Status and Plans

Mike Smith

2004 DOH Science Conference

DMIP 2: Status and Plans

- Overview of presentation
 - Status of DMIP 1 final items
 - Status of DMIP 2
 - Draft science plan
 - Time table
 - Potential participants

DMIP 1: Status of Final Items

- Benefits
 - Validated HL research strategy
 - Generated much interest in DMIP 2
 - Led to use of HL-RMS in U. of Arizona for parameter estimation and calibration research
- DMIP Special Issue of Journal of Hydrology
 - 14 papers accepted
 - Final versions sent to publisher
 - Publication date: unknown but could be as soon as two months.
 - OHD plans to give each RFC a copy

DMIP 2: Draft Science Plan

1. DMIP 1 Basins & additional science questions

- Continued comparisons of lumped and distributed models: 3-4 more years of data available.
- Effects of modeling resolution: run data with various levels of error through DMIP models
- Effects of data errors: e.g. effects of pixel-based precip errors
- Effects of routing: all participants use a common routing scheme.
- Additional tests with interior points: e.g. use of Baron Fork at Dutch Mills.

DMIP 2: Draft Science Plan

2. Western complex basin

- NWRFC, CNRFC
- Distributed vs. lumped modeling
- Modeling of significant snow with distributed models
- Effects of complex precipitation patterns
- Utility of different precipitation forcings
 - MM5 output
 - NSSL NQ2
 - NCEP reanalysis data
 - Gridded, gauge-only
 - ETL radar products

DMIP 2: Draft Science Plan

3. Basins with observed soil moisture data
 - Validate distributed models against streamflow data and spatial patterns of soil moisture
 - Candidate basins
 - Little Washita
 - Salt River, Illinois
 - Oklahoma Mesonet

DMIP 2: Potential Participants

1. HL
2. MIT
3. U. of Arizona
4. Agricultural Research Service
5. U. Waterloo, Canada
6. Hydrologic Research Center
7. DHI Water and Environment
8. Utah State
9. NCEP/EMC
10. U. Oklahoma
11. Wuhan U., China
12. U. California at Berkeley

DMIP 2: Potential New Participants

1. U. Conn., Fred Ogden and CASC-2D model
2. U. Colorado, Lynn Johnson
3. HEC
4. Centre for Ecology and Hydrology, Wallingford, UK
5. Universidad Politécnica de Cartagena, E.U. de Ingeniería Técnica Civil, Murcia, Spain
6. Instituto de Pesquisas Hidráulicas, Porto Alegre, Brazil
7. U. Washington, Dennis Lettenmaier
8. Baron's Advanced Meteorologic Services (BAMS)
9. USGS, George Leavesely
10. USDA Portland, Dave Garren
11. University of Alberta, Thian Gan

DMIP 2: Proposed Timetable

- Draft HL science plan: 8/04
- Finalize science plan: 10/04
- Collect data: ongoing
- Develop modeling instructions: 12/04
- Recruit participants: ongoing
- Formal project start: 1/05