Distributed Modeling: Overview of Research to Operations

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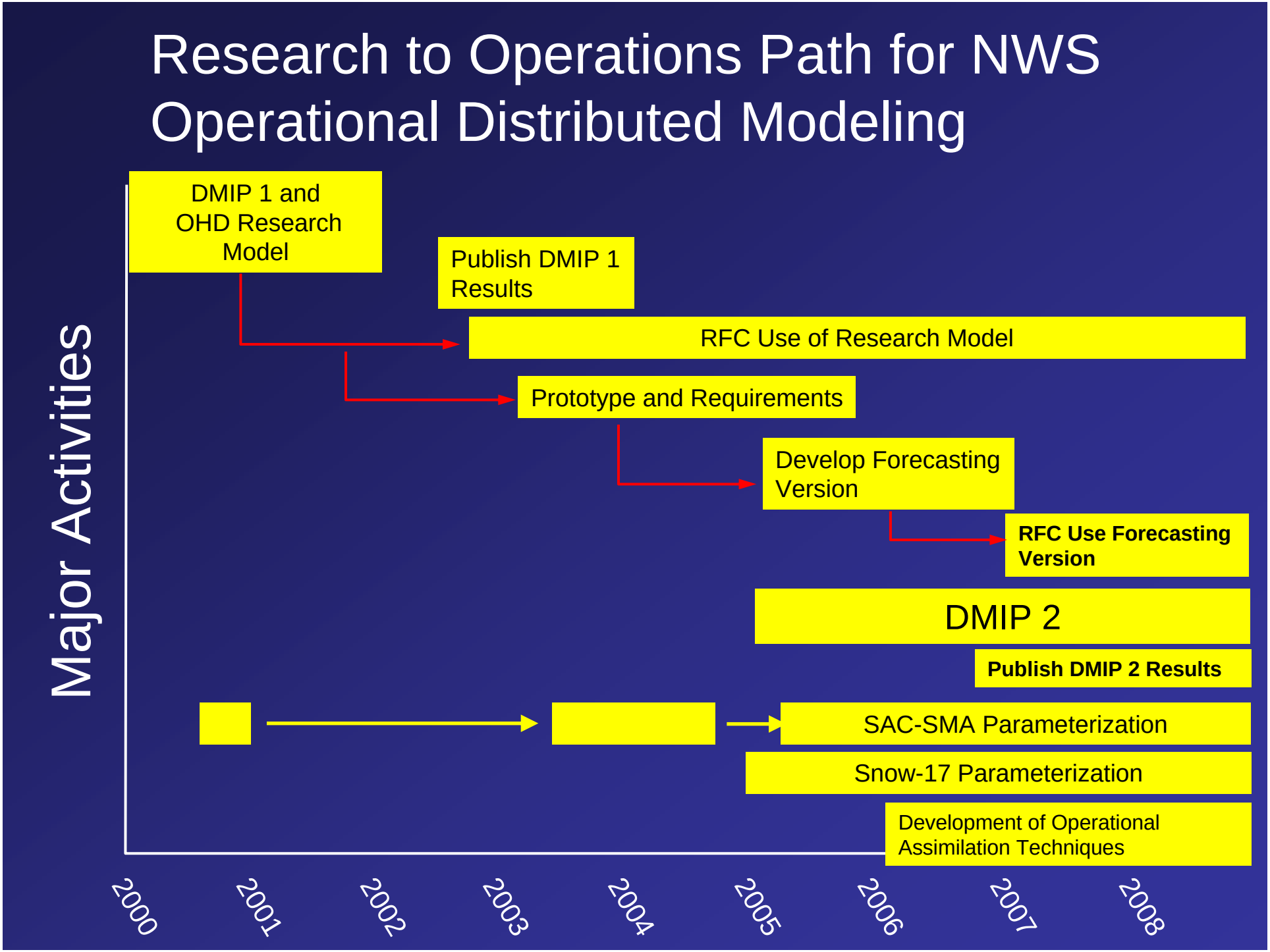
Research to Operations Path for NWS Operational Distributed Modeling



OHD Strategic Goals

Increase the lead times and accuracy of warnings and forecasts, especially for flash floods

Evaluate and implement new, higher resolution distributed models

Enlarge the suite of predictands, including soil moisture, low flows and water quality parameters

Research Activities and Projects

-DHM-TF
-GFFG
-HL-RDHM/DHM
-*A priori* parameters for SAC, Snow-17
-Calibration
-Assimilation

-DMIP 2
-Subsurface linkages
-Evaluation of forcings
-Prototype support

-Distributed SAC-HT
-Distributed Snow-17

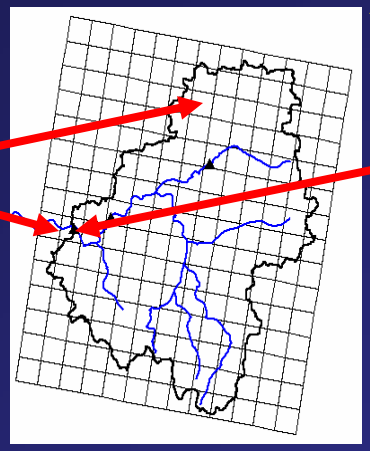
Deliverables

-Distributed Models
-Parameter and other data sets
-Utilities
-Recommendations
-Calibration tools and strategies
-Mods/assimilation
-Publications/technical notes

Current Status

HL-RDHM

AWIPS DHM



DHM-TF

(Forecast)

P, T & ET

Auto Calibration

SNOW -17

rain + melt

ICP

SAC-SMA

SAC-HT

surface runoff

base flow

Hillslope routing

Channel routing

Flows and state variables

P& ET

rain

SAC-SMA

surface runoff

base flow

Hillslope routing

Channel routing

Flows and state variables

Mods

Calibration

Forecasting

Status of Distributed Modeling for Operational River and Water Resources Forecasts