

Texas A & M University and U.S. Bureau of Reclamation
Hydrologic Modeling Inventory
Model Description Form
July 1999

Name of Model: Integrated Hydro Meteorological Model (IHMM)

Model Type: Spatially-lumped, process-based, uncertainty-explicit

Model Objective(s): Ensemble forecasting of basin rainfall and outflow

Agency and Office: Hydrologic Research Center (HRC)

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Model Structure or Mathematical Basis: Components for rainfall prediction, soil moisture estimation, channel flow prediction, real-time updating from rain and flow, ensemble forecasting

Model Parameters: Physically meaningful

Spatial Scale Employed in the Model: 10km² - 50km²

Temporal Scale Employed in the Model: 1 hr - 12 hours

Input Data Requirements: Convective available potential energy, surface mixing ratio, surface relative humidity, potential ET

Computer Requirements: PC Windows, LINUX and Workstation UNIX

Model Output: Ensemble forecasts of basin flow and rain for multiple lead times

Parameter Estimation / Model Calibration: From physical data and refinement by interactive calibration

Model Testing and Verification: New model, not tested yet with real-world data

Model Sensitivity: As described in Chapter in this book

Model Reliability: As described in Chapter in this book

Model Application / Case Studies: Flash-flood prediction

Documentation: Chapter in this book and reference therein

Other Comments: