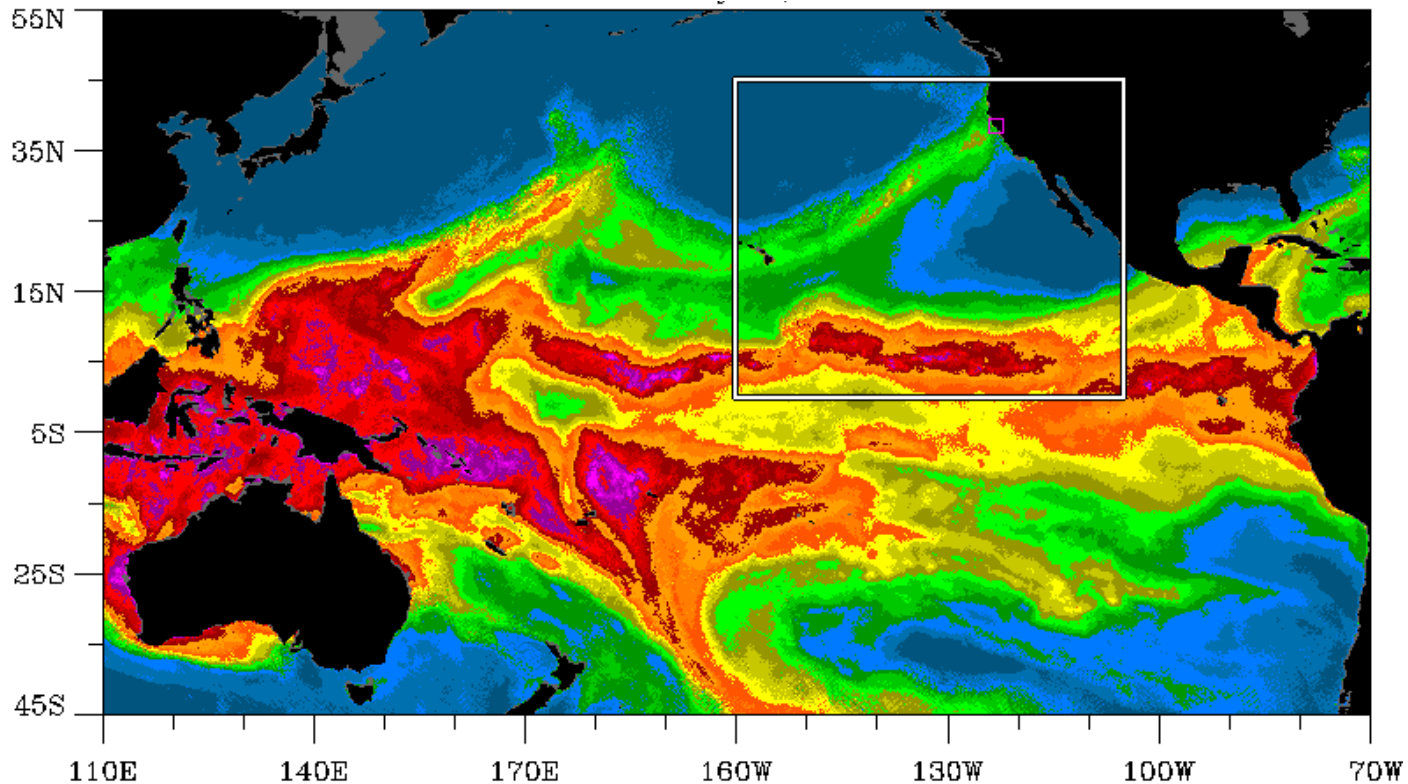


An Overview of NOAA's Hydrometeorology Testbed (HMT)

<http://hmt.noaa.gov/>



Contact: Tim Schneider, HMT Project Manager

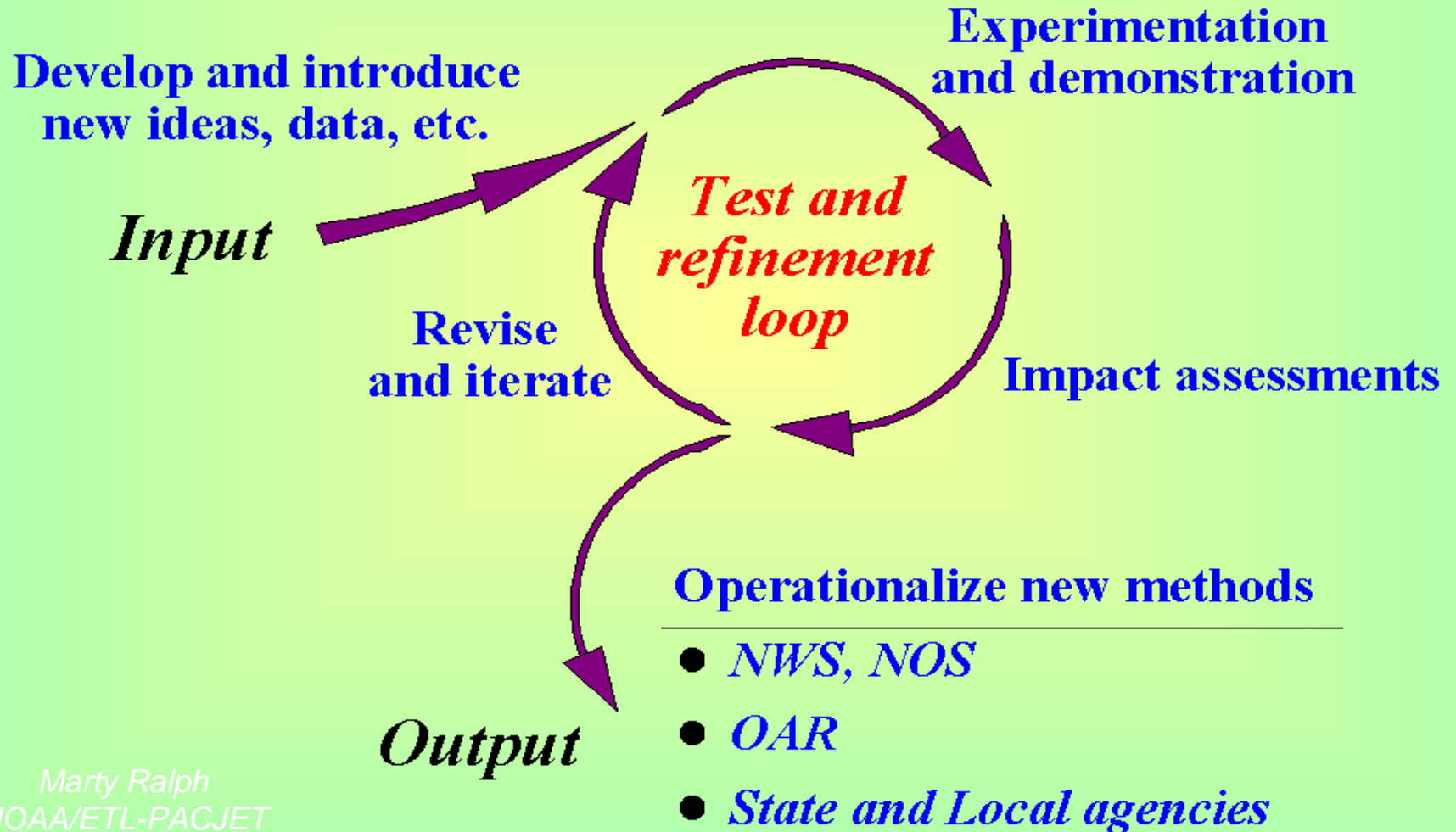
HMT is about...

➤ “Too much water”

...But is intertwined with broader water resource management, climate & drought issues

➤ Conducting operationally relevant research

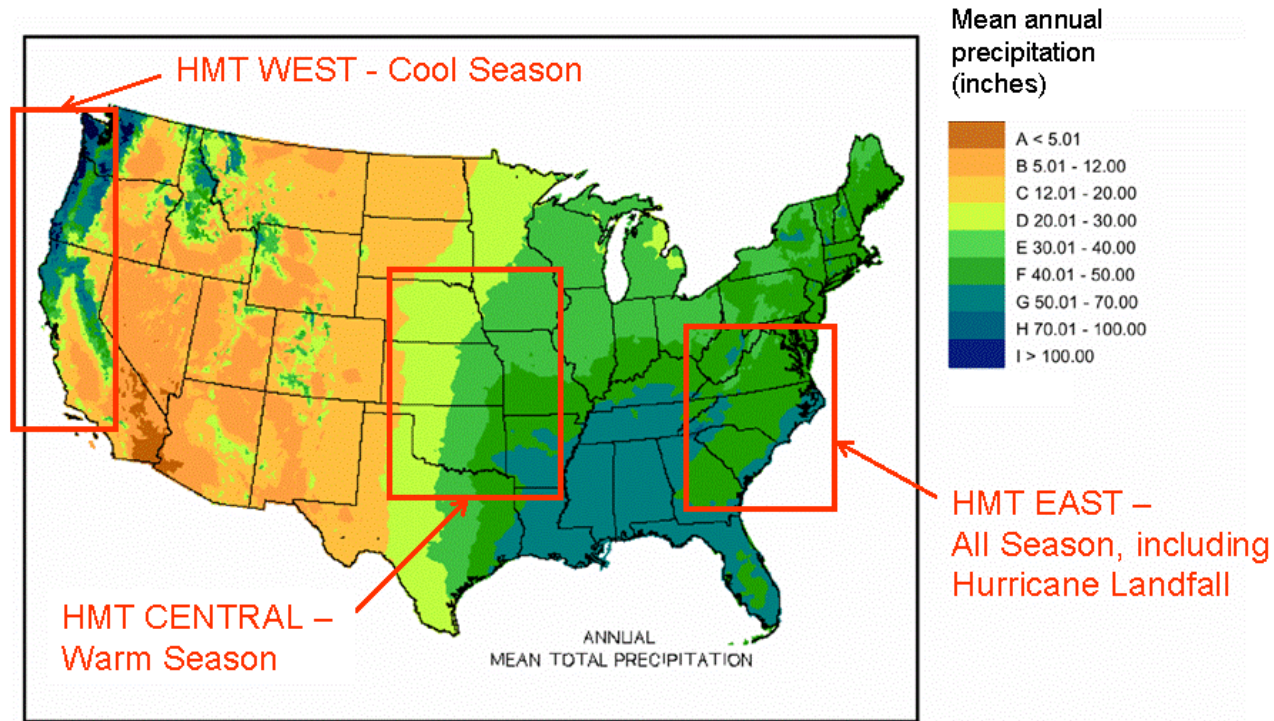
HMT is about...



HMT: A National Testbed Strategy with Regional Implementation

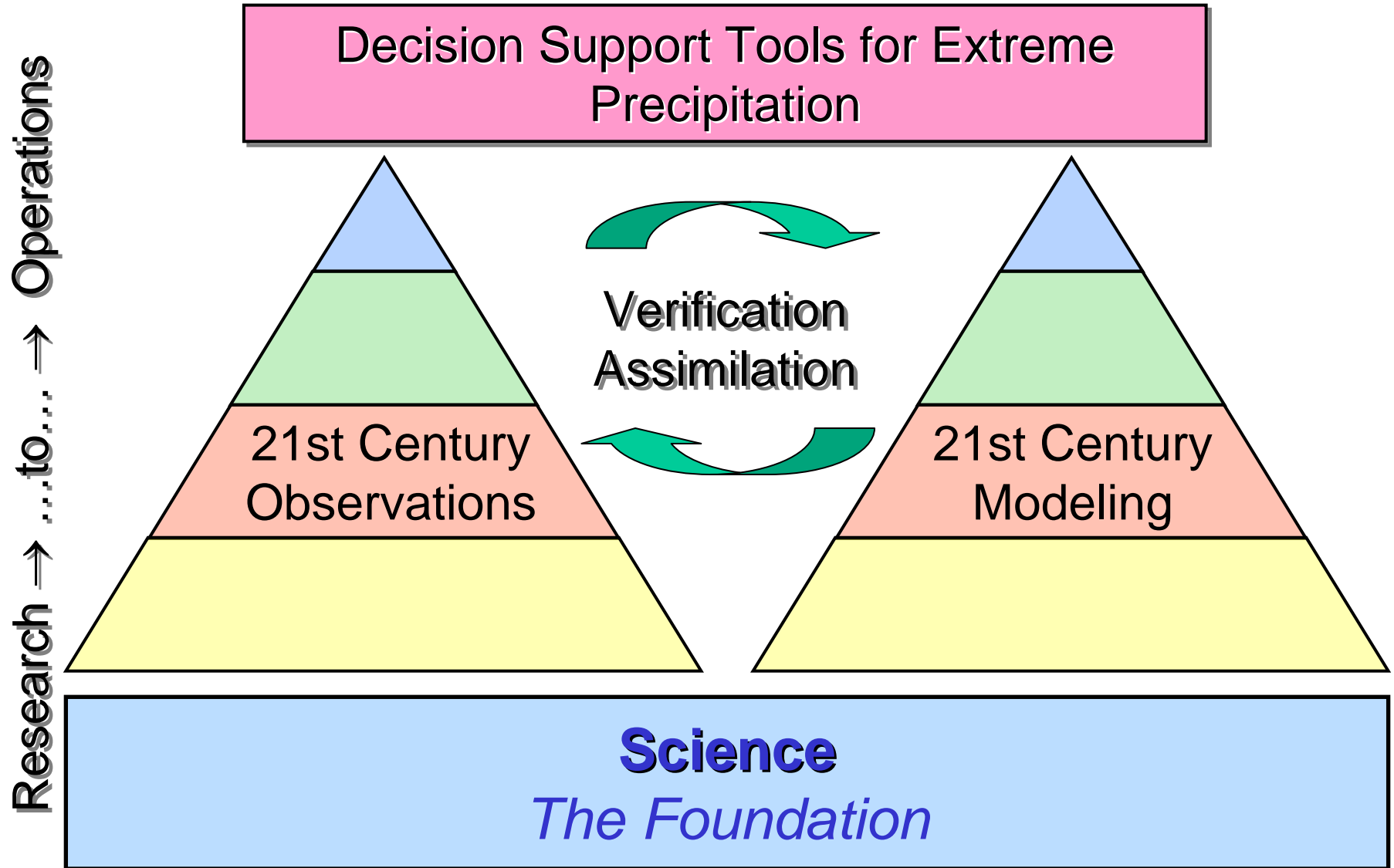
Major Activity Areas

- Quantitative Precipitation Estimation (QPE)
- Quantitative Precipitation Forecasts (QPF)
- Snow level and snow pack
- Hydrologic Applications & Surface Processes
- Verification & Decision Support Tools
 - Enhancing & Accelerating Research to Operations
 - Building partnerships

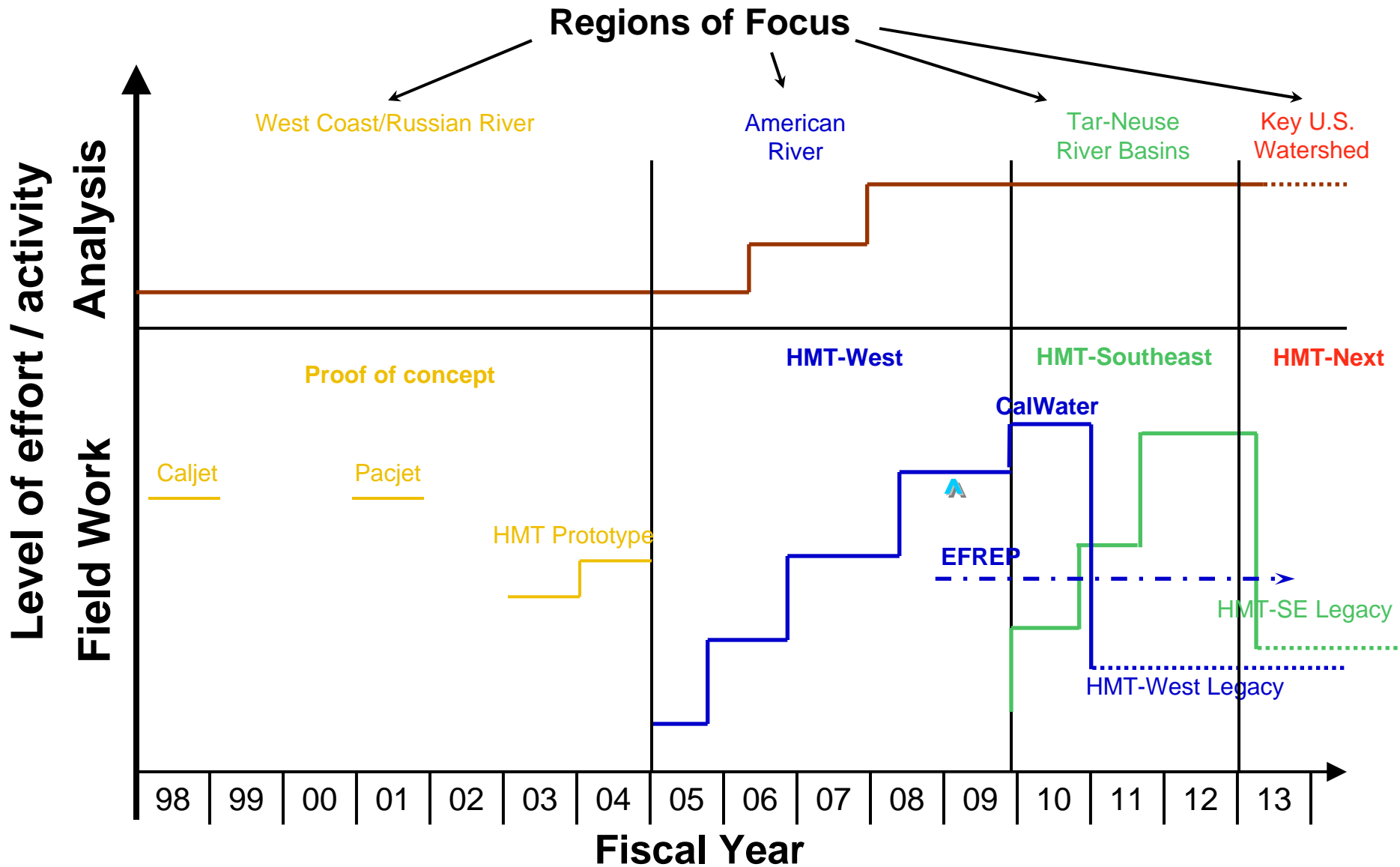


- Dabberdt et. al., 2005: *Multifunctional Mesoscale Observing Networks*, BAMS, pp. 961-982
- Ralph et. al., 2005: *Improving Short-Term (0–48 h) Cool-Season Quantitative Precipitation Forecasting Recommendations from a USWRP Workshop*, BAMS, pp. 1619-1632

Extreme Precipitation Information System



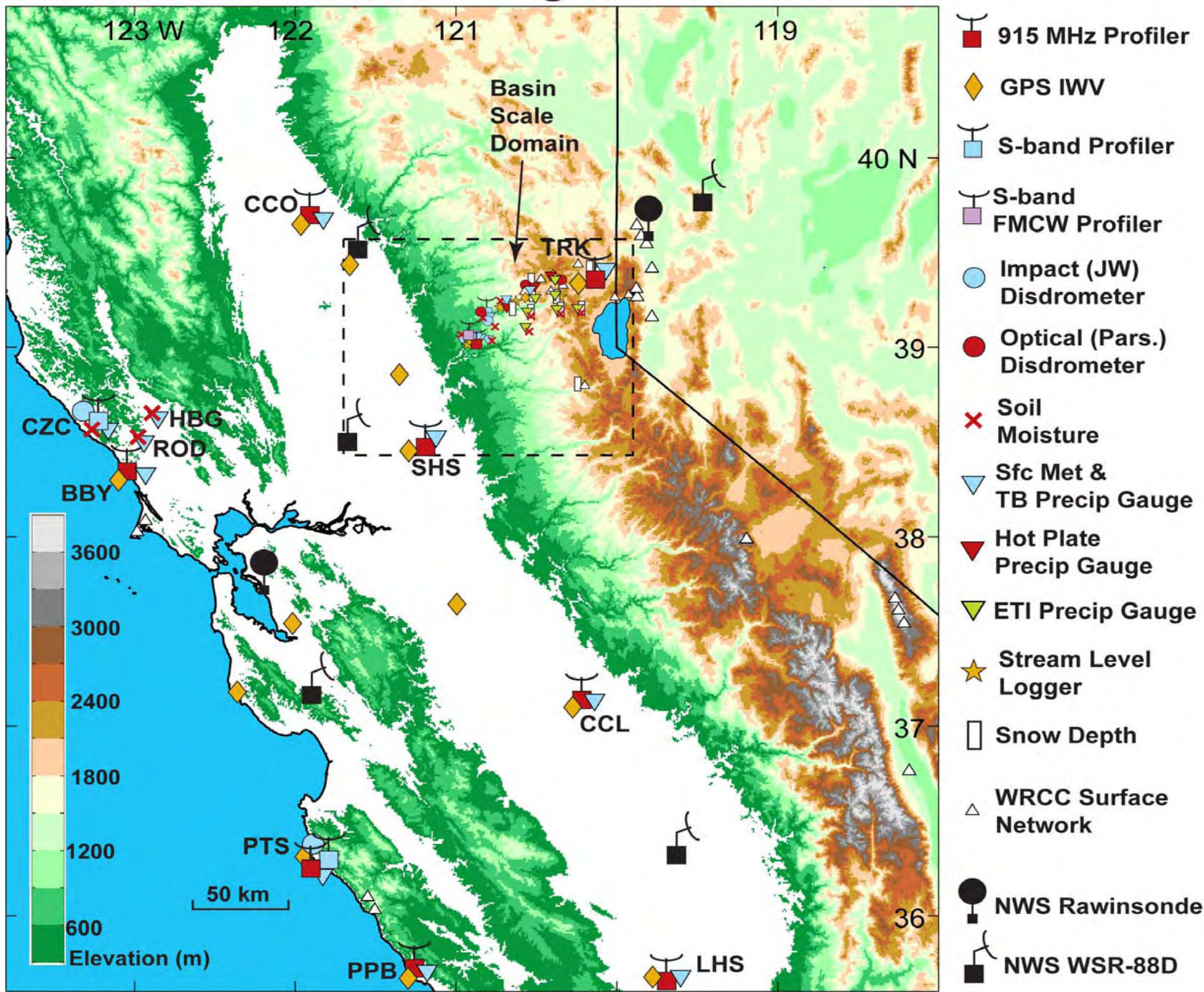
Hydrometeorology Testbed Timeline



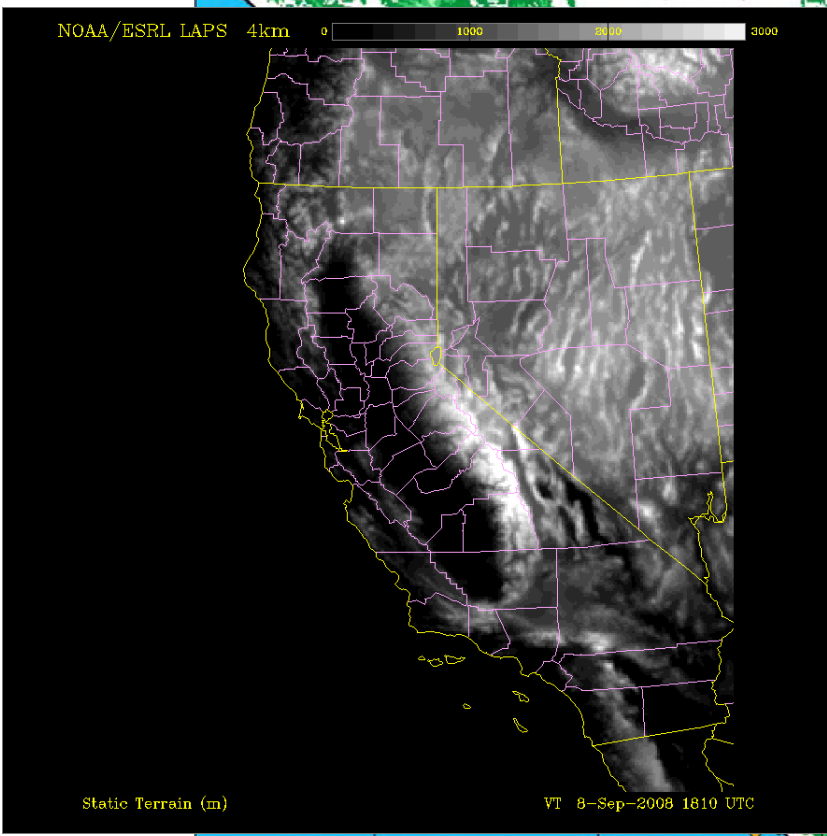
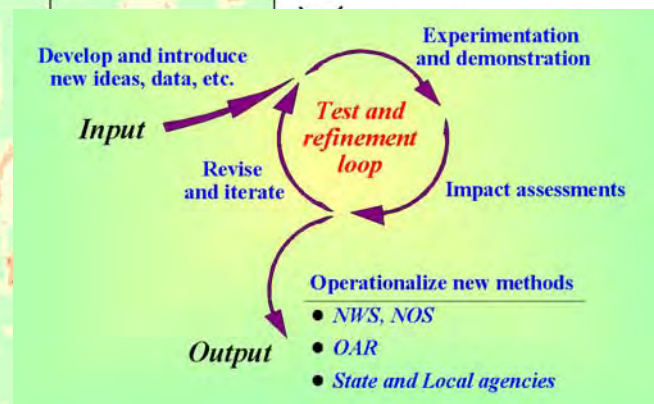
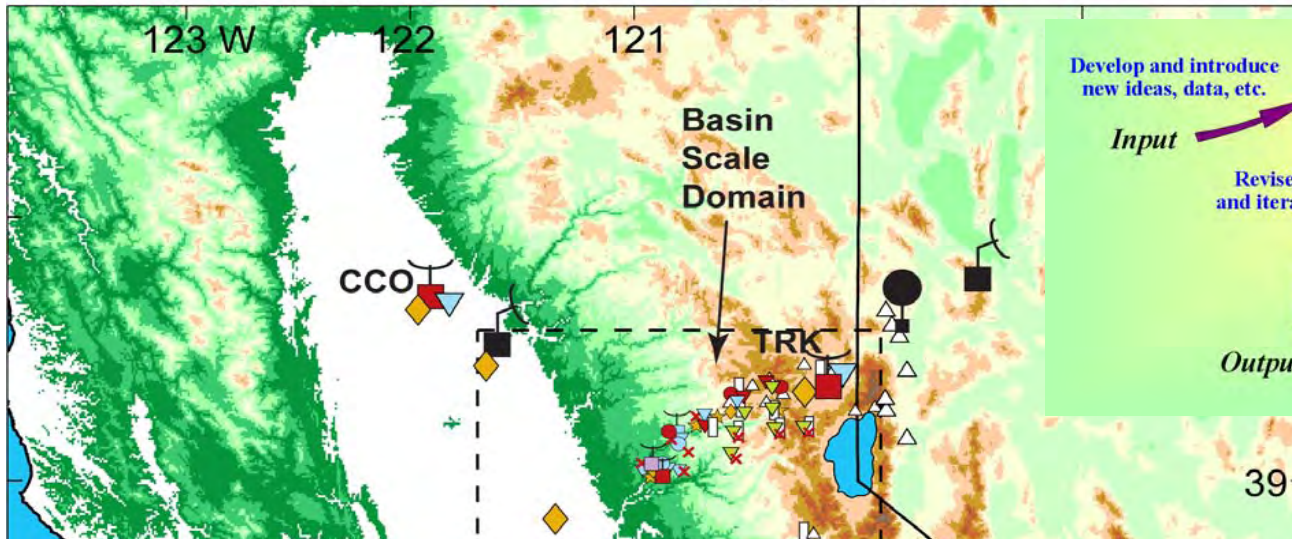
NOAA Hydrology Program
(Water Resources Data Assimilation)

NOAA Science and Technology Infusion Program
(Hydrometeorology Testbed)

HMT-WEST 2008-2009: Regional Scale Domain



HMT-WEST 2008-2009: Regional Scale Domain



- Optical (Pars.) Disdrometer
- ✕ Soil Moisture
- ▽ Sfc Met & TB Precip Gauge
- ▾ Hot Plate Precip Gauge
- ▿ ETI Precip Gauge
- ★ Stream Level Logger
- Snow Depth
- △ WRCC Surface Network
- NWS Rawinsonde
- NWS WSR-88D

Select Accomplishments

- Research: Key Findings on ARs and Warm Rain Processes
- Sensor Development, including AROs, QPE, Snow Level
- Performance Measures for QPF and Snow level
- Tailored High-Resolution Models
- Four R2O Transition Projects Identified in 2008
- EFREP: An HMT Legacy
- CalWater
- 33 Peer-Reviewed Publications Since 2000
 - *Lead authors from 7 institutions/contributing authors from an additional 10*
 - *Appeared in 12 different peer-reviewed journals*

Thank You!

SSM/I Water Vapor (Schluessel algorithm)
February 16, 2004

