Site-Specific Hydrologic Predictor (SSHP)

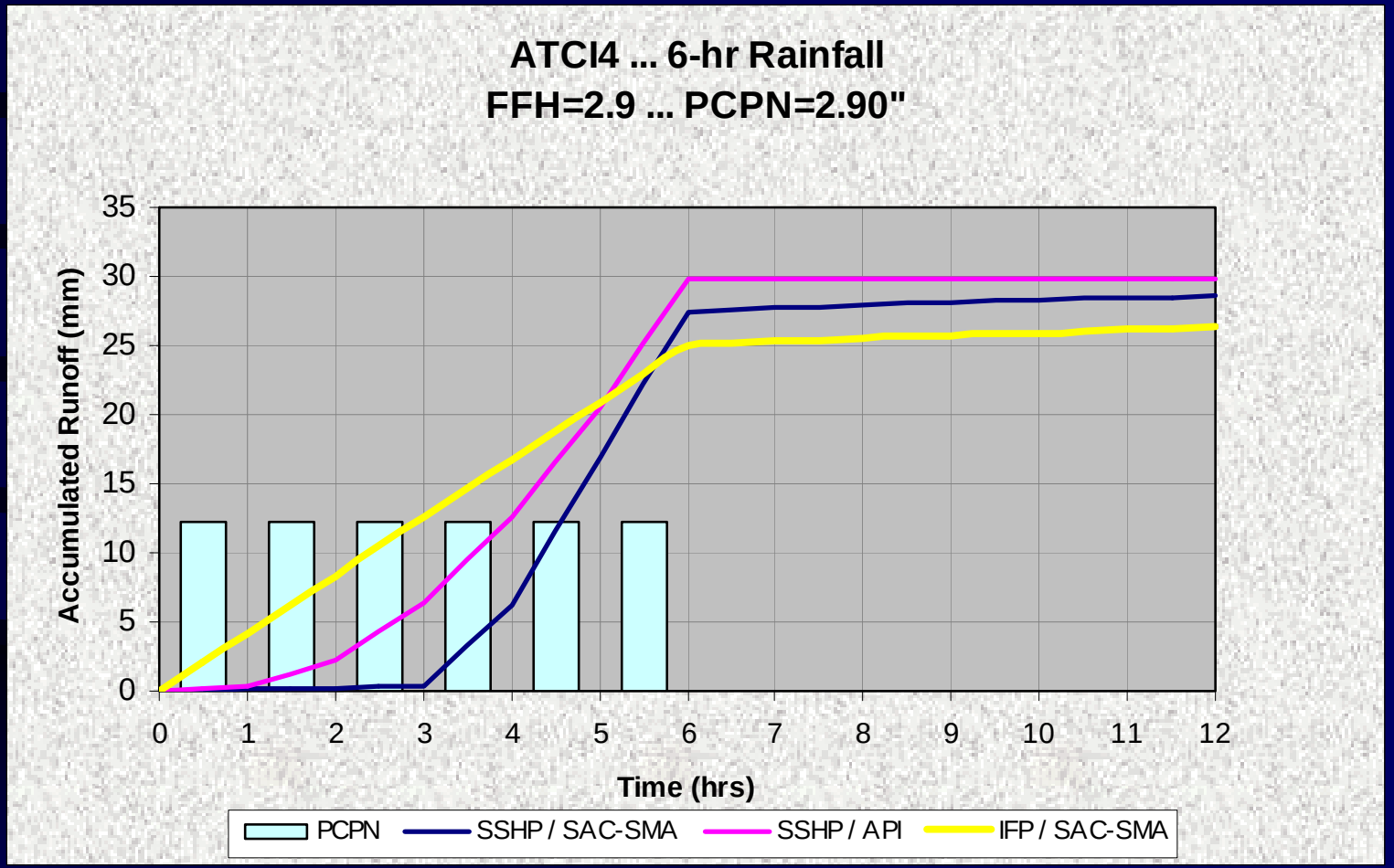
DOH/RDM Science Workshop

June 7-11, 2004

AWIPS OB4 Version

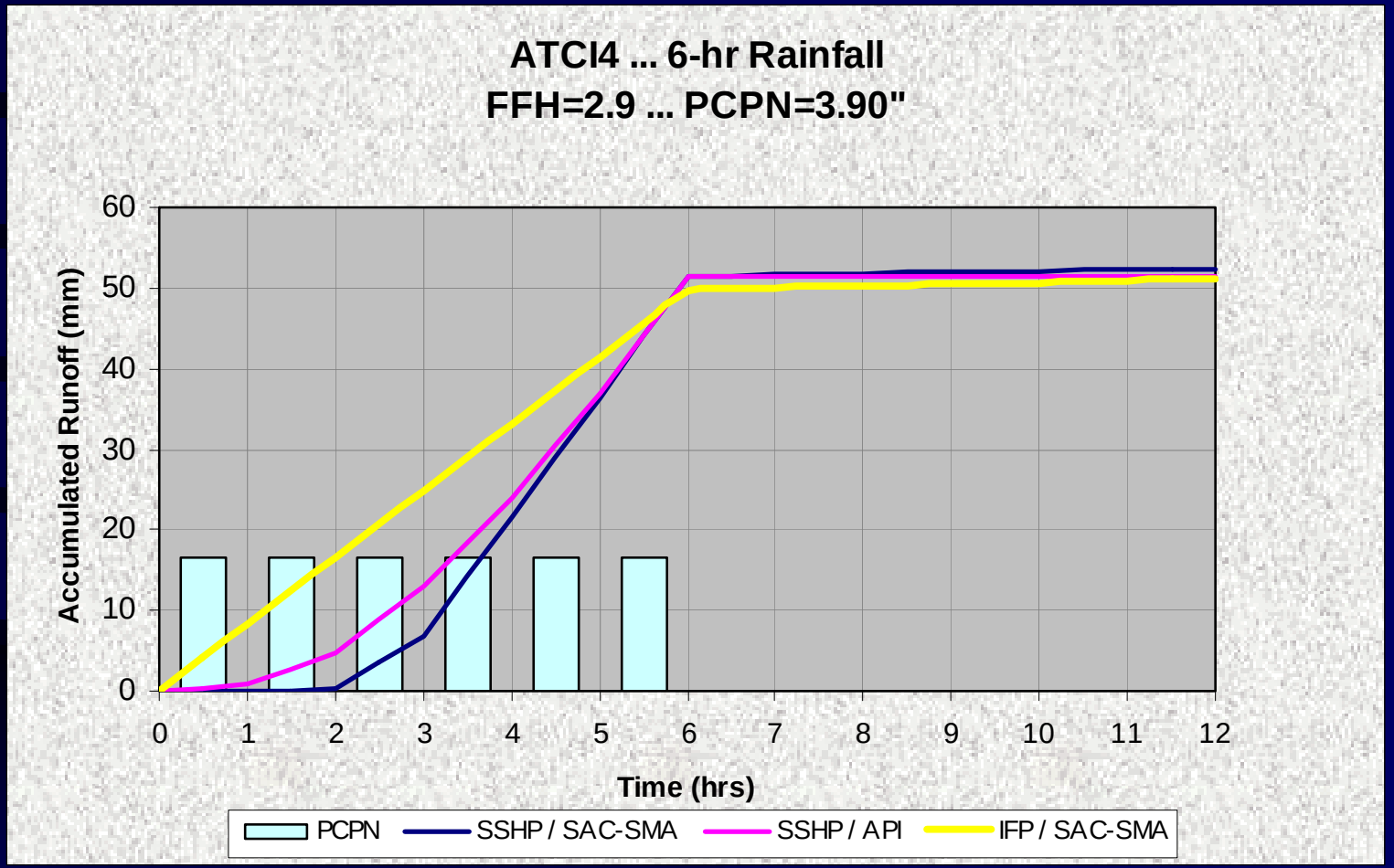
- Testing performed at MBRFC
  - Validation of API-MKC functionality
  - Cursory comparisons of SAC-SMA vs API-MKC
  - Case studies
  - Feedback on interface design
- SSHP Control Window
- SSHP Analysis Window

SAC-SMA vs API-MKC

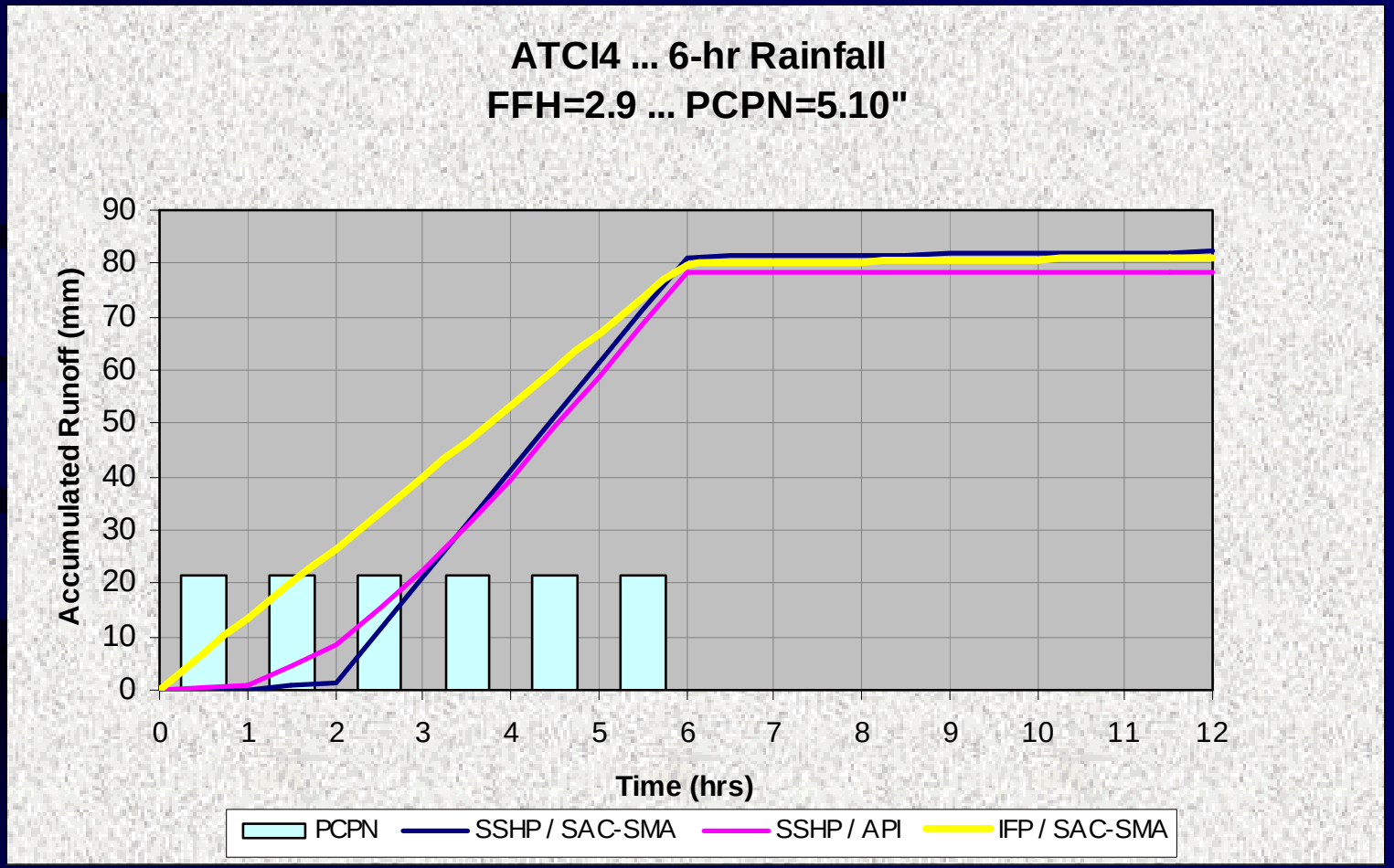


UZTWM=60, LZTWM=120 | UZFW=20:0.30 | LZFS=40:0.03 | LZFP=60:0.001 | PERC=180:2.2

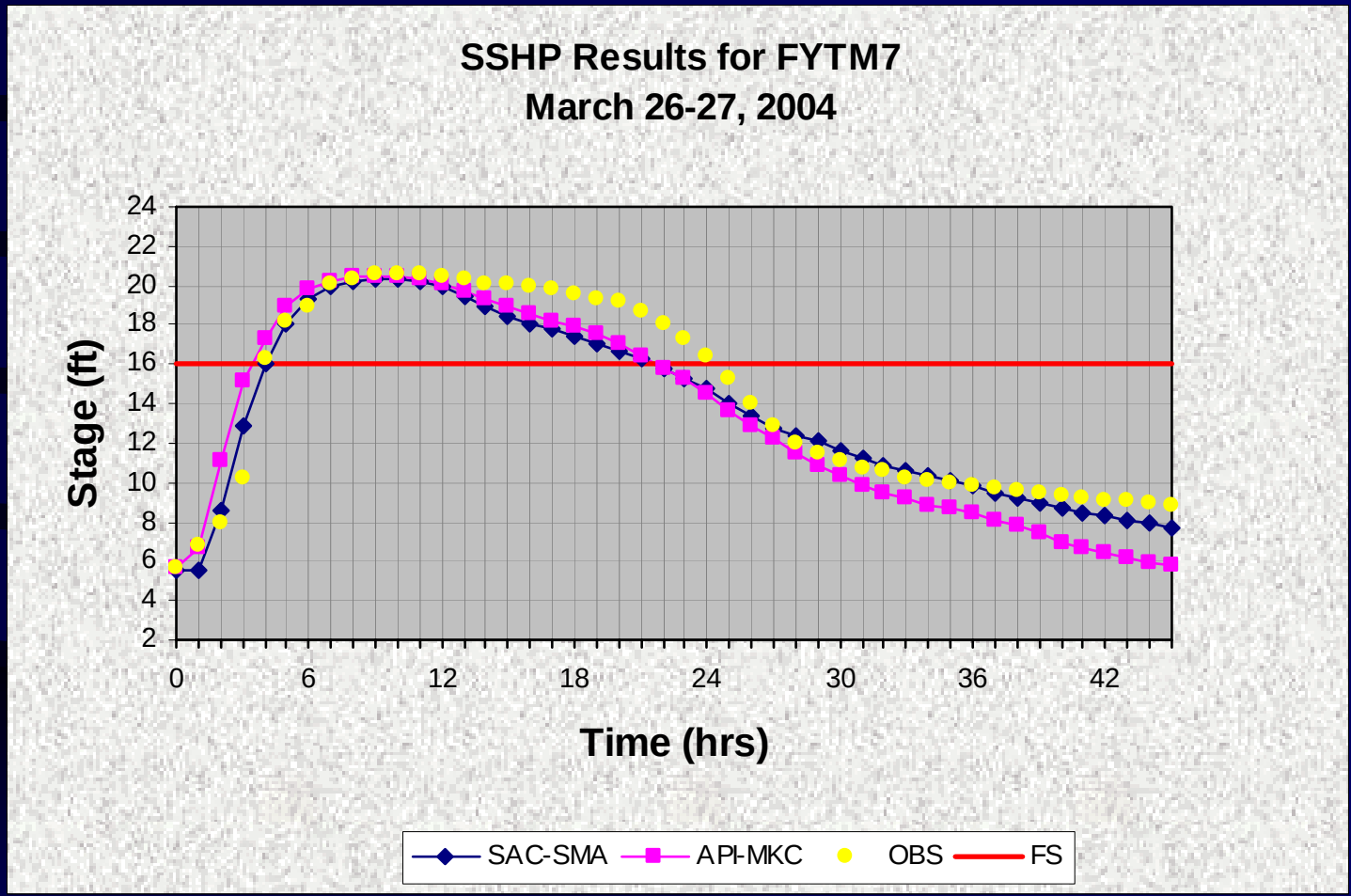
SAC-SMA vs API-MKC



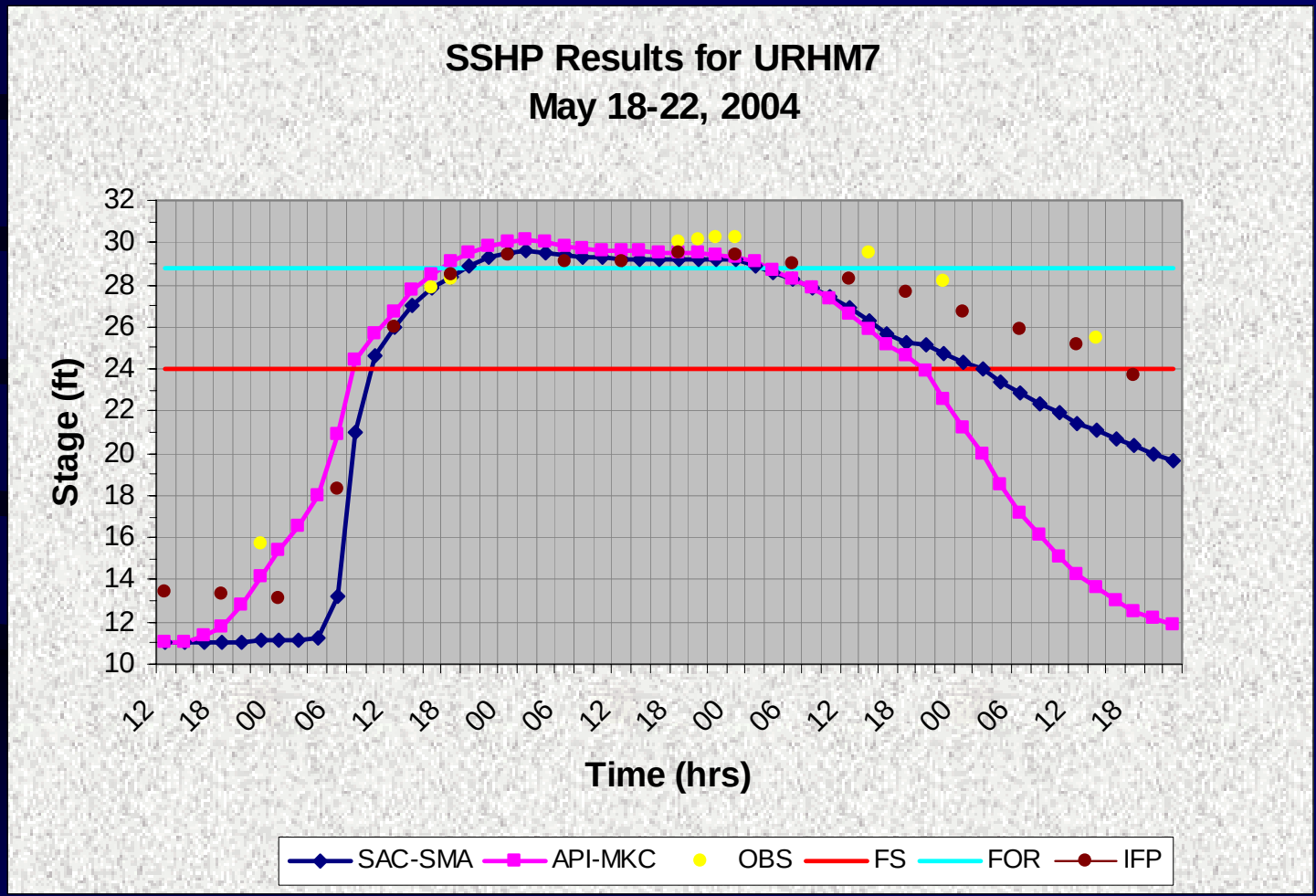
SAC-SMA vs API-MKC



Moniteau Creek nr Fayette, MO



South Grand River nr Urich, MO



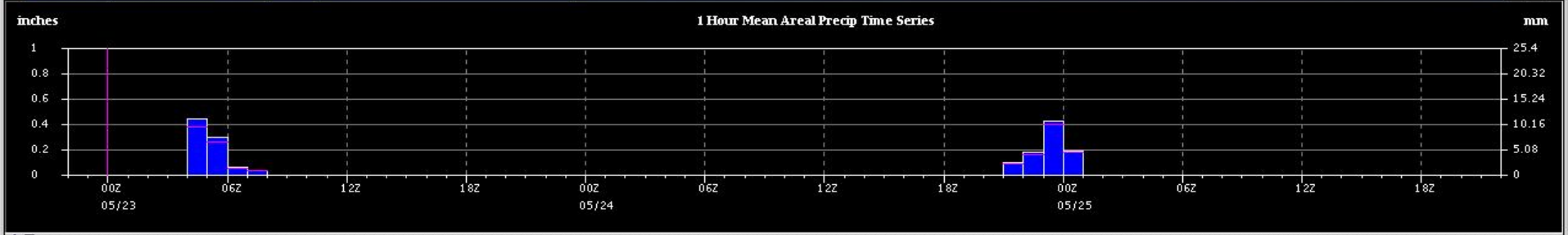
Ideas for Possible Future Enhancements

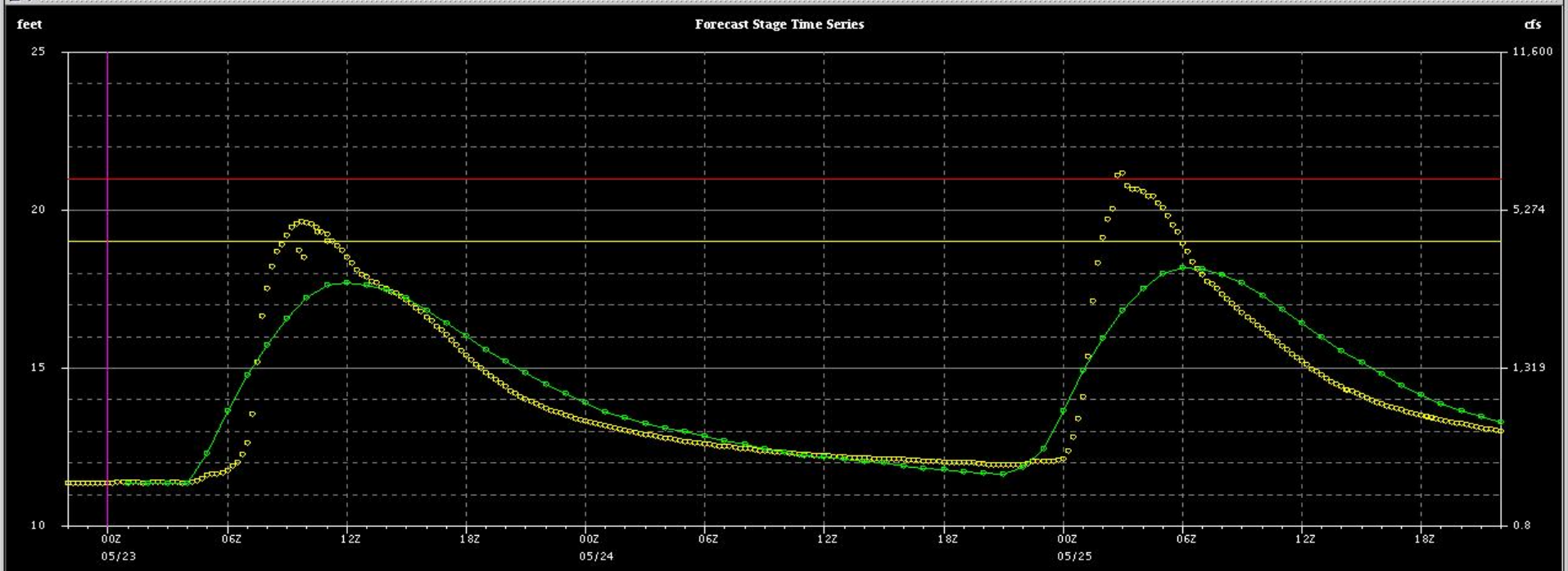
- Improve MAP pre-processing times
- Handling of multiple MAP areas
- Viewing unit hydrograph, rating curve, etc.
- Model adjustments – categorical?
- Snow model
- Batch version which could be run from cron

Thank you for your attention.

SSHP Control Window

SSHP Analysis Window - Modeling BDFI4, BEDFORD With BASIN : 1620 using the API-MKC model





Model Controls:

Rainfall-Runoff Model: API-MKC

Model Run Start Time: 2004/05/23 00:00 Z

2004/05/23 00:00 Z Areal FFH = 2.50

Refresh State List

Reload Precip TS | Reload Obs Stage TS

Graph Controls:

◀◀ ◀ ● ▶ ▶▶

☑ Show Obs Stages ☑ Force Show Flood Stage

☐ Delay Rerun While Drawing

☐ Show Minor Precip Lines ☑ Show Minor Stage Lines

API-MKC Settings:

☐ Use Custom Time 2004-05-26 16:00:00

Baseflow(cfs): 98.84 Reload Baseflow

FFH(inches): 2.5 Reload FFH

Threshold Runoff(inches): 1.51 Reload T. Runoff

Apply

Edit Precip... | Edit Fcst Height... | Save FcstHeight... | Save FcstDischarge... | Edit Evap... | Save Evap... | View Prior Runoff... | View Runoff...

Control Window... | Capture Screen | Close