PRECIP LOSS FUNCTION: $P_{xs}(t)$ = init.abs. then prop.loss
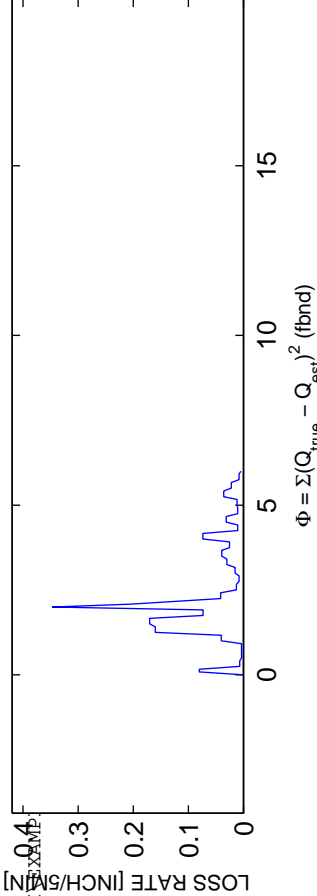
RUN #1

```
STAID-DATE: stal1111111_1968_0709
DATA DIR: d:\jvrabel\SWAP\UNIT\precip_loss_optimization\toWEB\BOTH\EXAMP
AREA [mi²] ........... PRECIPITATION ....... 1.33

TOTAL RAIN VOLUME [inches] ........ 5.8333
EXCESS RAIN VOLUME [inches] ....... 2.505
PECENT RAIN VOLUME LOSS .......... 57.0564

------ DISCHARGE ------
MEAN OBS Q [CFS] ................. 112.4013
MEAN SIM Q [CFS] ................. 89.0759
RMS Q RESIDUALS [CFS] ............ 63.6044
Q RELATIVE BIAS .................. -0.20752
Q NASH-SUTCLIFFE EFFICIENCY ...... 0.88327
Q SIM vs OBS R² .................. 0.9025
Q SIM vs OBS SLOPE ............... 0.94116
Q SIM vs OBS INTERCEPT ........... 28.5664

------ VOLUME ------
MEAN OBS V [CFS] ................. 1.9698
MEAN SIM V [CFS] ................. 1.5919
RMS V RESIDUALS [CFS] ............ 0.46511
V RELATIVE BIAS .................. -0.19183
V NASH-SUTCLIFFE EFFICIENCY ...... 0.88564
V SIM vs OBS R² .................. 0.9934
V SIM vs OBS SLOPE ............... 1.2199
V SIM vs OBS INTERCEPT ........... 0.027771

------ OPTIMIZATION RESULTS ------
SIM/OBS TOTAL VOLUME RATIO ....... 0.79246
MINIMIZED OBJECTIVE FUNCTION VALUE ... 1169153.7294
Copt : 2.0052       0.65437
```

OBS AND MODELED RAINFALL: RAW DATA USED

$$\Phi = \Sigma (Q_{true} - Q_{est})^2 \text{ (fbnd)}$$

OBS AND ESTIMATED DISCHARGES

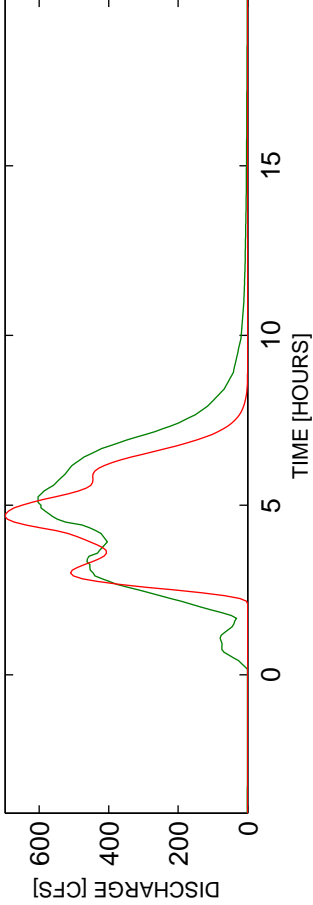## DISCHARGE RESIDUALS
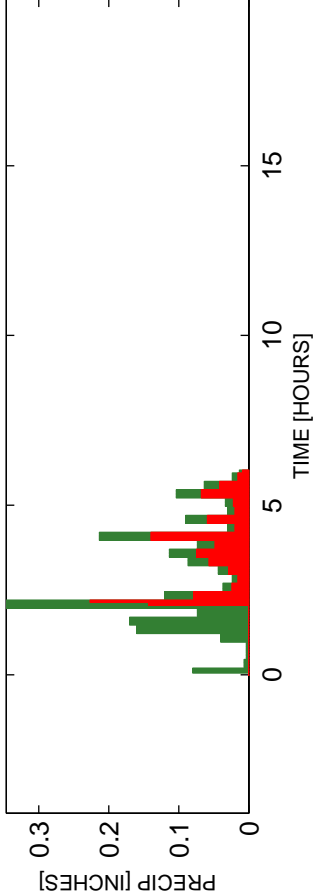
OBS AND ESTIMATED ACCUMULATED VOLUME
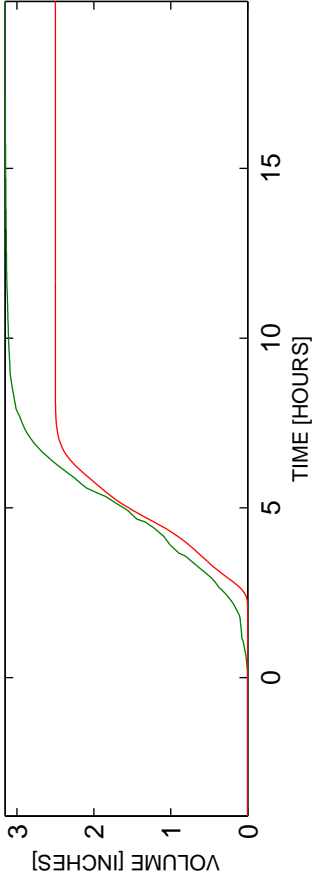
ACCUMULATED VOLUME RESIDUALS