

## Appendix F: Model to Data Comparisons

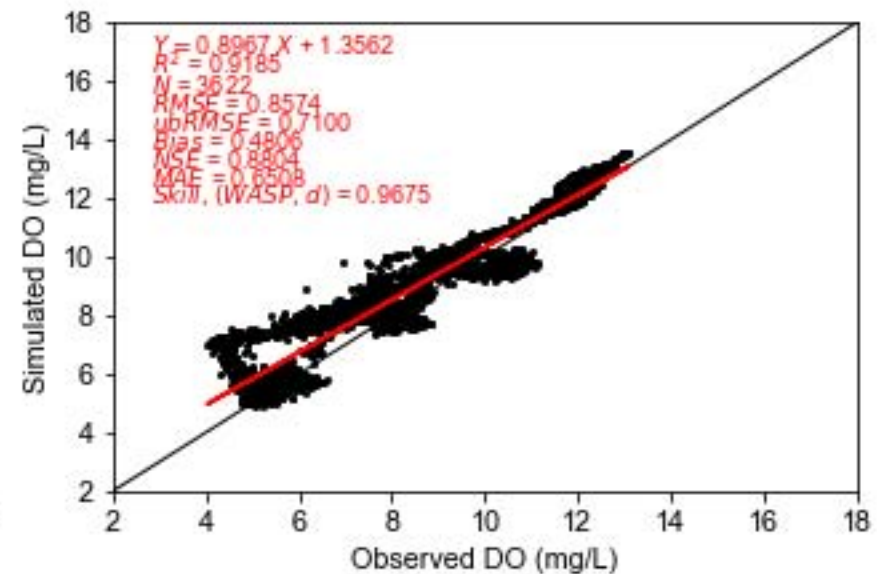
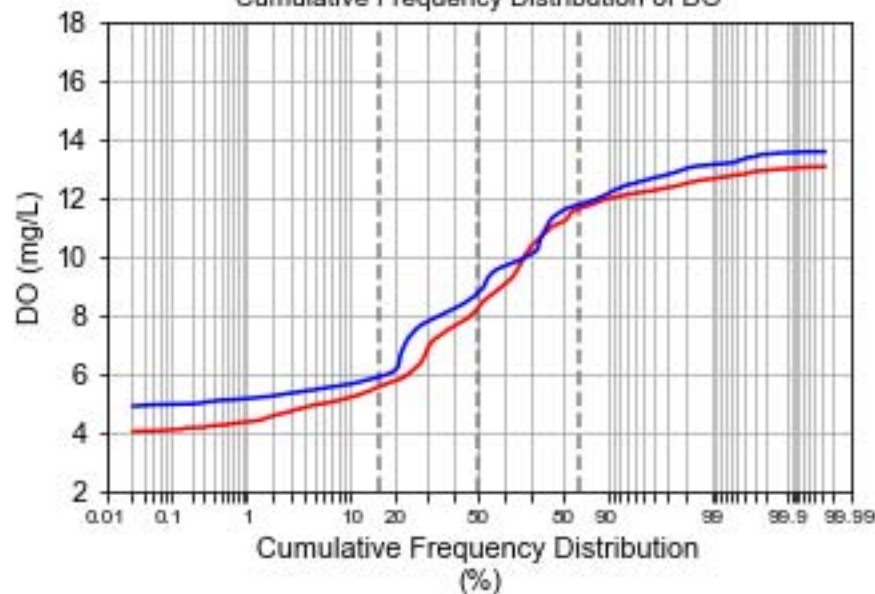
### Appendix F-8: Continuous data comparisons – 2012 DO and DOSAT

This appendix is in connection with Section 4.4.2 in the main report – Comparisons to the continuous data at discrete locations. It presents the predicted and measured (near-) surface dissolved oxygen concentrations (DO) and its percent saturations (DOSAT) at the USGS stations for the corroboration period 2012. Both the model predictions and data represent instantaneous values paired at two-hour intervals.

Simulated and Observed DO at Pennypack Woods, RM 110.5: 2012 Period



Cumulative Frequency Distribution of DO



Boat run samples were collected at RM 110.7 close to USGS station.

USGS (014670261) 15-min data were sampled every 2 hours to match model output time step.

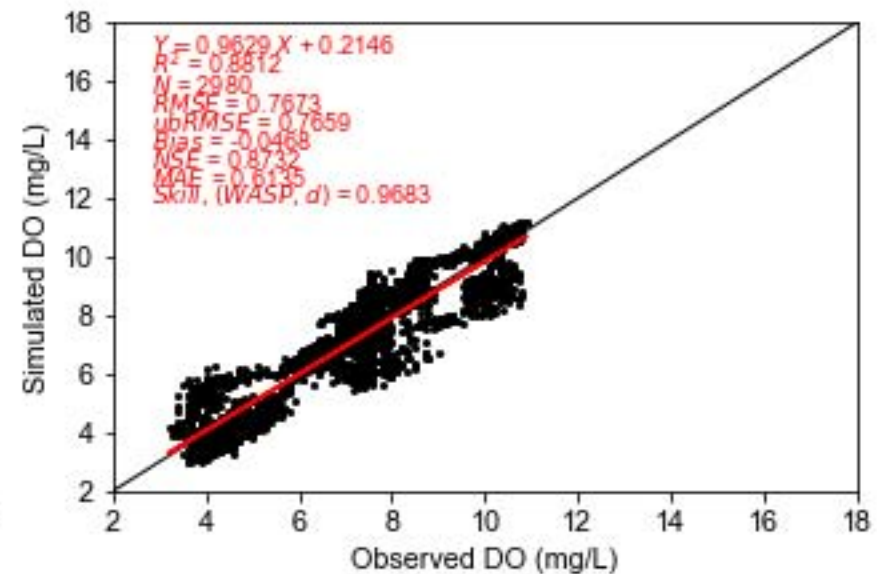
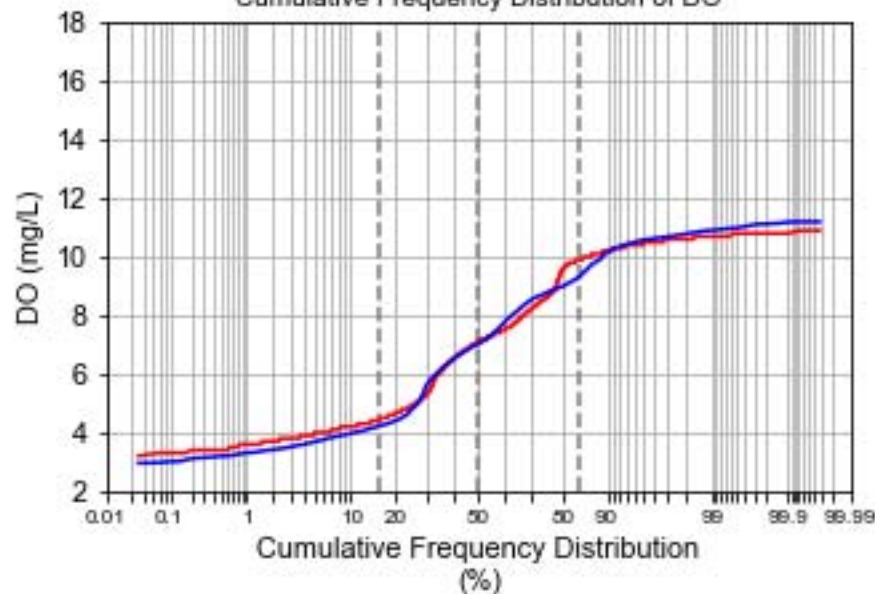
Model results are based on the average values from vertical layer 11 to 11.

Run ID: 3D\_202308-01

Simulated and Observed DO at Ben Franklin Bridge, RM 100.1: 2012 Period



Cumulative Frequency Distribution of DO



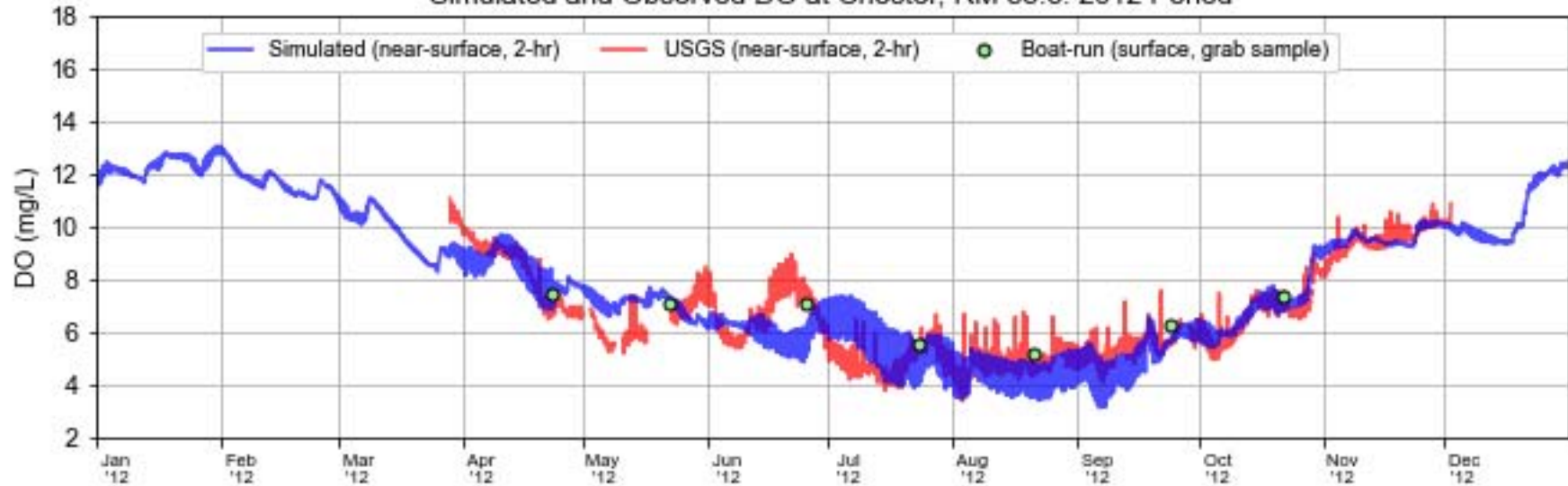
Boat run samples were collected at RM 100.2 close to USGS station.

USGS (01467200) 15-min data were sampled every 2 hours to match model output time step.

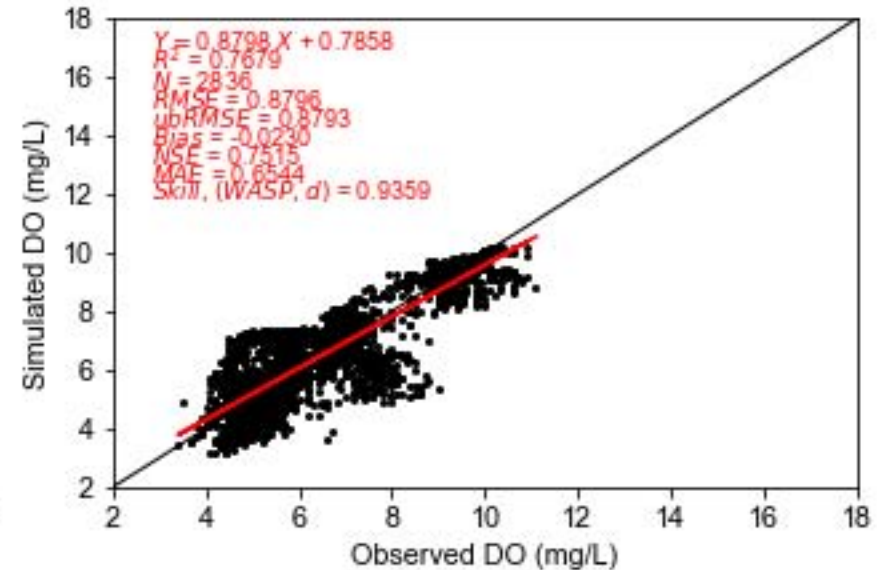
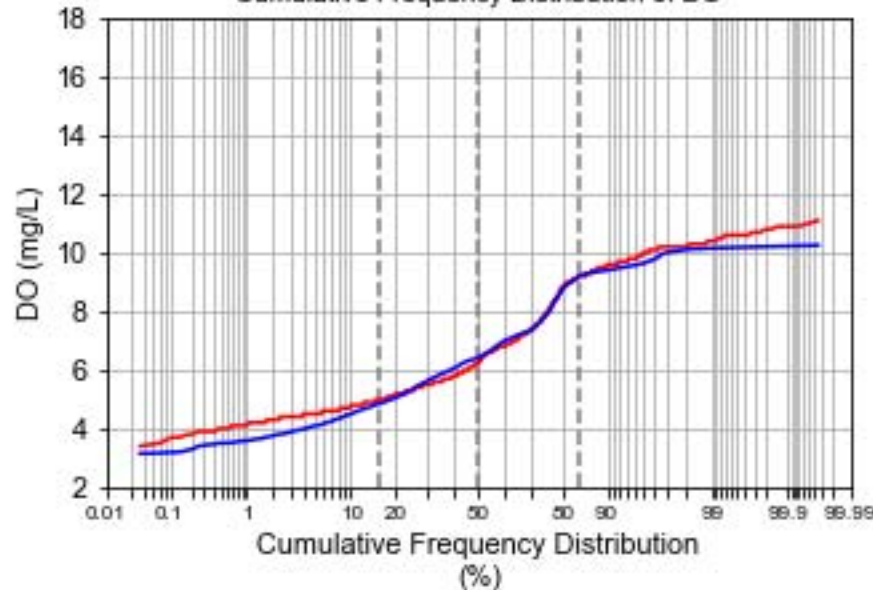
Model results are based on the average values from vertical layer 11 to 11.

Run ID: 3D\_202308-01

Simulated and Observed DO at Chester, RM 83.6: 2012 Period



Cumulative Frequency Distribution of DO



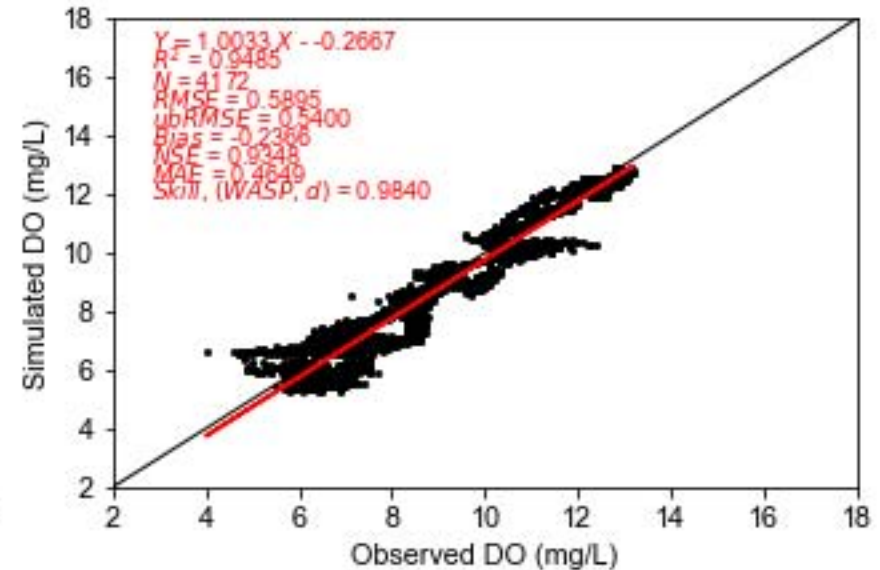
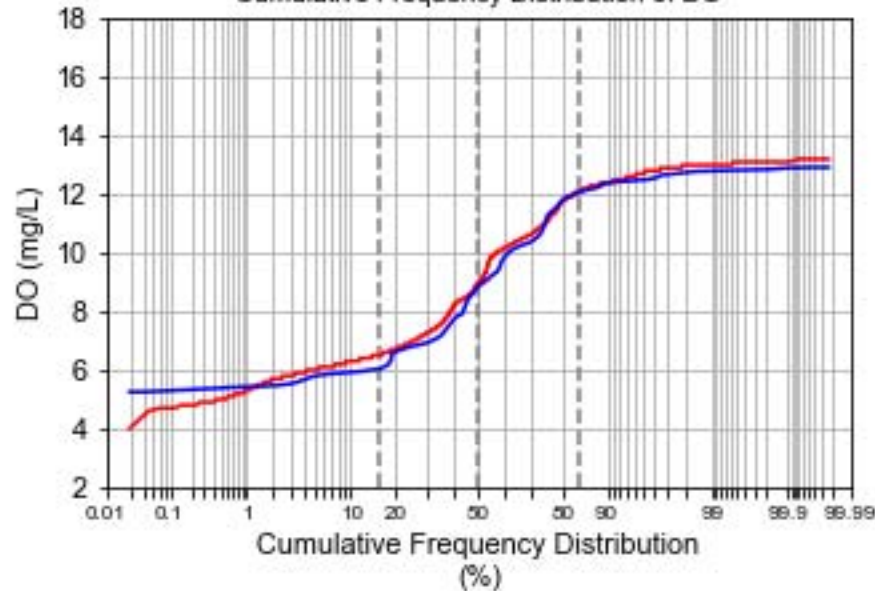
Boat run samples were collected at RM 84.0 close to USGS station.  
 USGS (01477050) 15-min data were sampled every 2 hours to match model output time step.  
 Model results are based on the average values from vertical layer 11 to 11.  
 Run ID: 3D\_202308-01



Simulated and Observed DO at Reedy Island, RM 54.1: 2012 Period

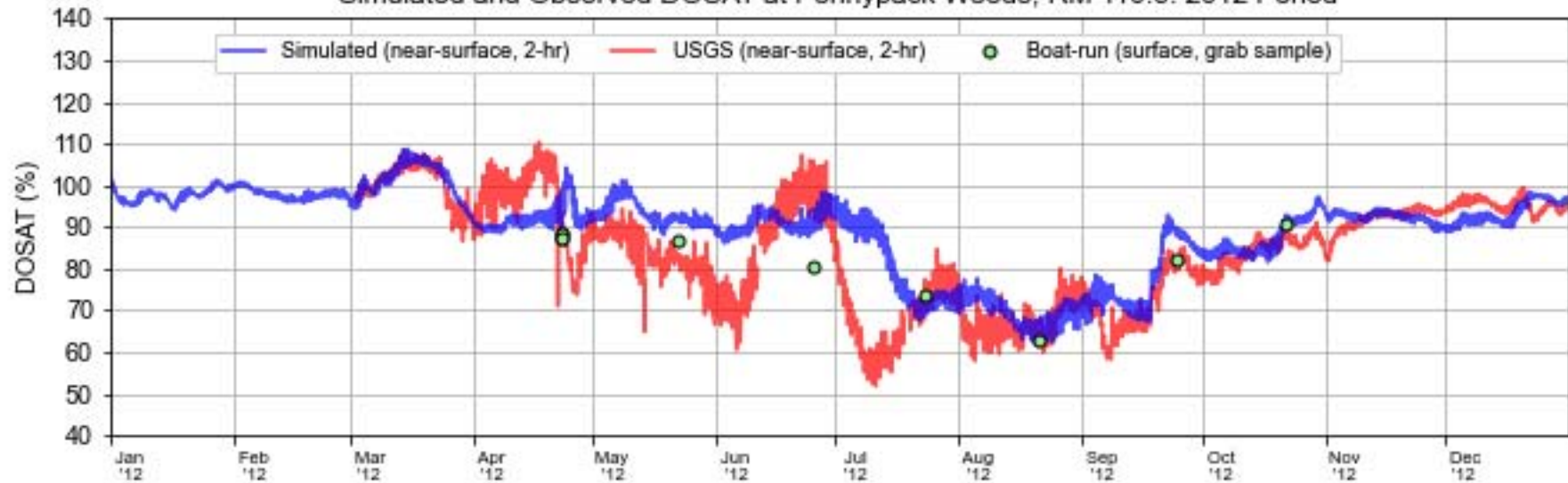


Cumulative Frequency Distribution of DO

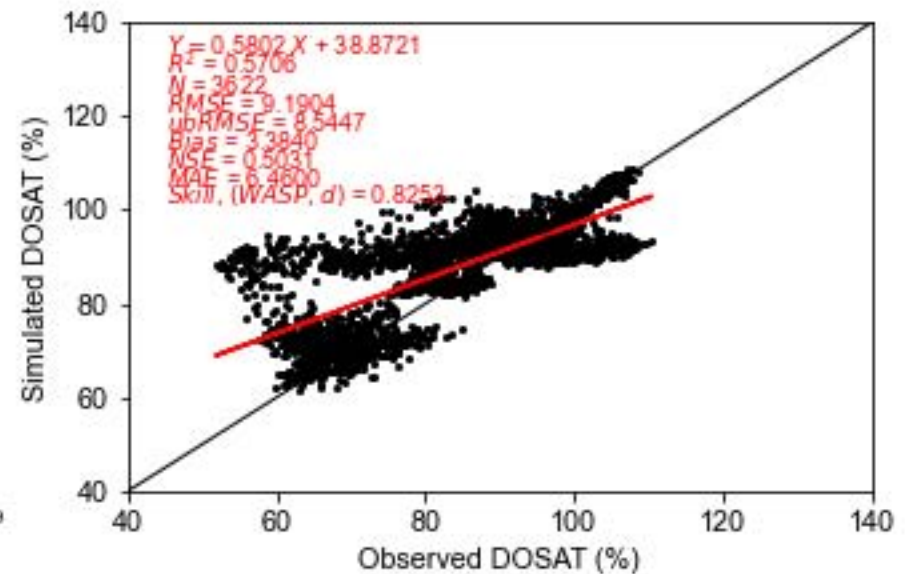
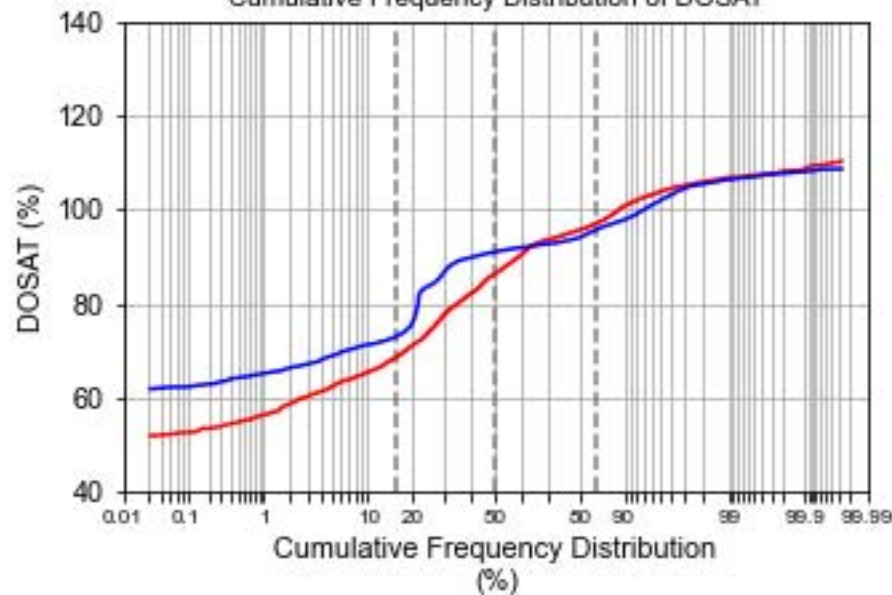


Boat run samples were collected at RM 54.9 close to USGS station.  
 USGS (01482800) 15-min data were sampled every 2 hours to match model output time step.  
 Model results are based on the average values from vertical layer 11 to 11.  
 Run ID: 3D\_202308-01

Simulated and Observed DOSAT at Pennypack Woods, RM 110.5: 2012 Period



Cumulative Frequency Distribution of DOSAT



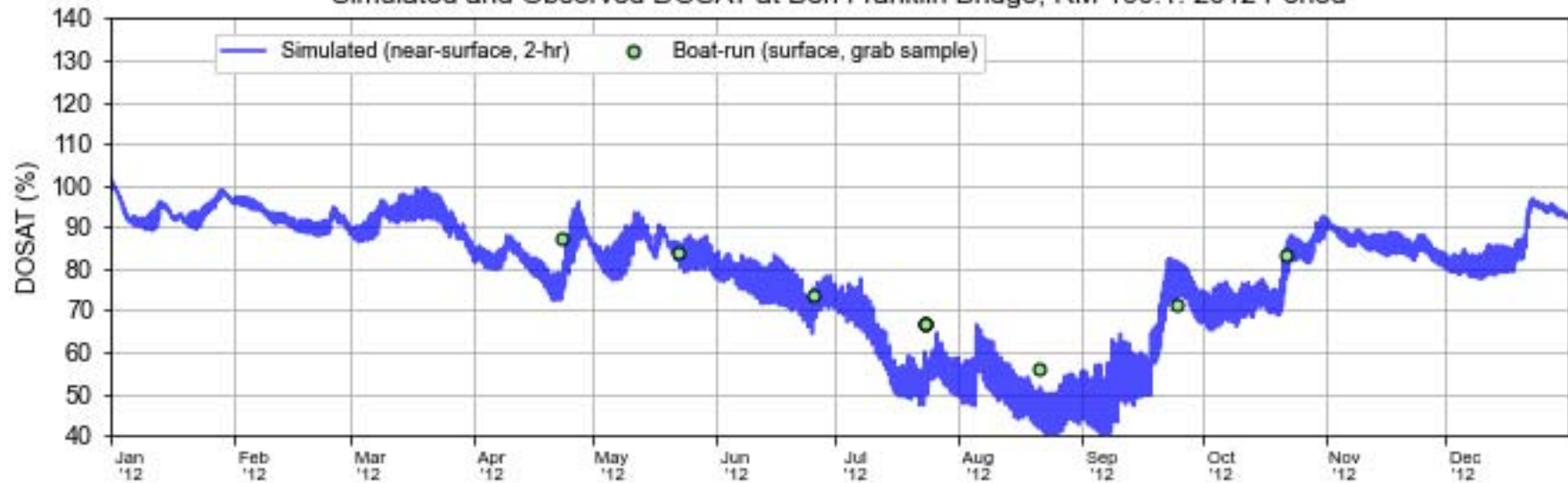
Boat run samples were collected at RM 110.7 close to USGS station.

USGS (014670261) 15-min data were sampled every 2 hours to match model output time step.

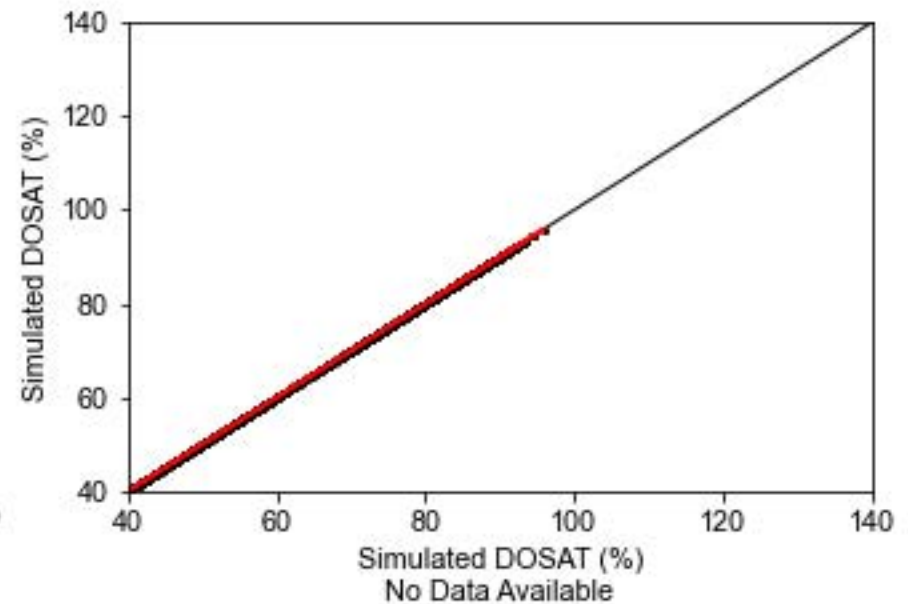
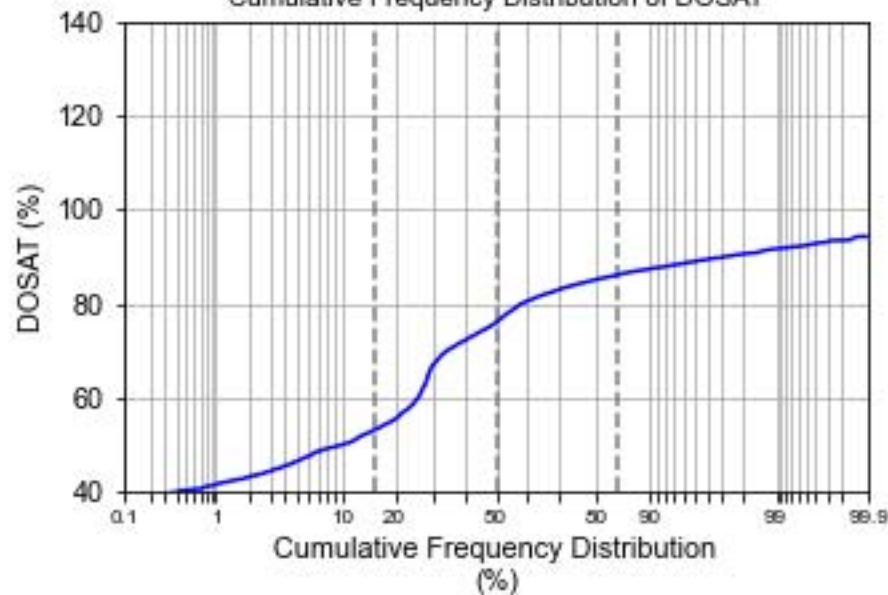
Model results are based on the average values from vertical layer 11 to 11.

Run ID: 3D\_202308-01

Simulated and Observed DOSAT at Ben Franklin Bridge, RM 100.1: 2012 Period

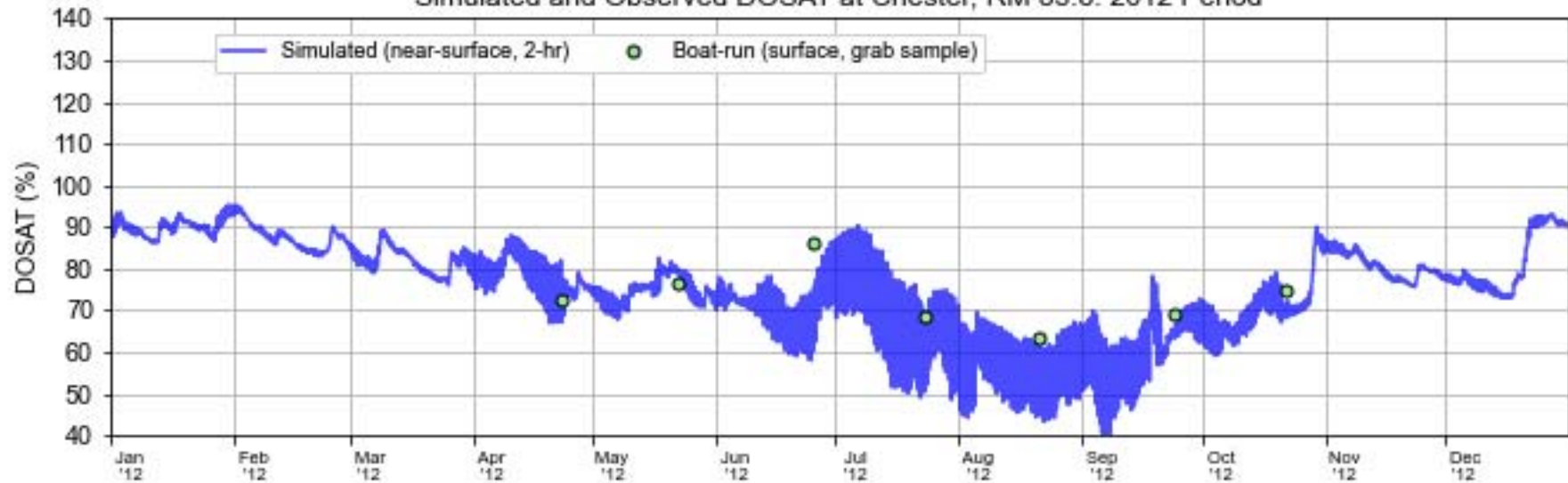


Cumulative Frequency Distribution of DOSAT

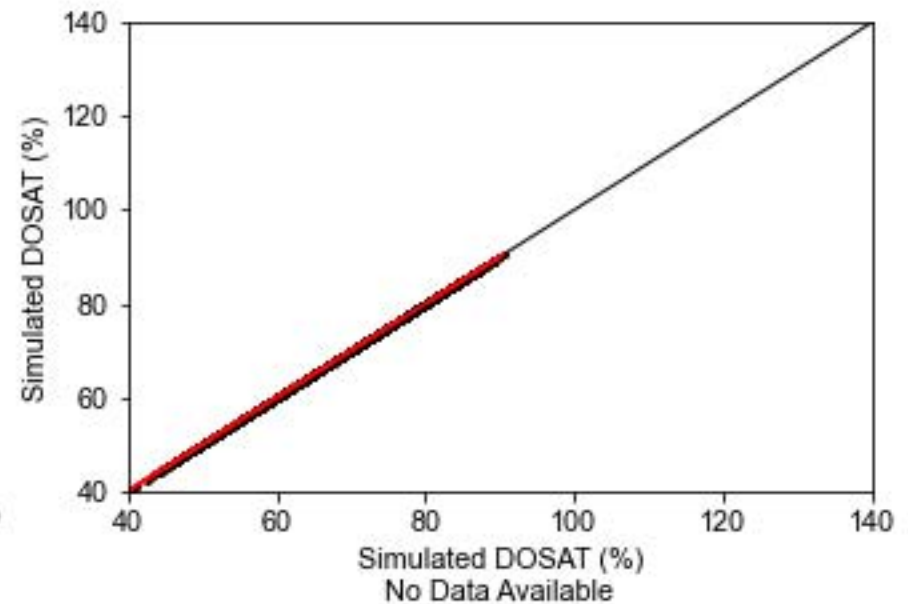
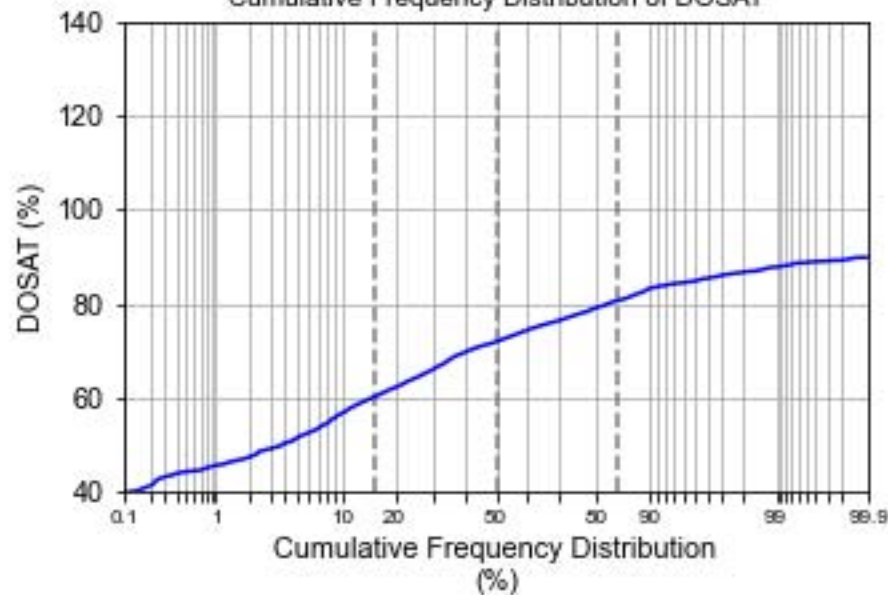


Boat run samples were collected at RM 100.2 close to USGS station.  
 USGS (01467200) data were not available.  
 Model results are based on the average values from vertical layer 11 to 11.  
 Run ID: 3D\_202308-01

Simulated and Observed DOSAT at Chester, RM 83.6: 2012 Period



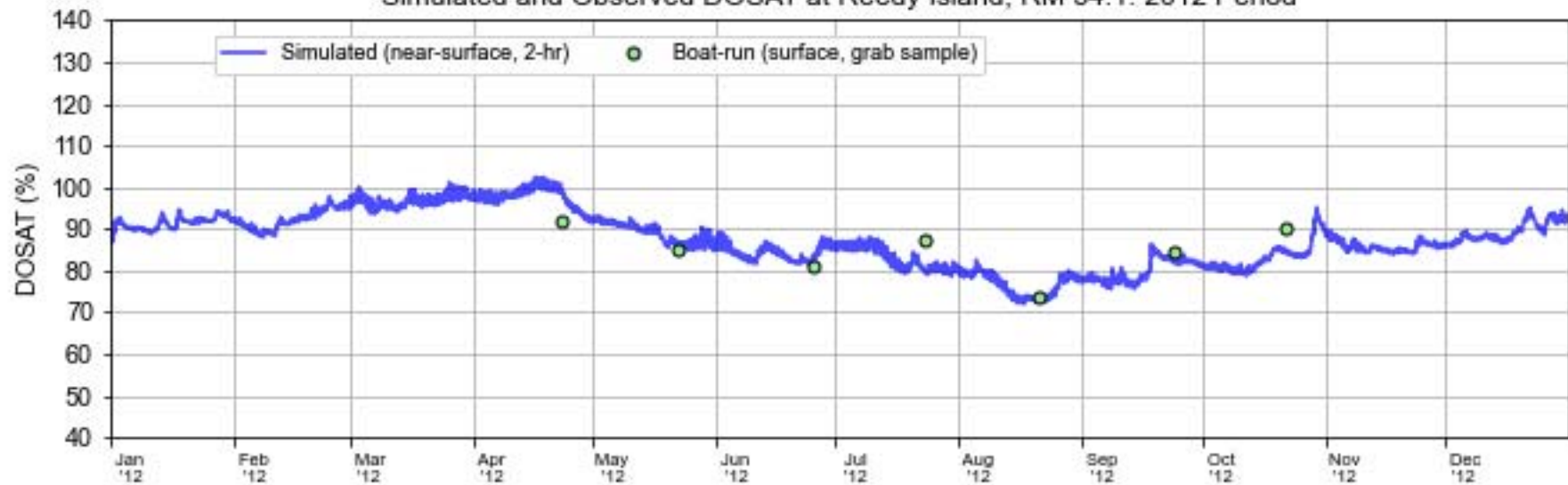
Cumulative Frequency Distribution of DOSAT



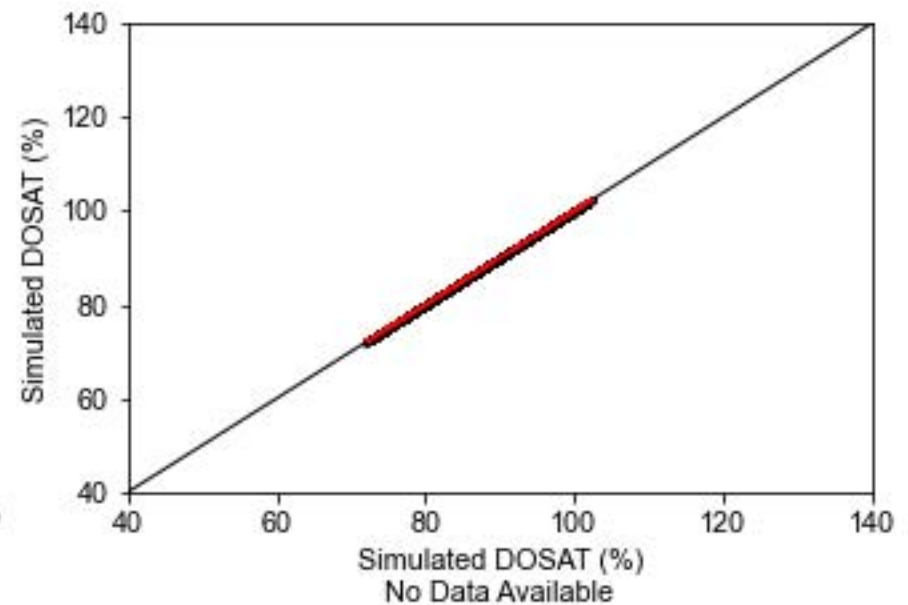
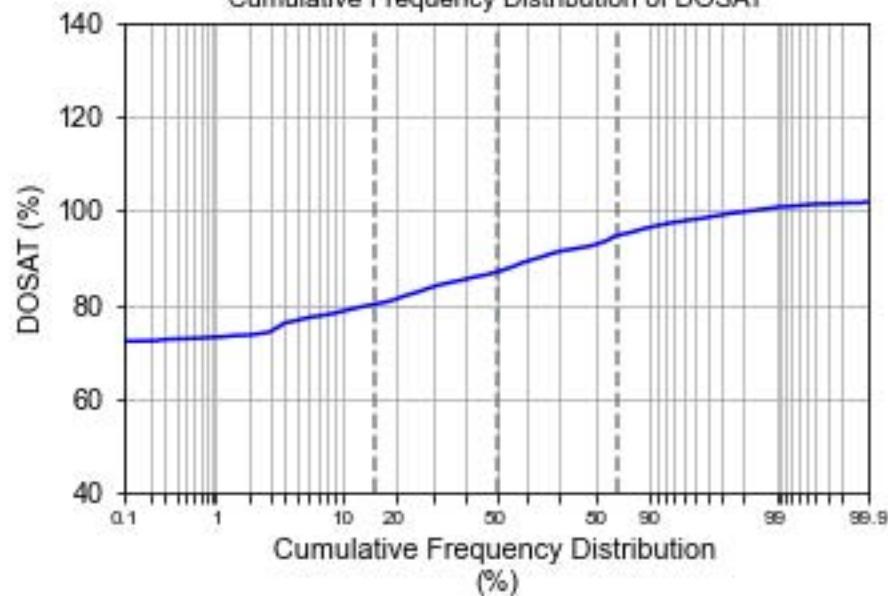
Boat run samples were collected at RM 84.0 close to USGS station.  
 USGS (01477050) data were not available.  
 Model results are based on the average values from vertical layer 11 to 11.  
 Run ID: 3D\_202308-01



Simulated and Observed DOSAT at Reedy Island, RM 54.1: 2012 Period



Cumulative Frequency Distribution of DOSAT



Boat run samples were collected at RM 54.9 close to USGS station.  
 USGS (01482800) data were not available.  
 Model results are based on the average values from vertical layer 11 to 11.  
 Run ID: 3D\_202308-01