Diagnostic Evaluation

Ozone is overestimated in summer, especially in August.

On several days, 8-hr max ozone is overestimated throughout the SEMAP region (e.g., August 8). However, there are also days when the overestimation is limited to the coastal areas (e.g., August 15).
Valrico, FL

8-hr max ozone is overestimated in Valrico, FL (near Tampa). Note that ozone performance is good at night.

NO\textsubscript{x} and NO\textsubscript{y} are severely overestimated at Valrico, FL.

Observed afternoon NO\textsubscript{y} < NO\textsubscript{x} (???)
Modeled afternoon PBL height is 1000-2000 m.
Decatur, GA

8-hr max ozone is overestimated in Decatur, GA (near Atlanta). Note that ozone performance is generally good at night.

NO\textsubscript{x} and NO\textsubscript{y} at Decatur, GA:
Modeled afternoon PBL height is 800-3200 m at Decatur.

Afternoon

Decatur is also a PAMS site. VOC is also overestimated at Decatur.
Charlotte, NC

8-hr max ozone is overestimated in Charlotte, NC. Note that ozone performance is fairly good at night.

NO\textsubscript{x} and NO\textsubscript{y} at Charlotte, NC: