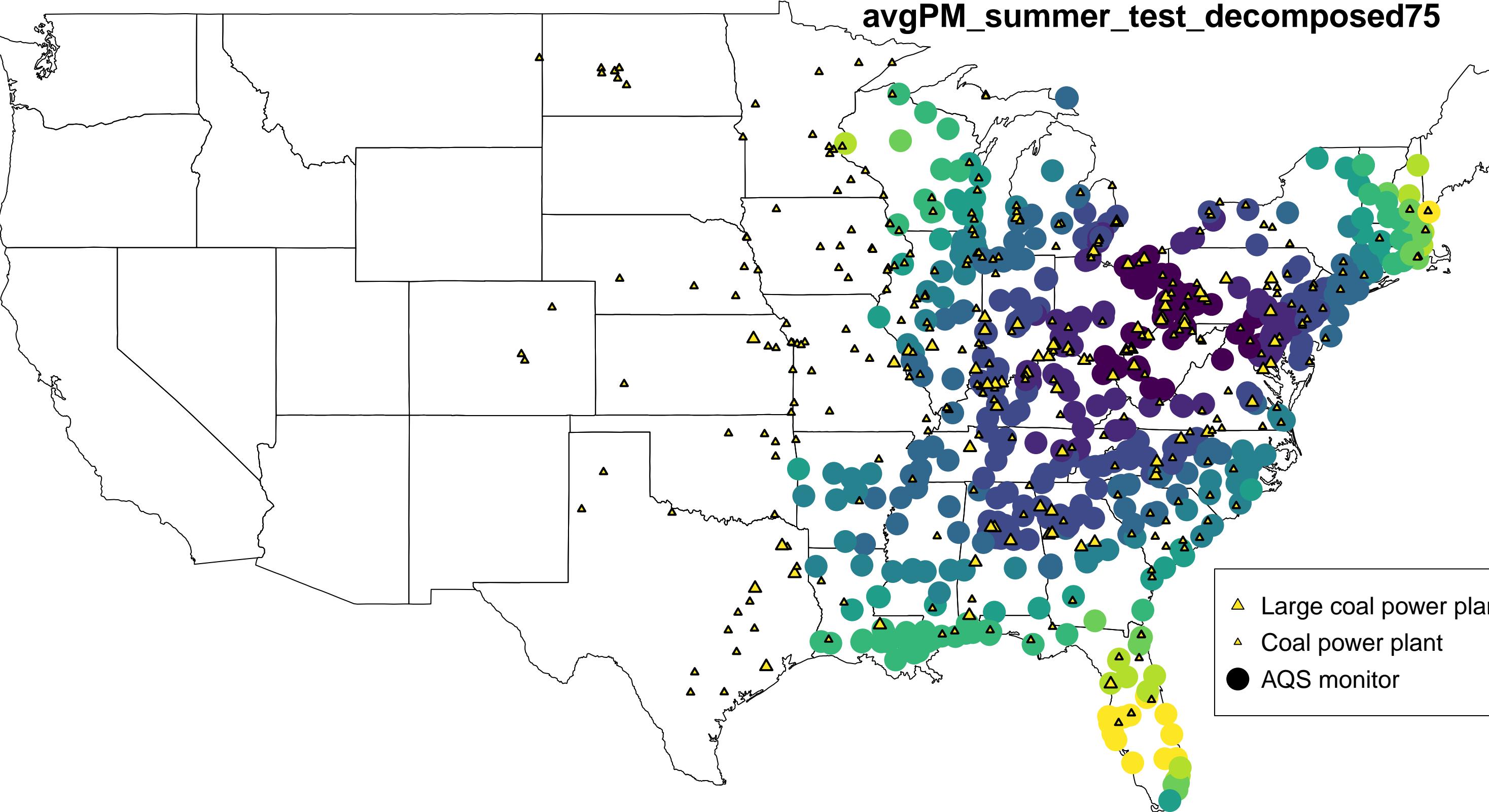


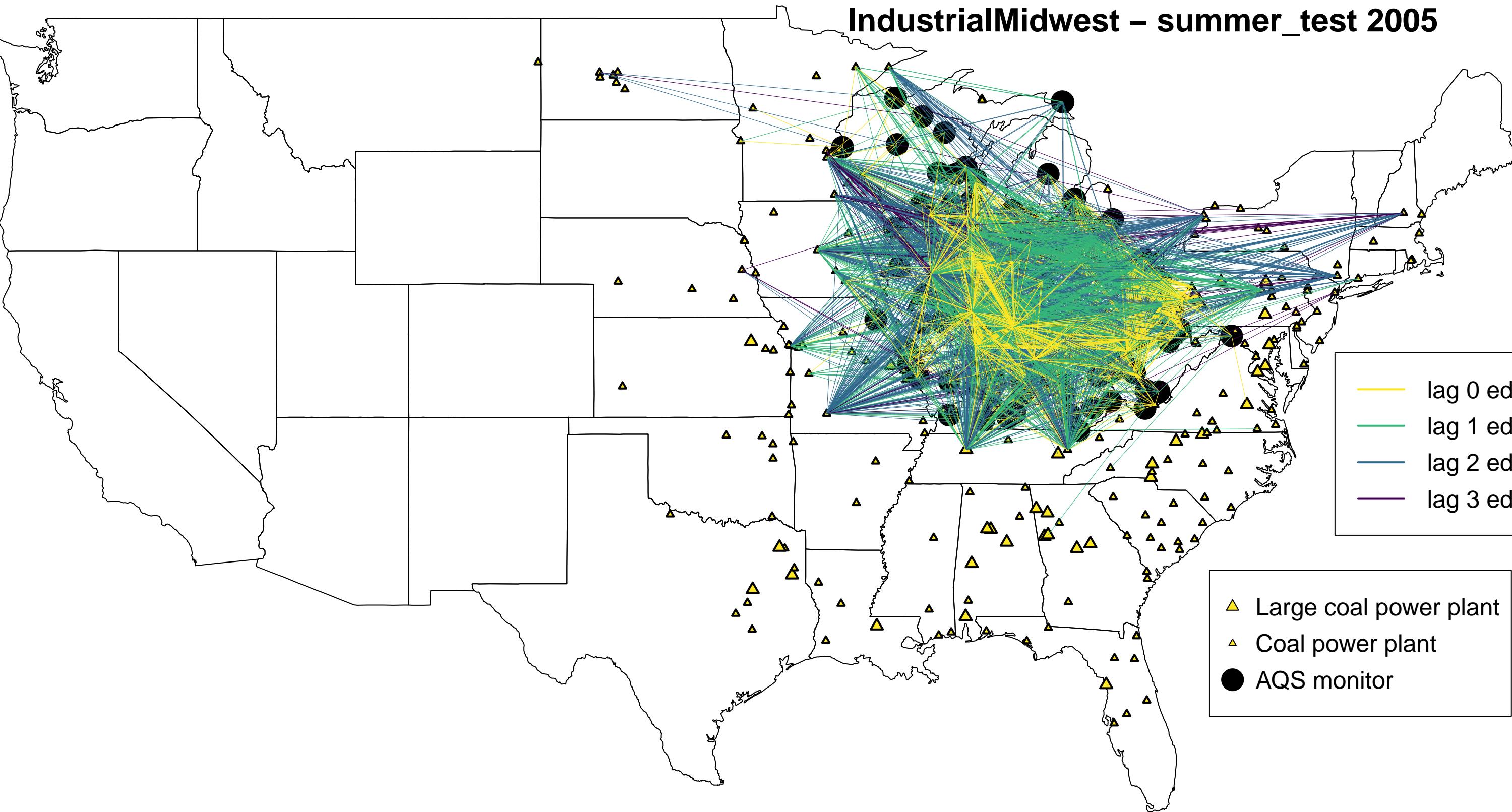
## Coal power plants and AQS monitors



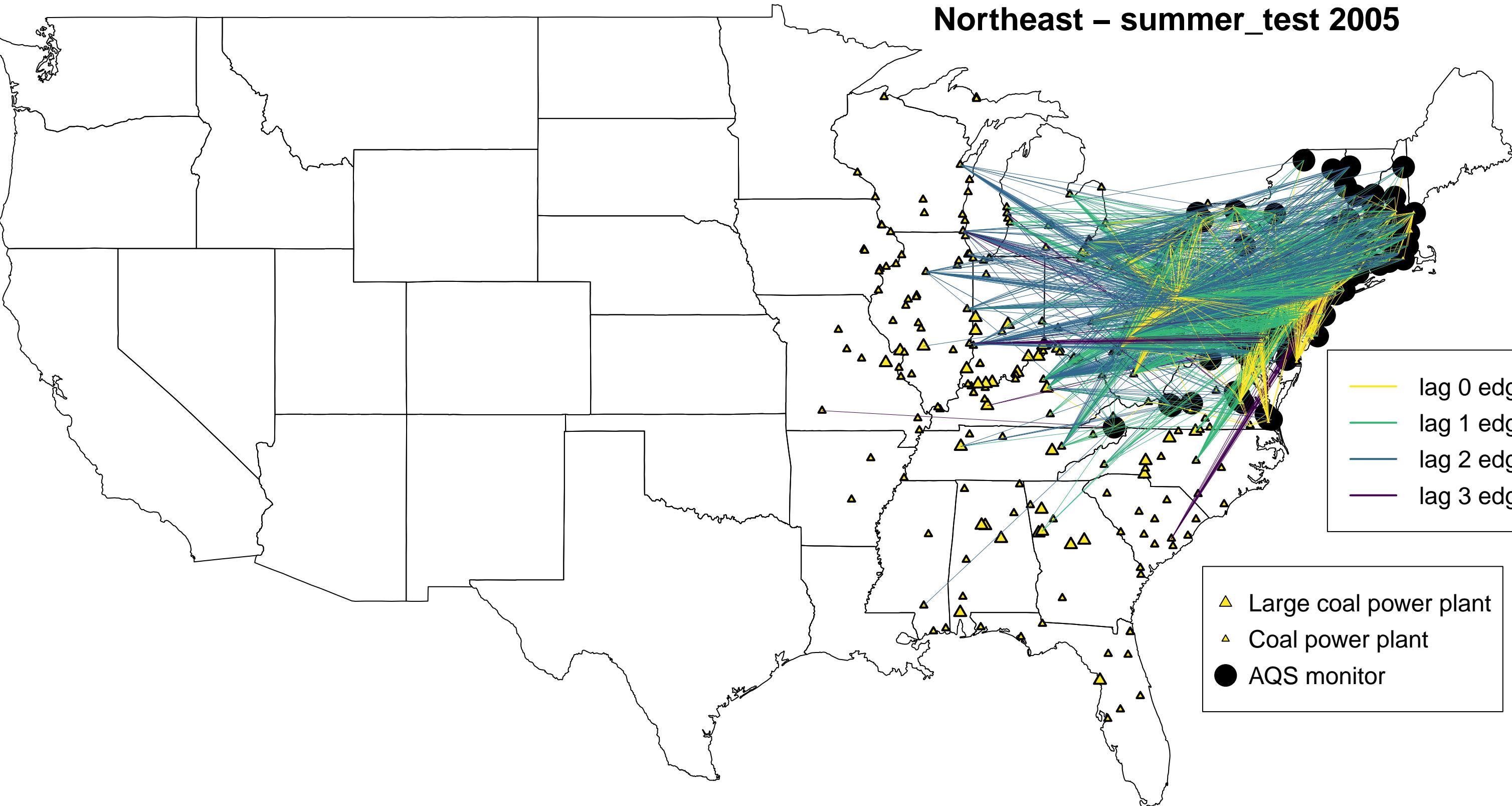
avgPM\_summer\_test\_decomposed75



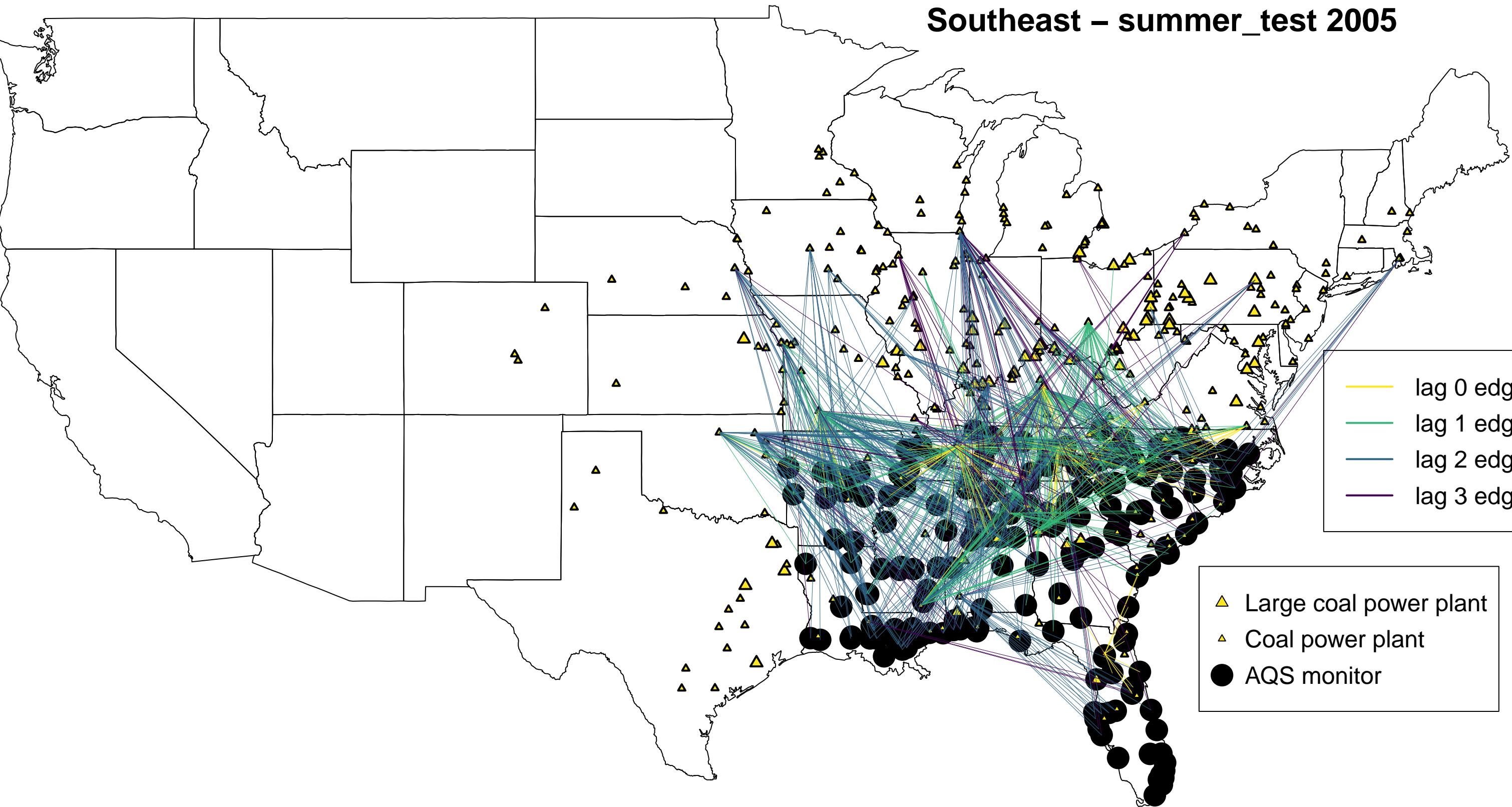
# IndustrialMidwest – summer\_test 2005



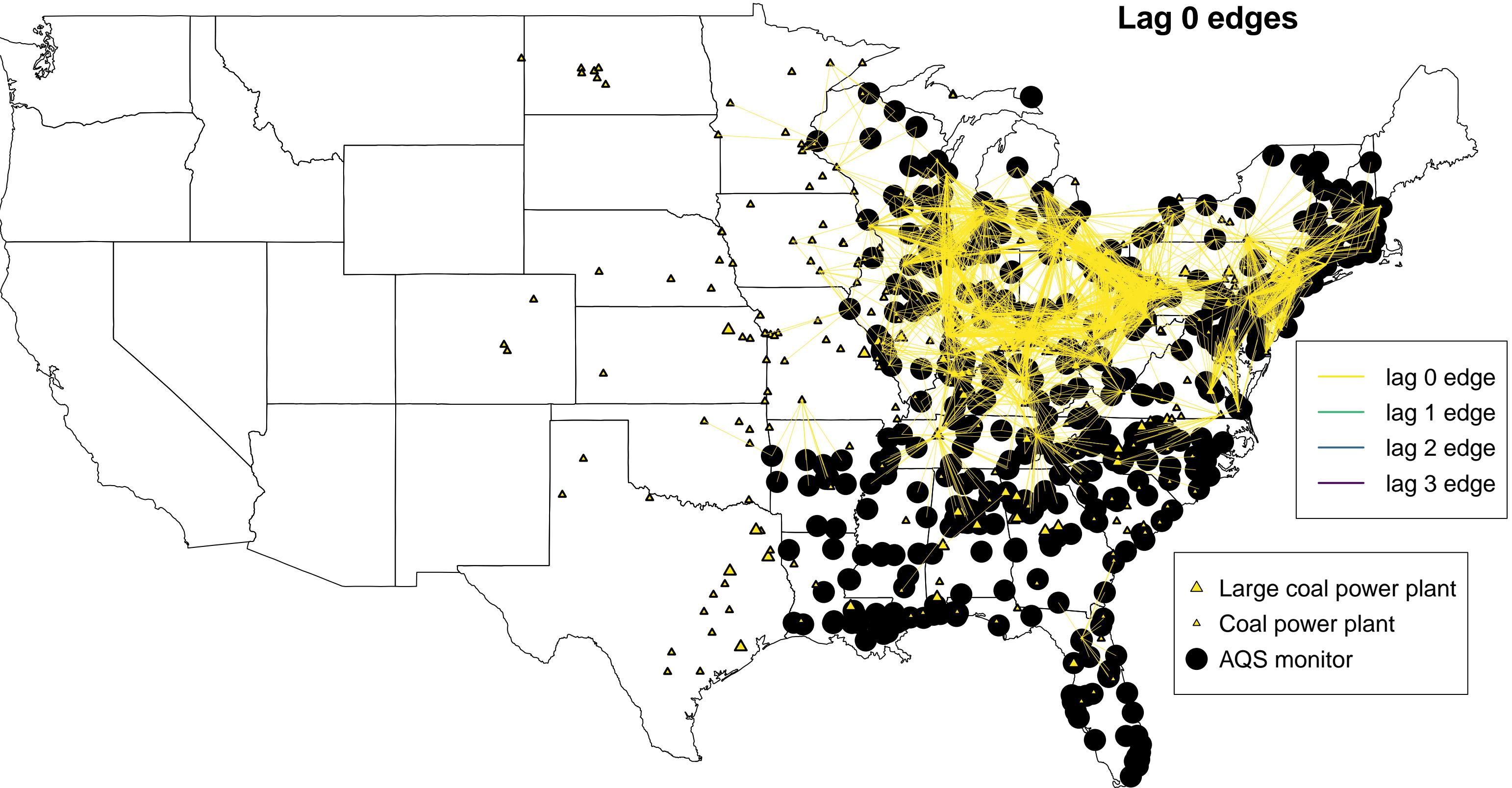
## Northeast – summer\_test 2005



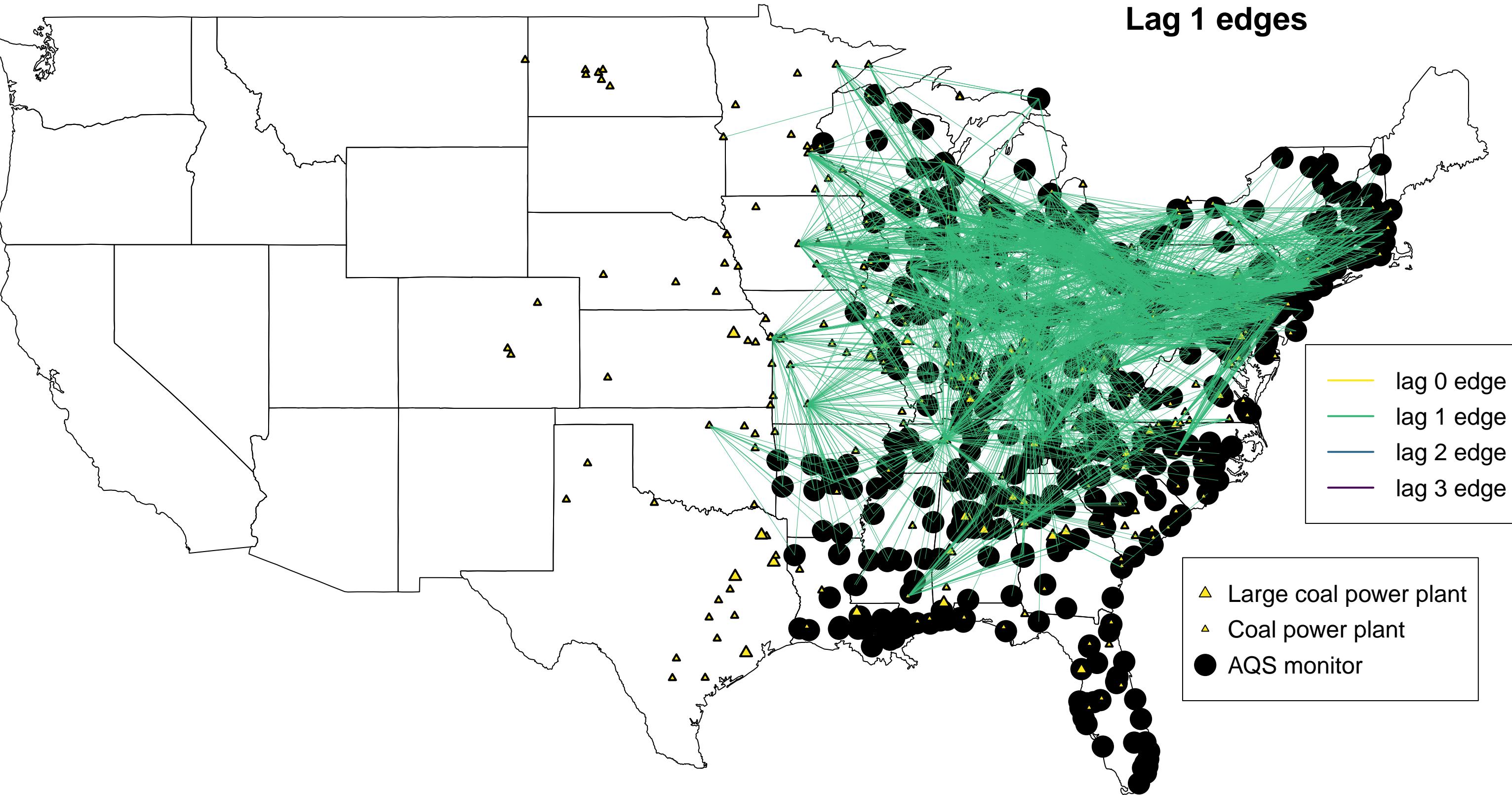
## Southeast – summer\_test 2005



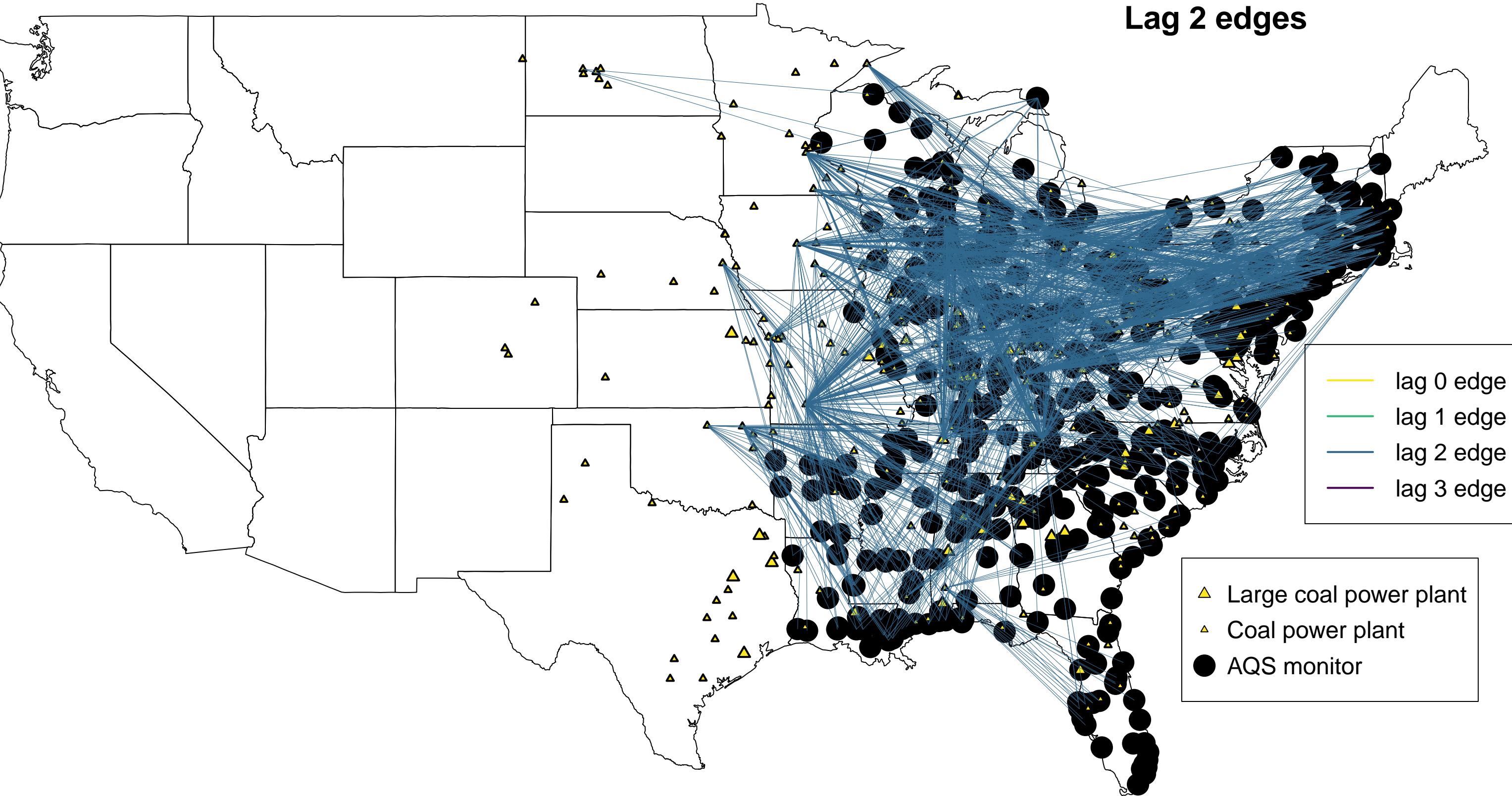
## Lag 0 edges



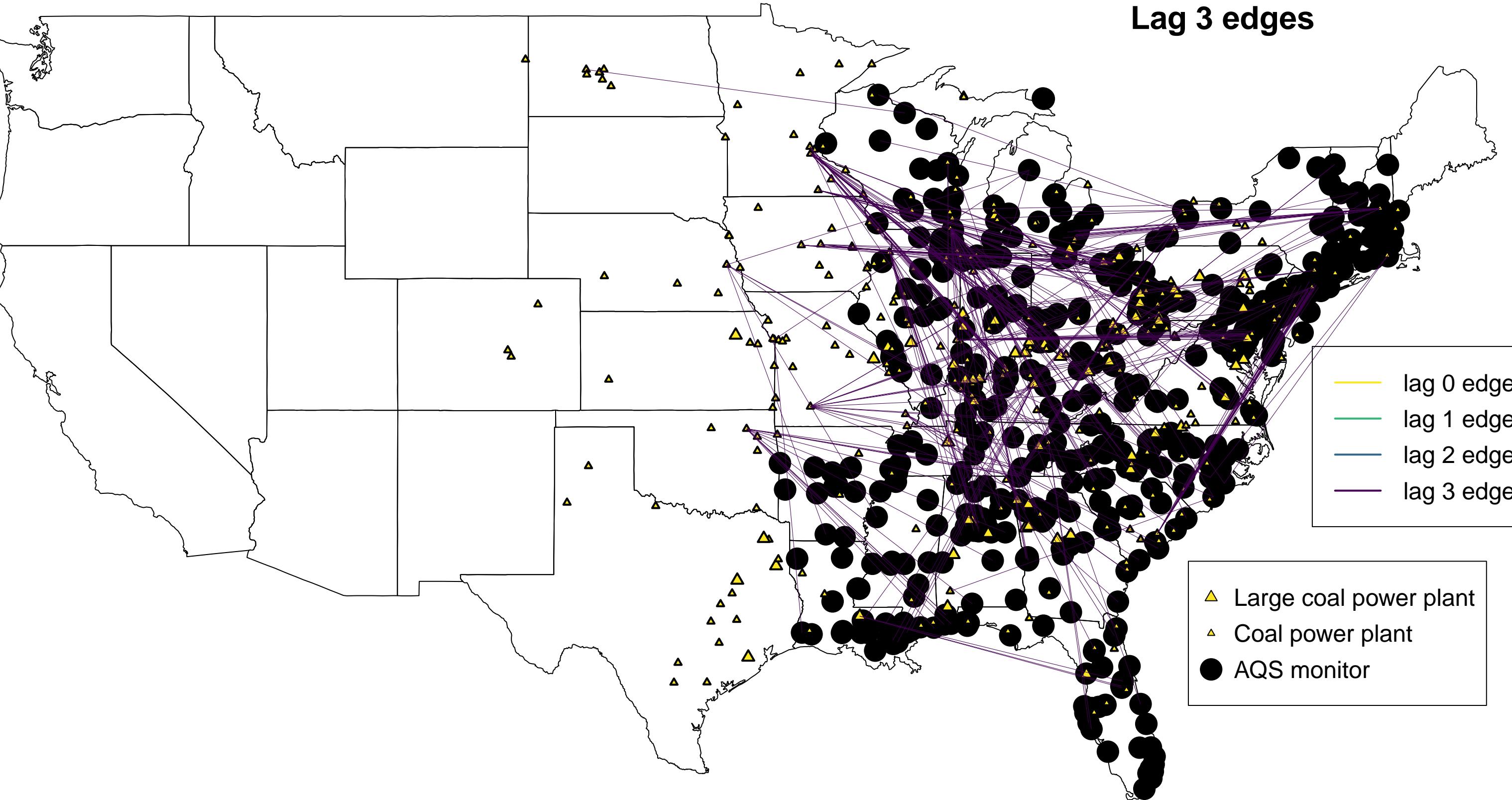
# Lag 1 edges

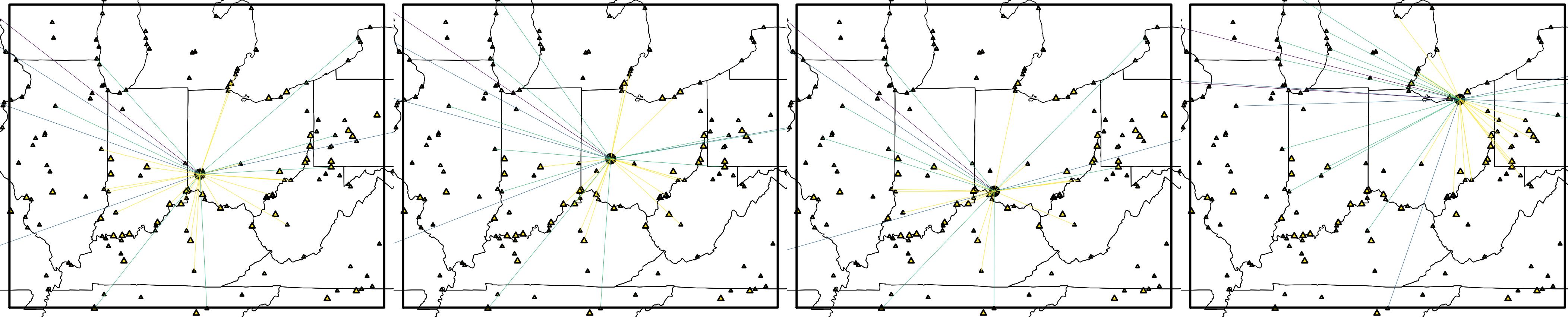
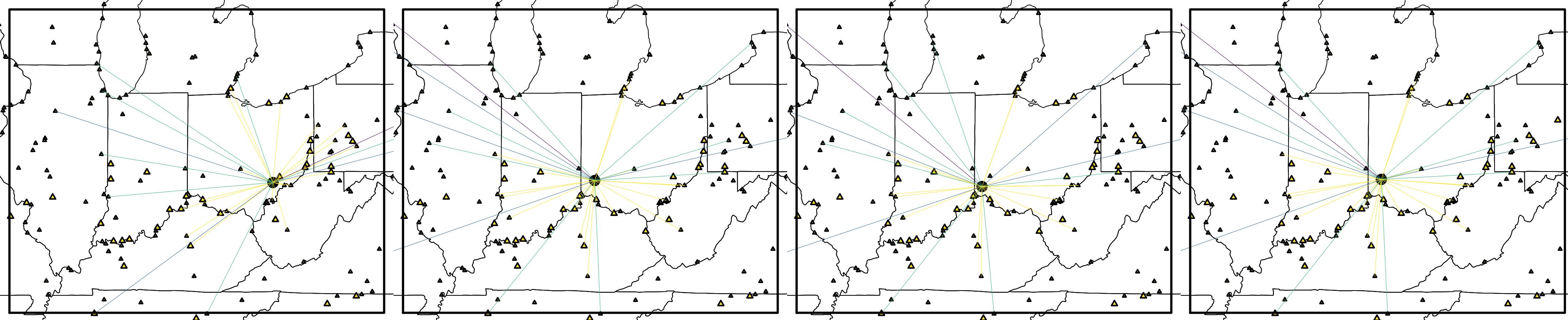


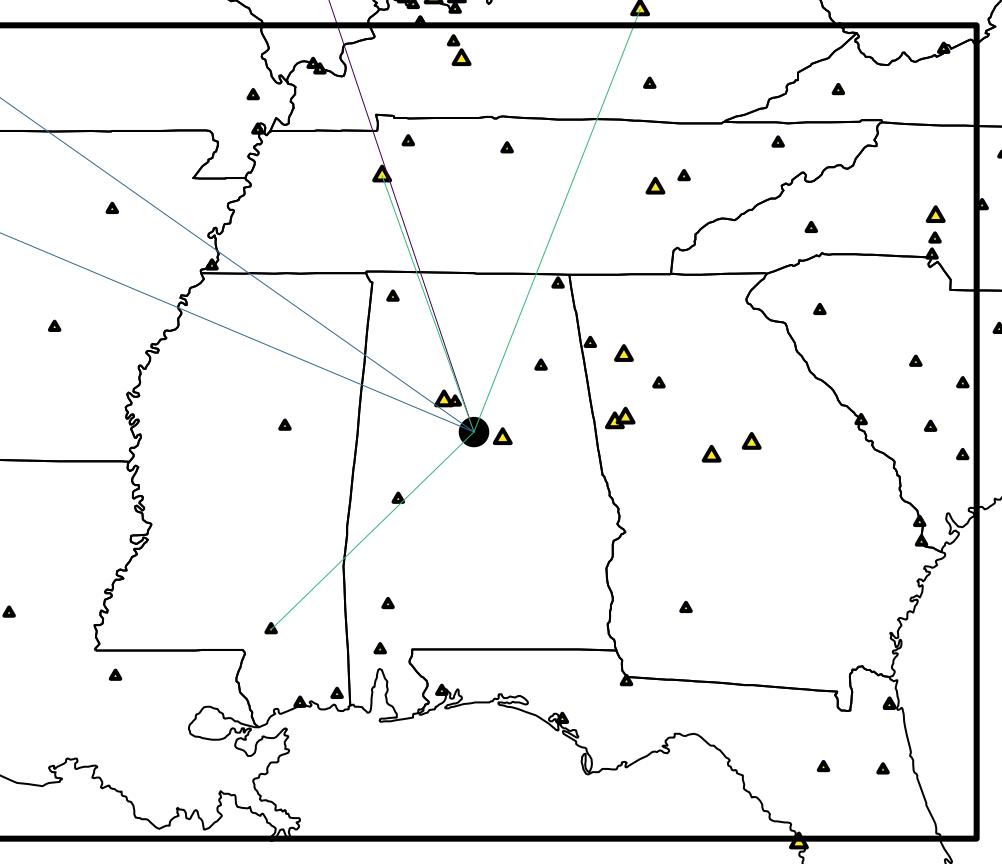
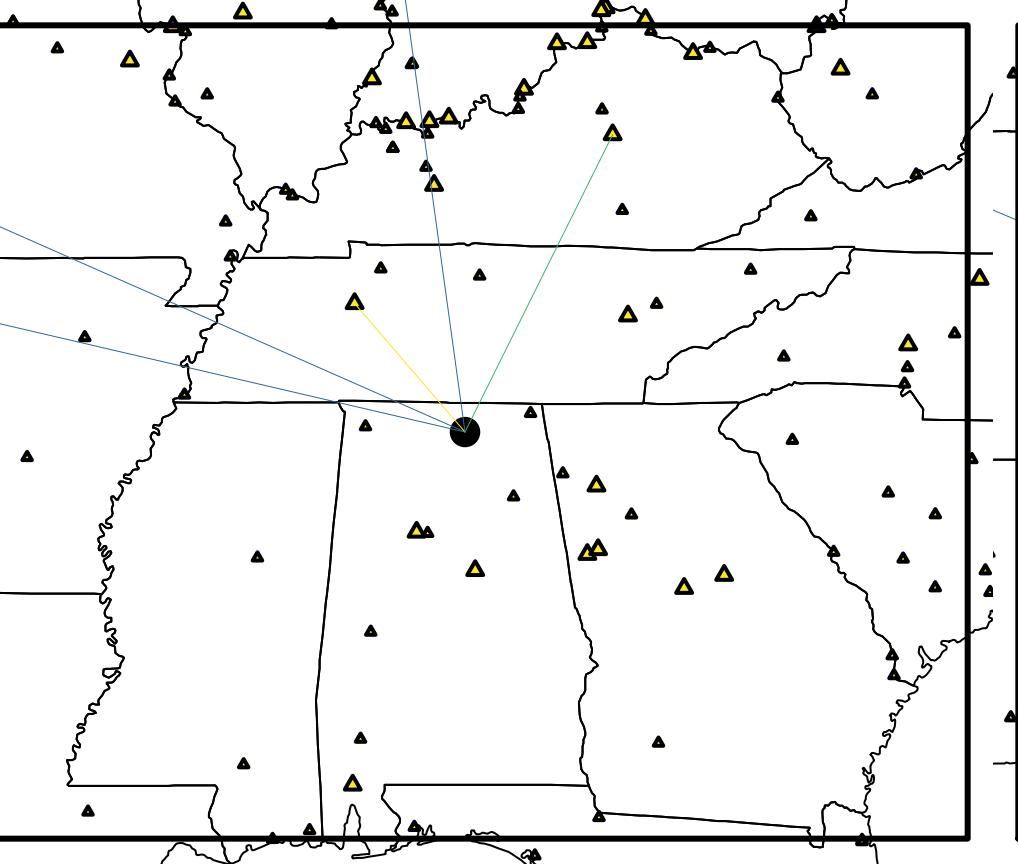
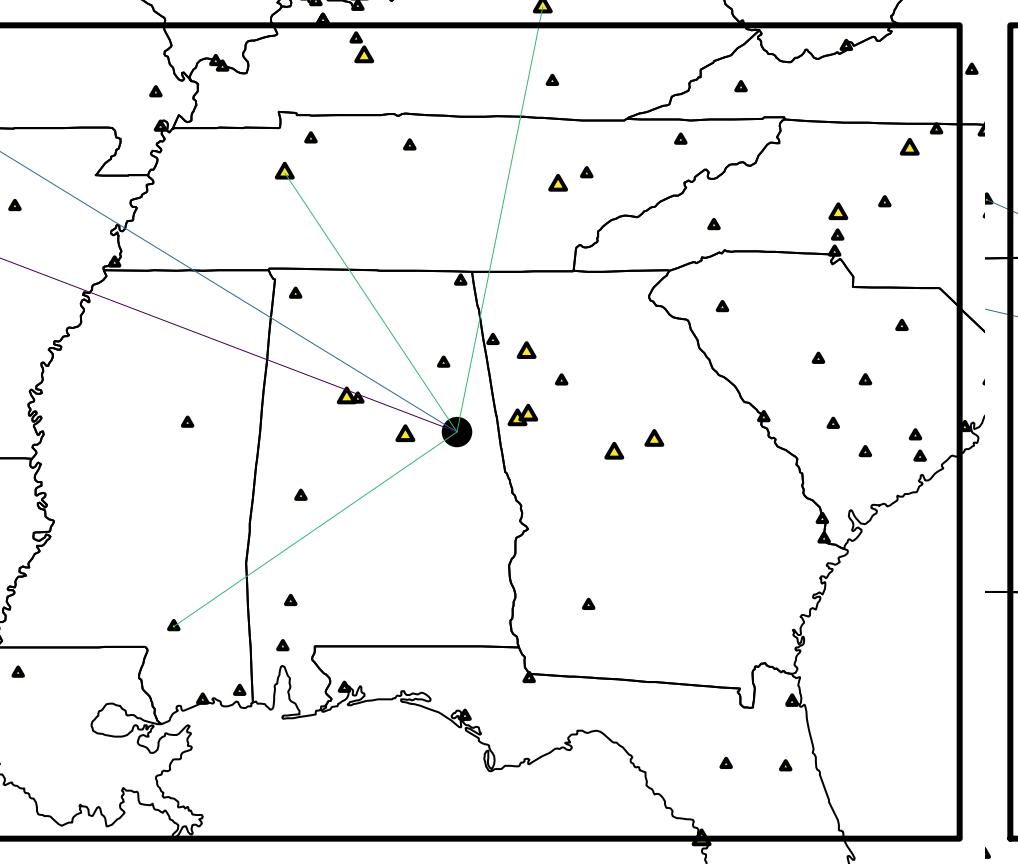
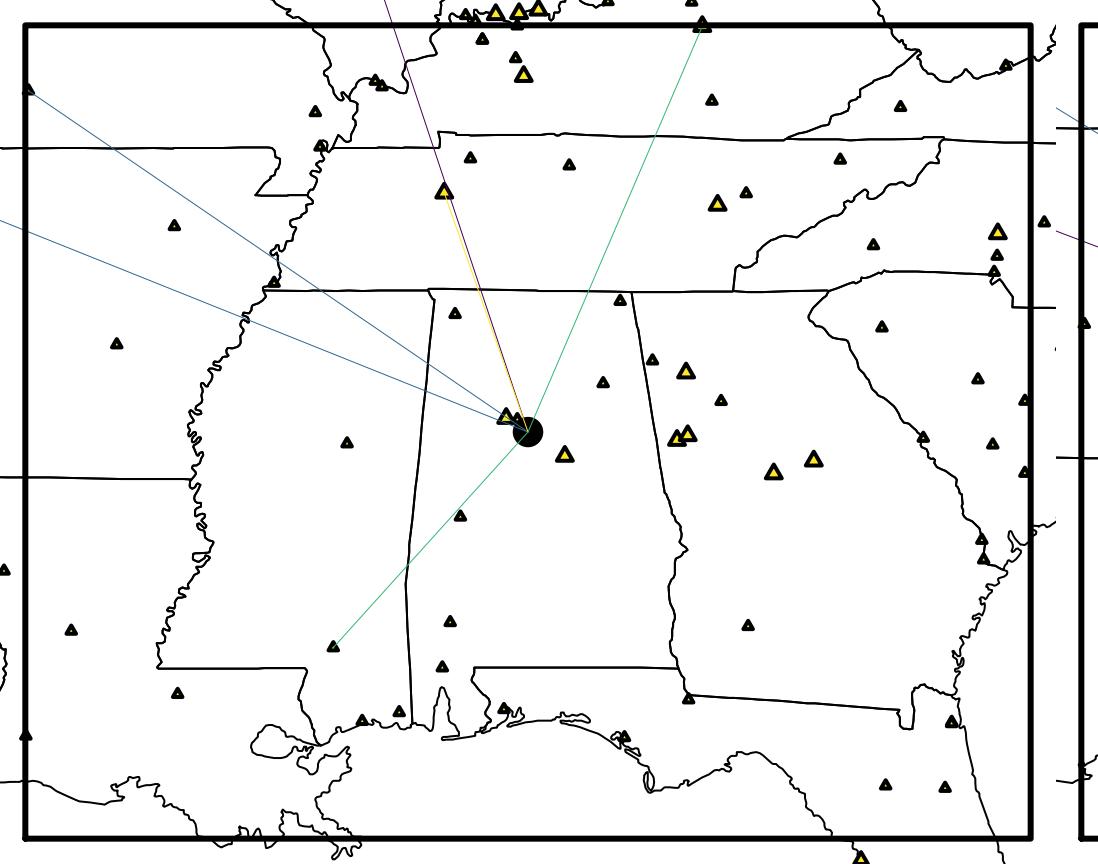
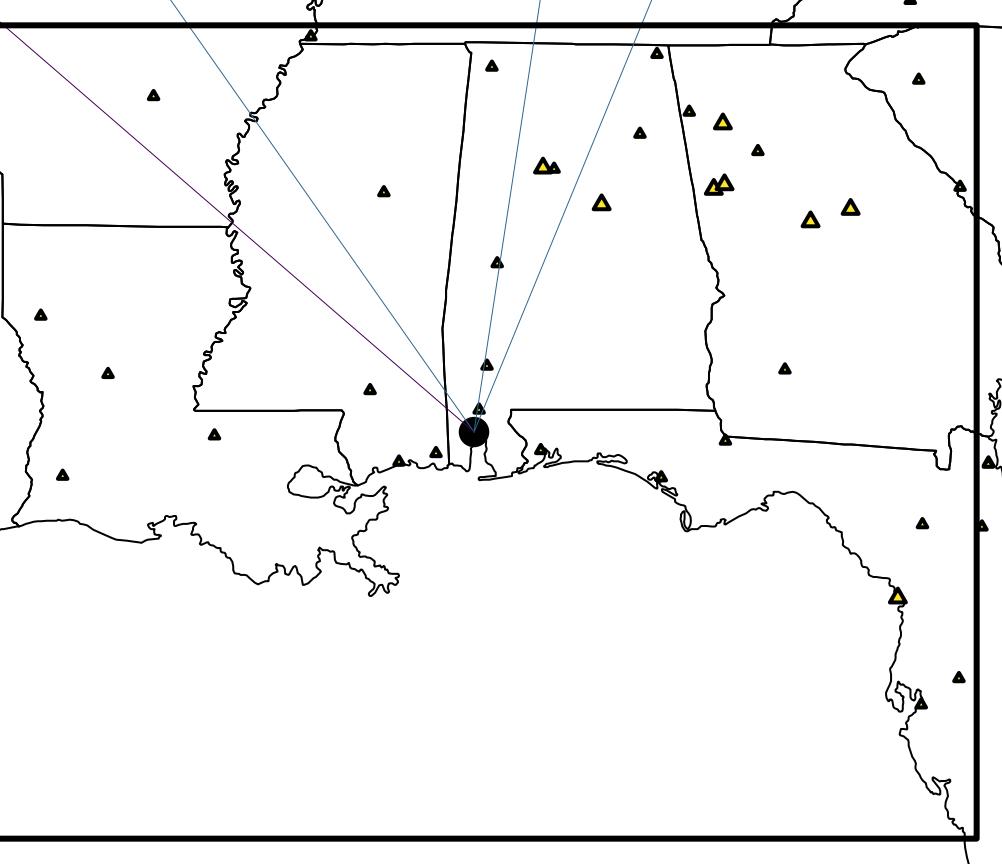
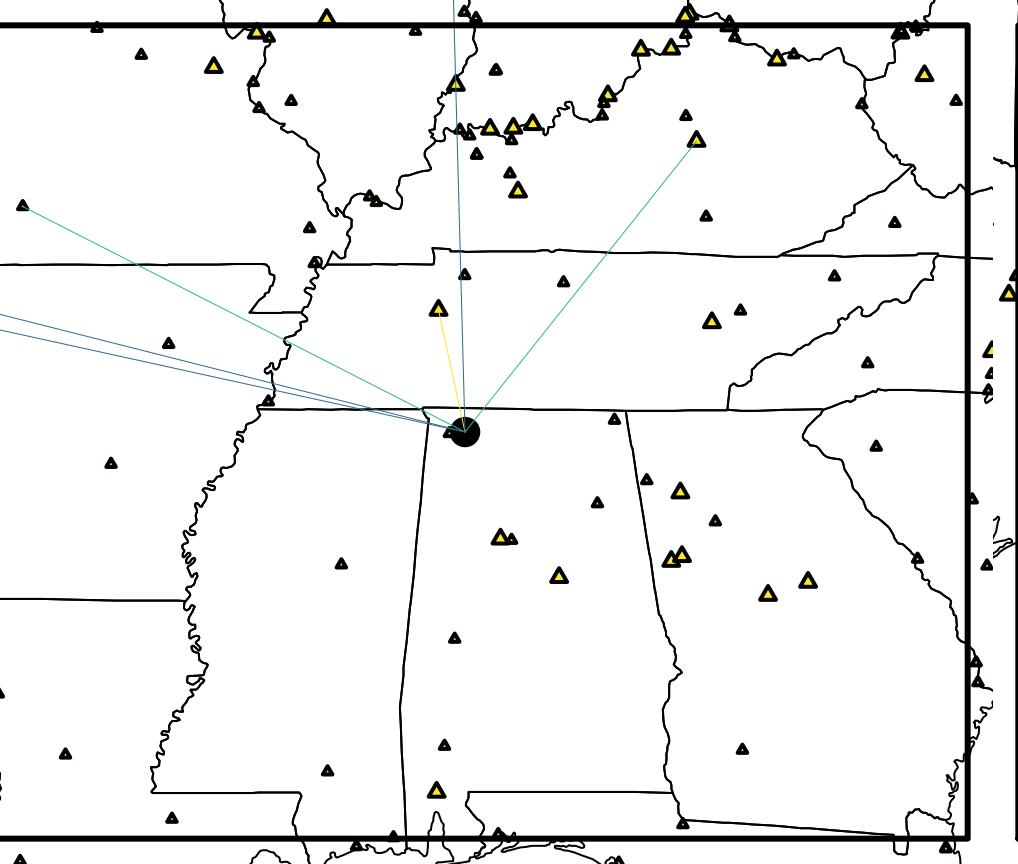
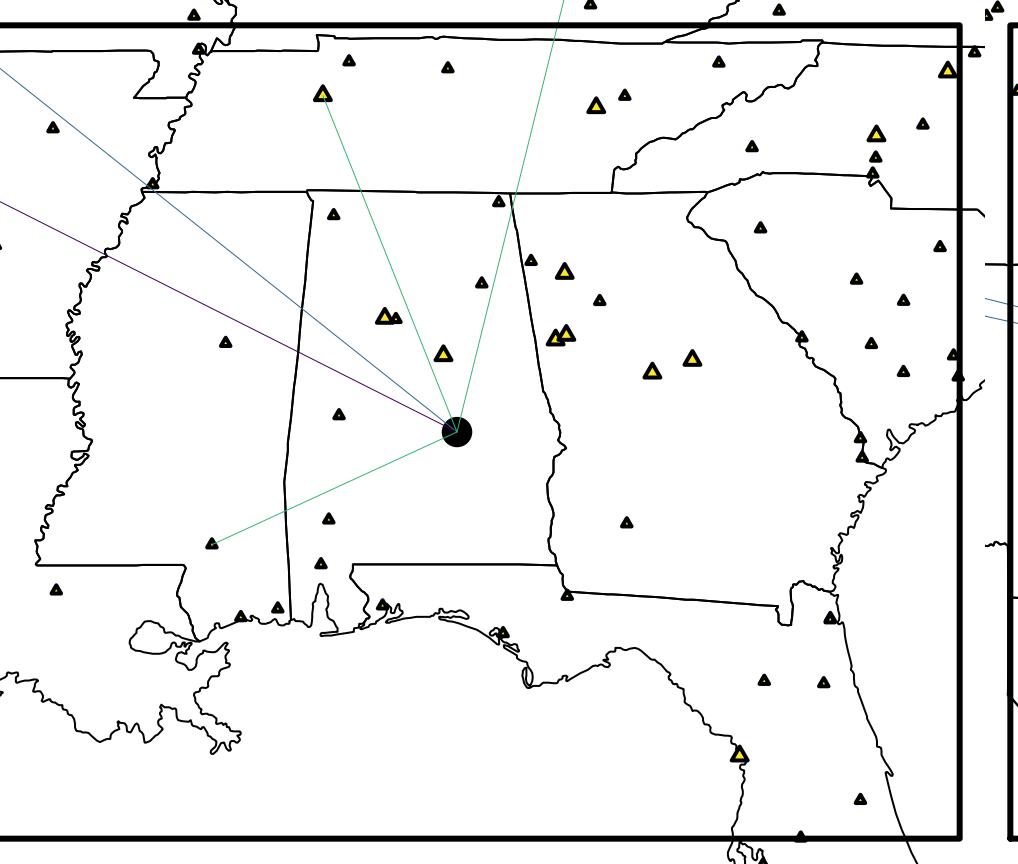
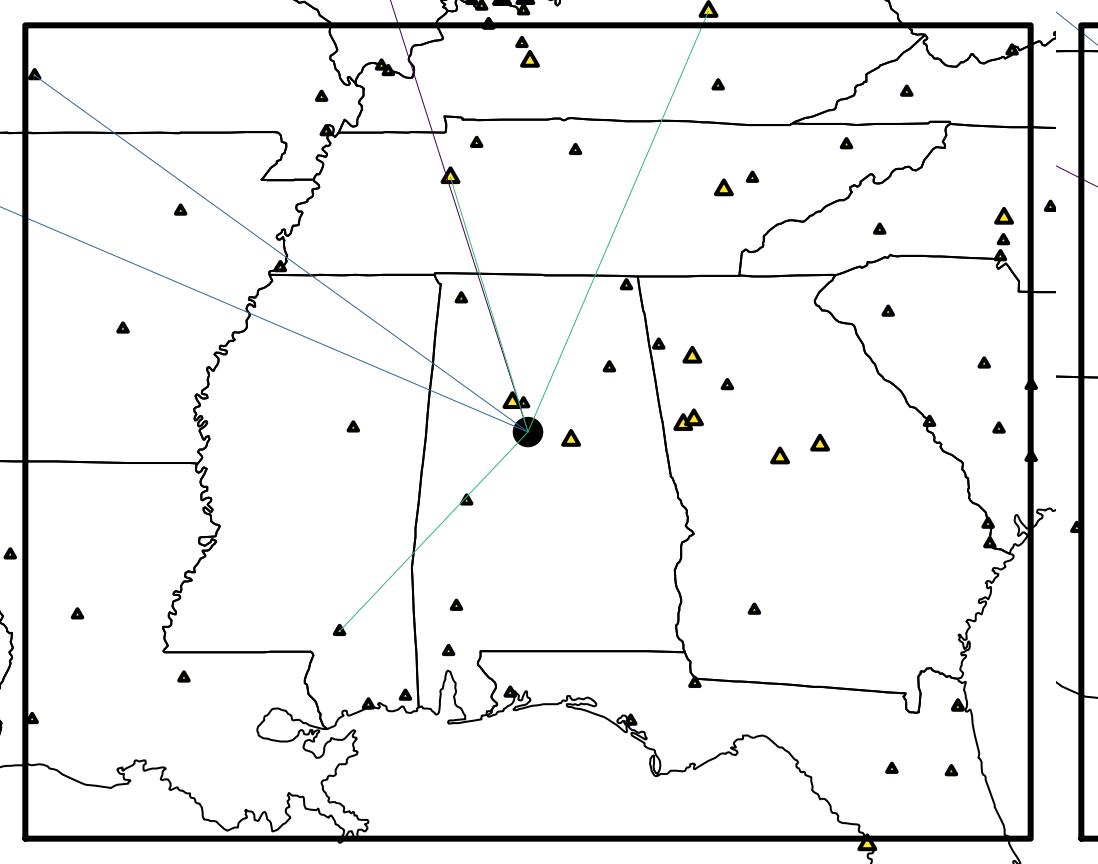
## Lag 2 edges

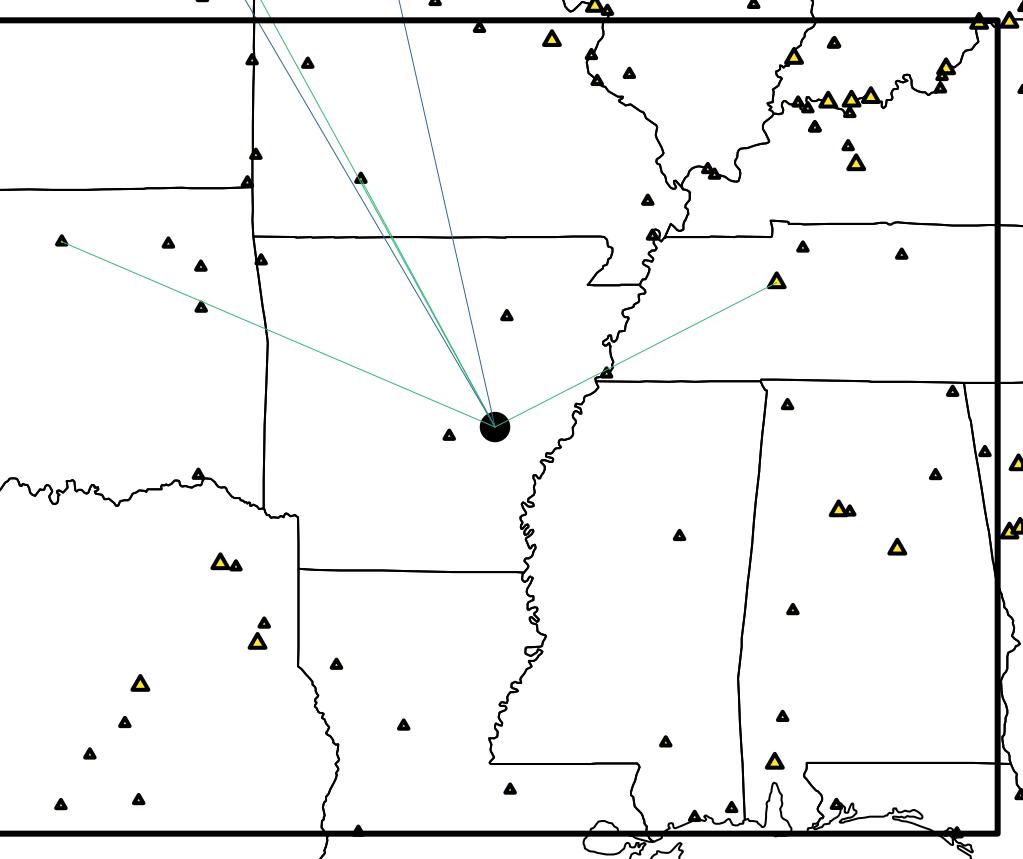
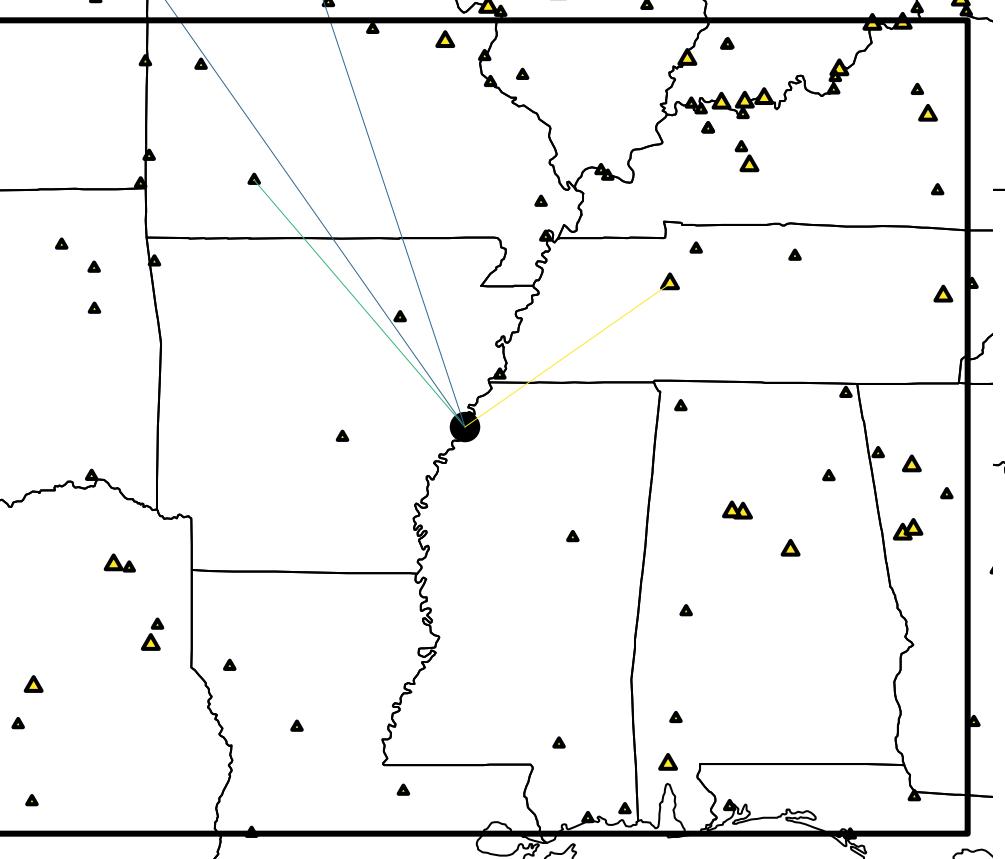
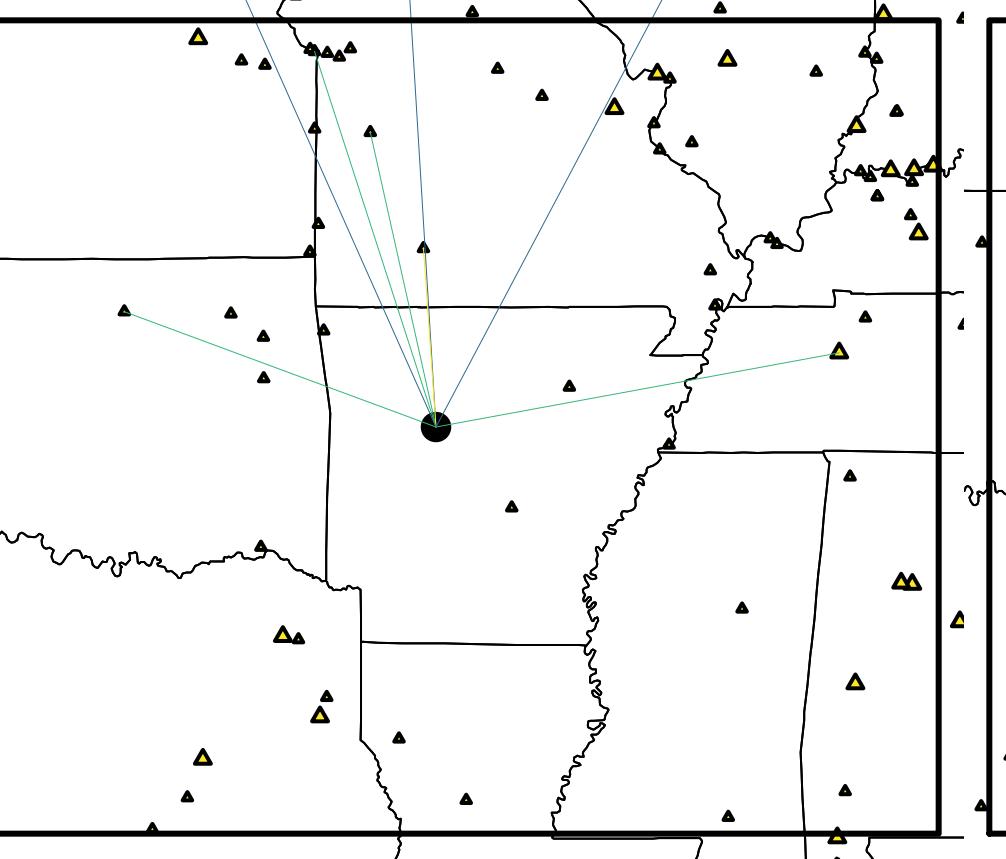
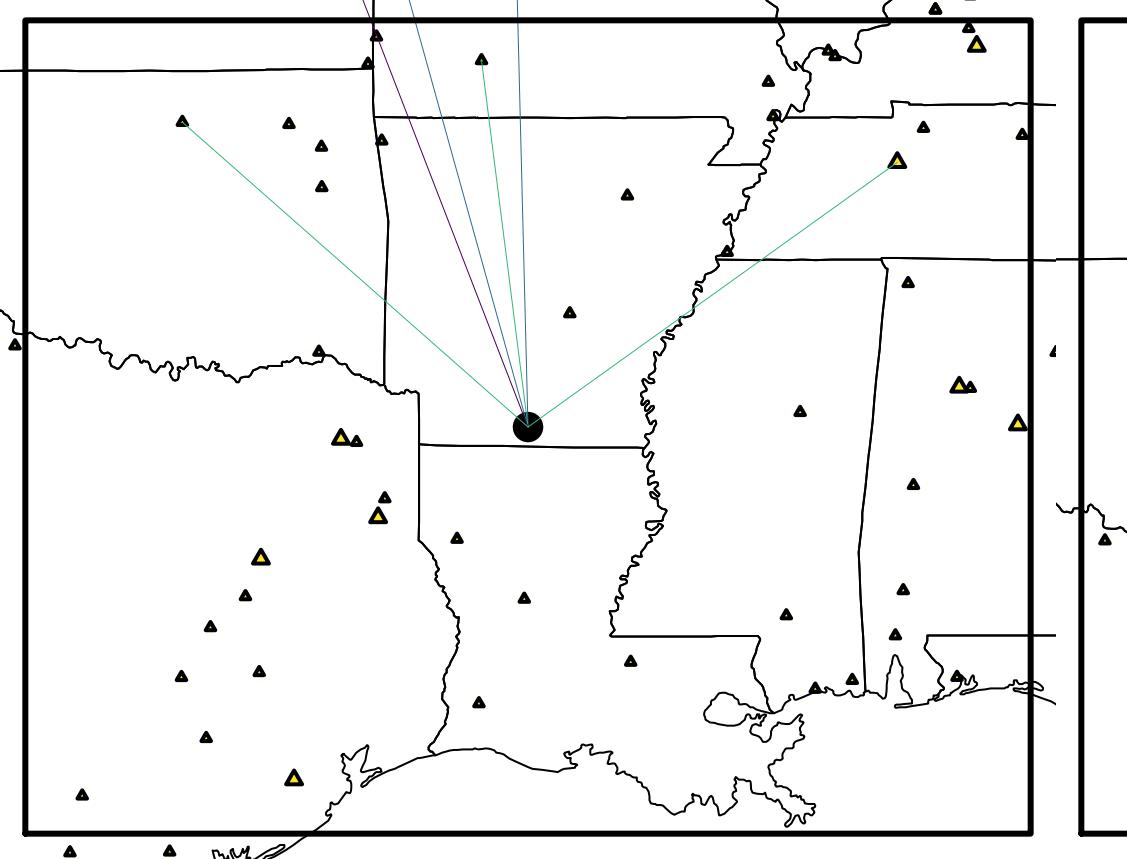
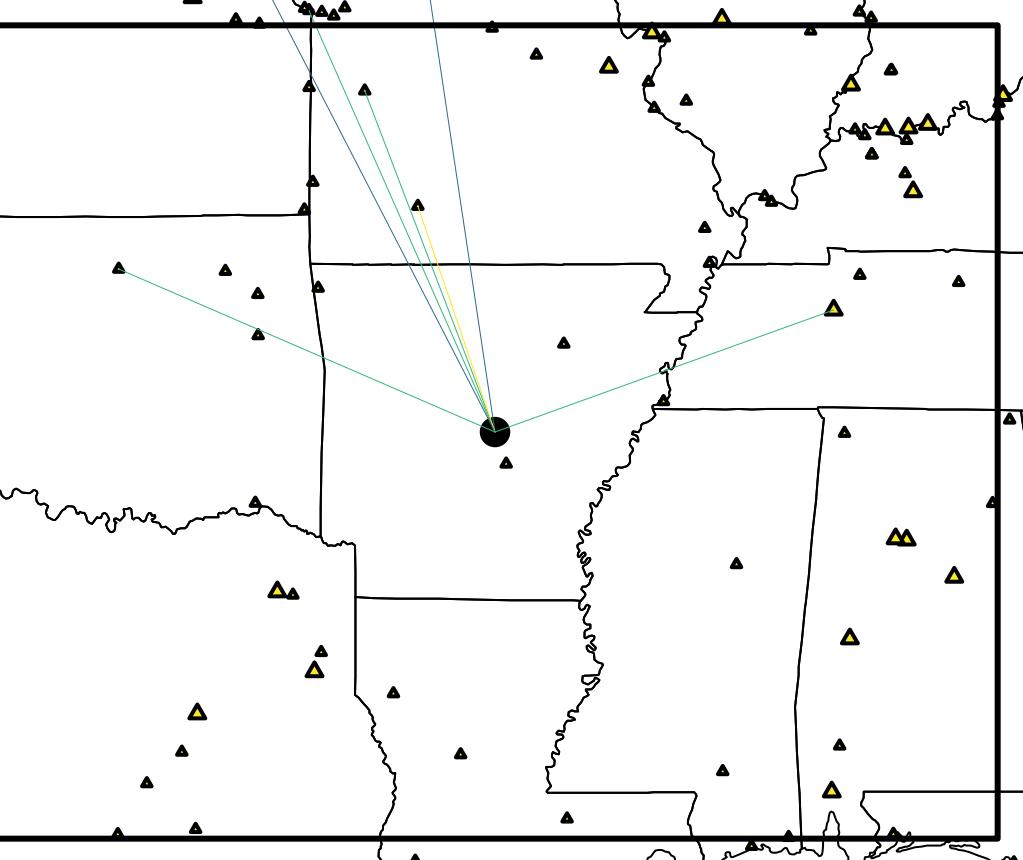
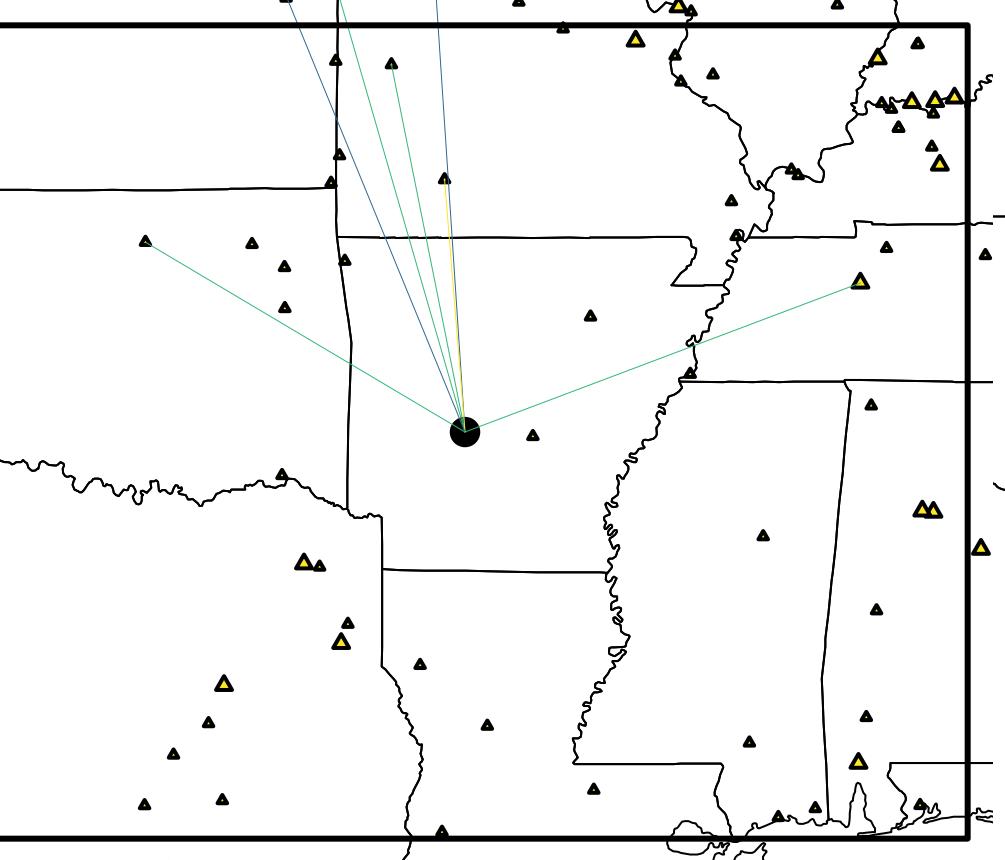
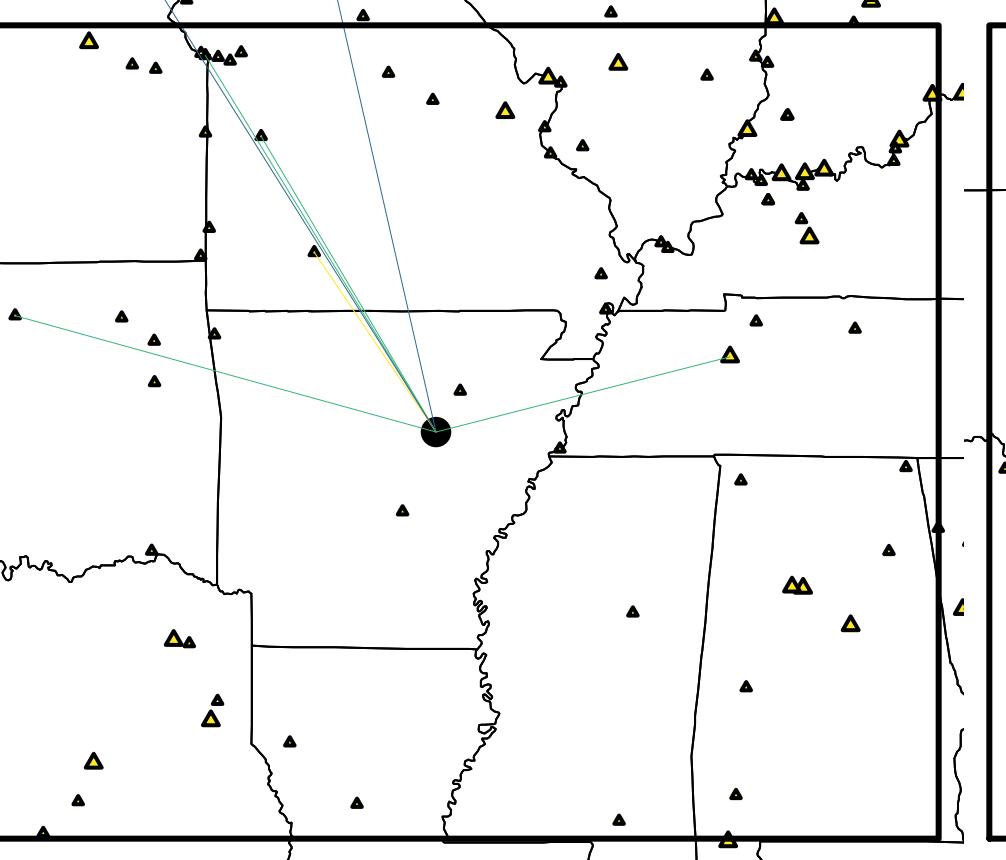
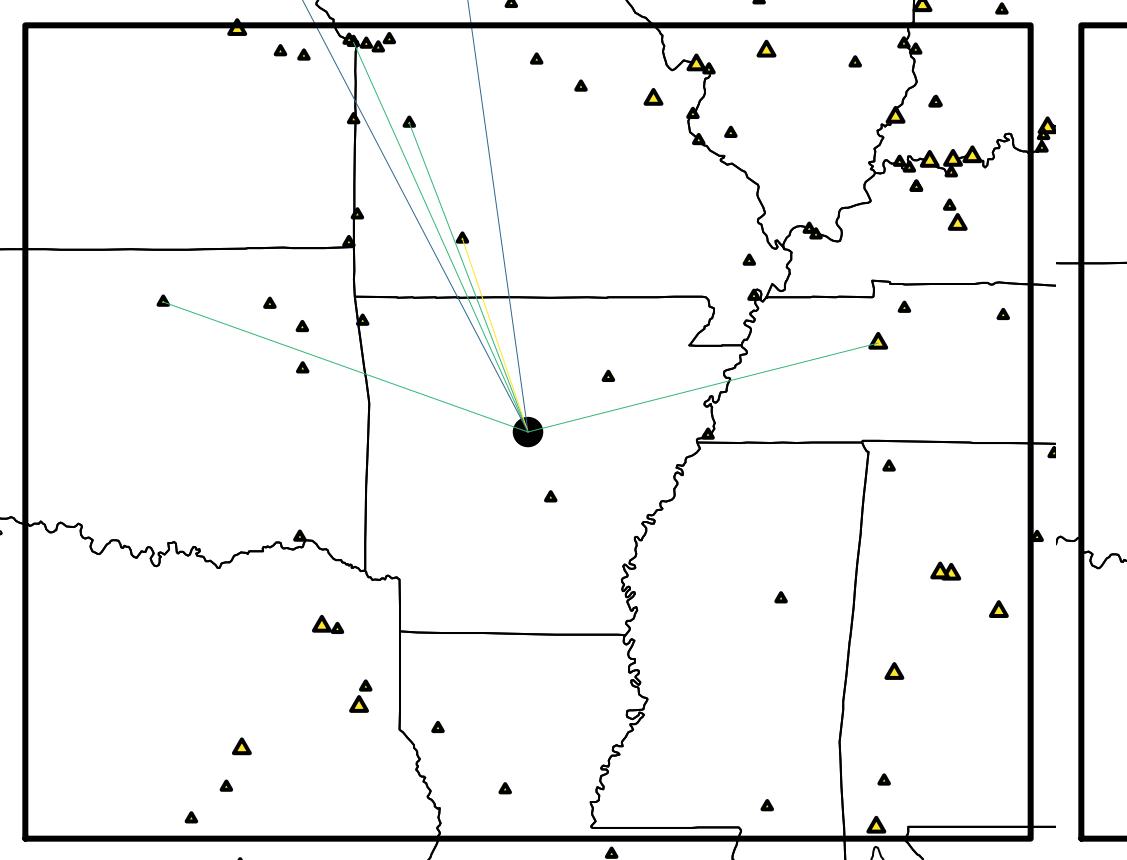


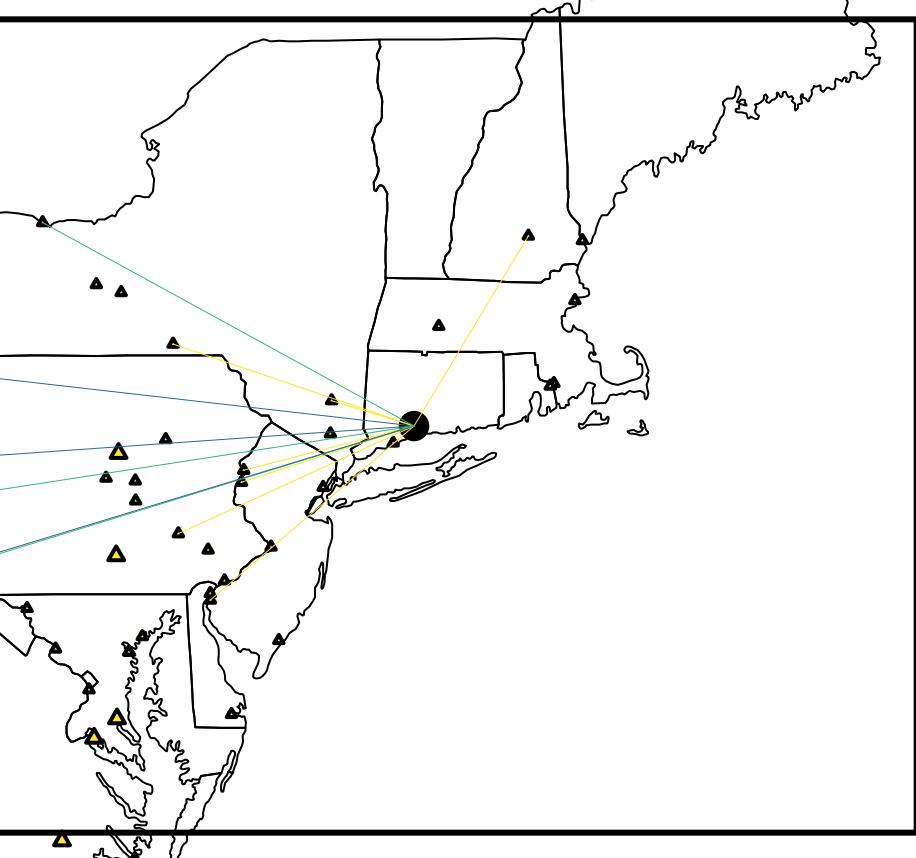
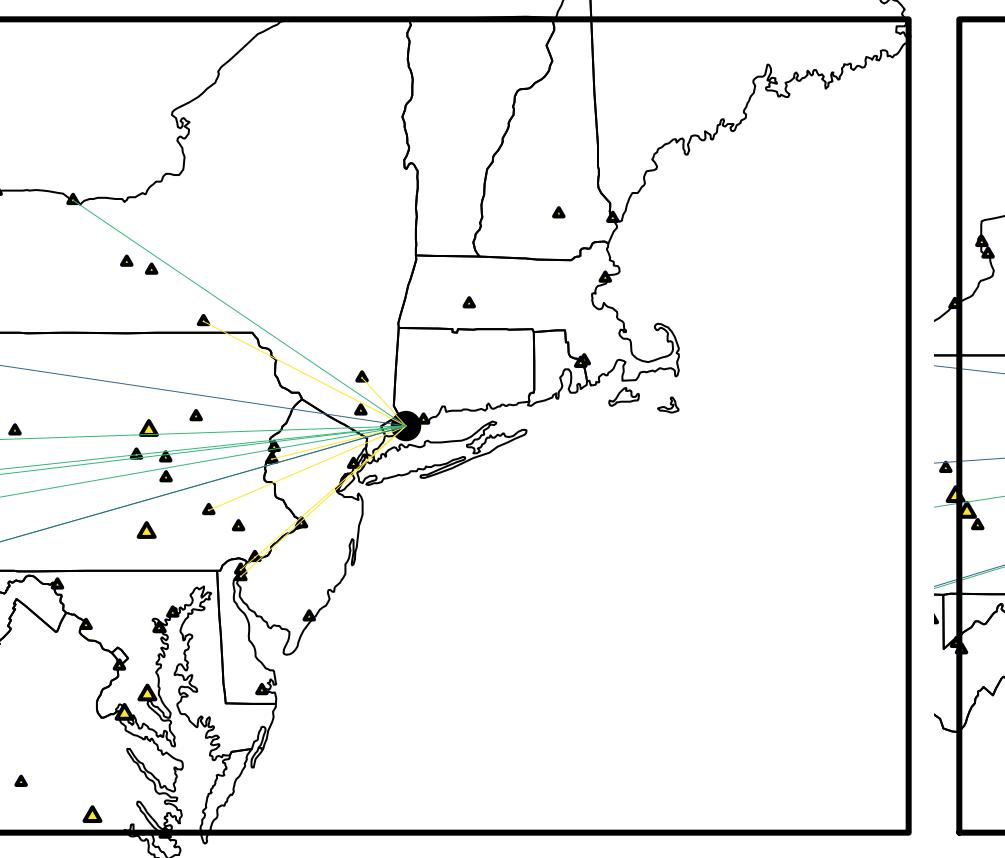
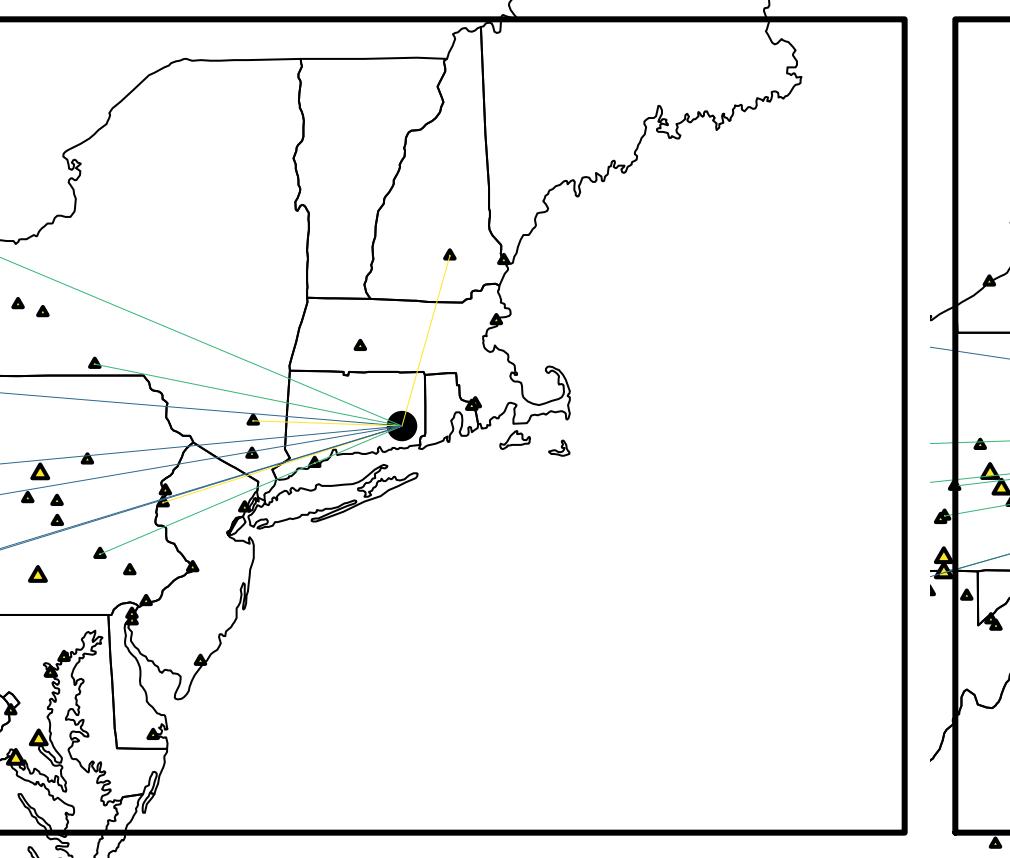
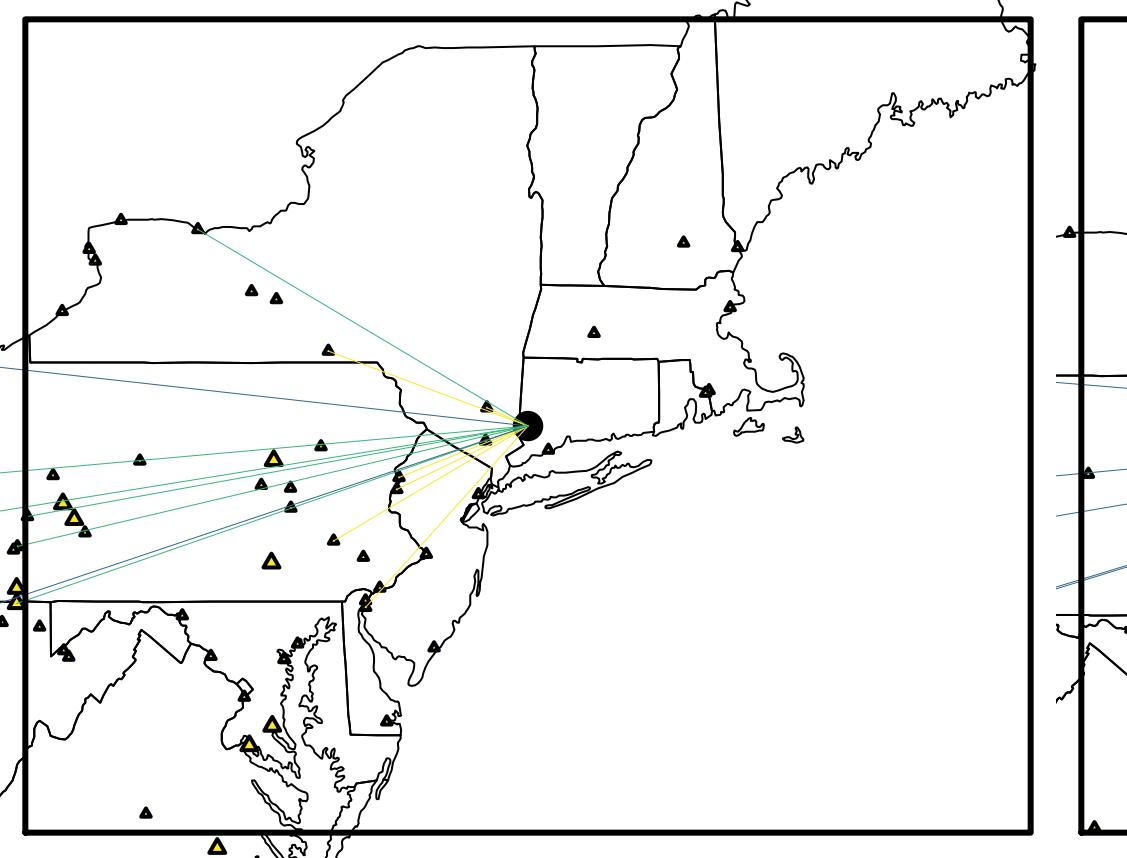
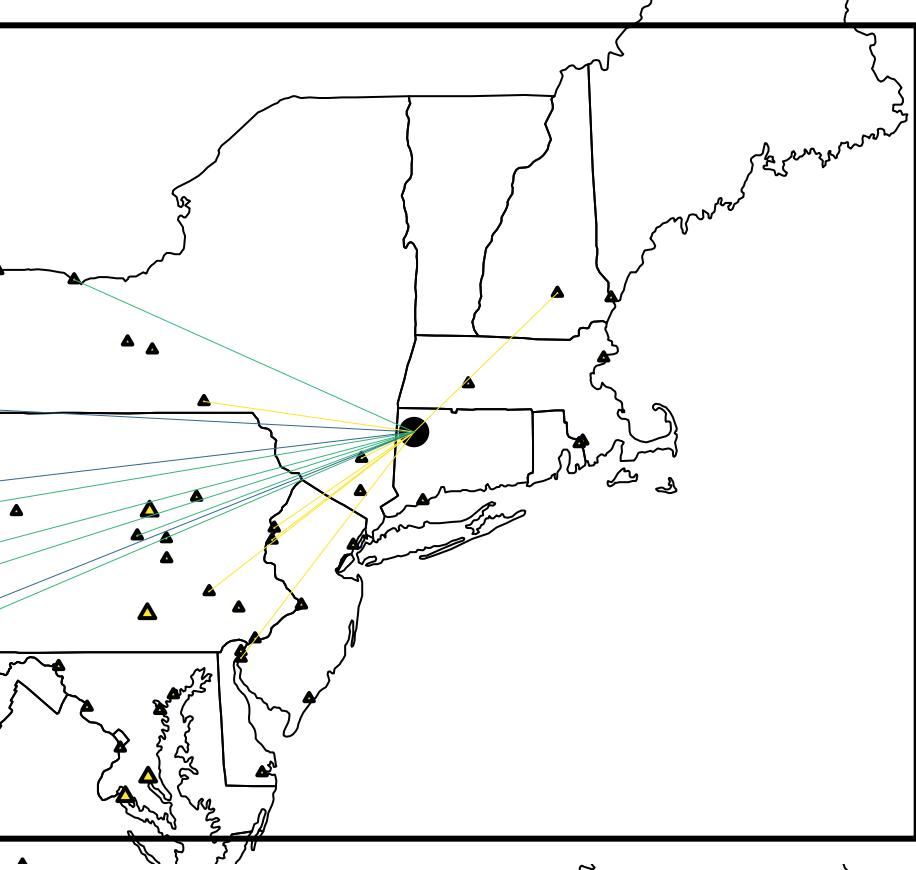
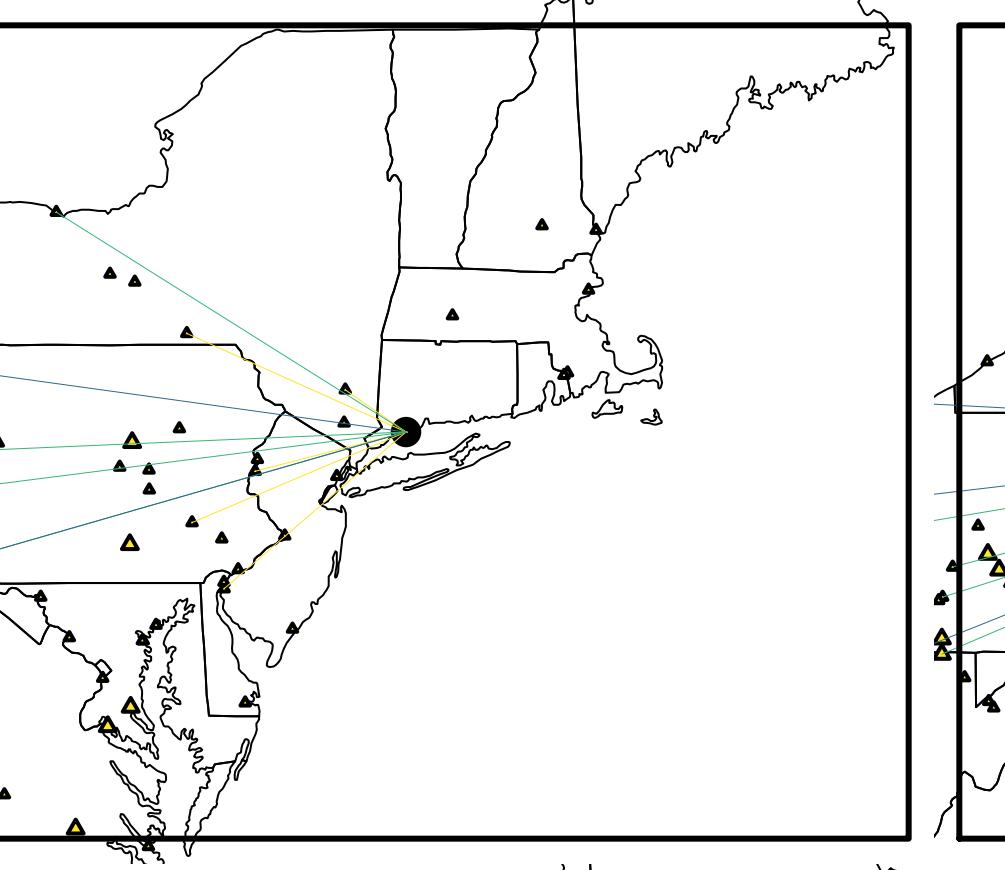
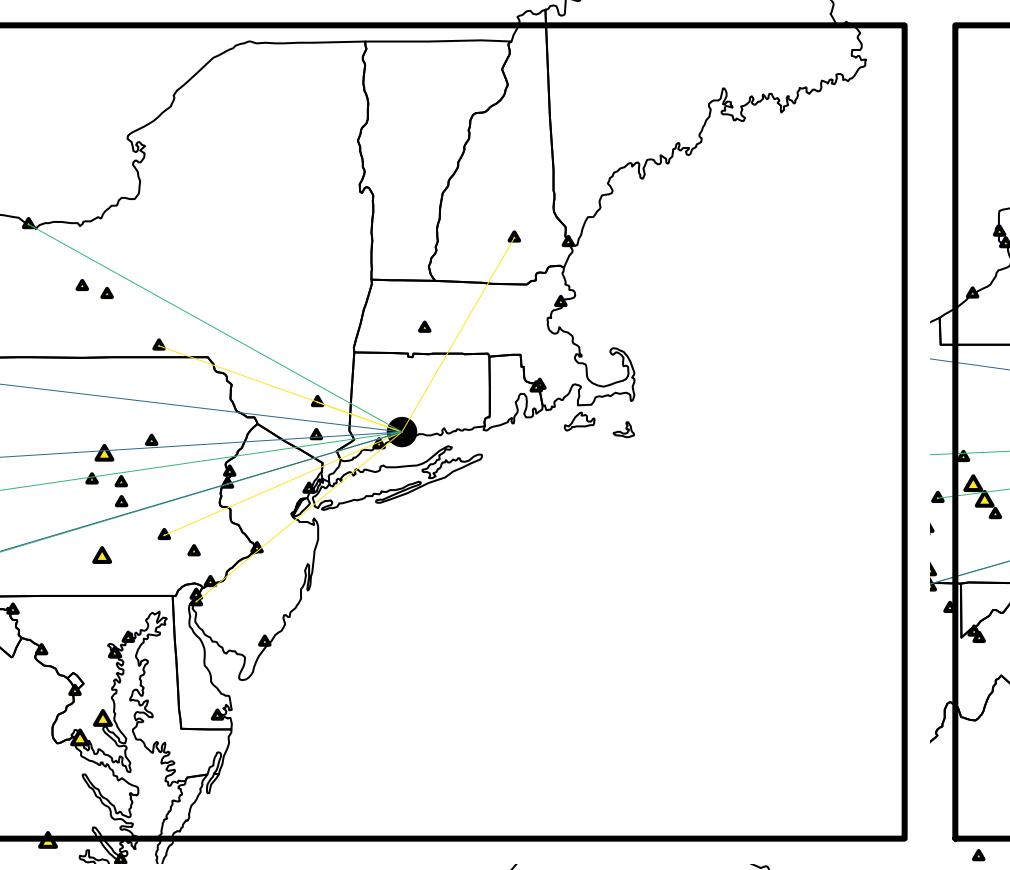
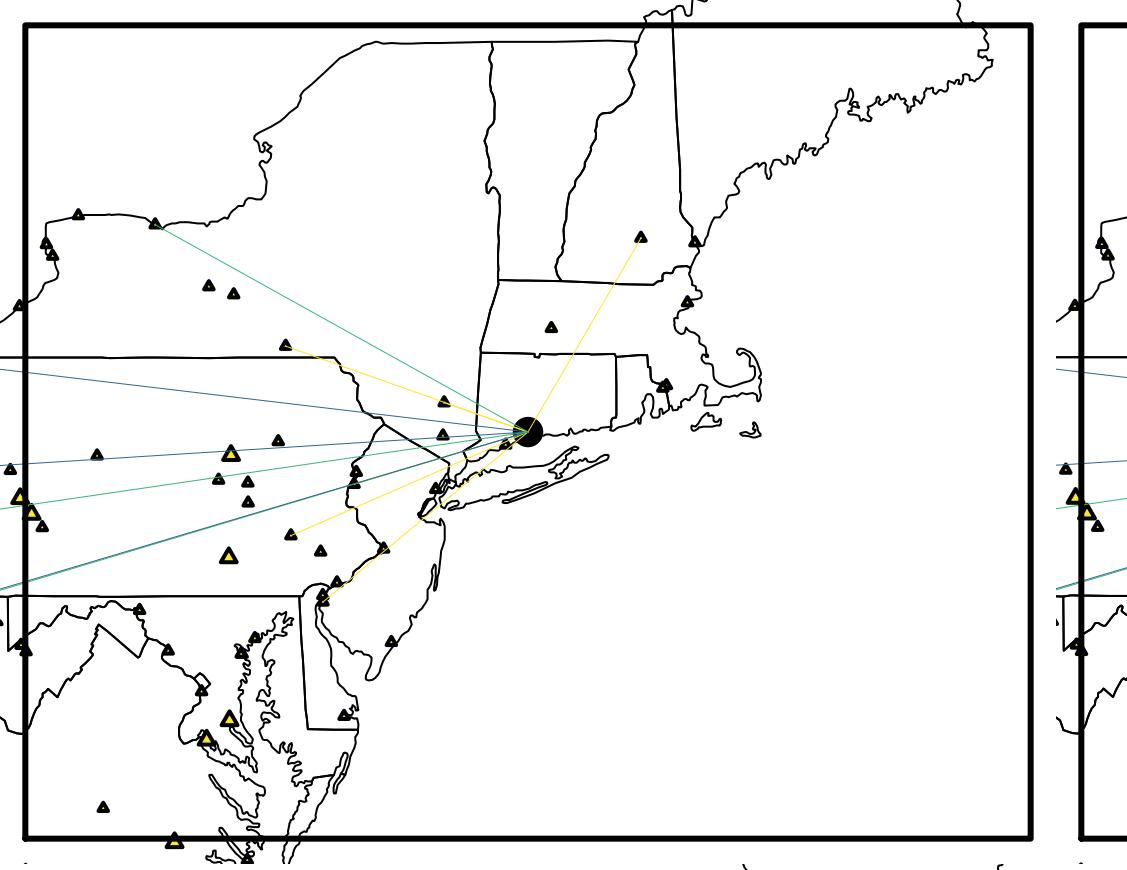
## Lag 3 edges

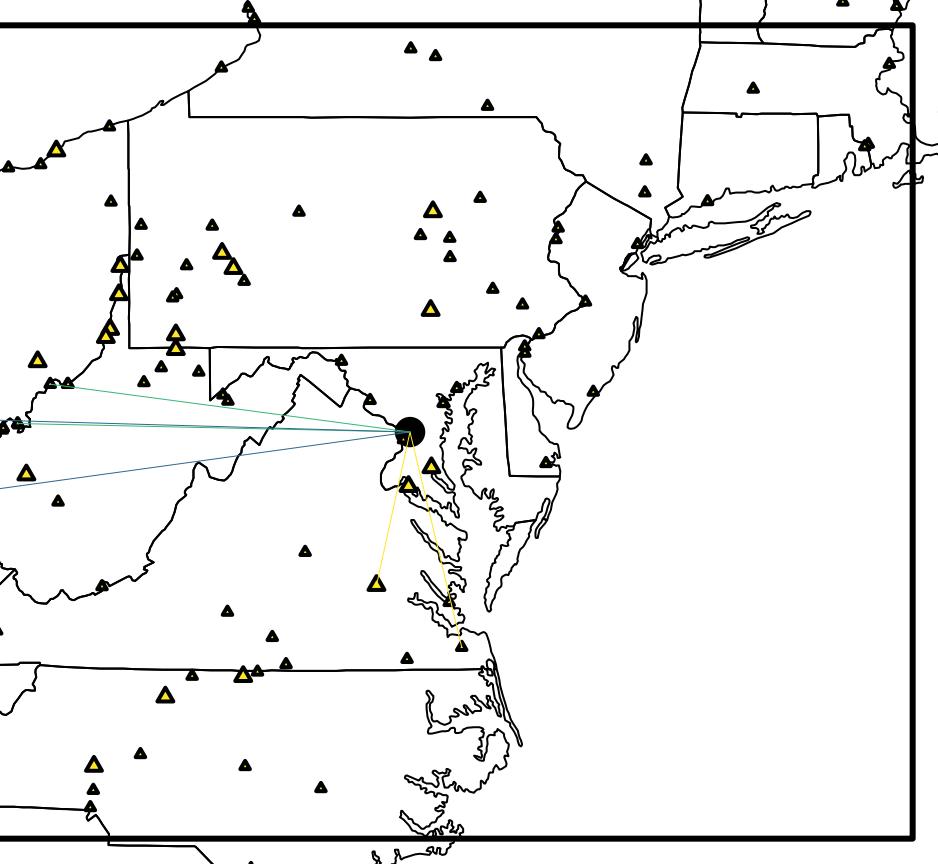
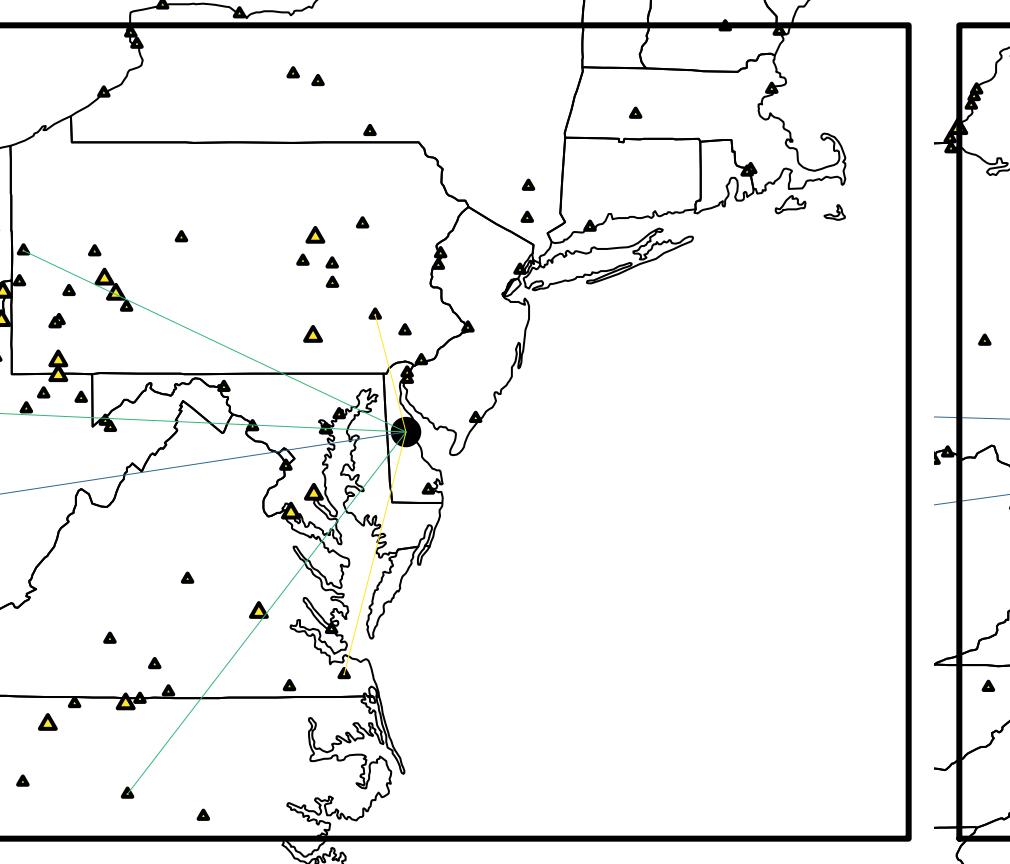
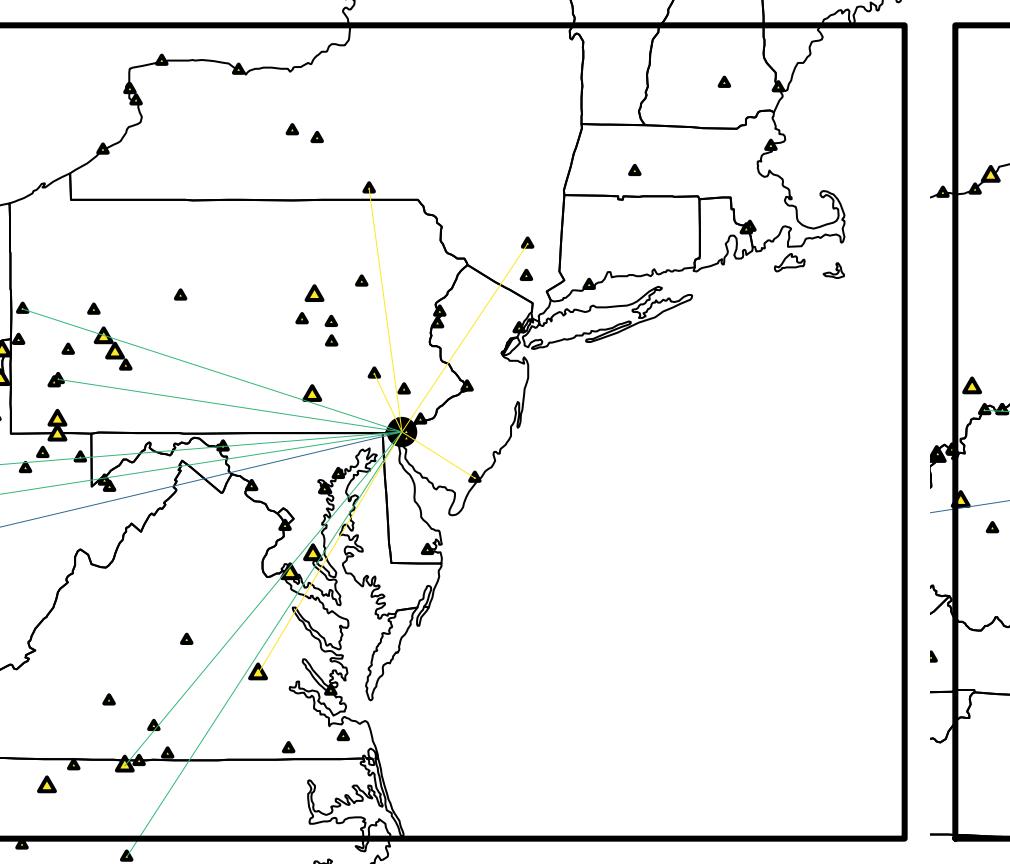
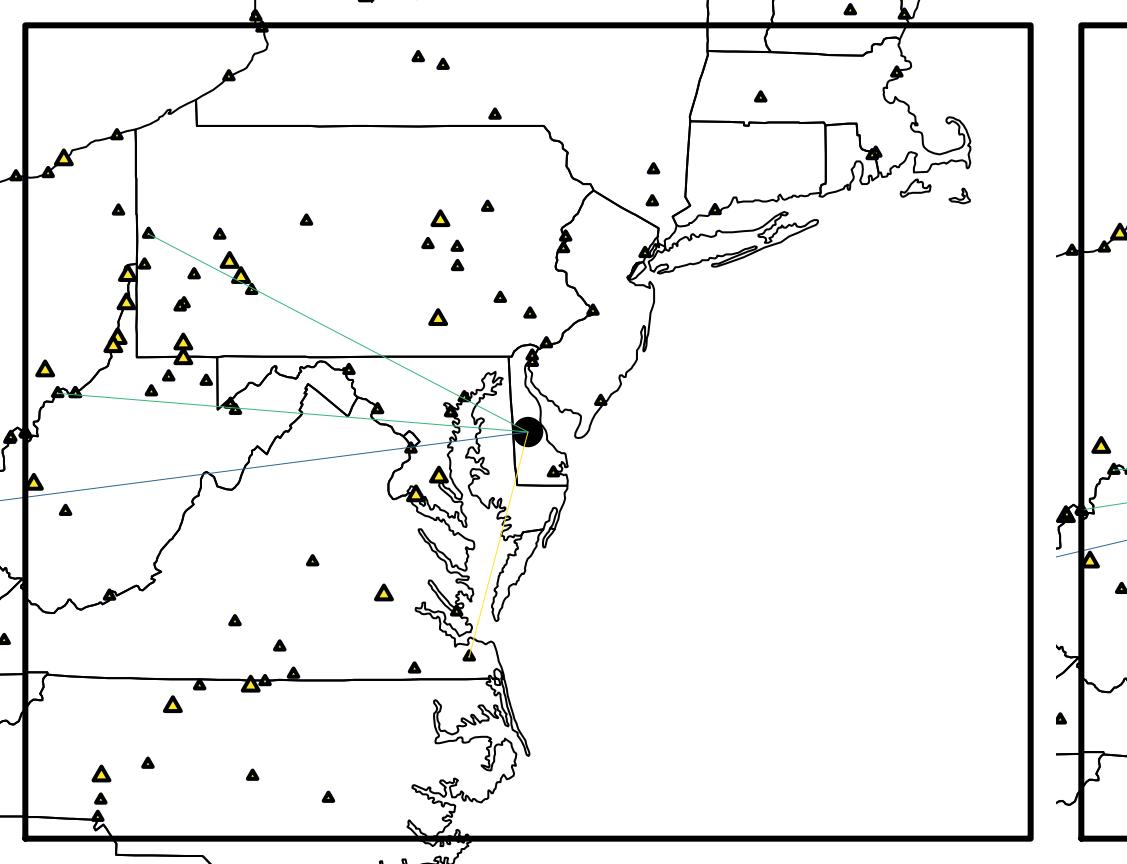
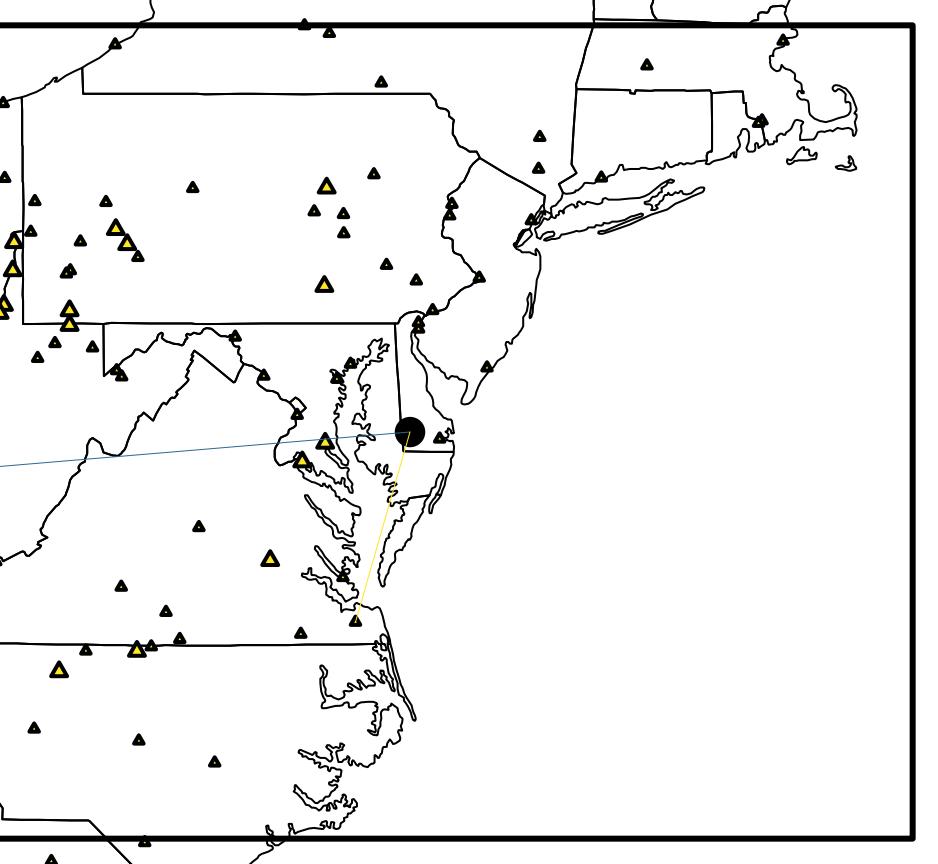
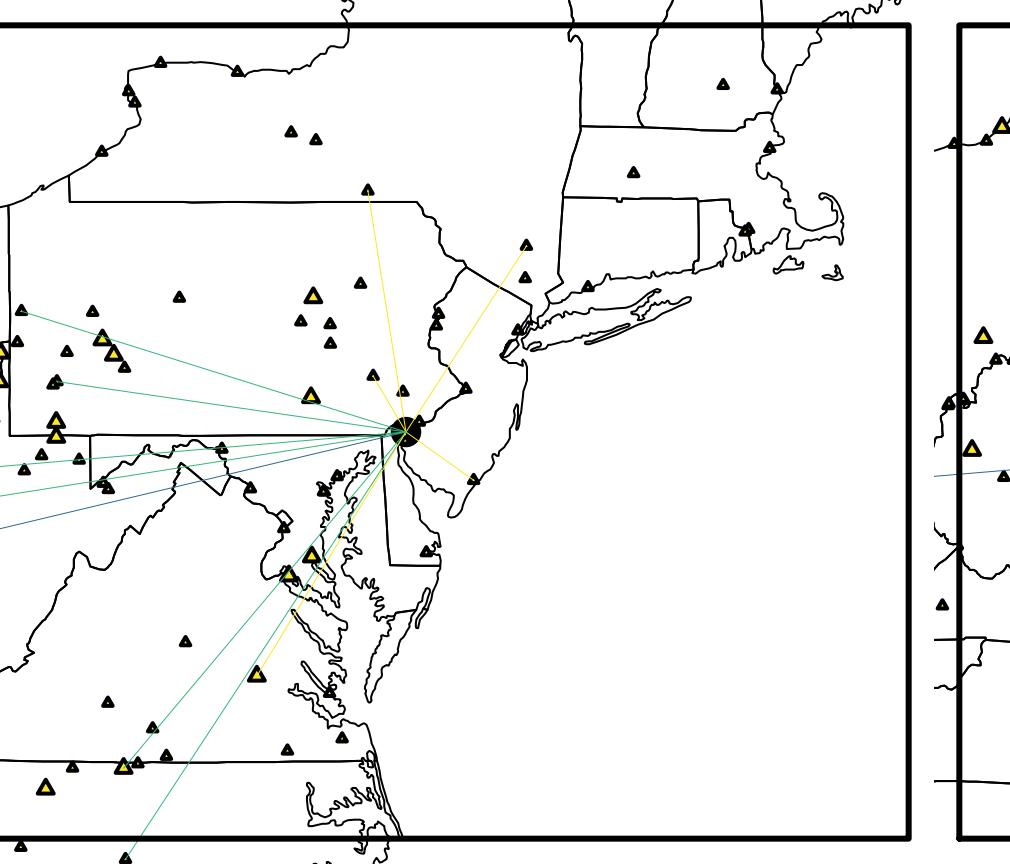
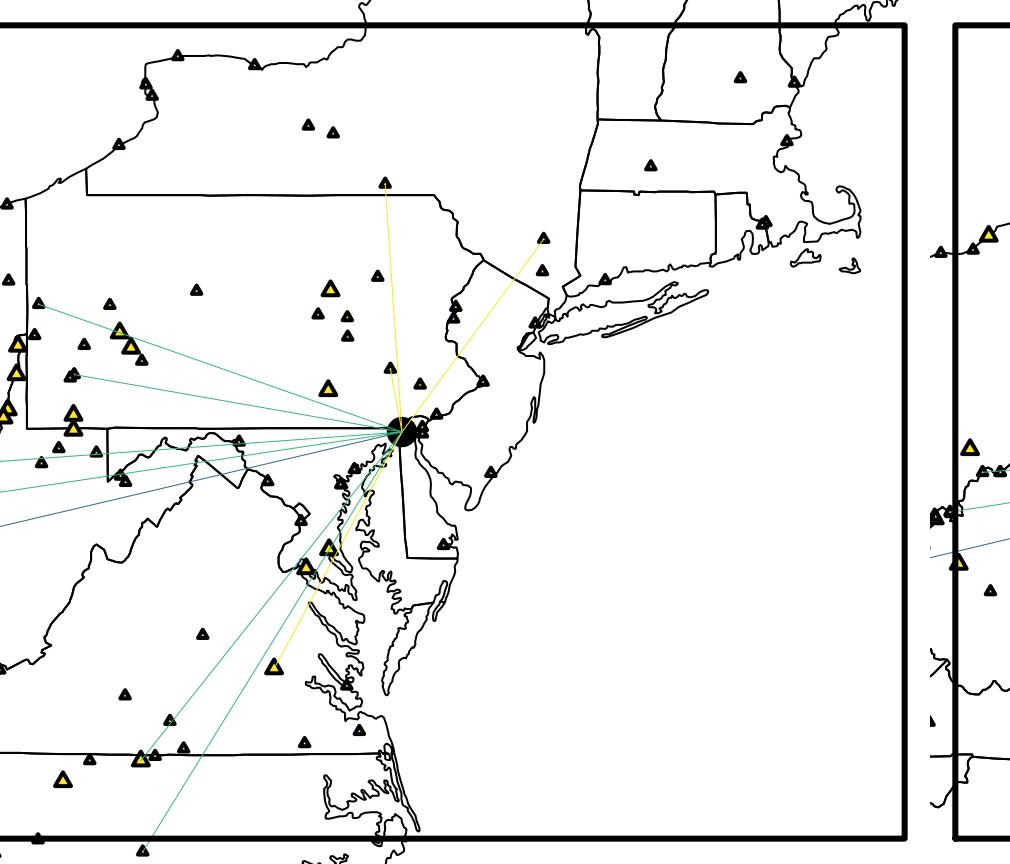
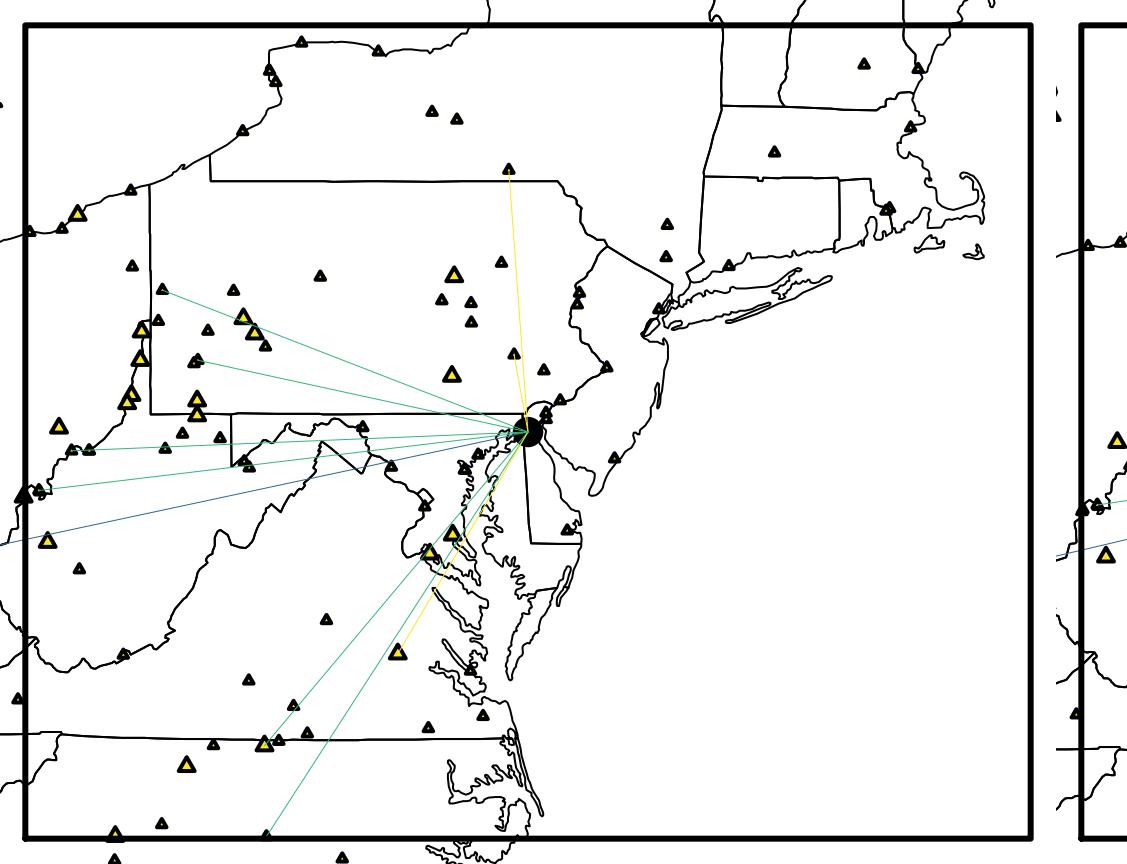


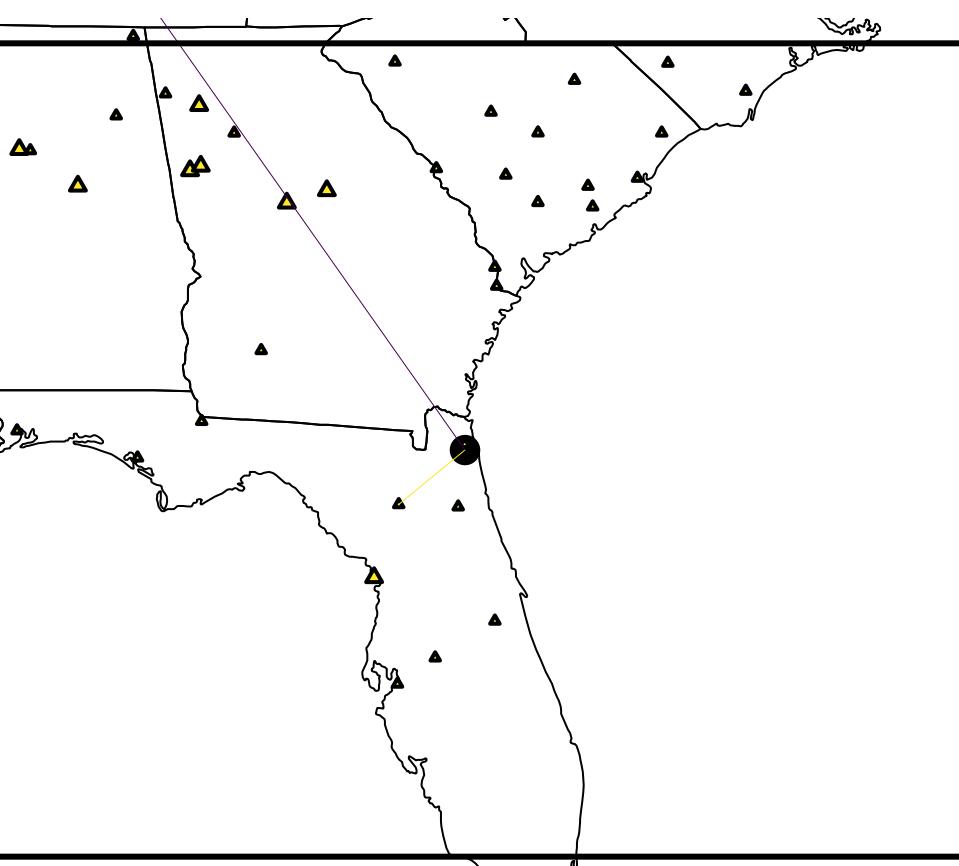
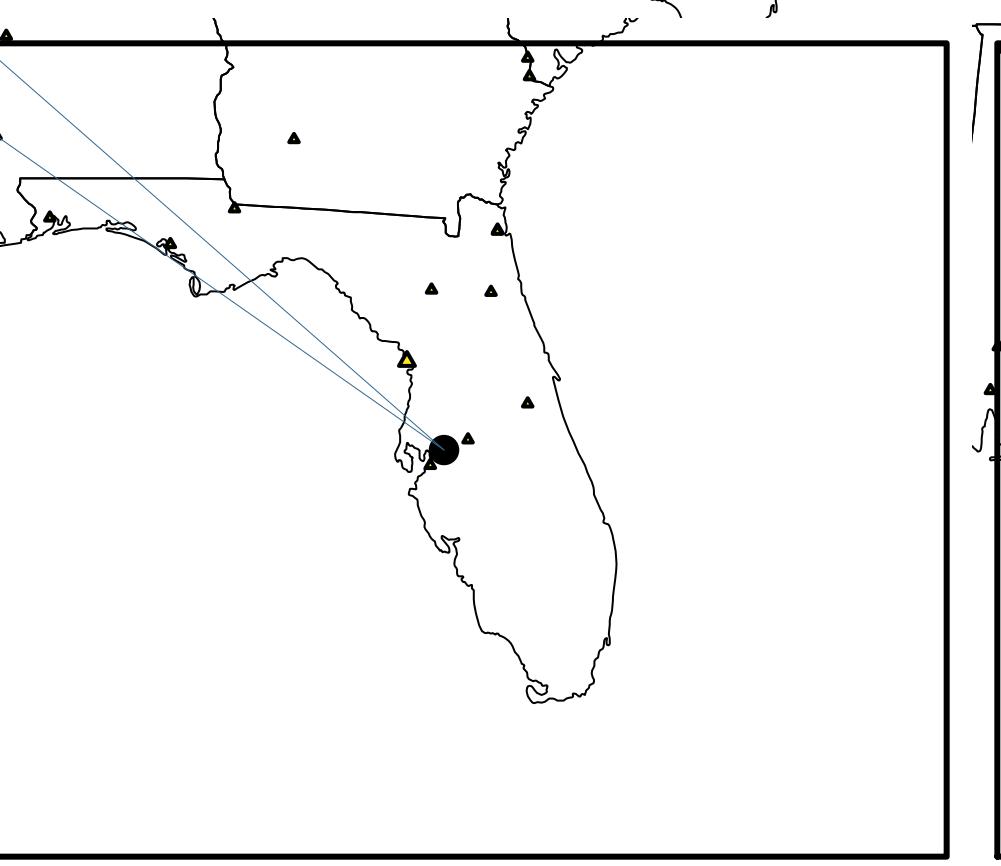
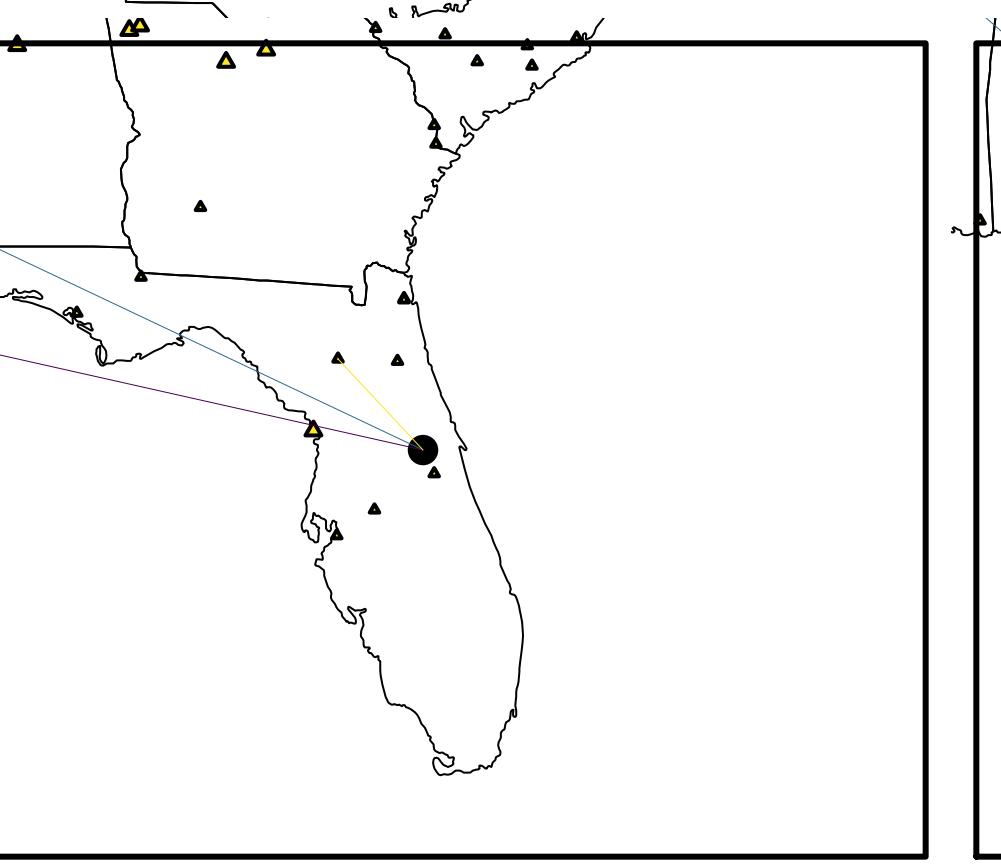
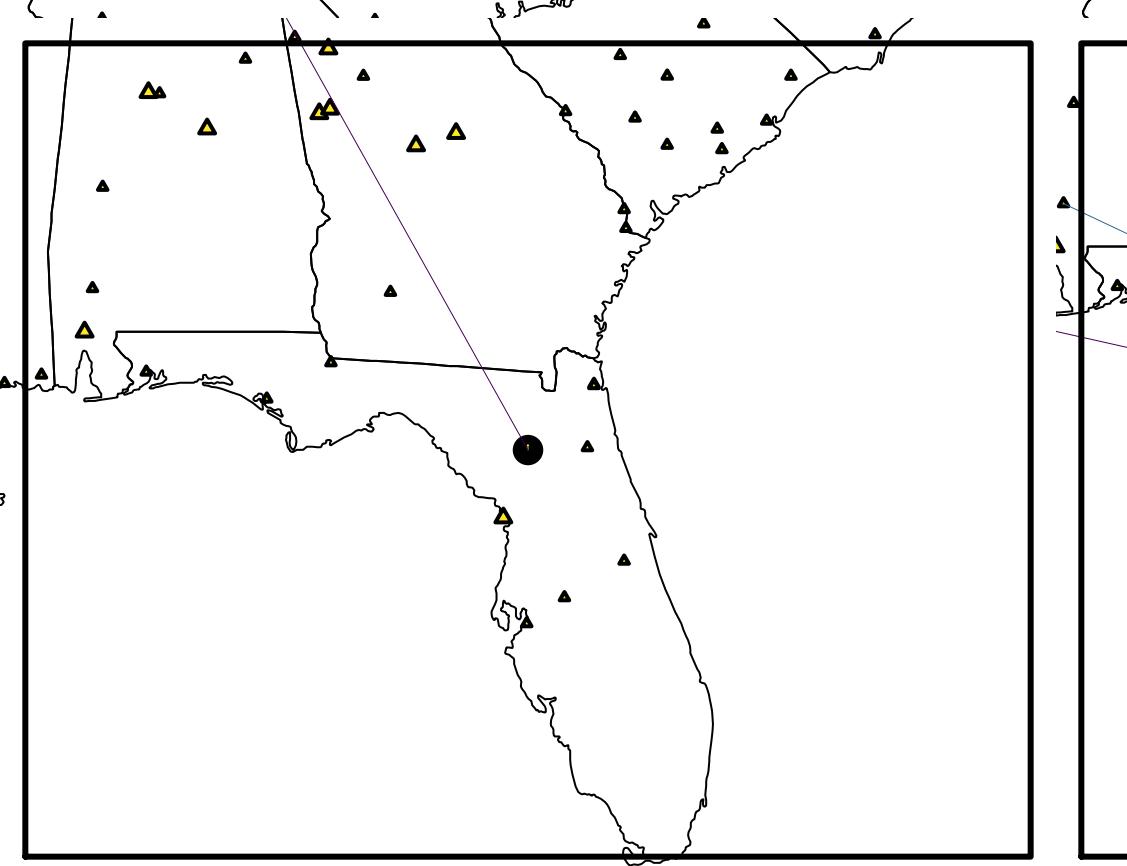
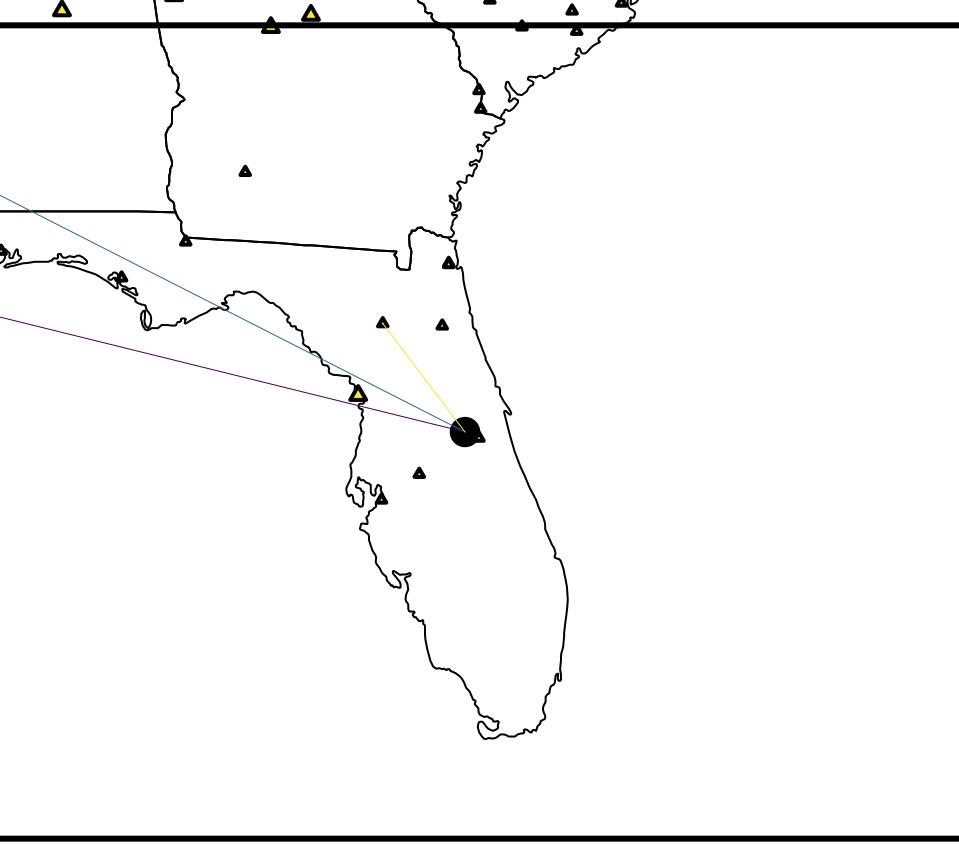
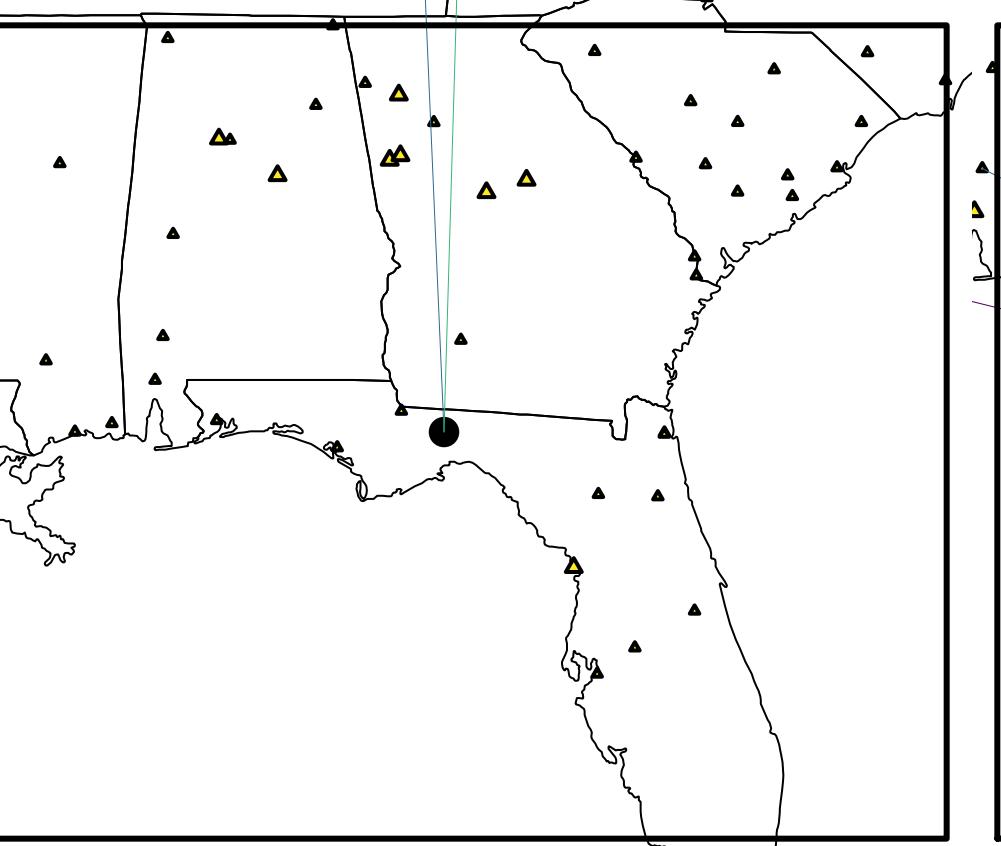
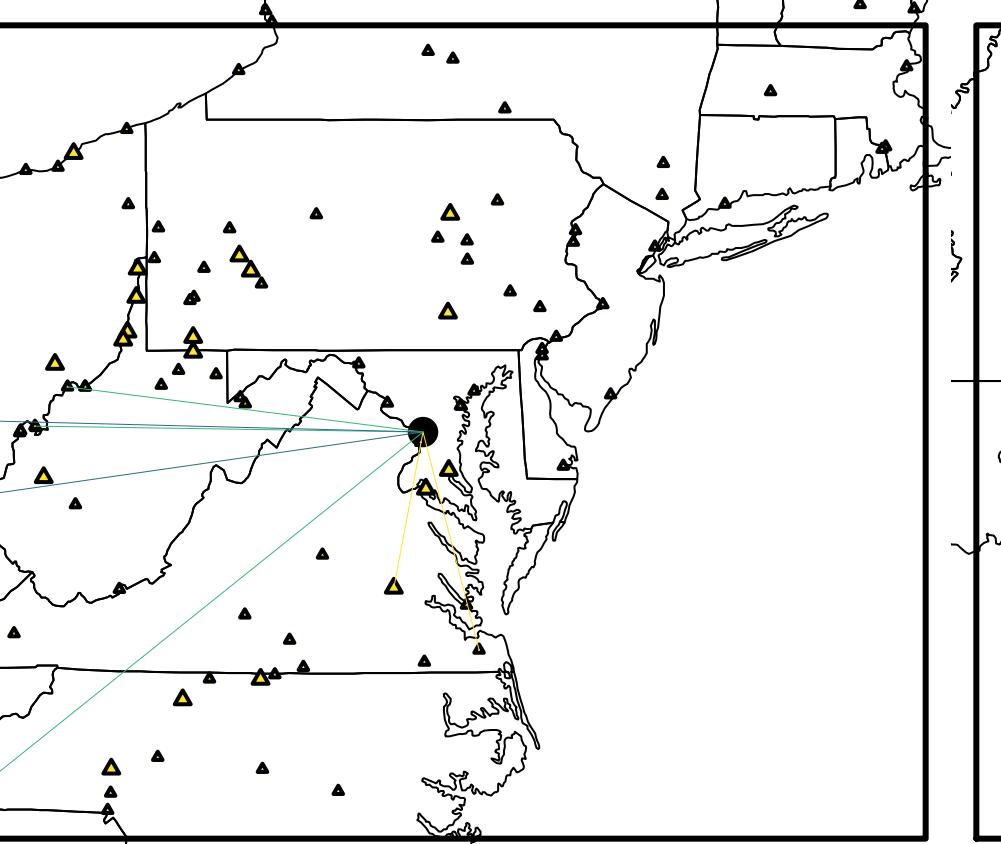
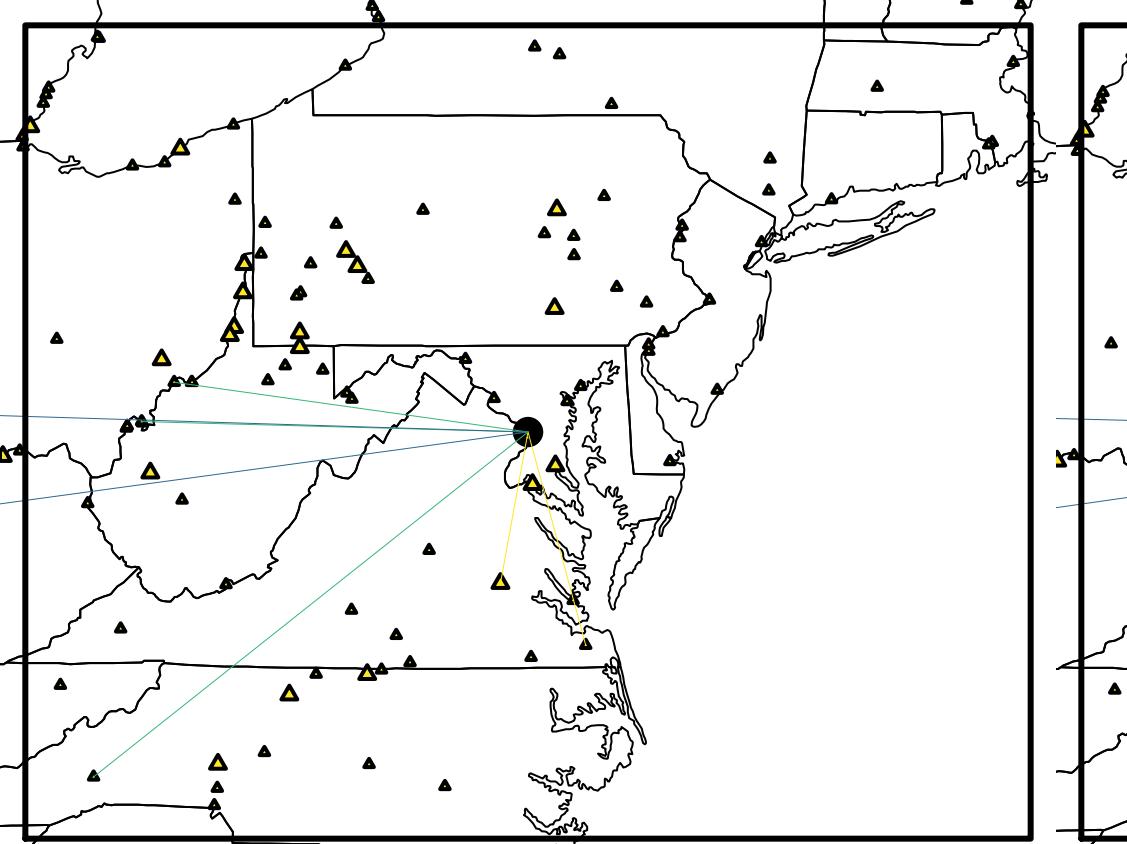


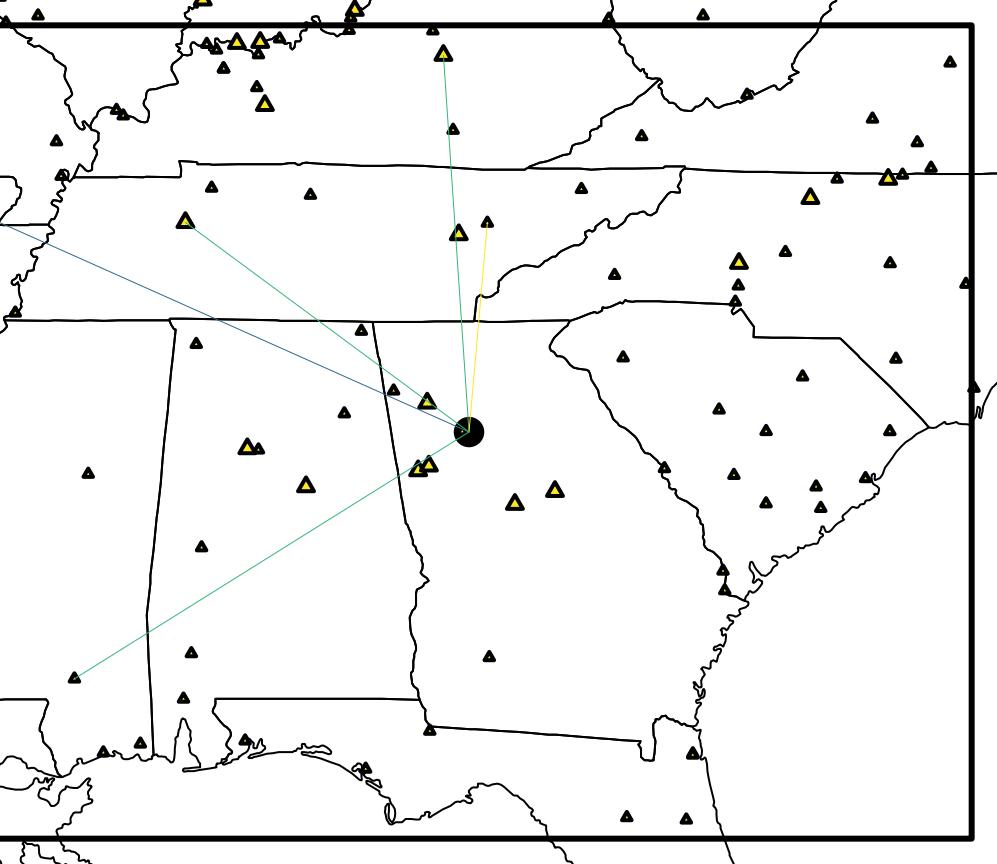
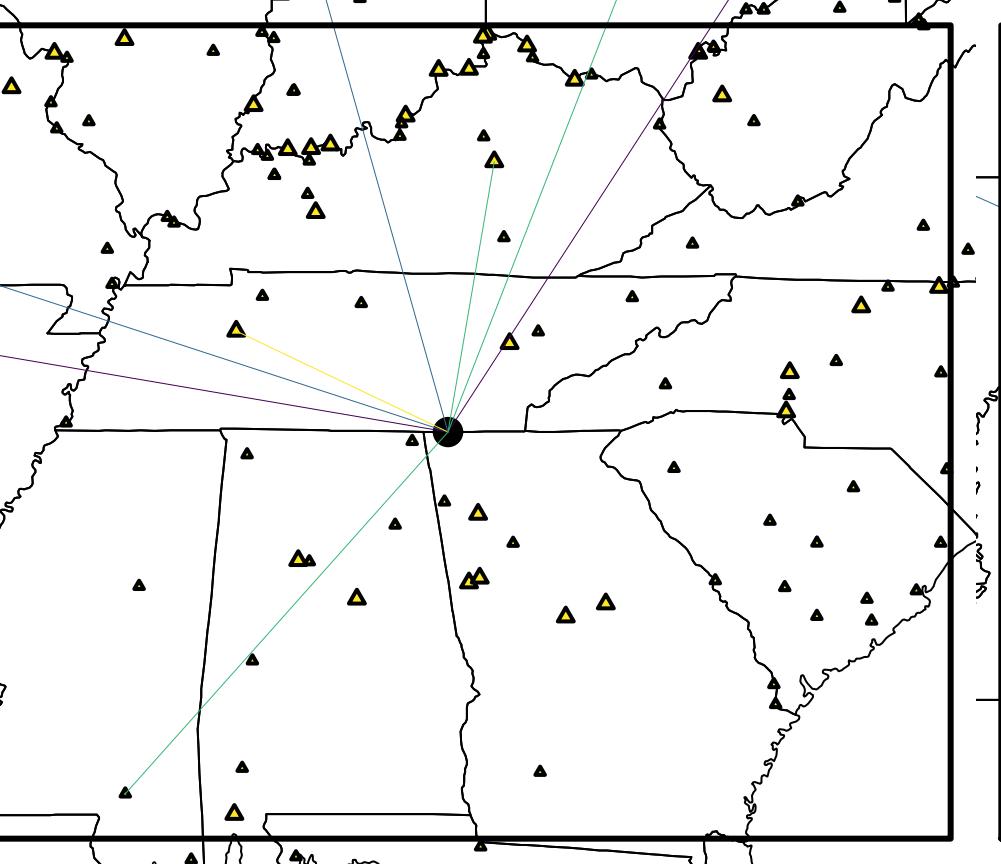
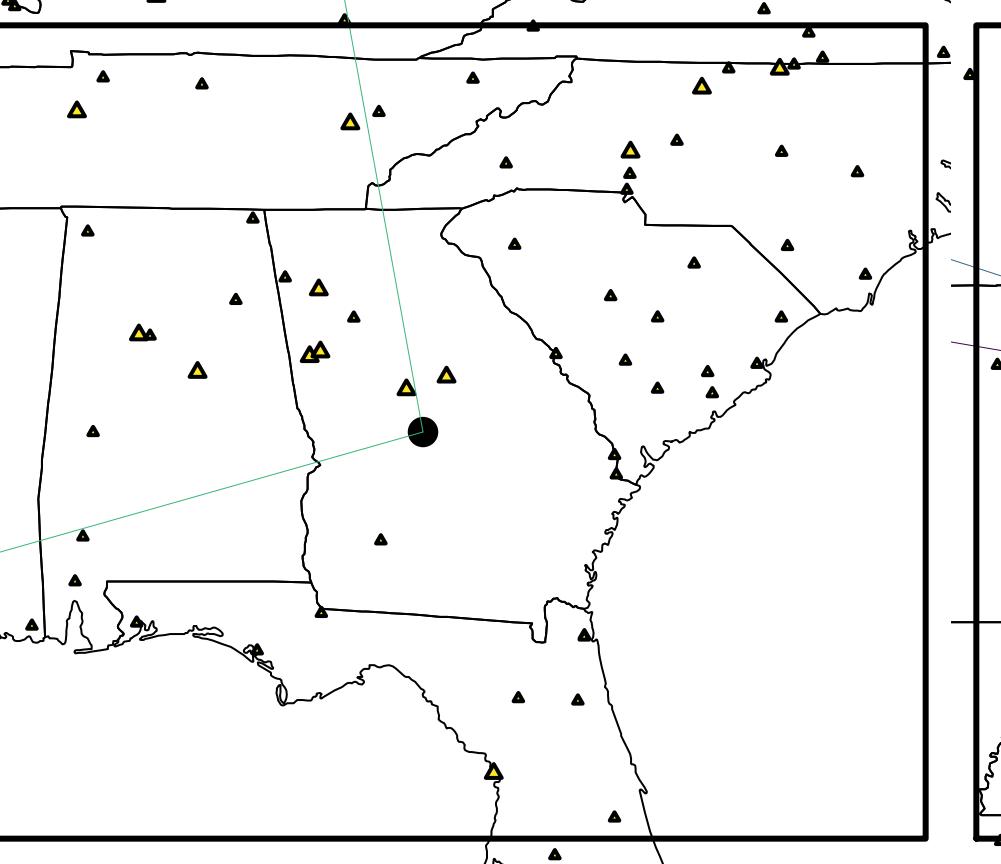
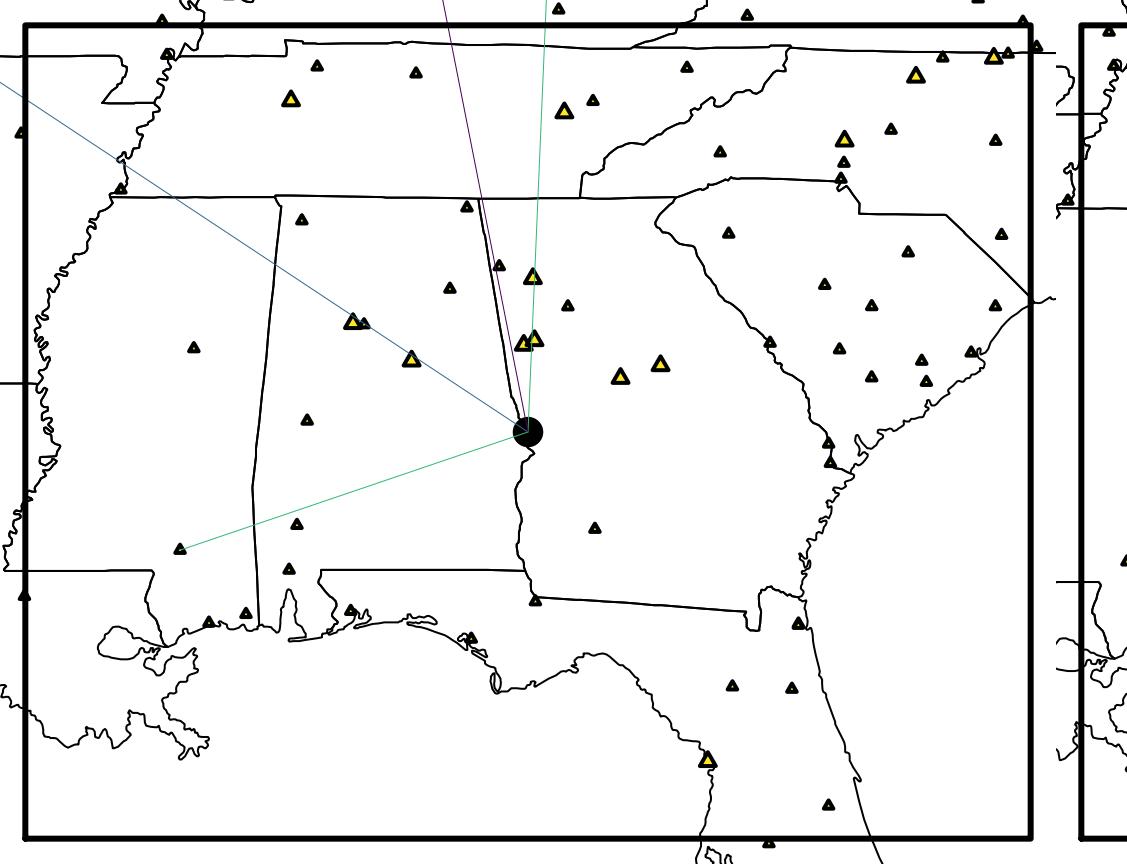
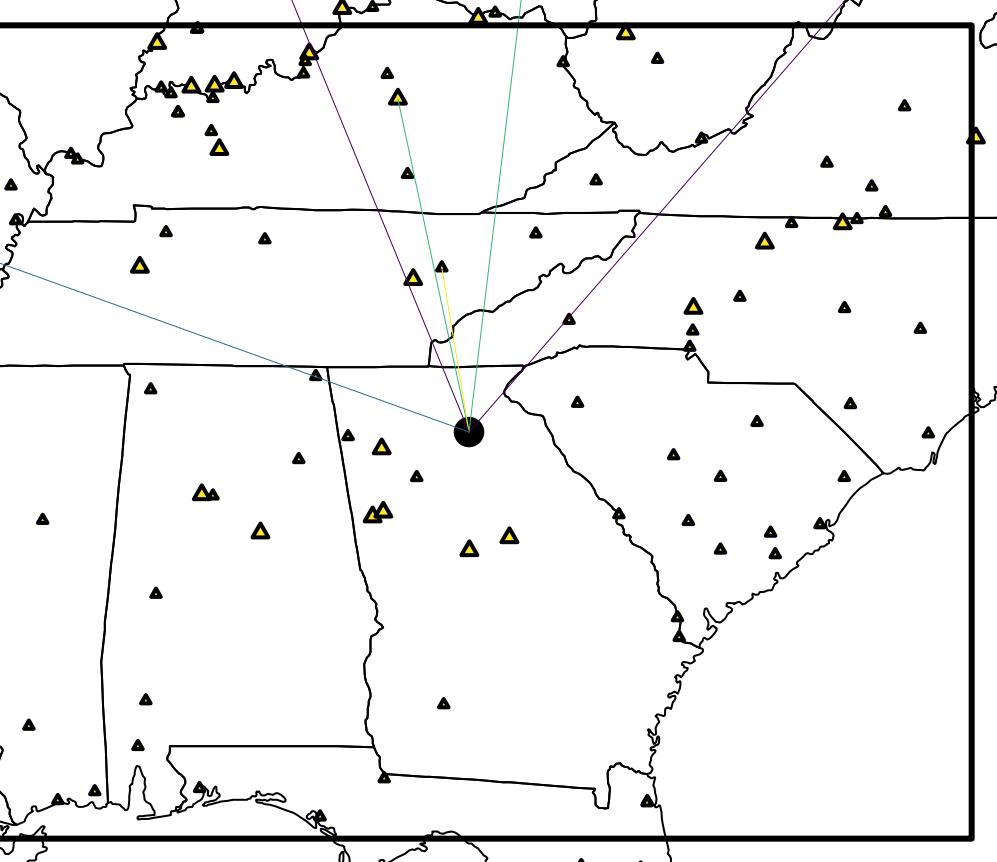
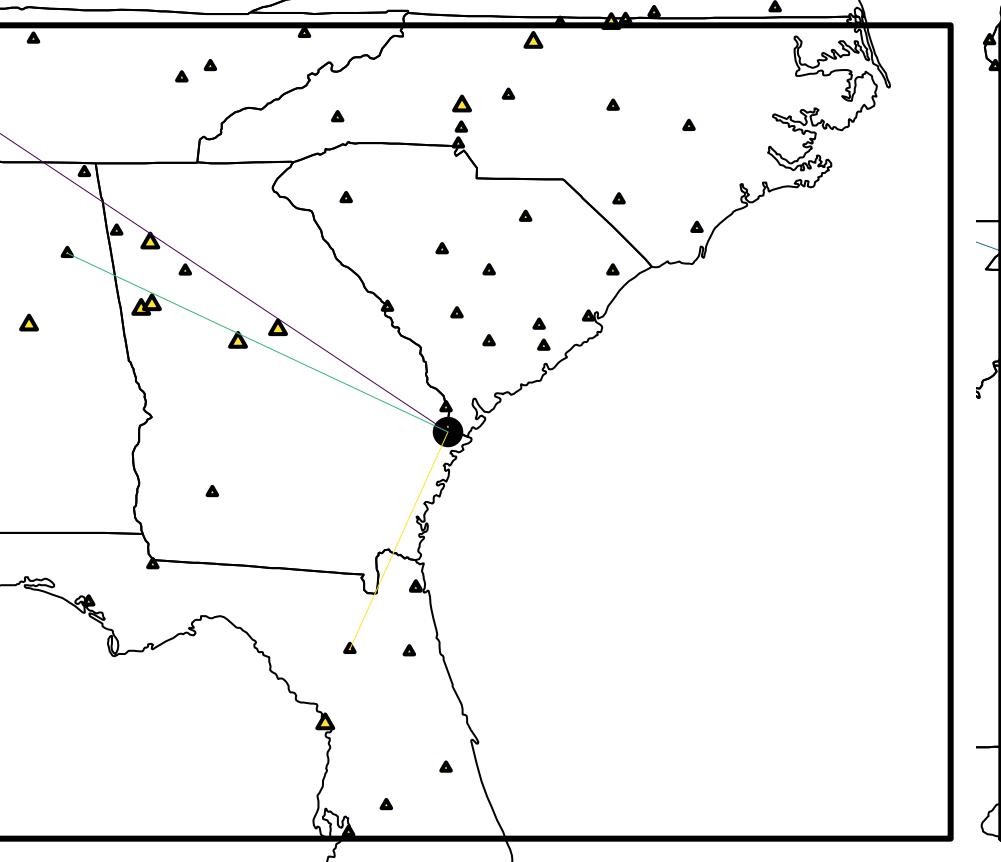
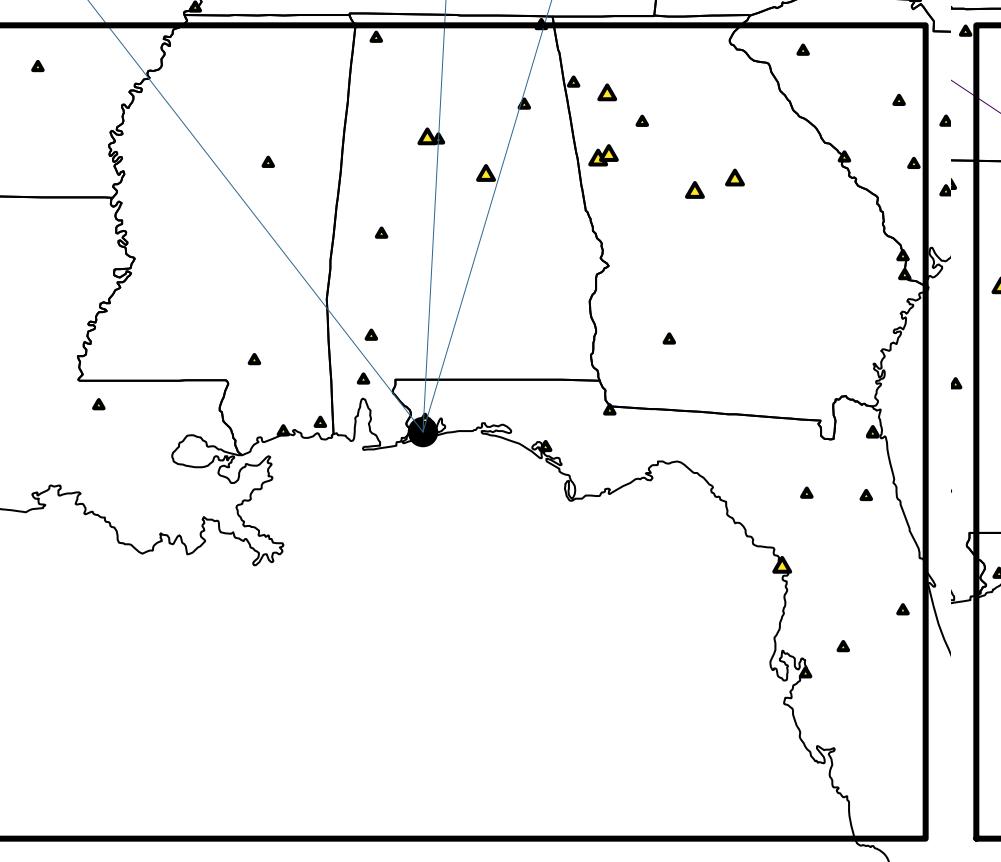
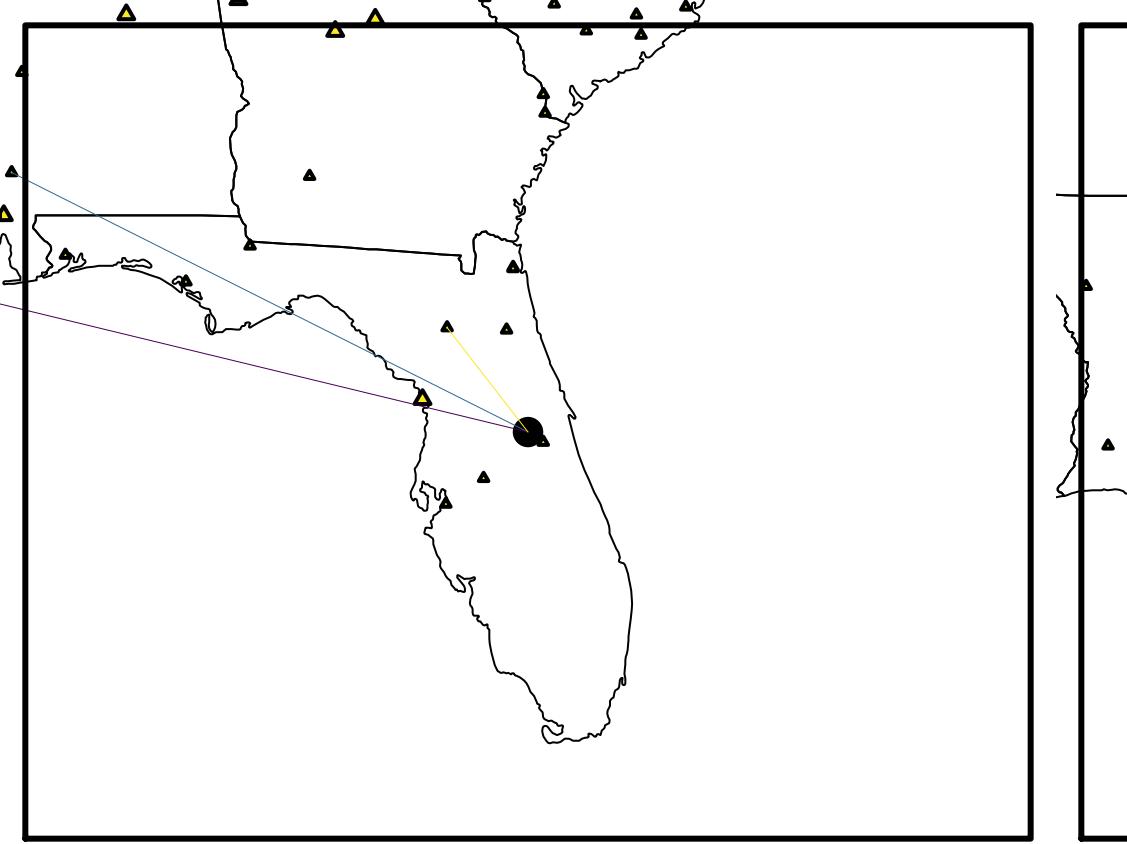


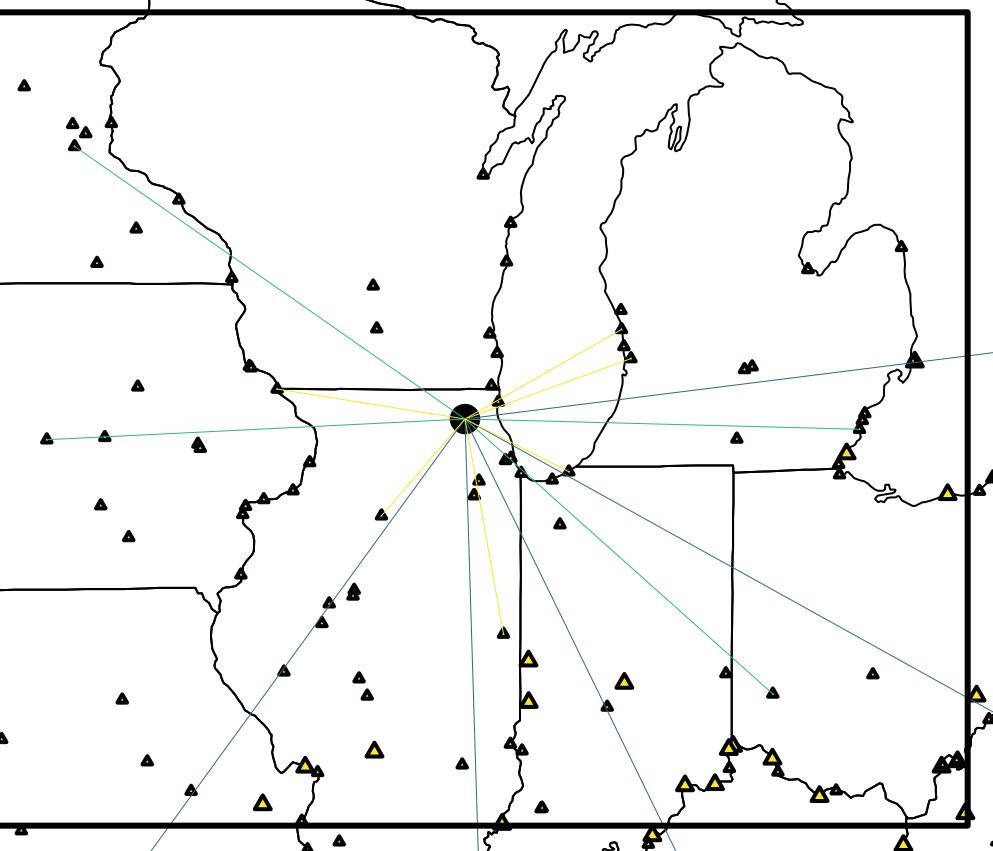
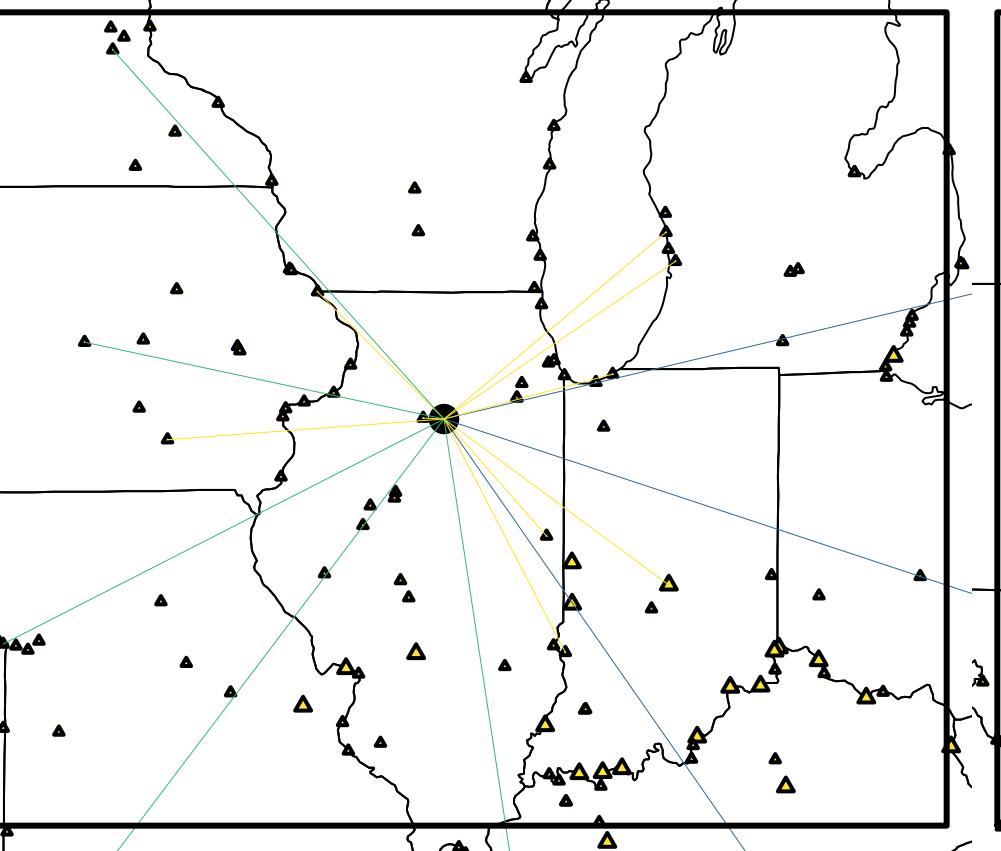
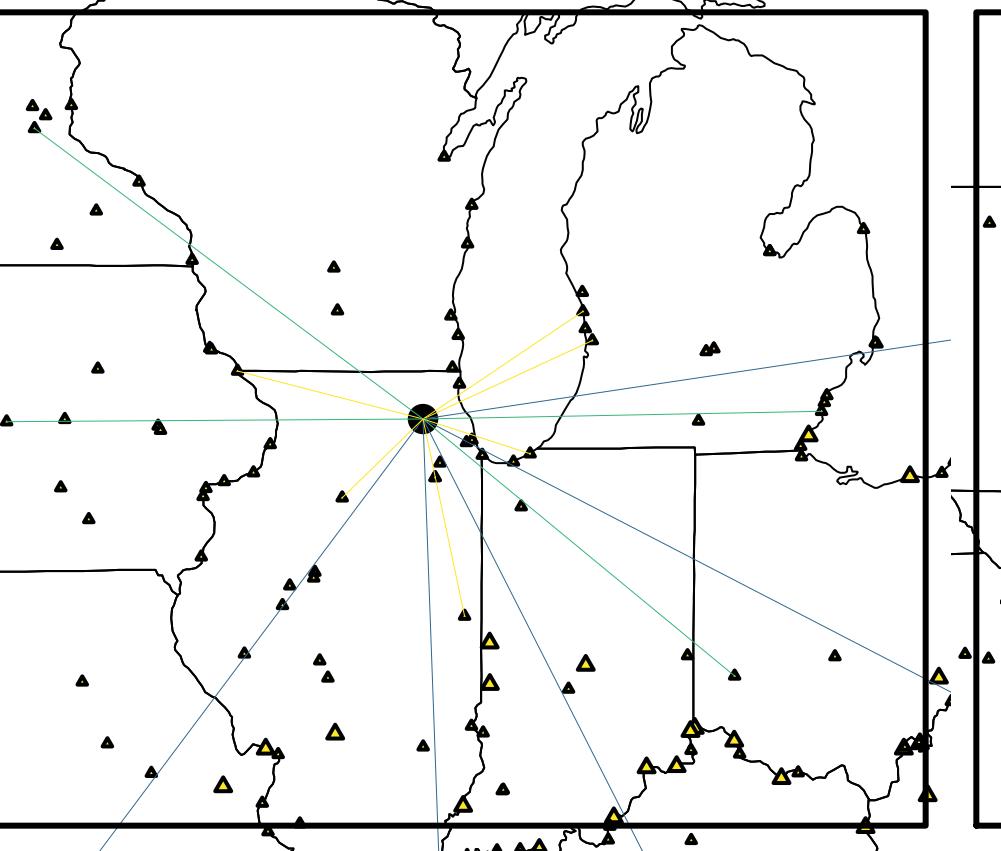
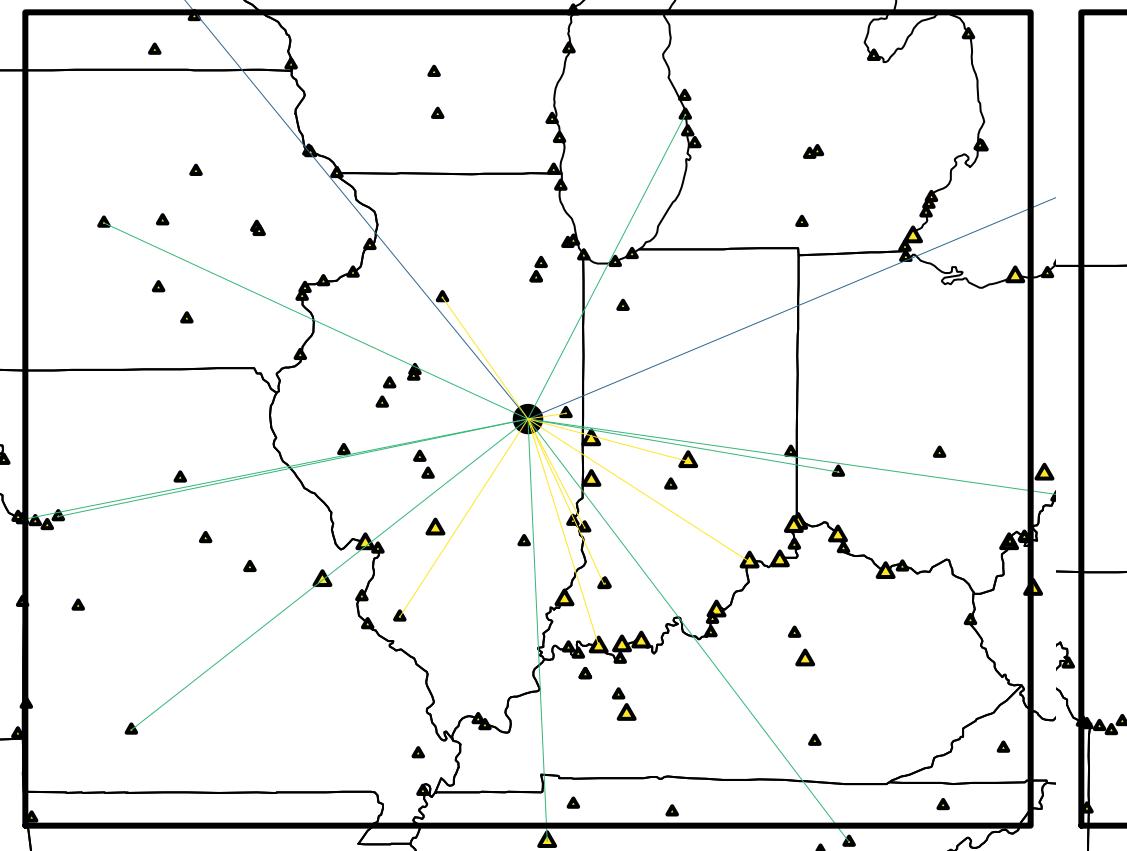
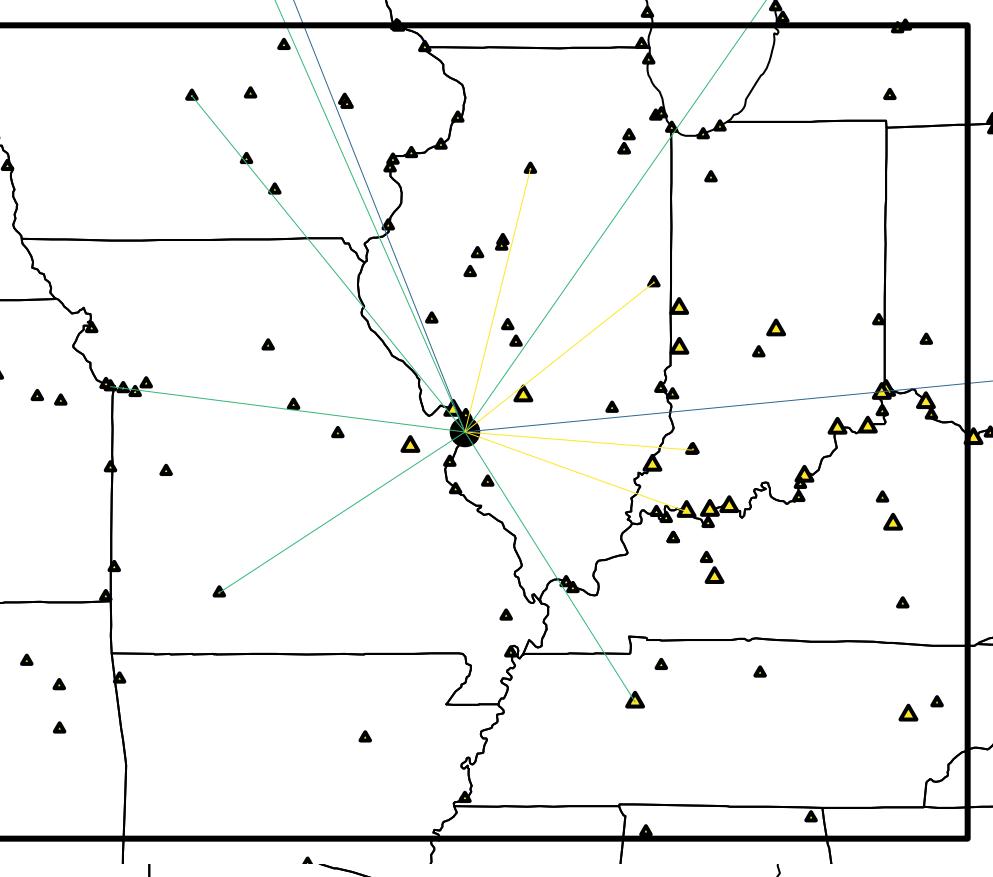
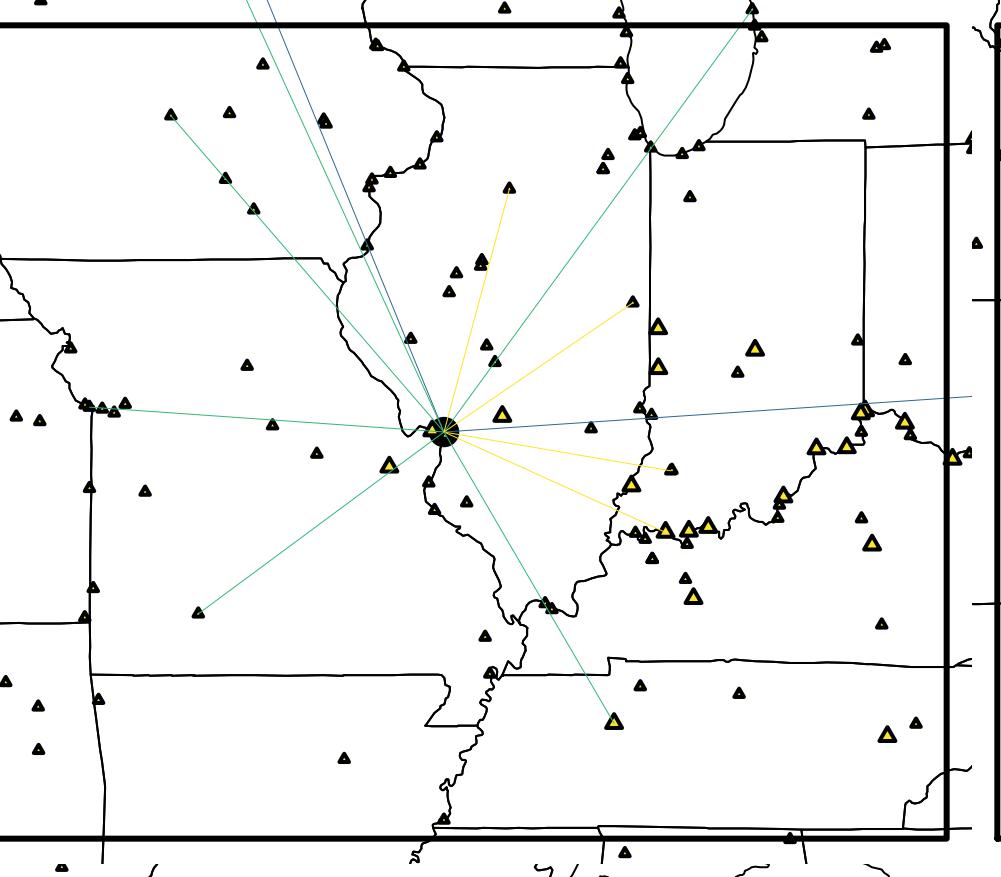
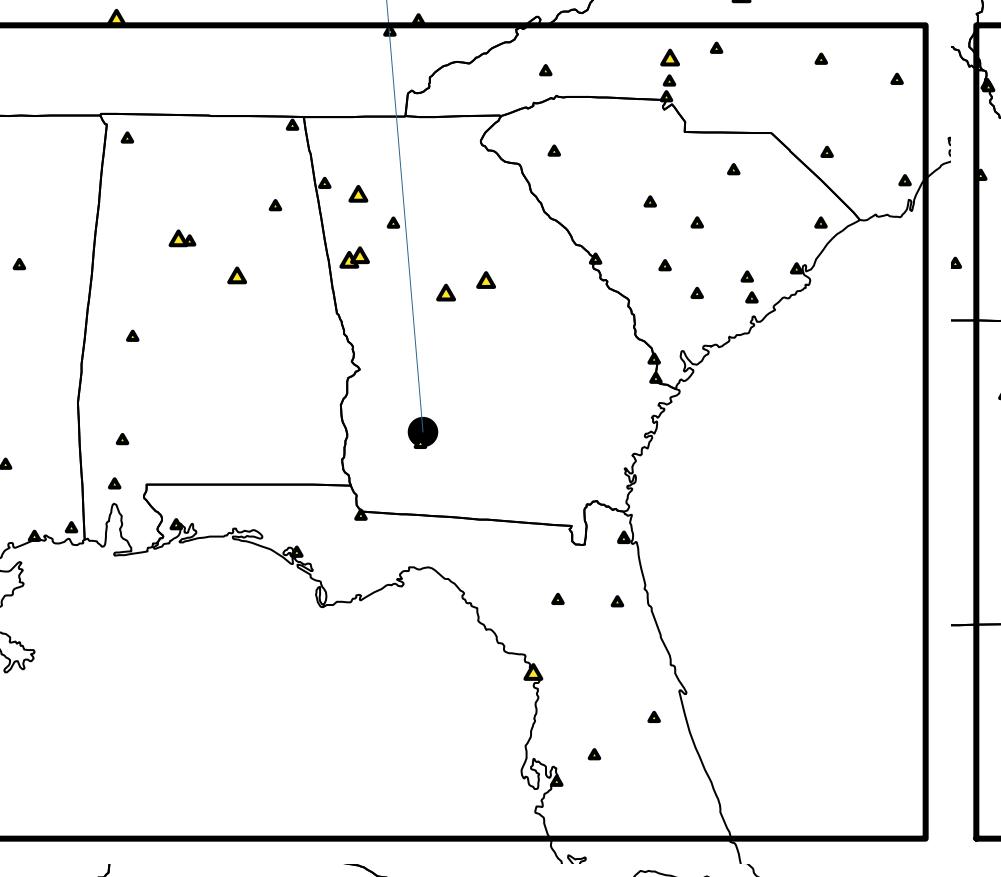
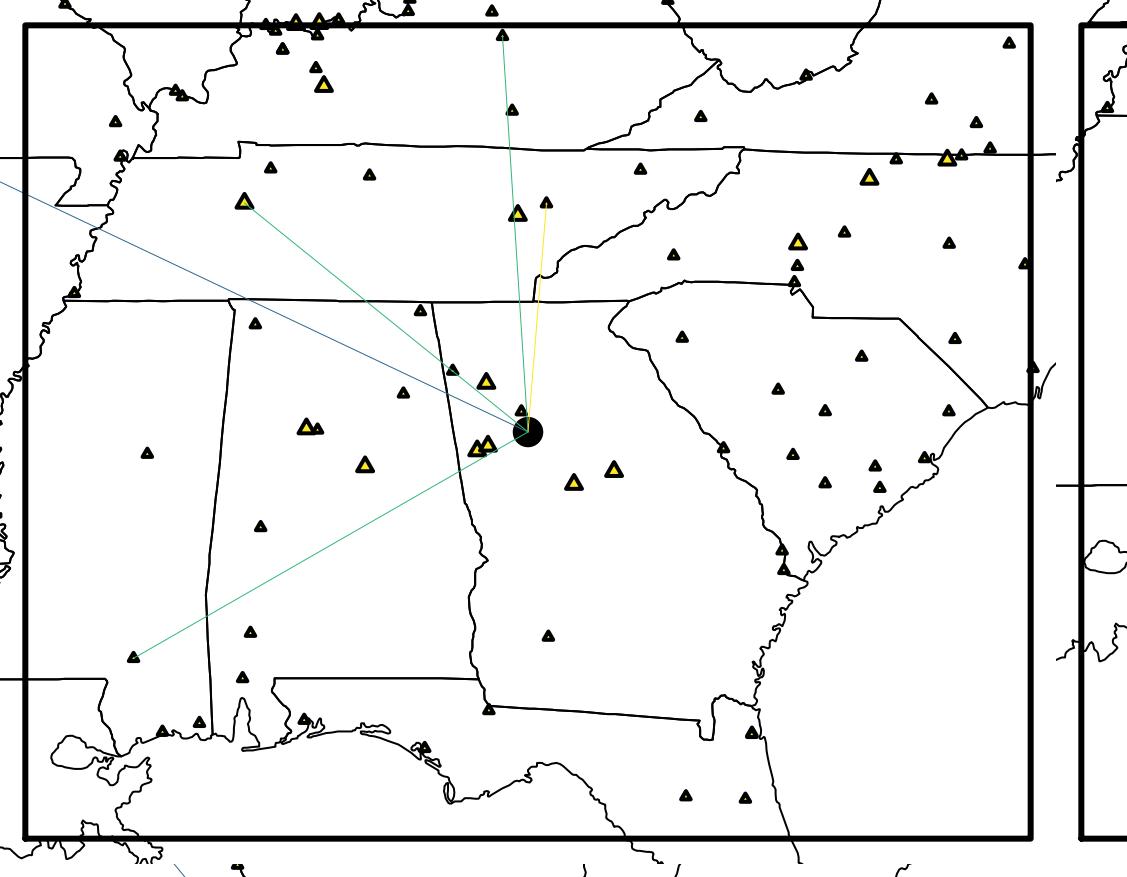


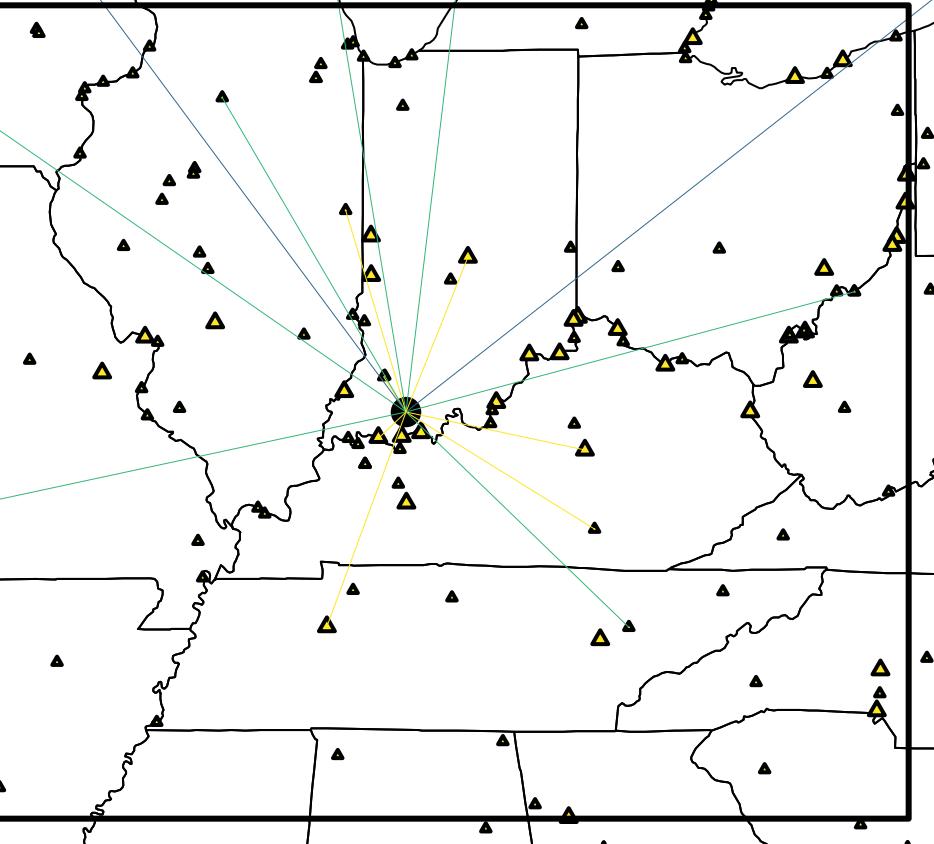
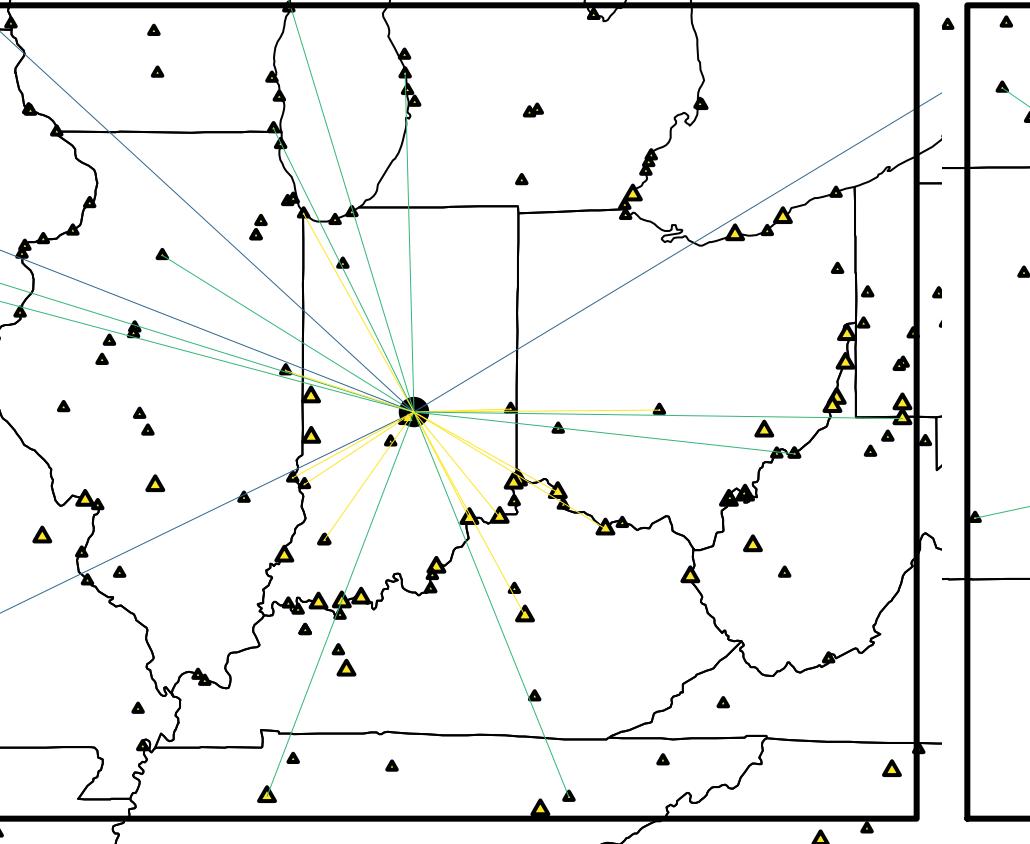
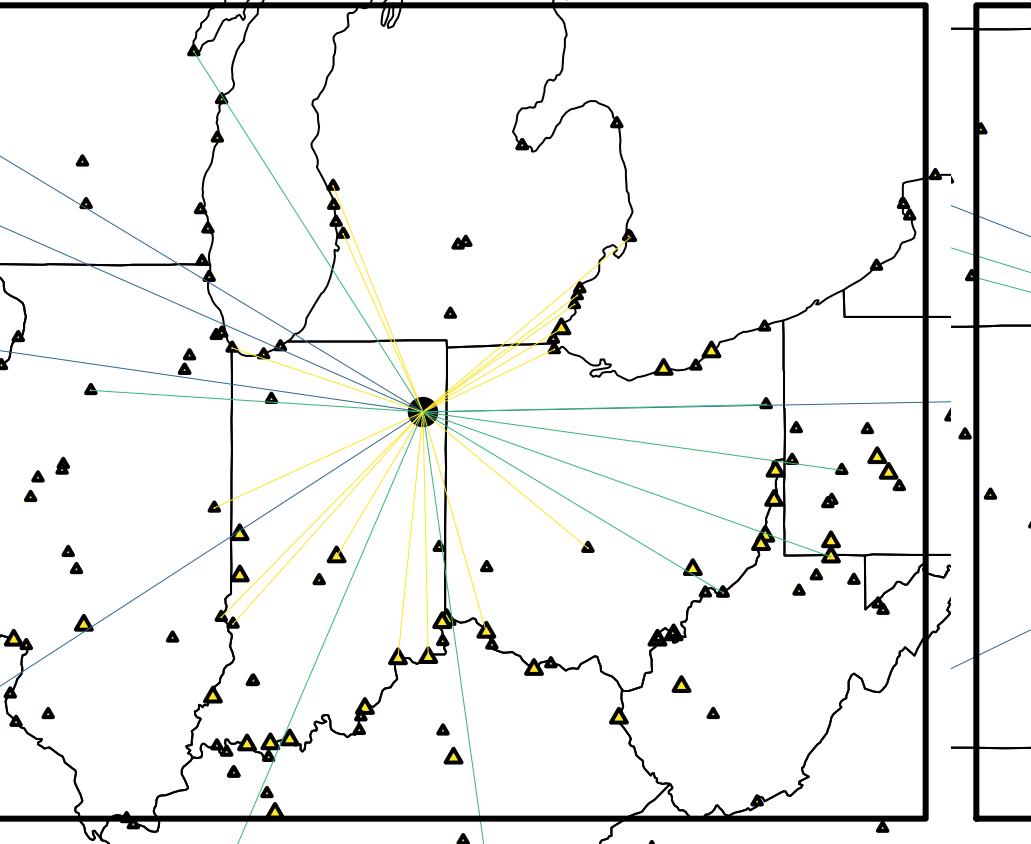
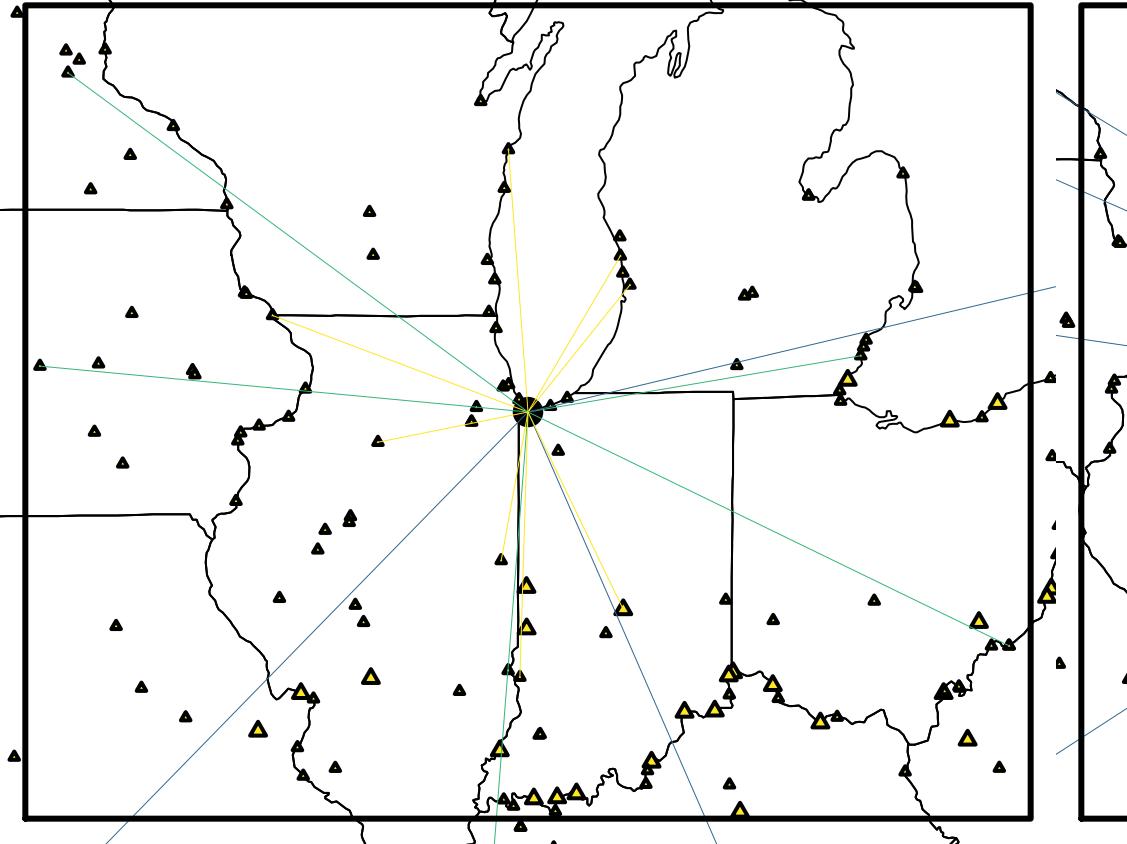
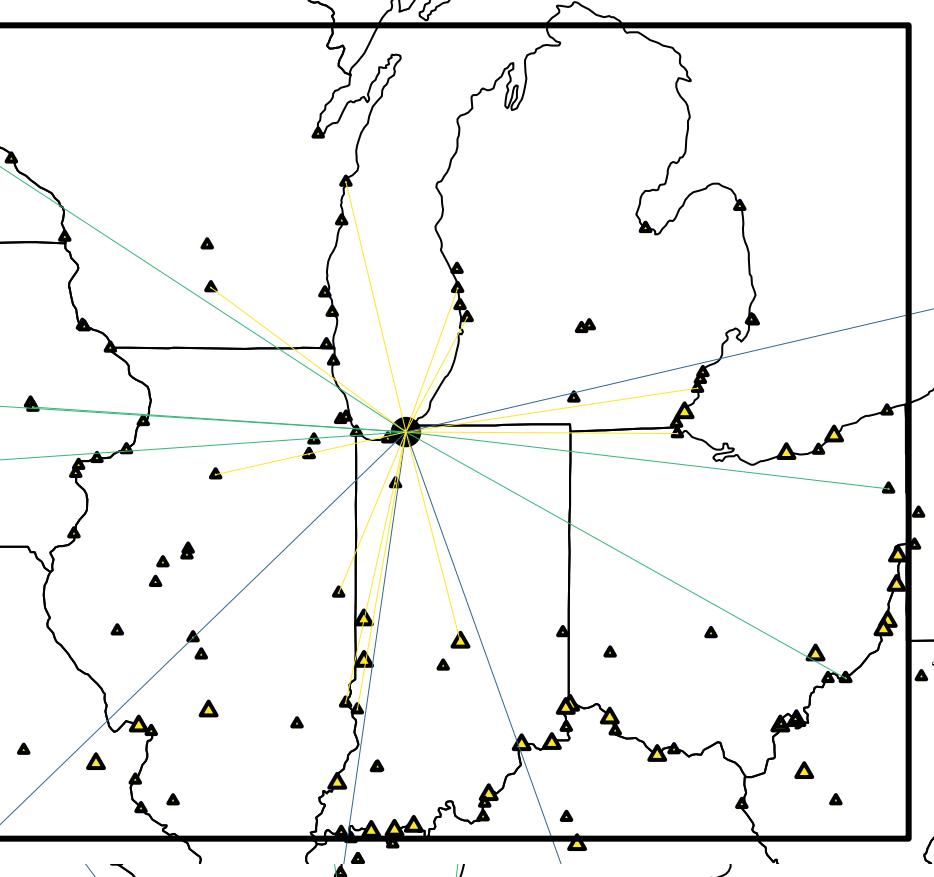
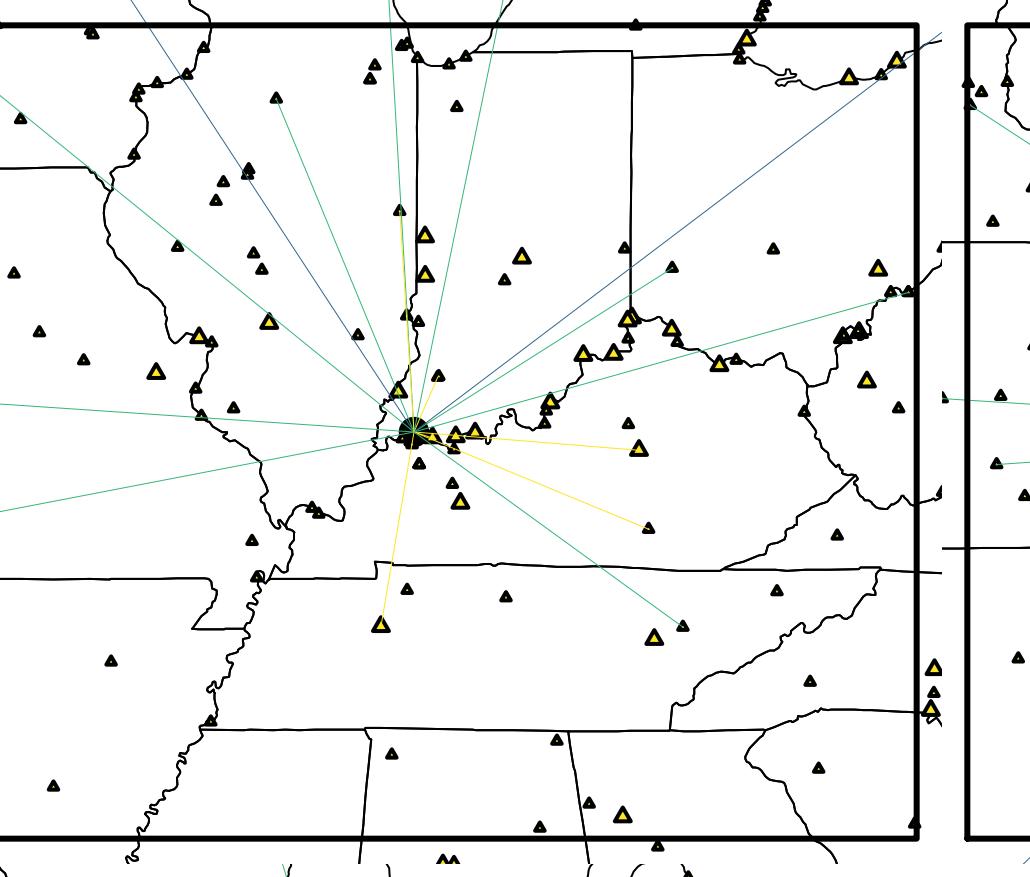
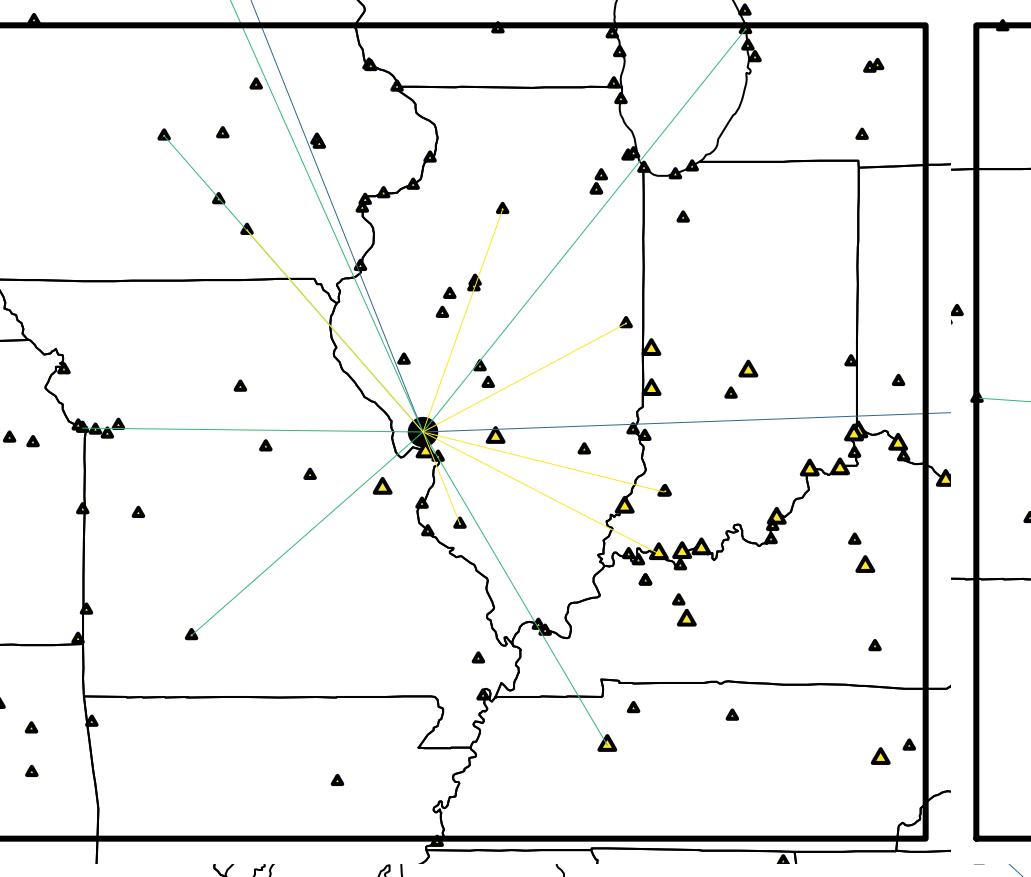
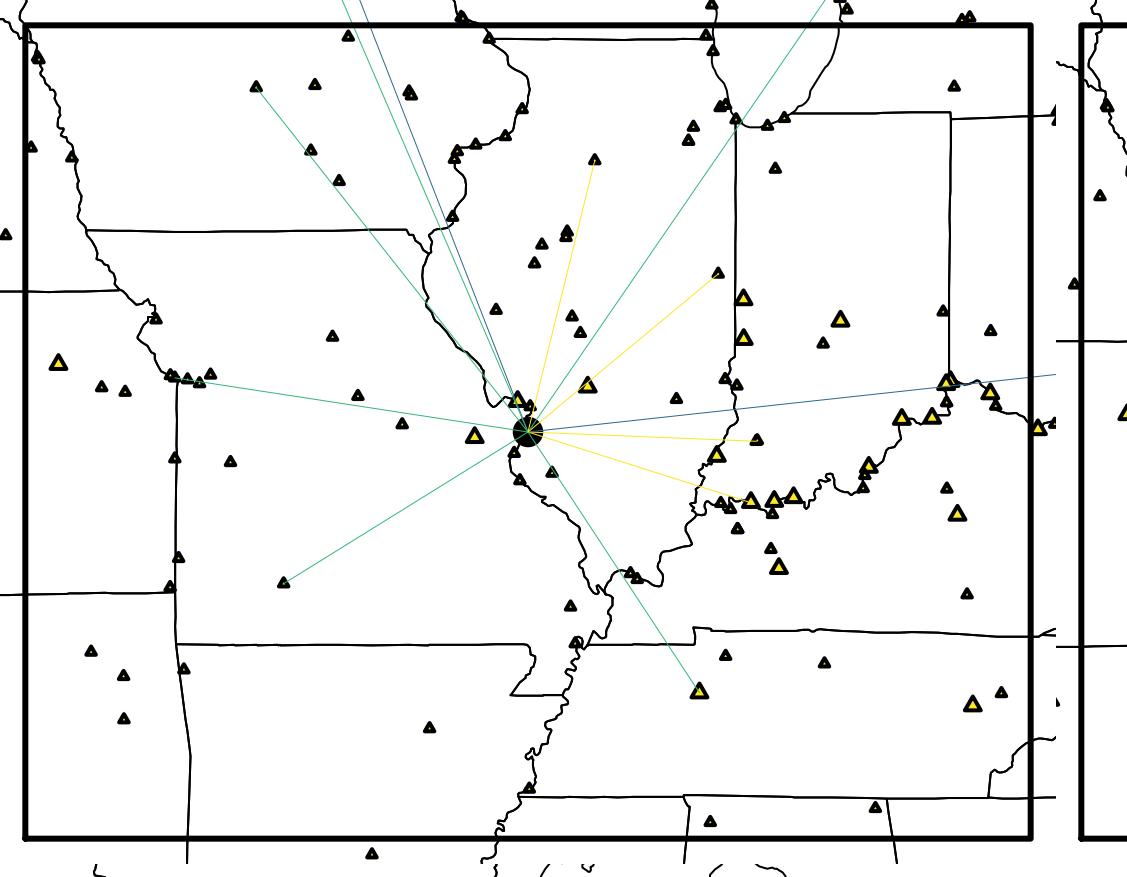


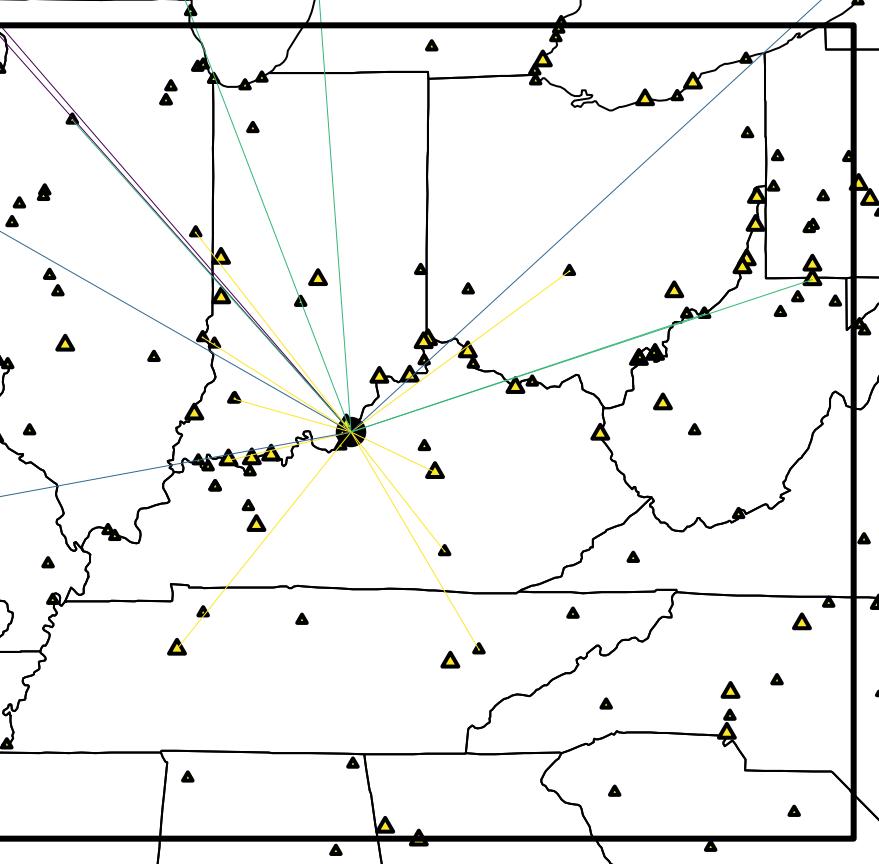
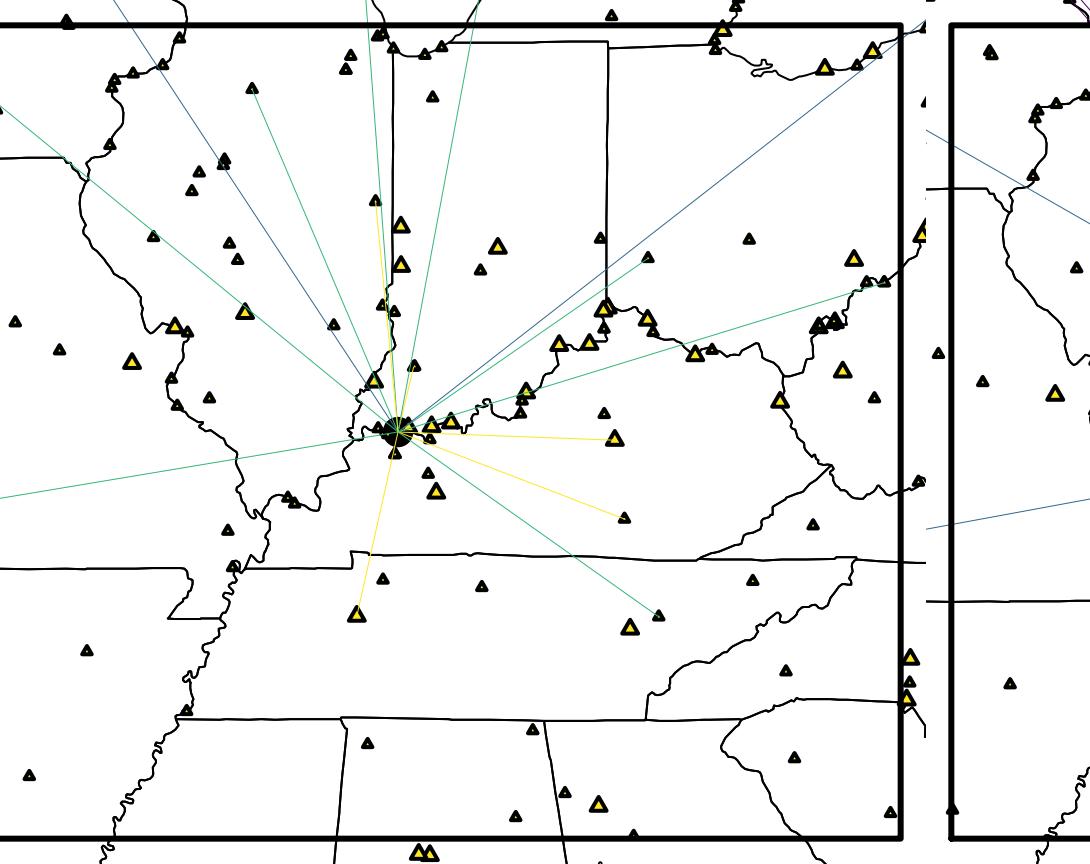
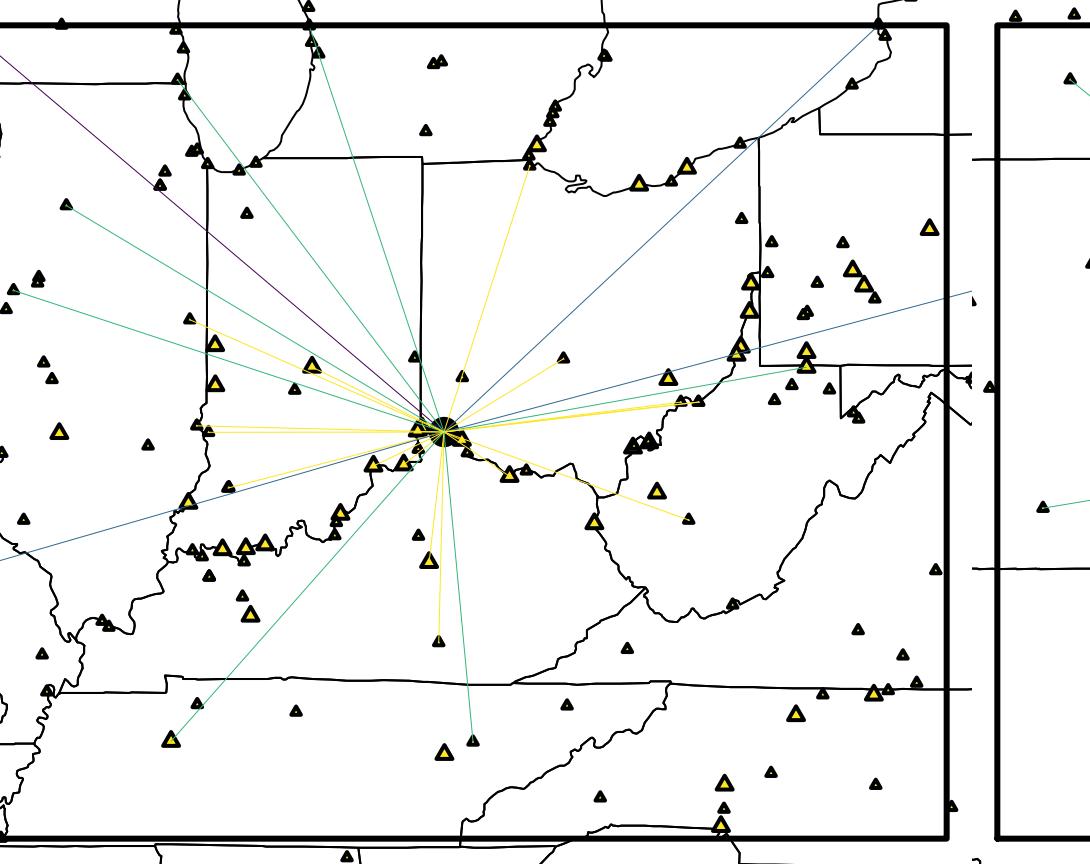
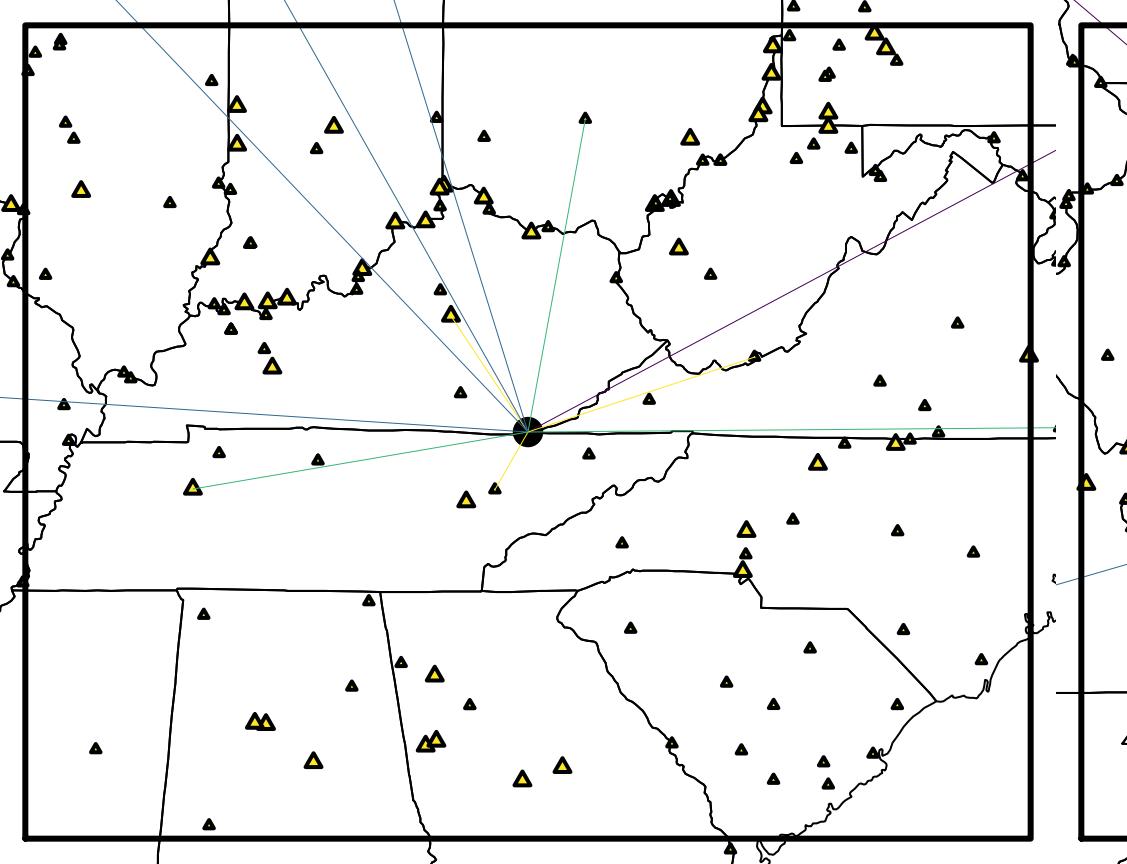
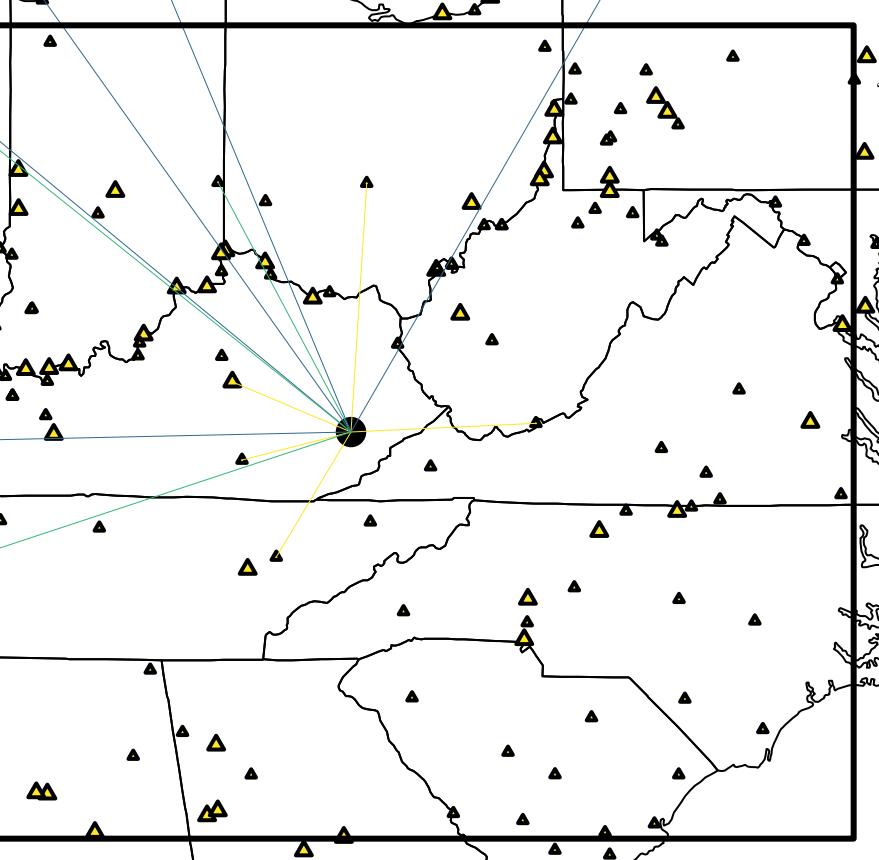
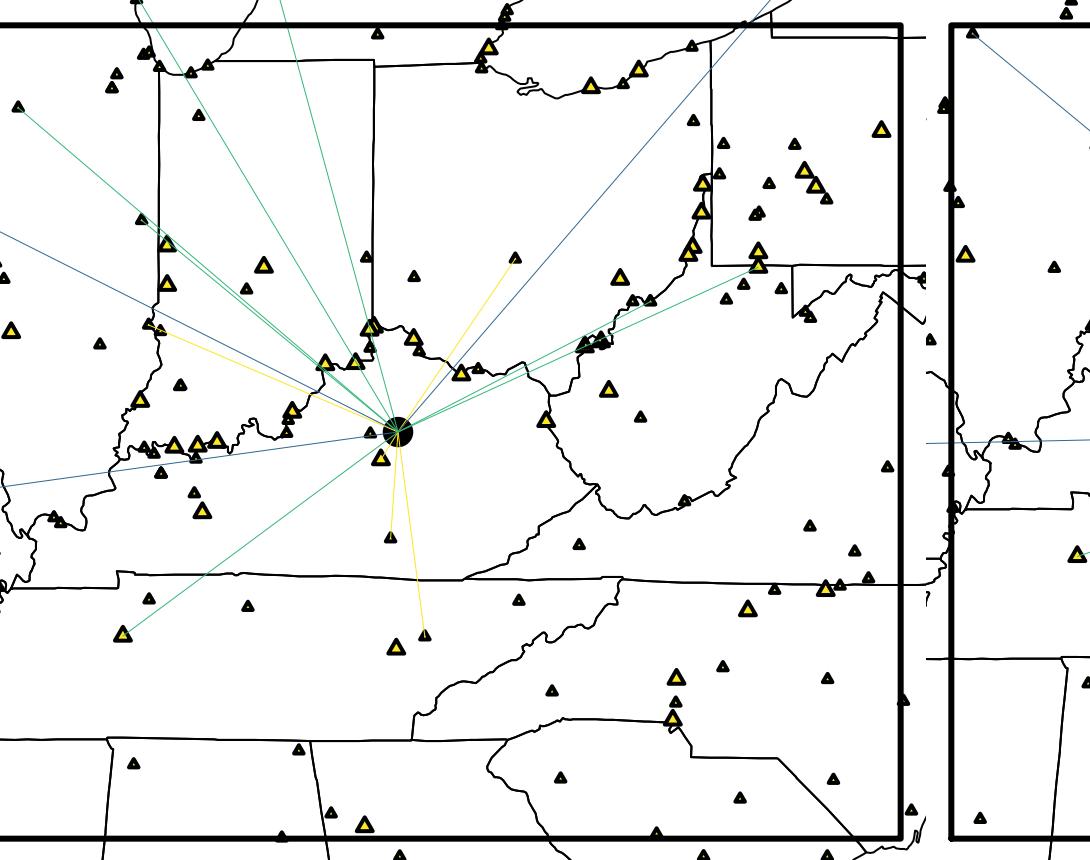
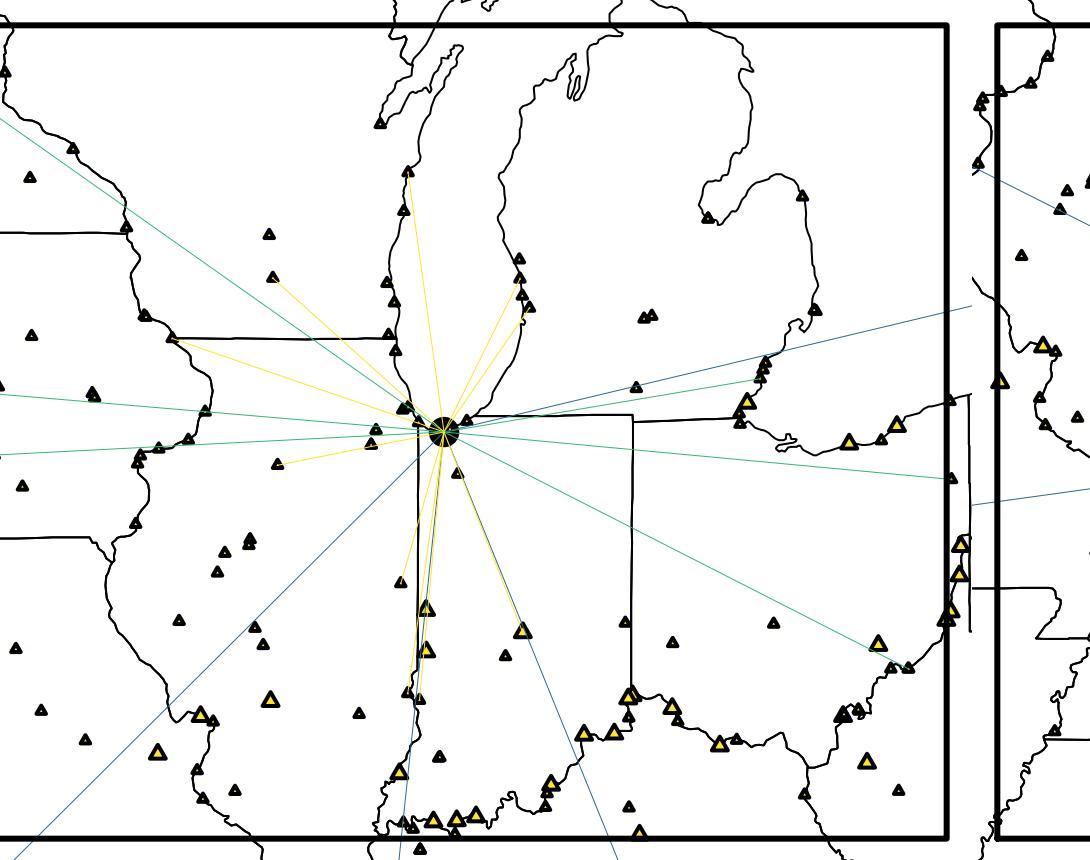
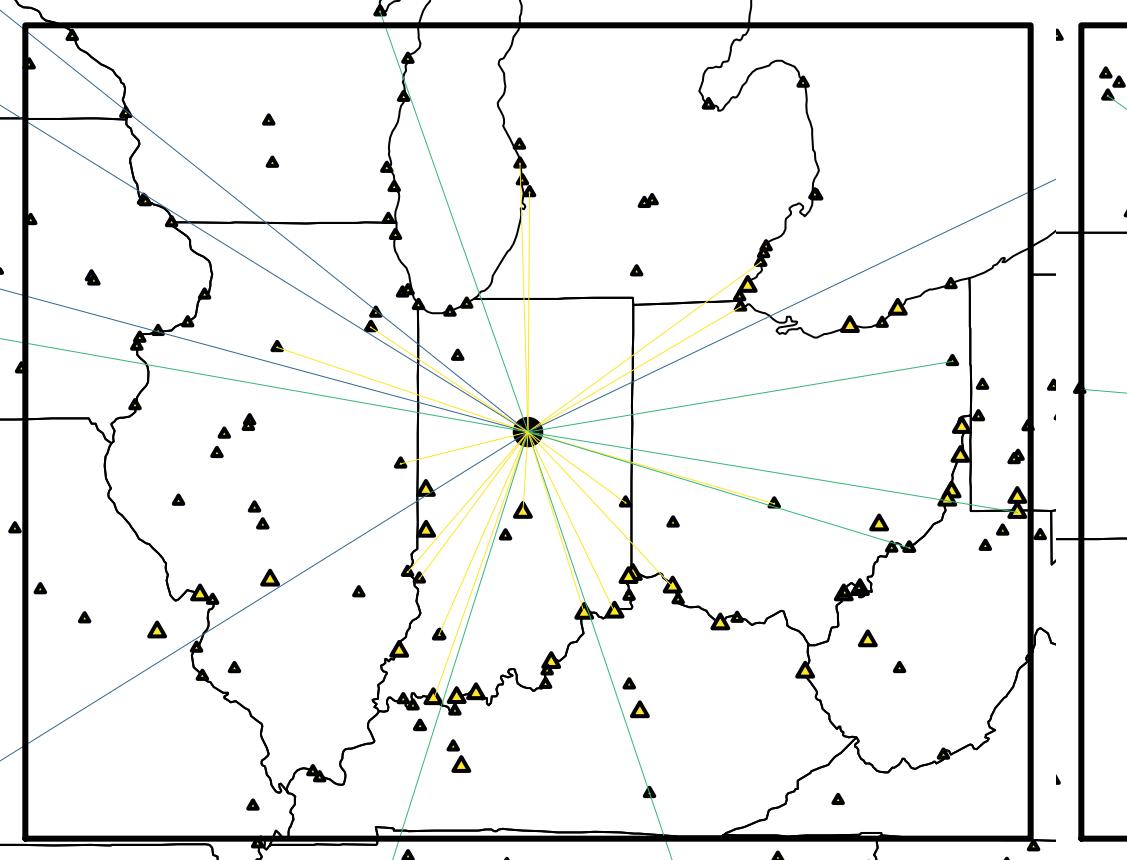


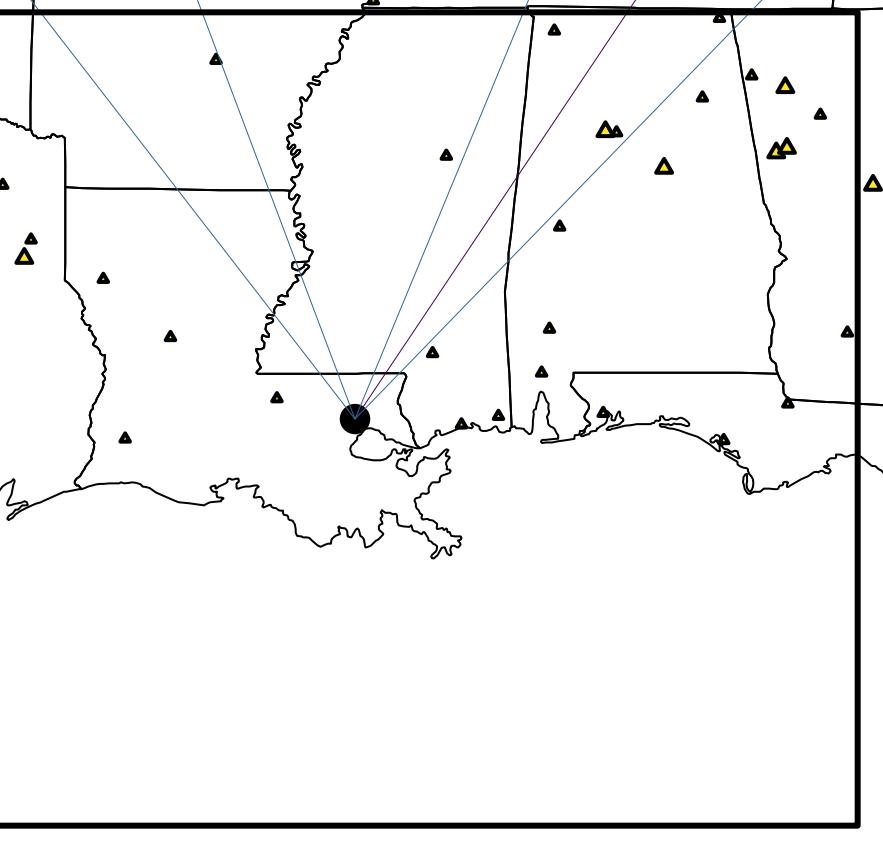
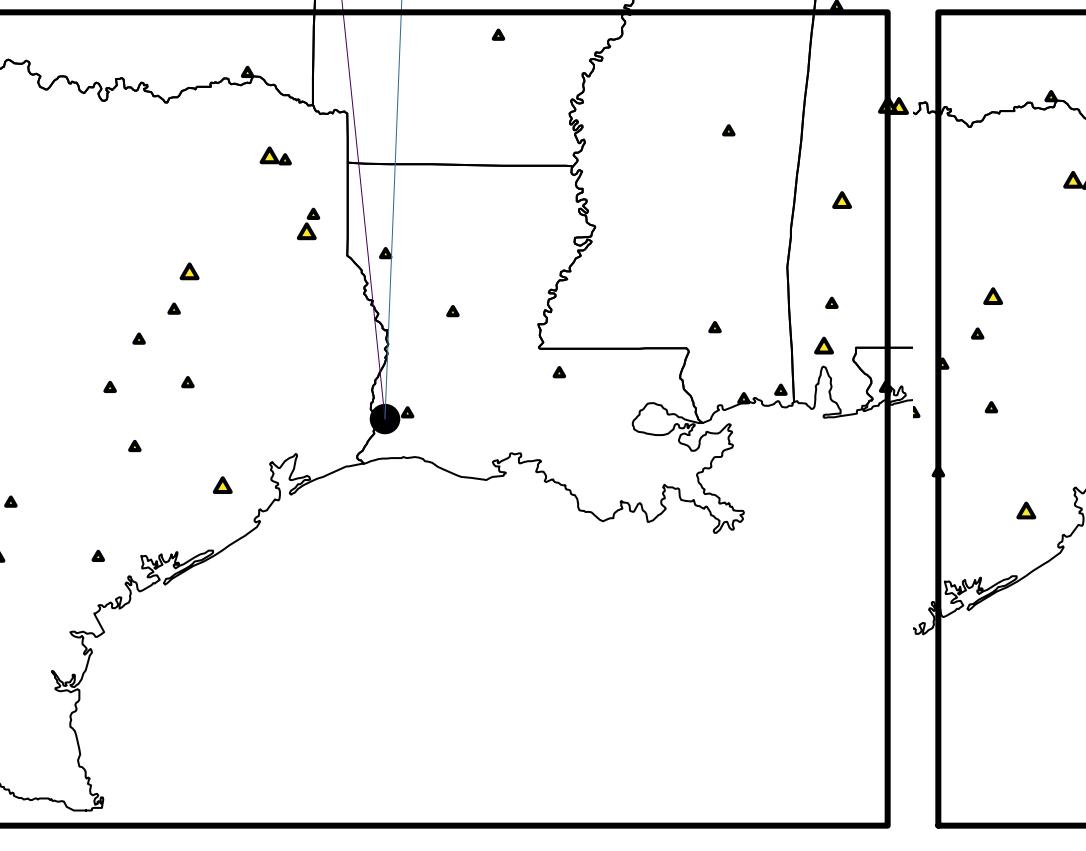
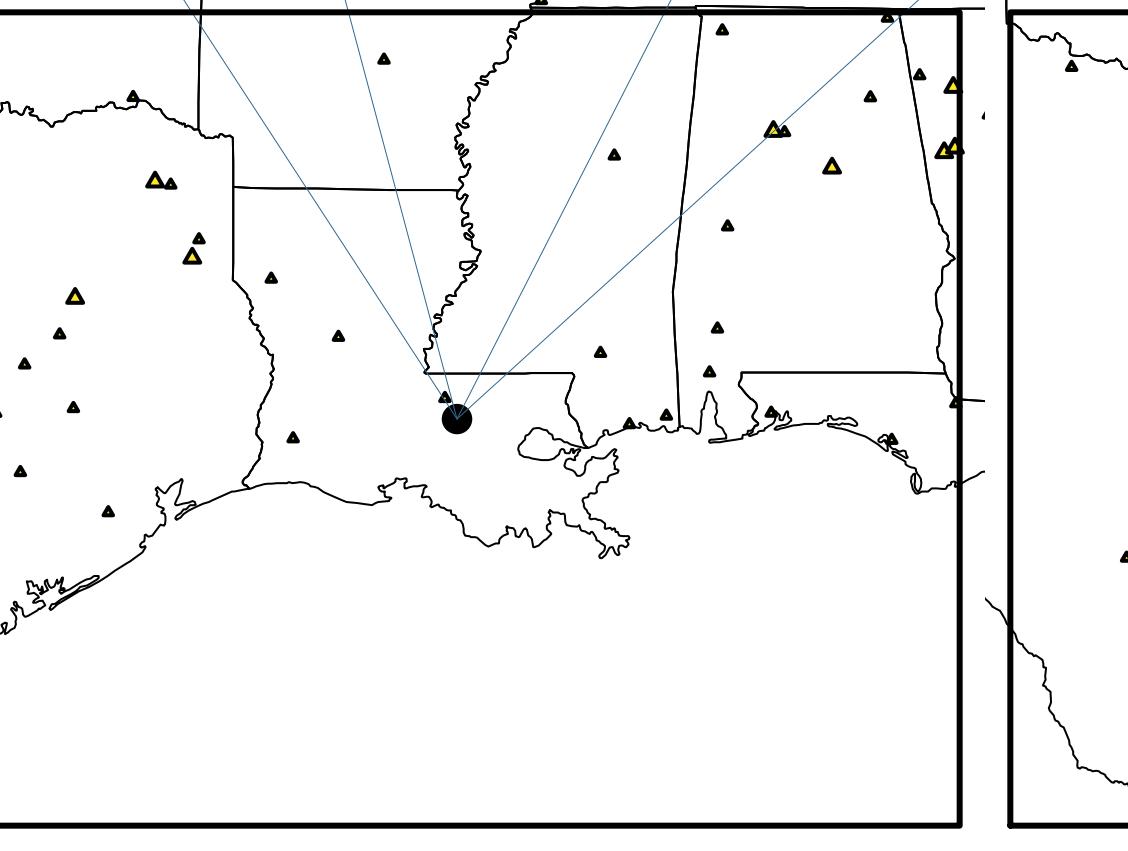
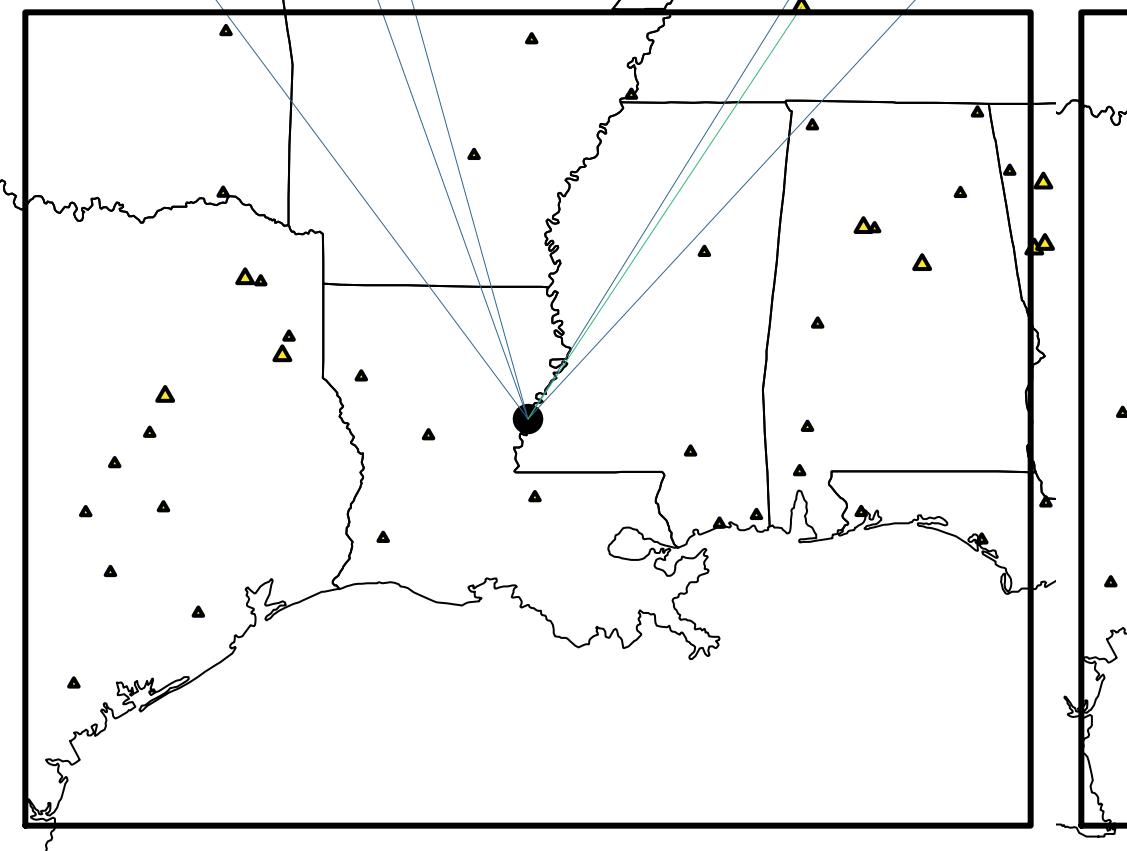
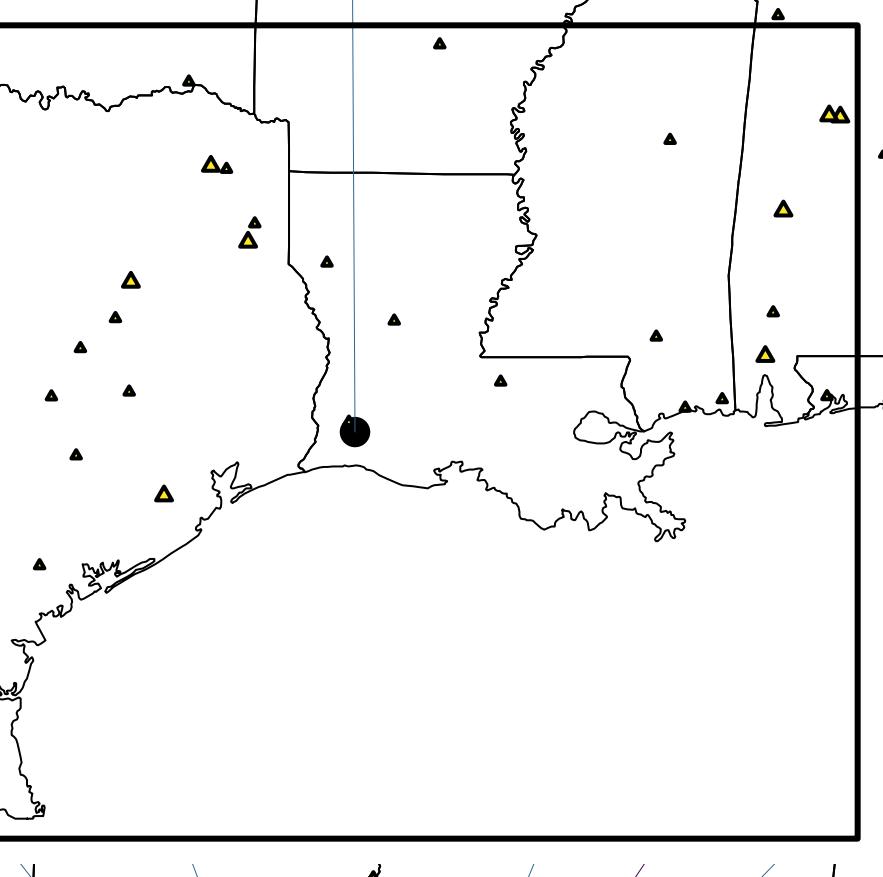
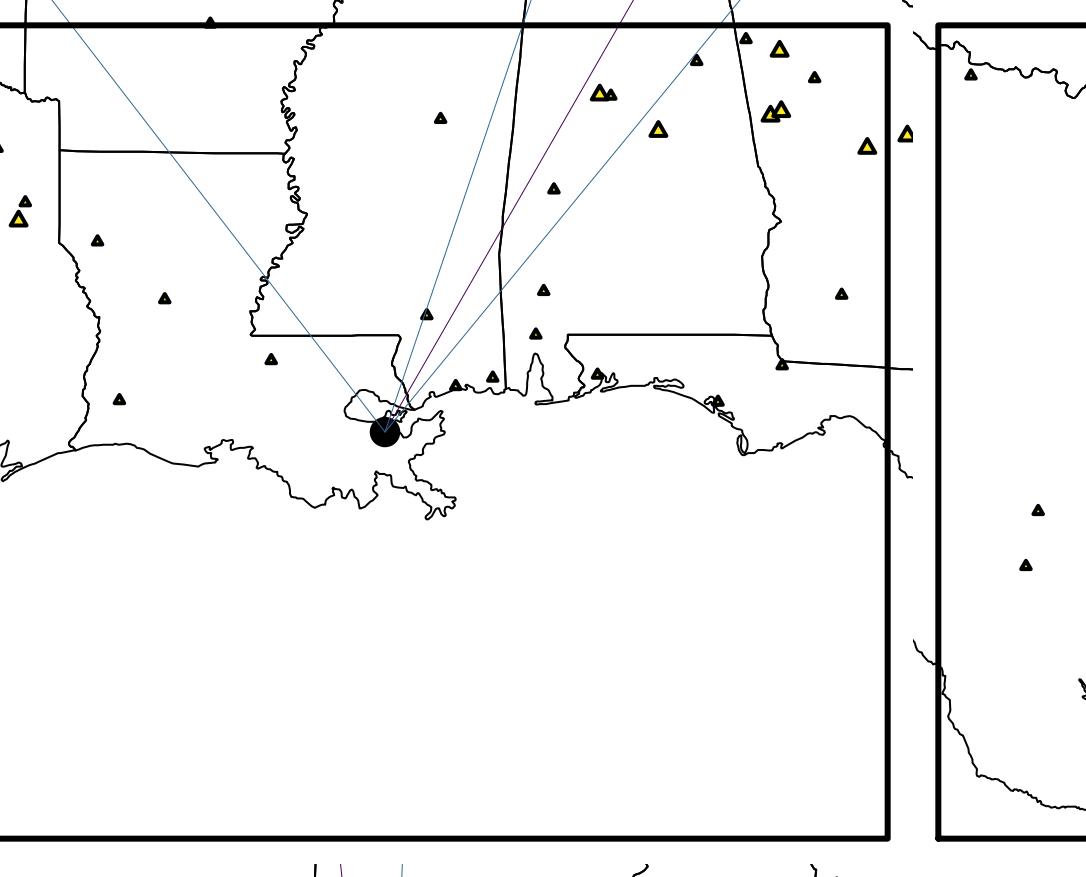
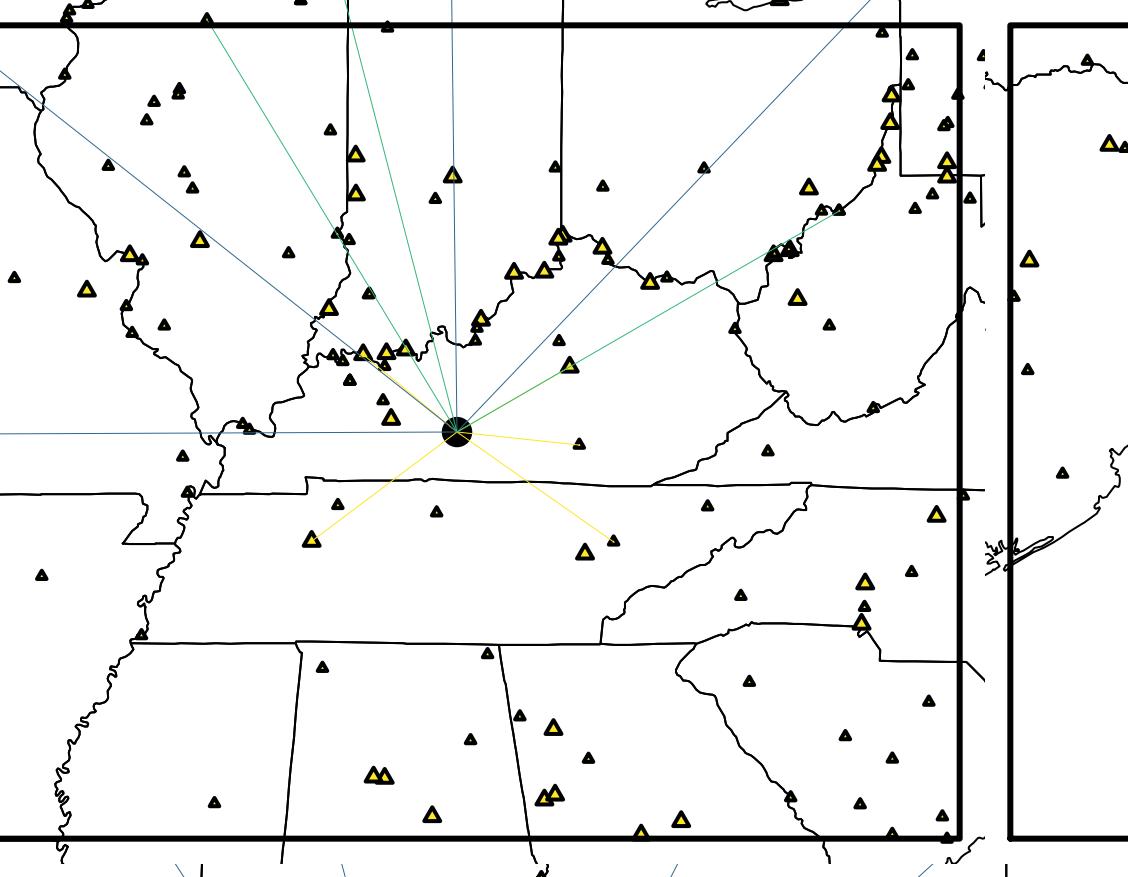
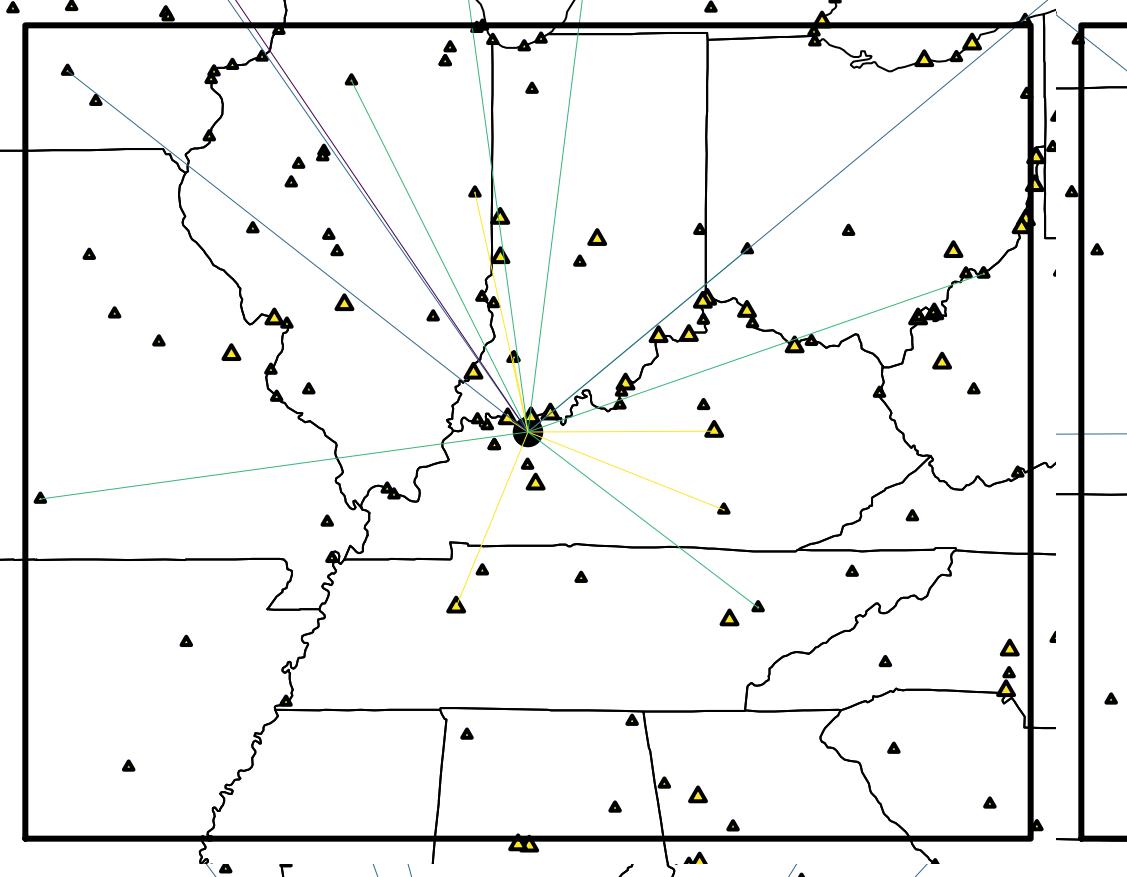


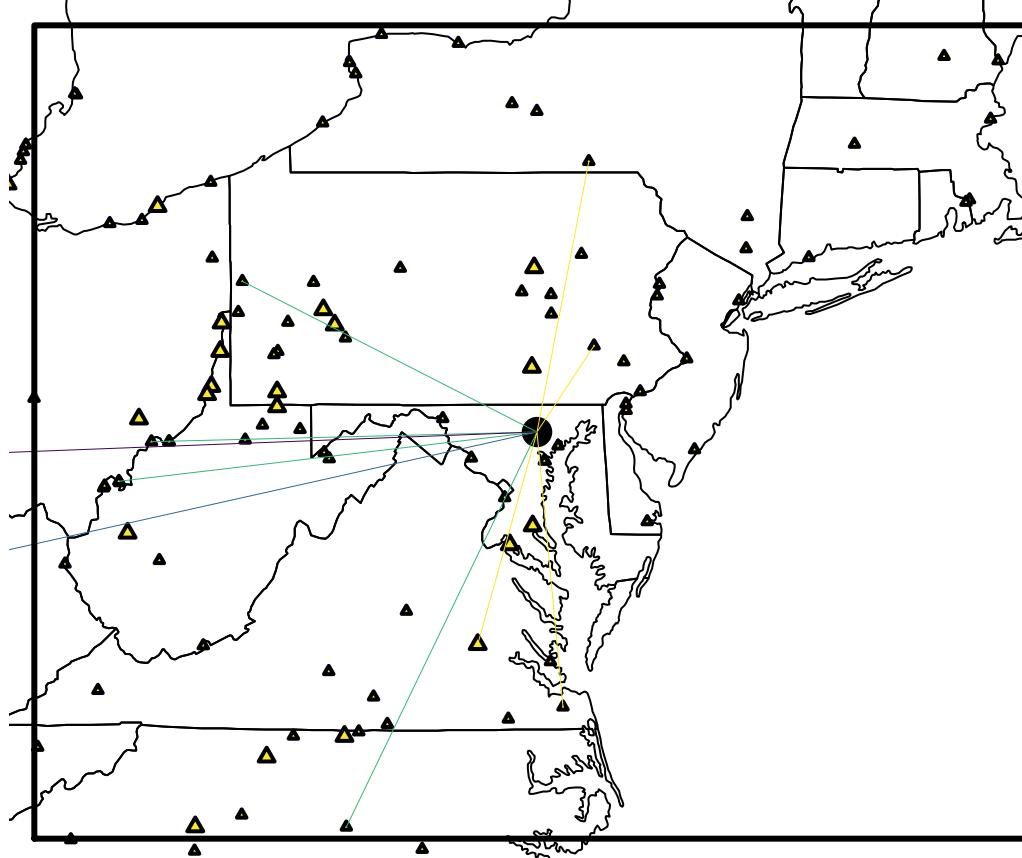
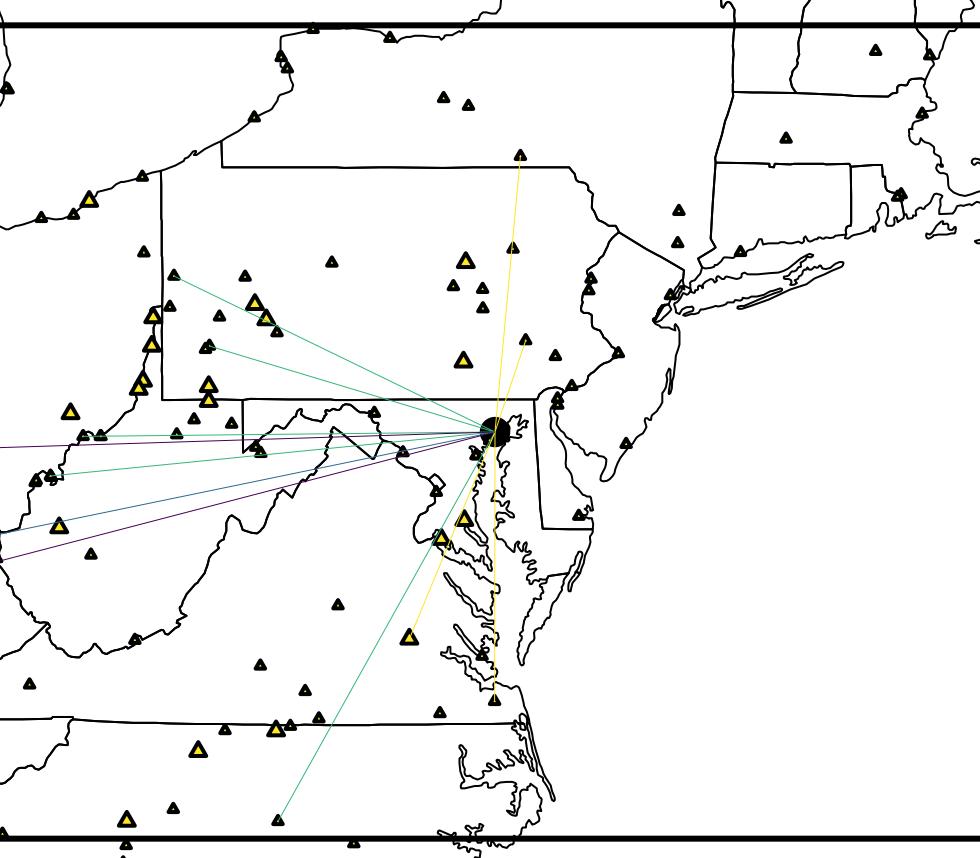
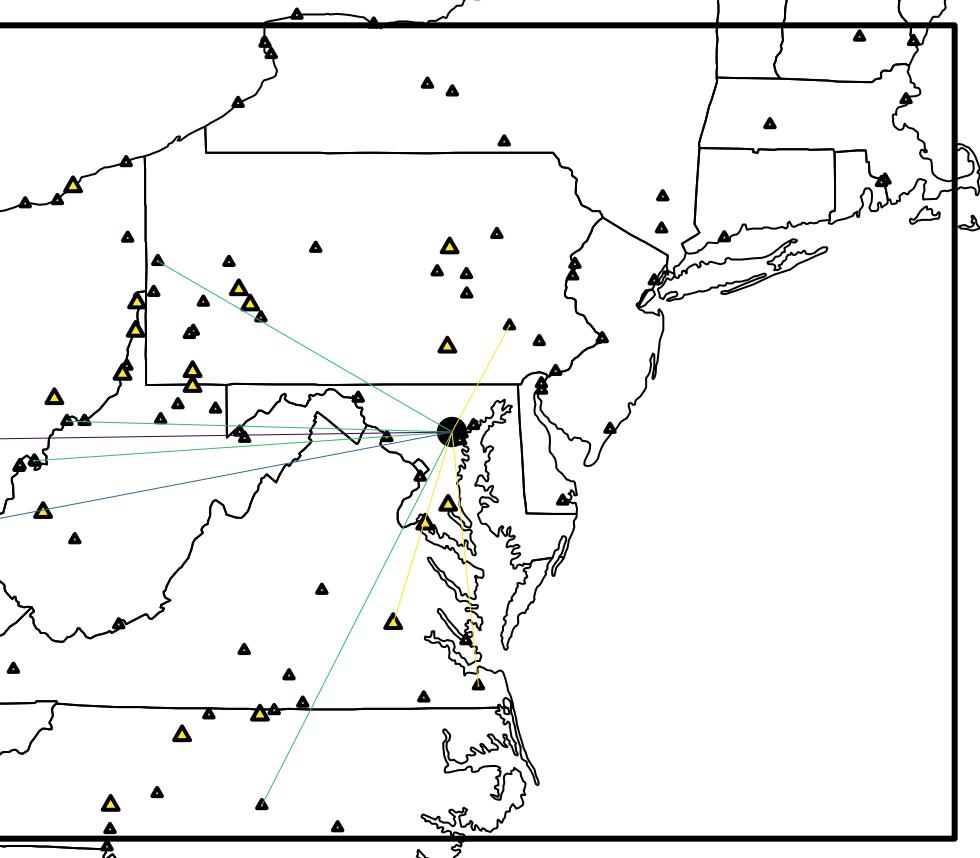
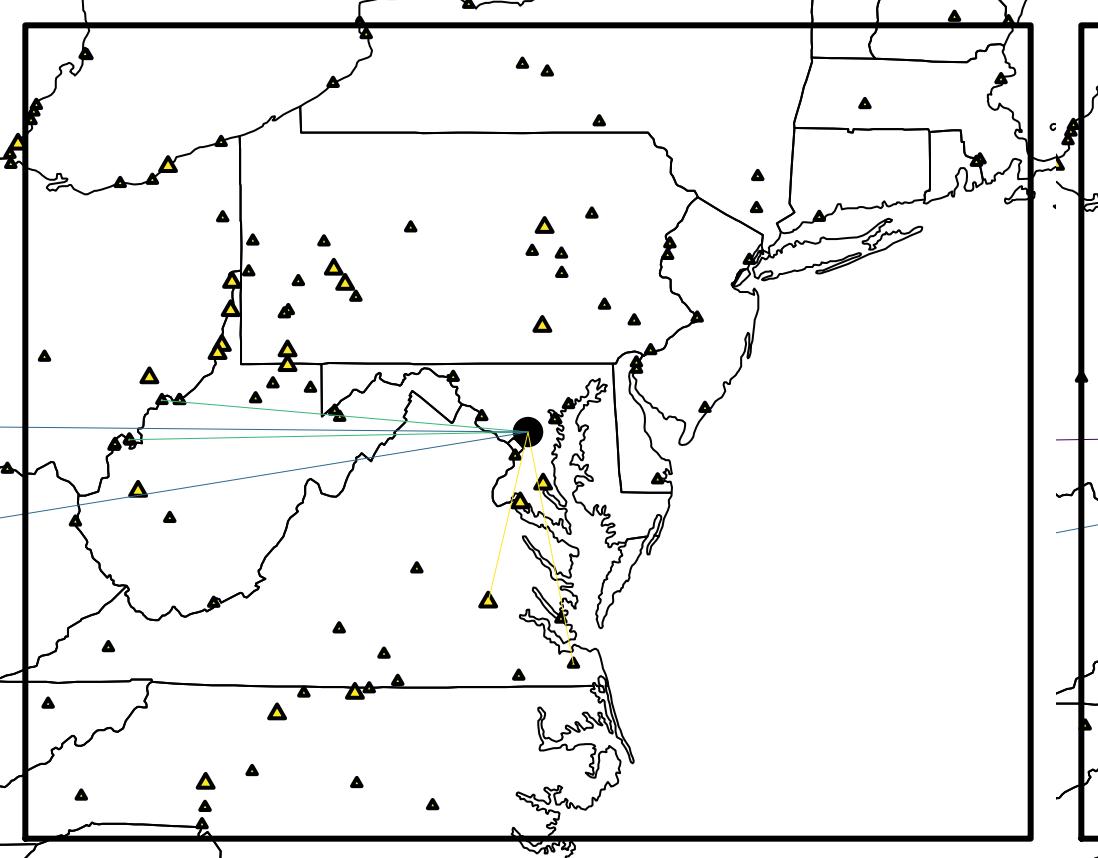
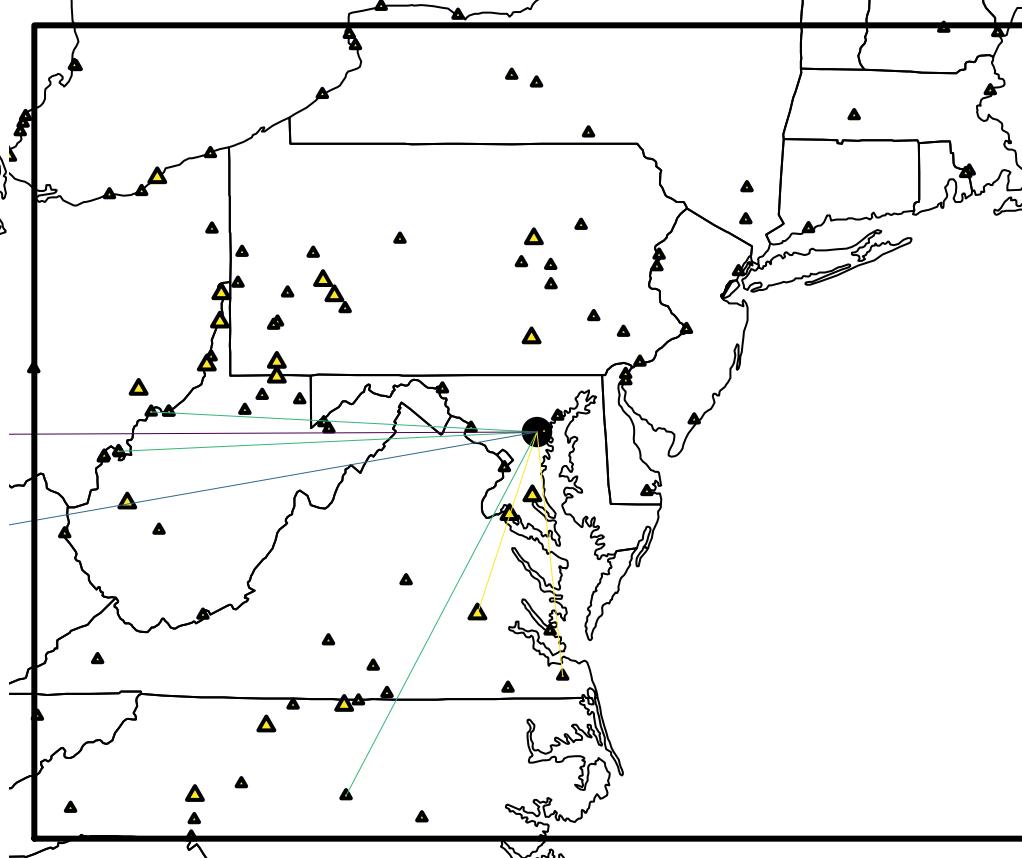
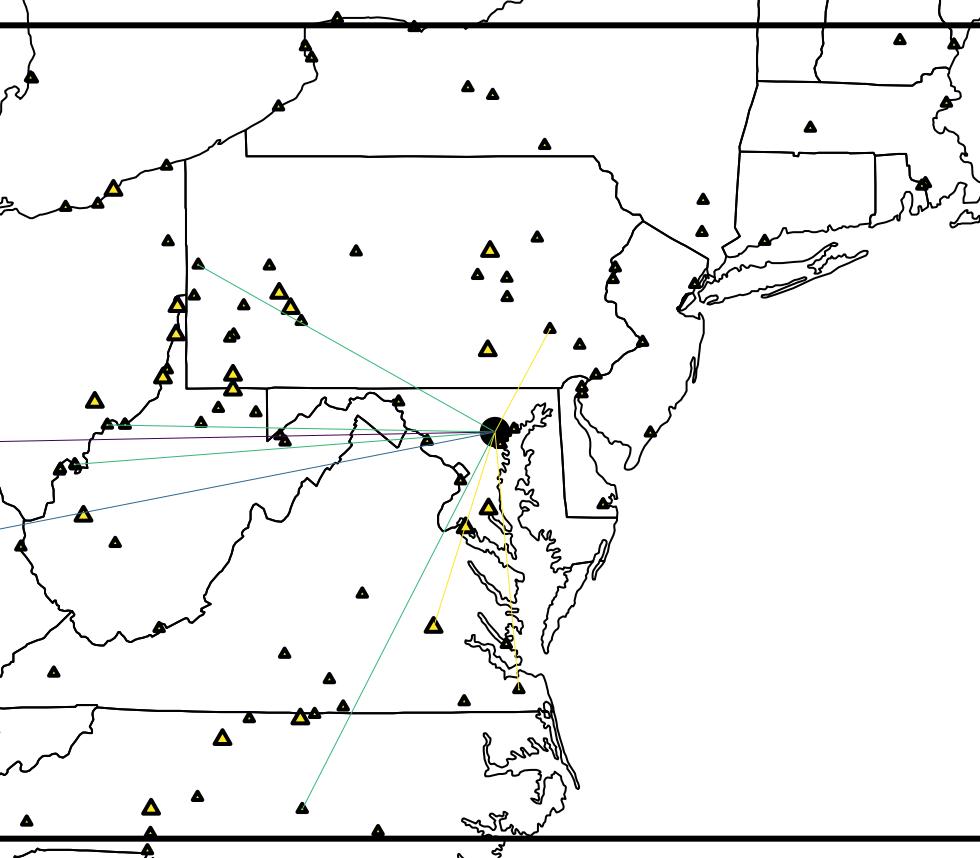
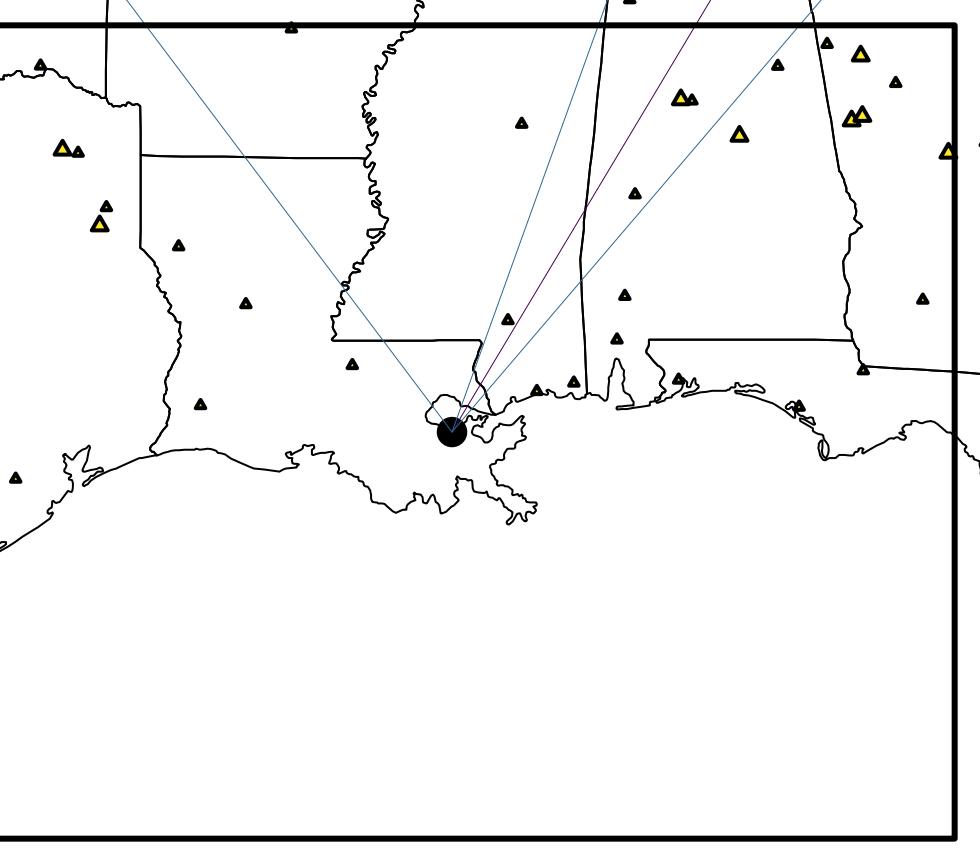
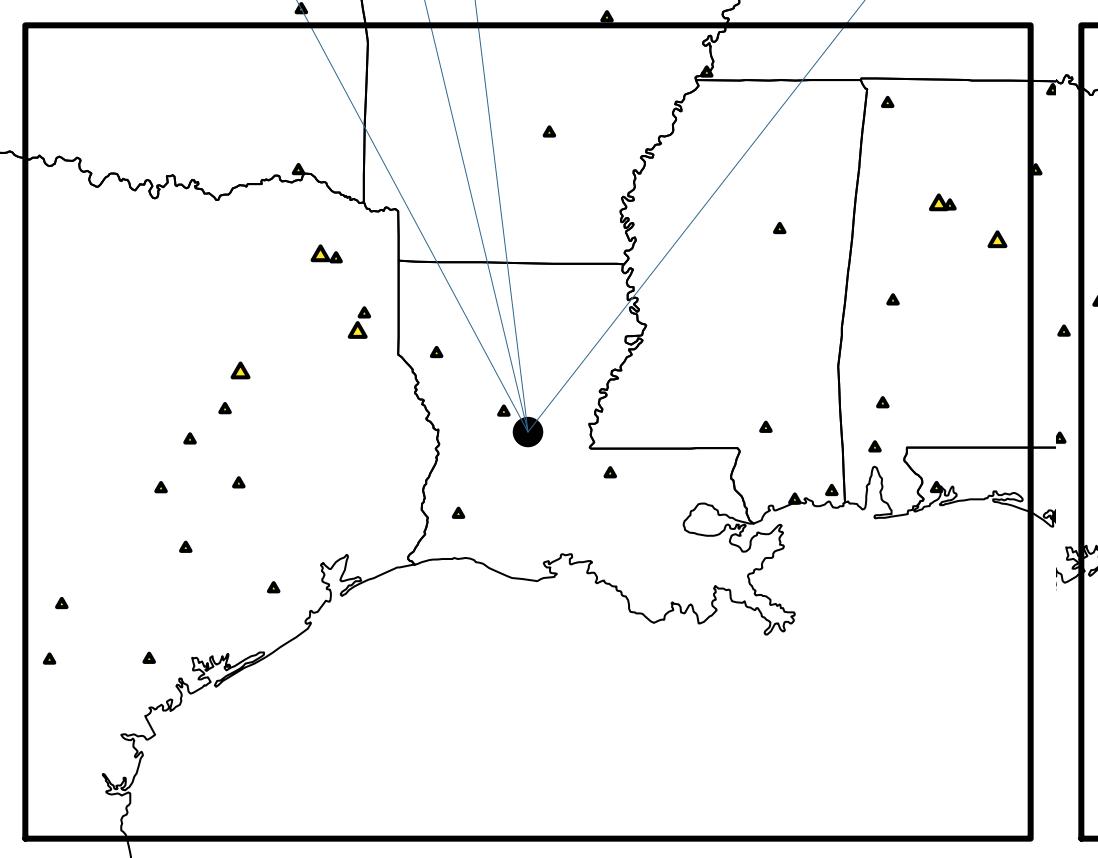


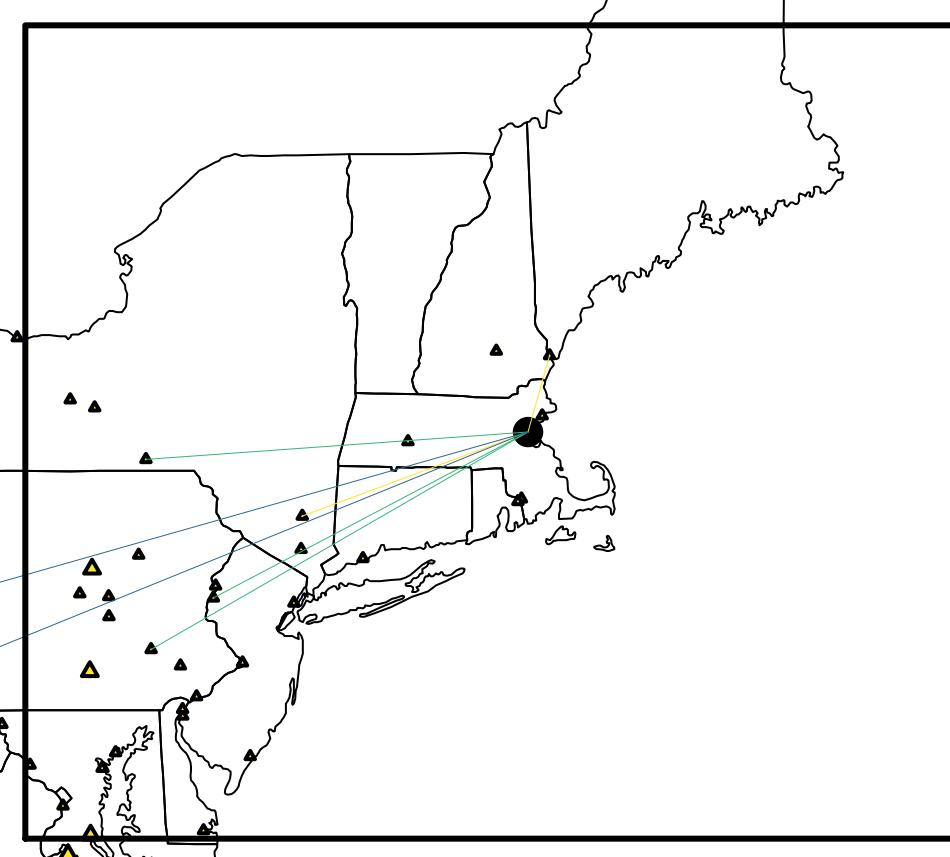
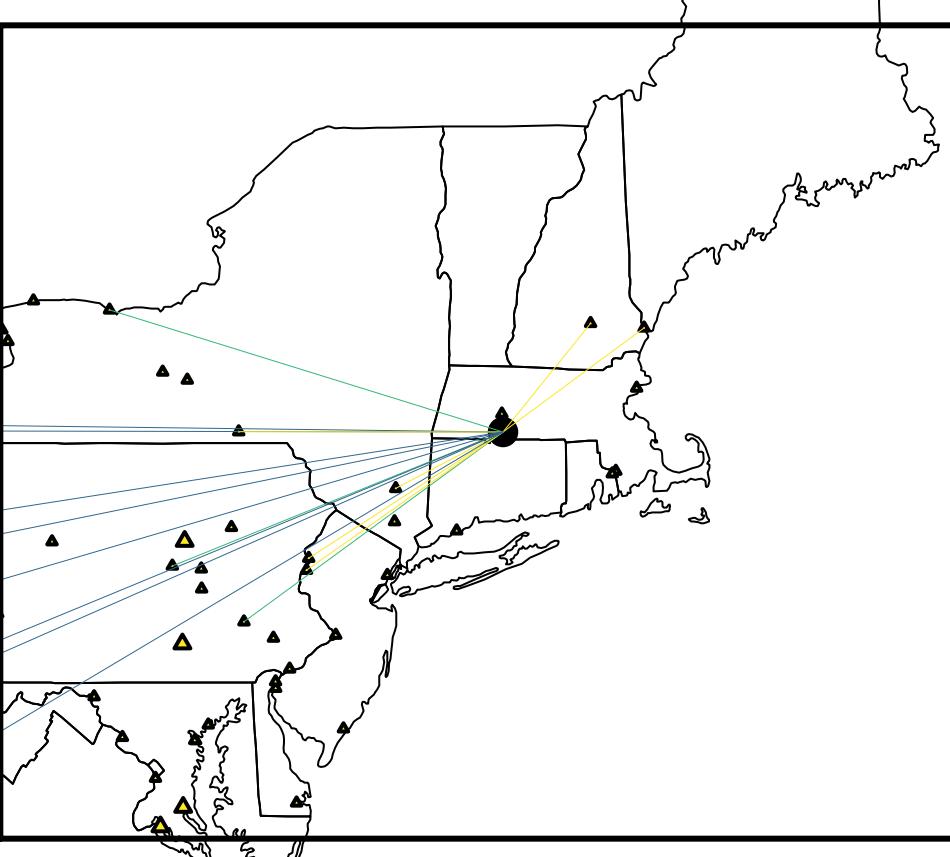
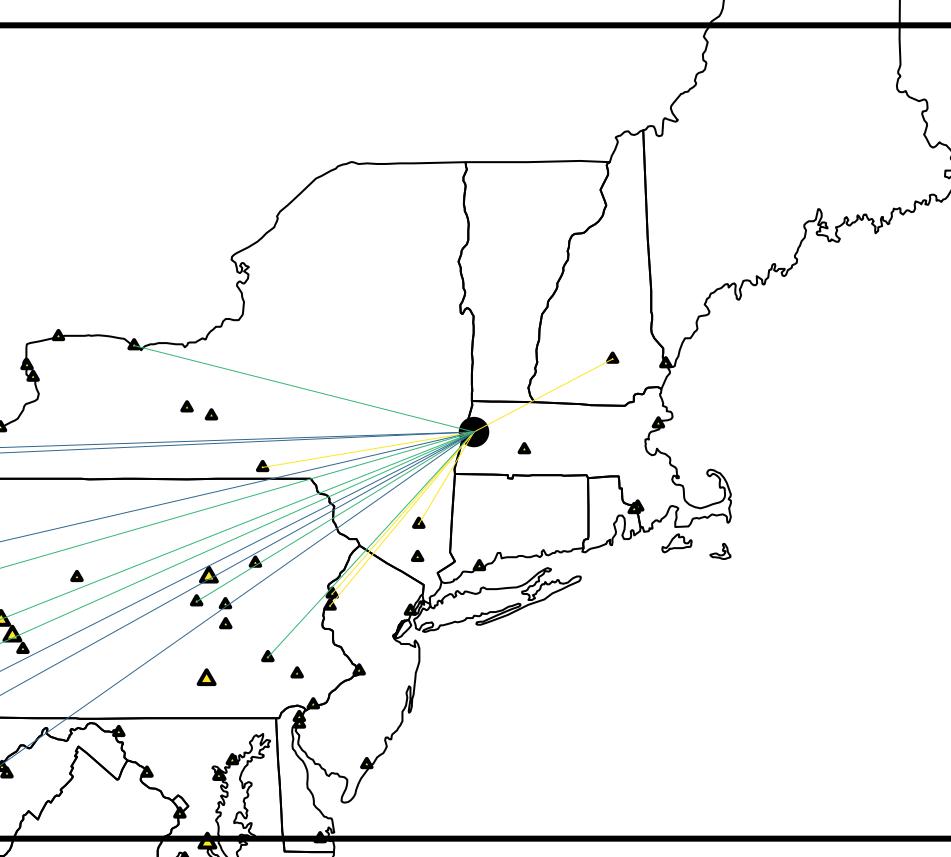
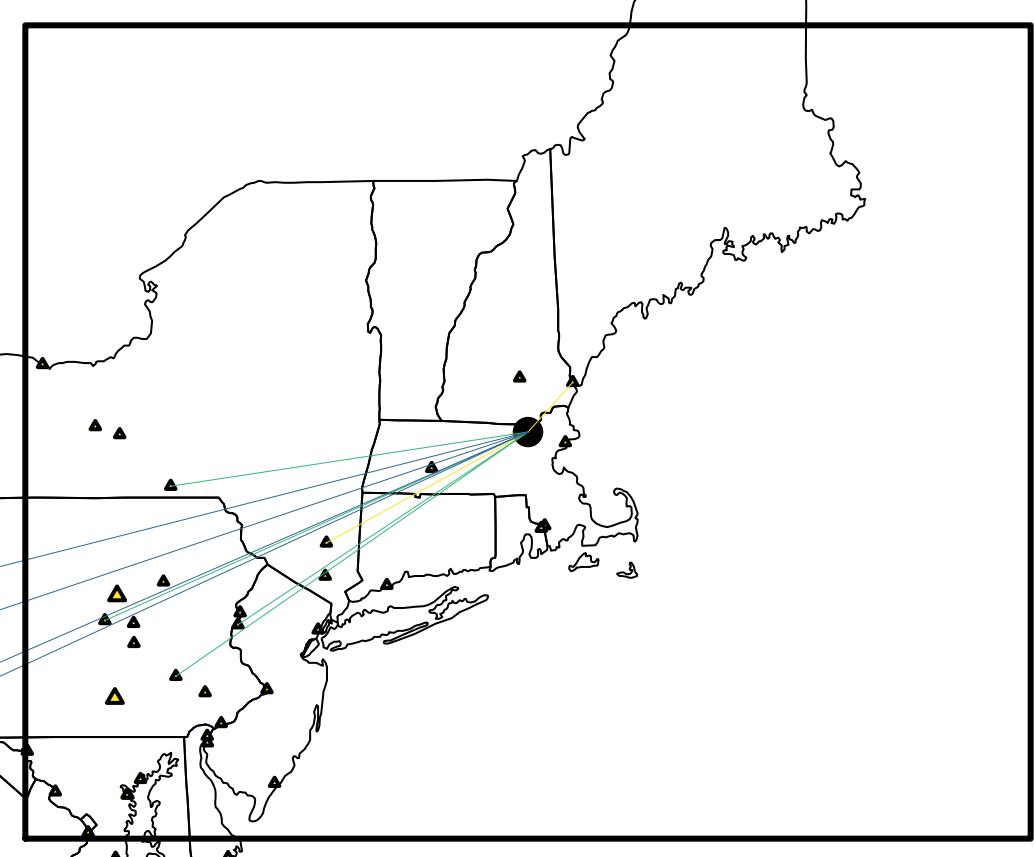
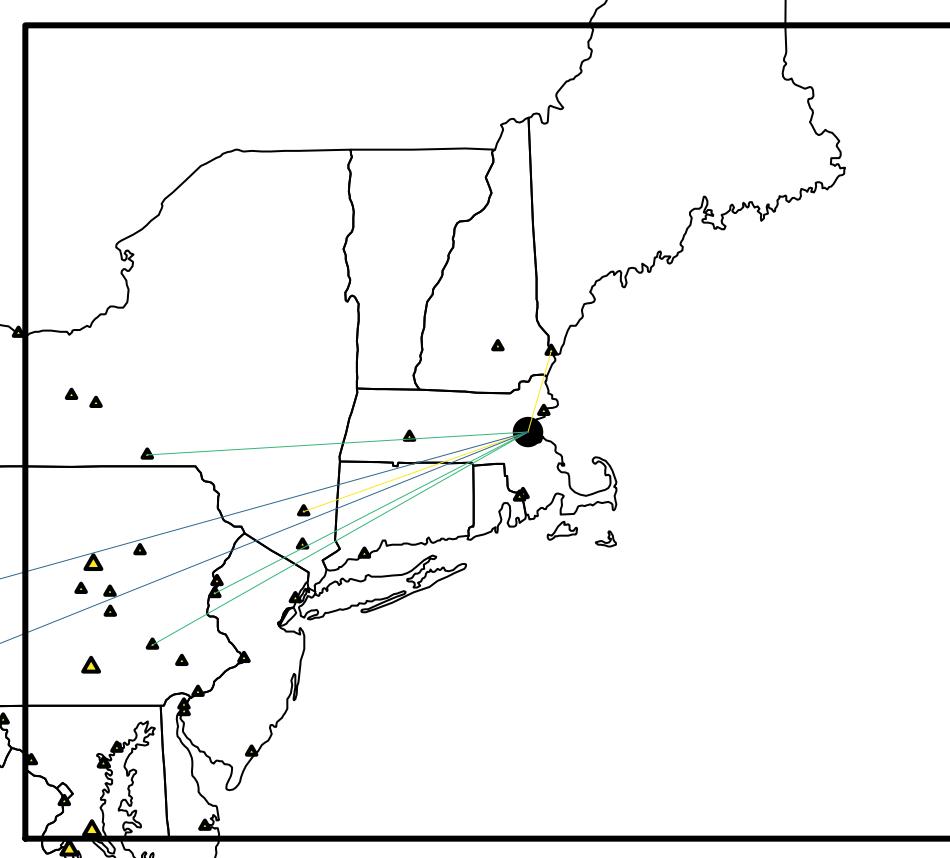
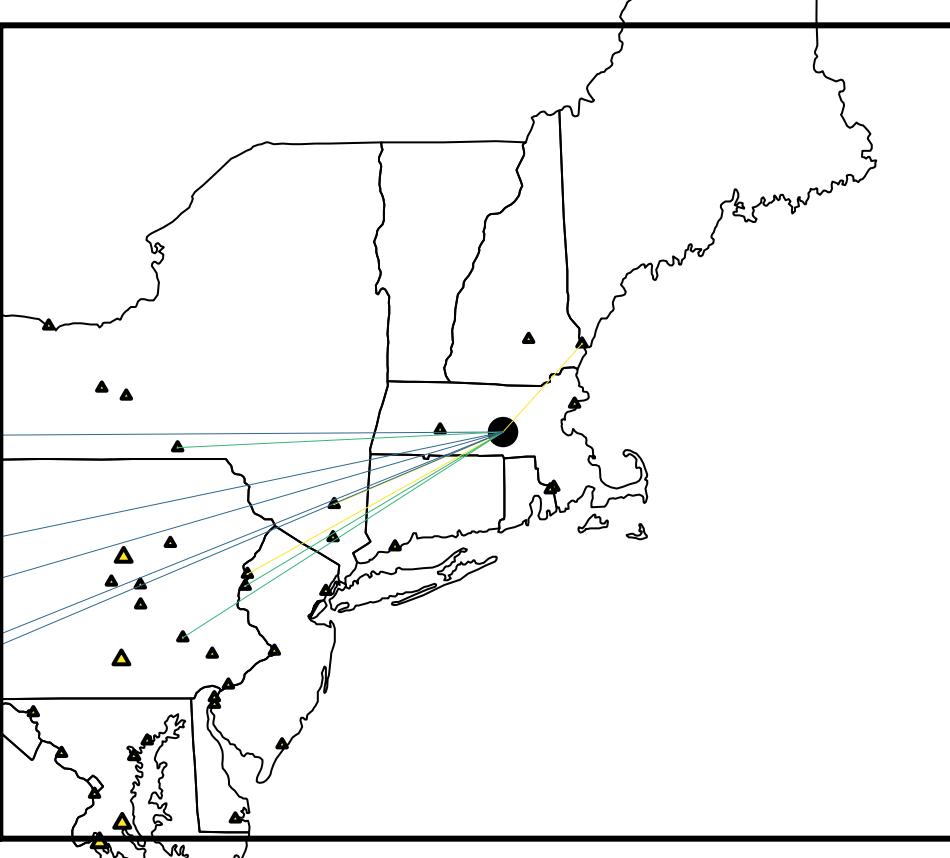
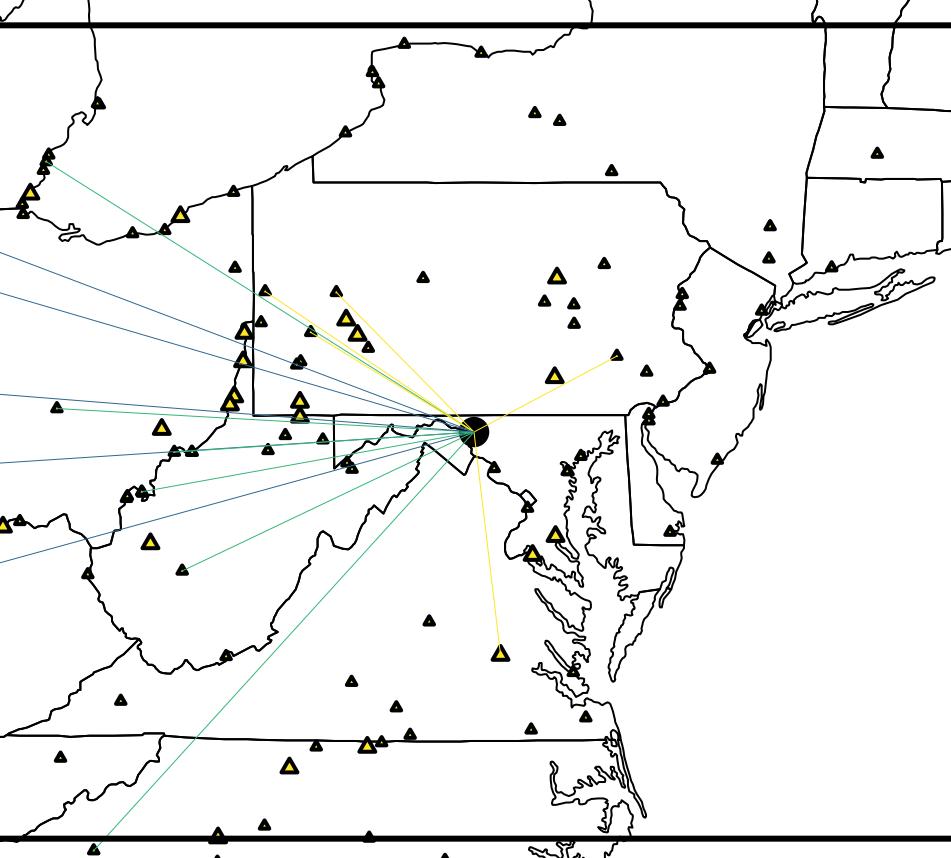
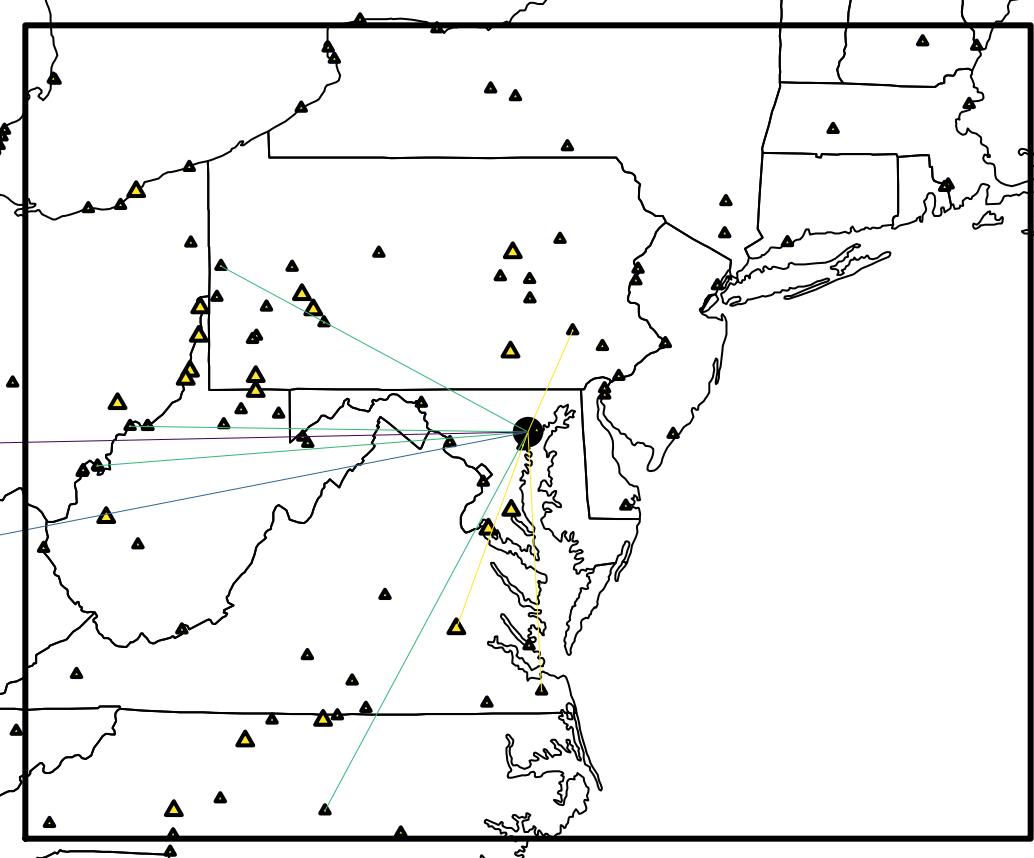


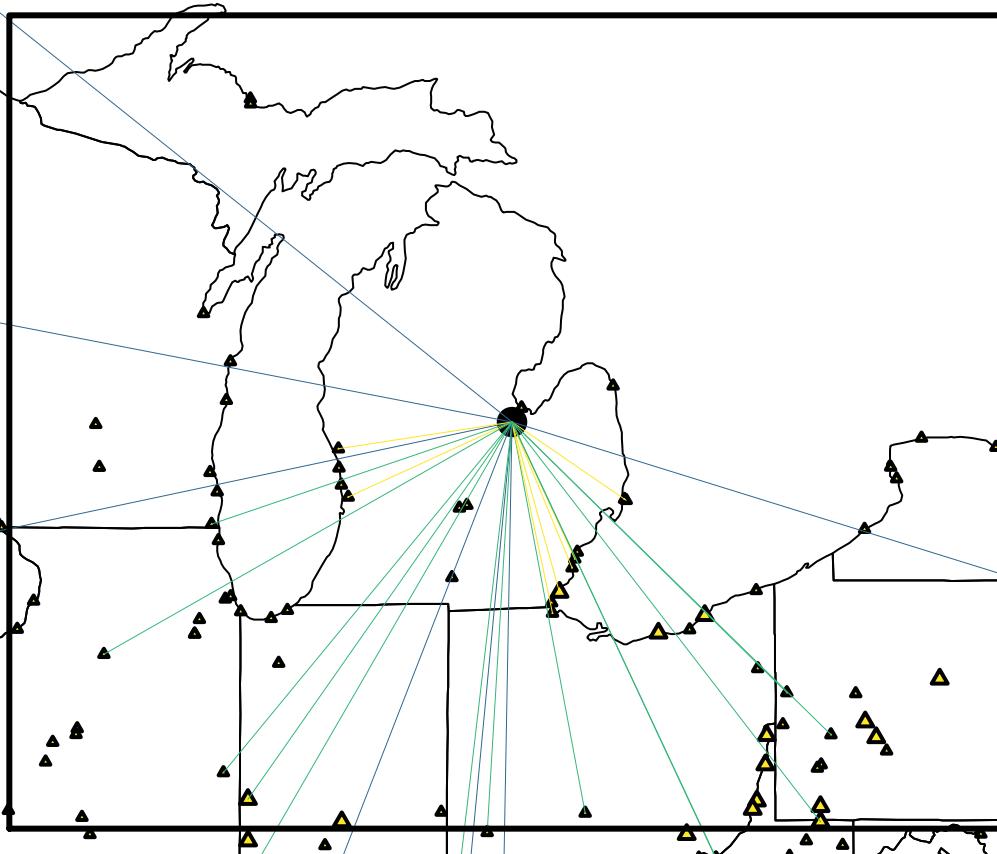
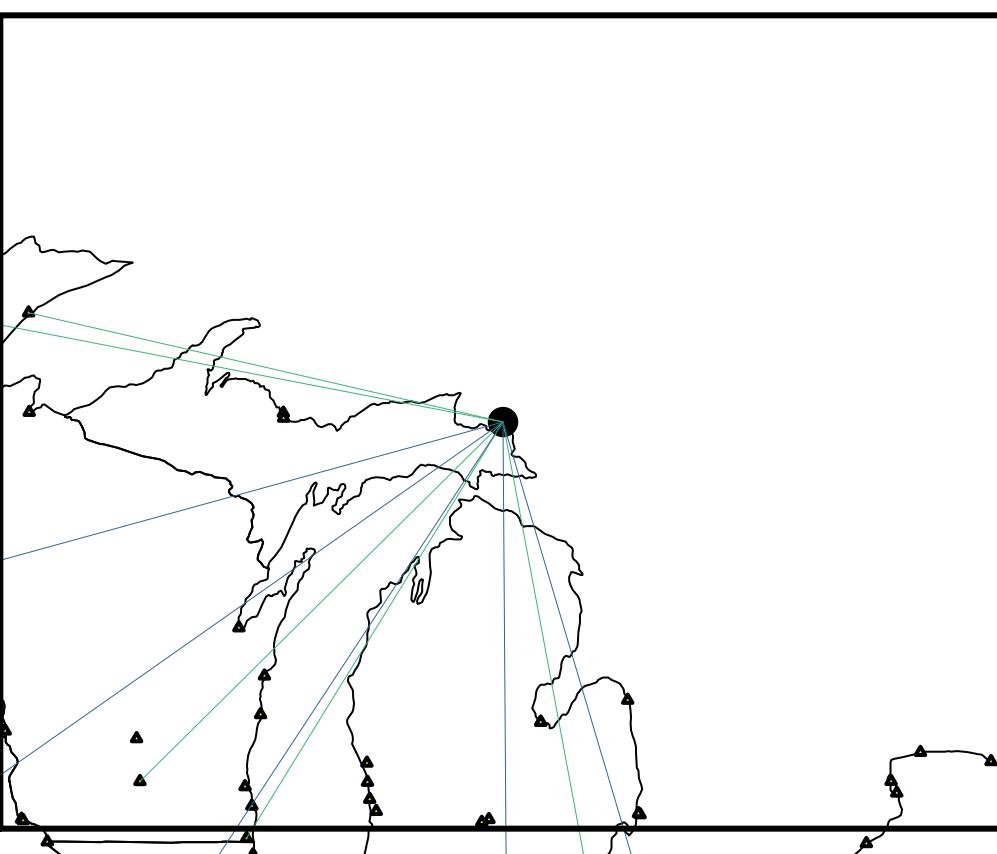
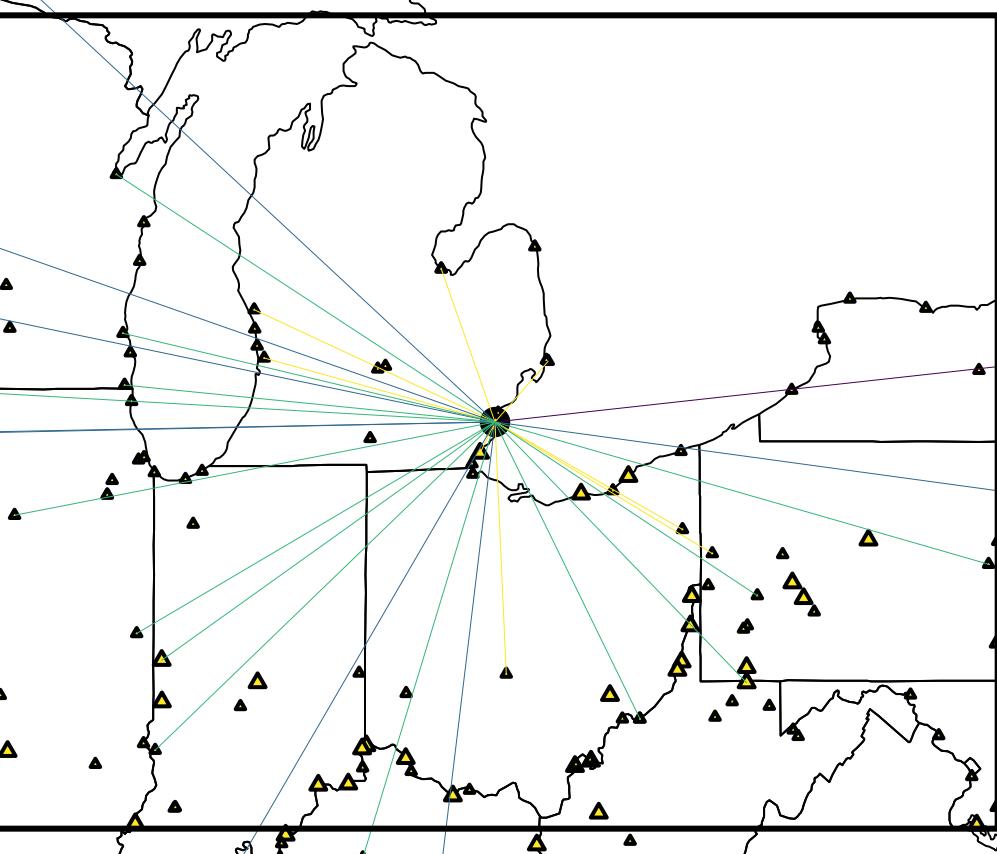
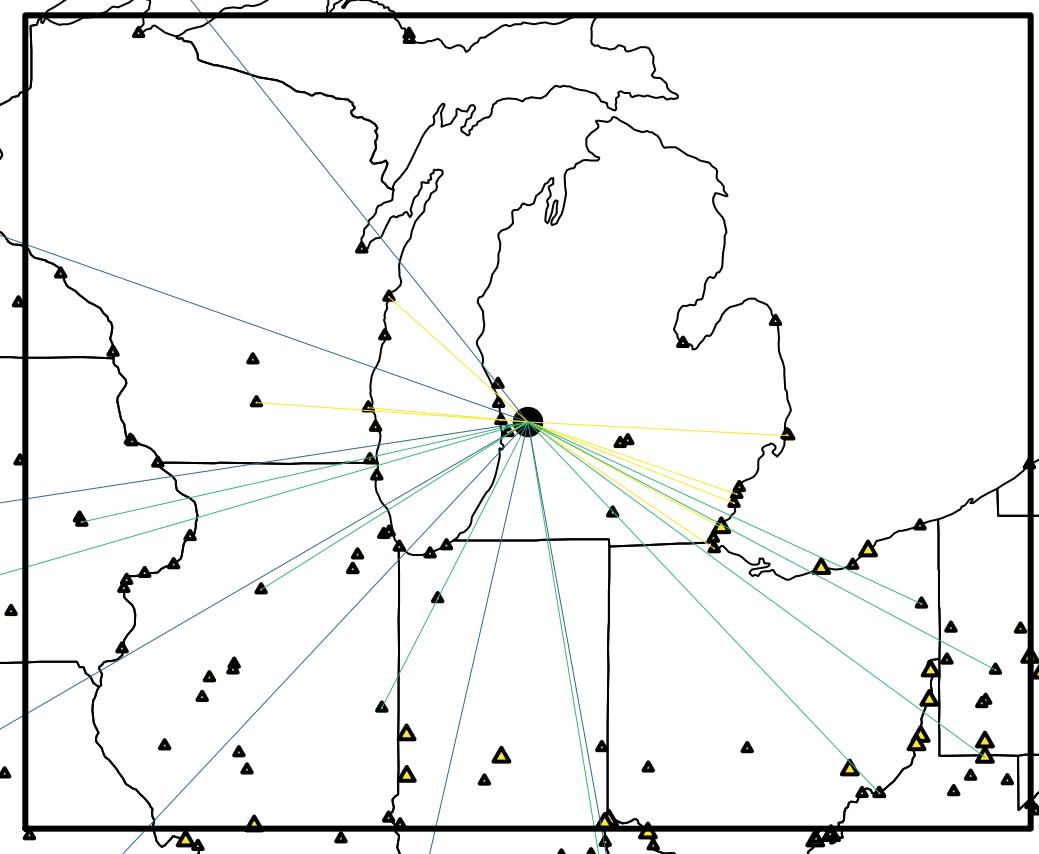
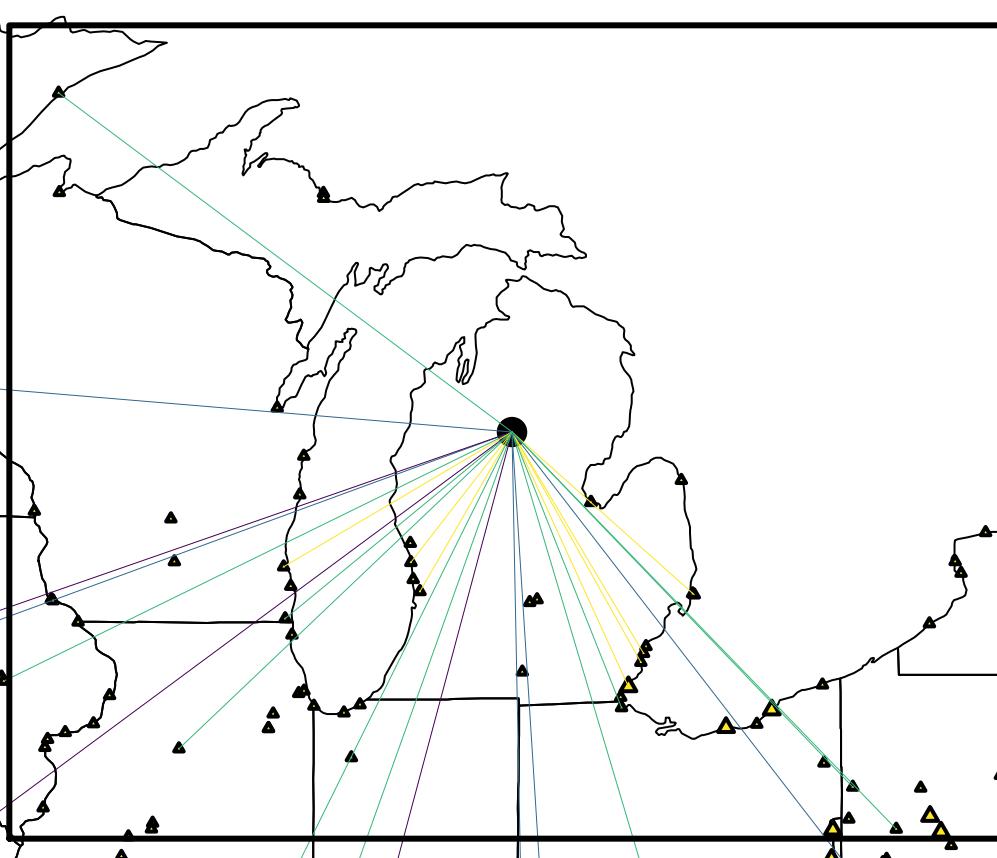
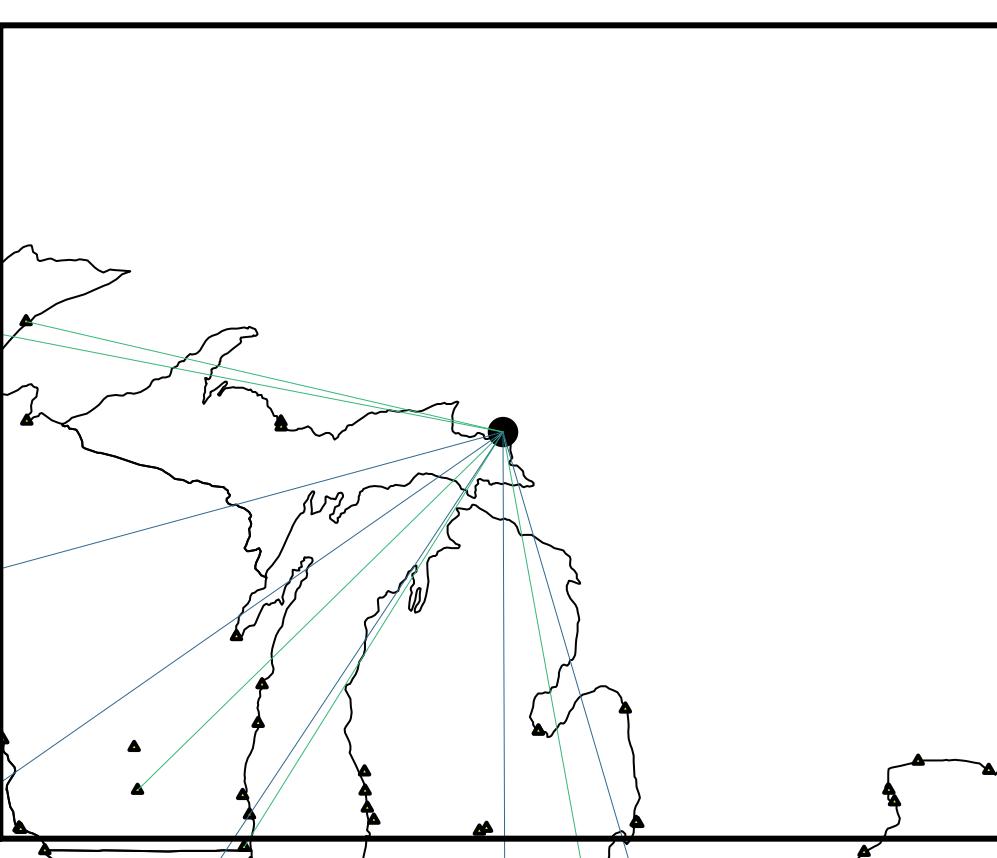
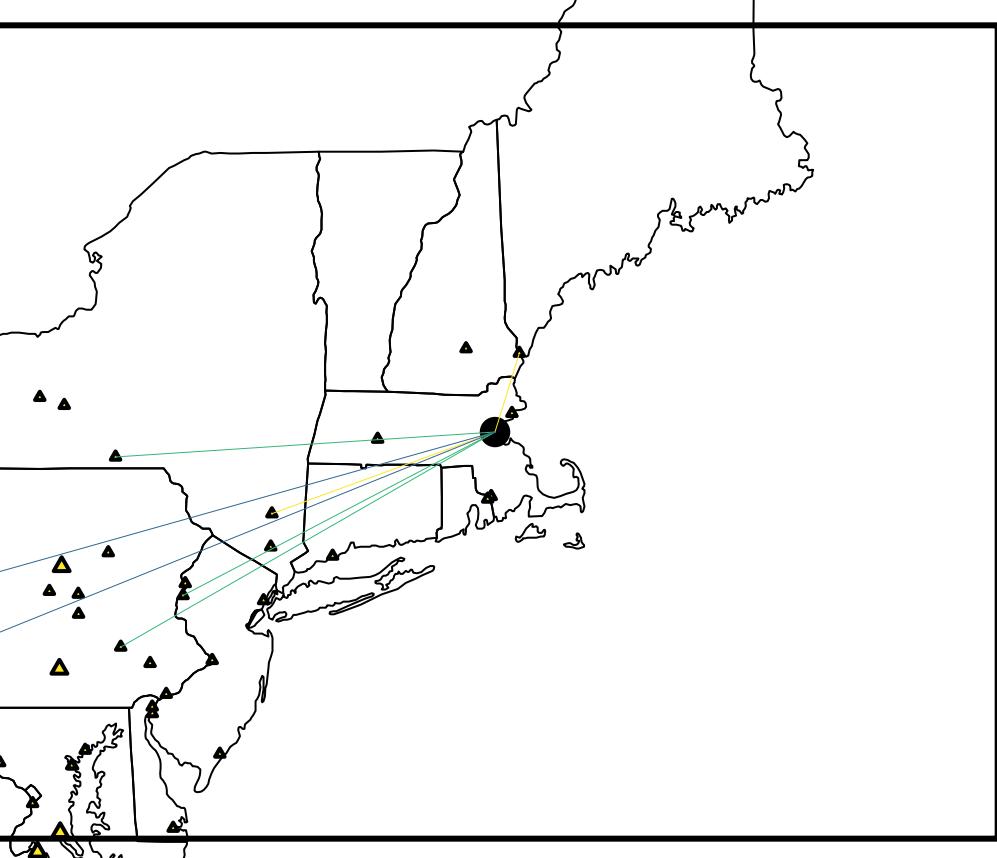
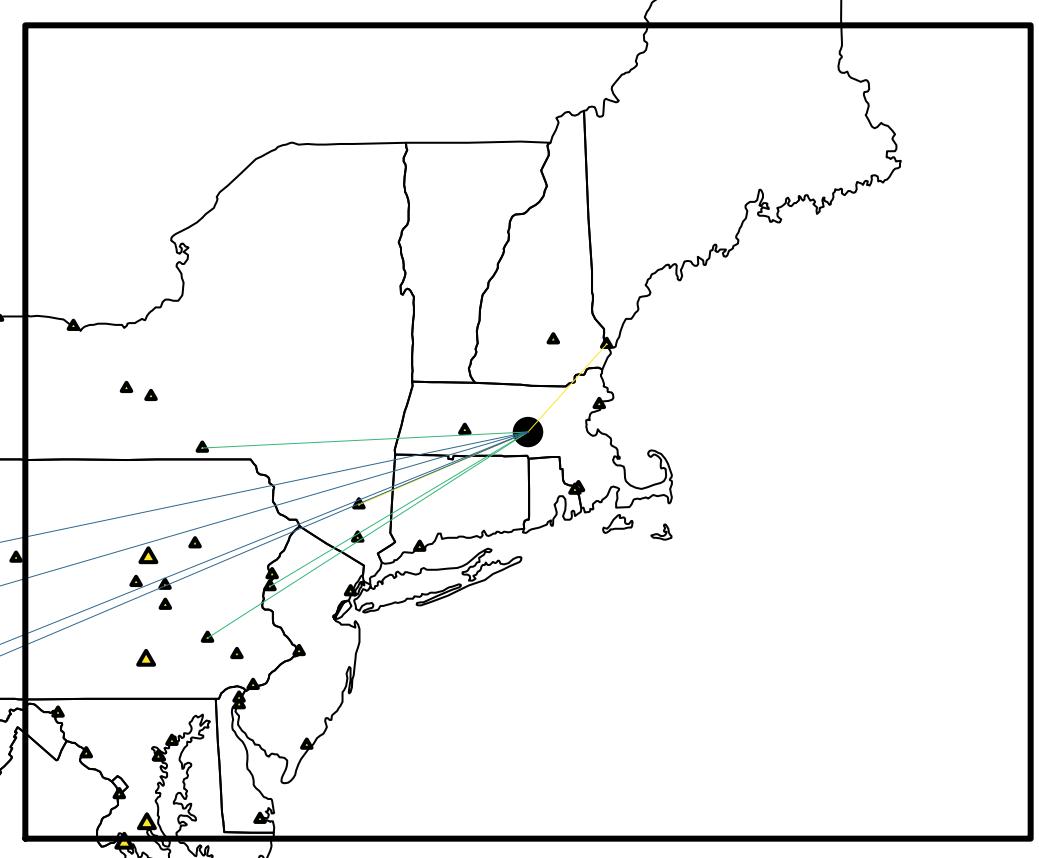


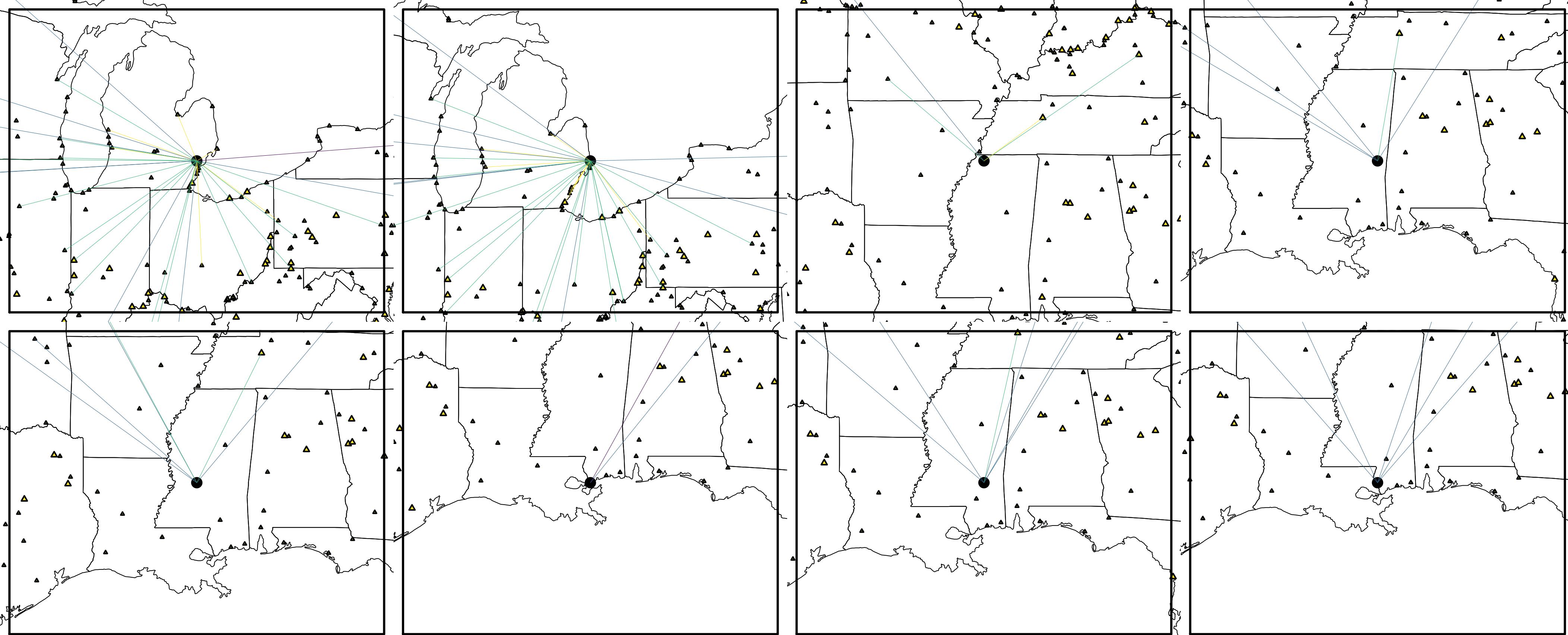


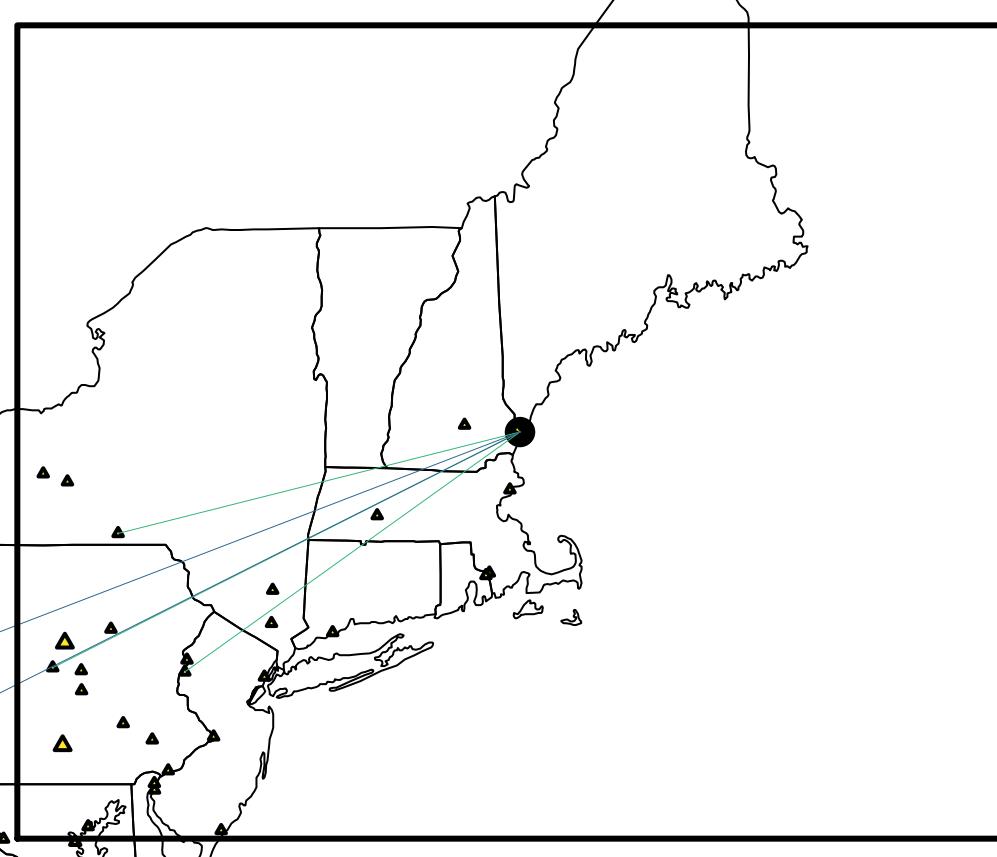
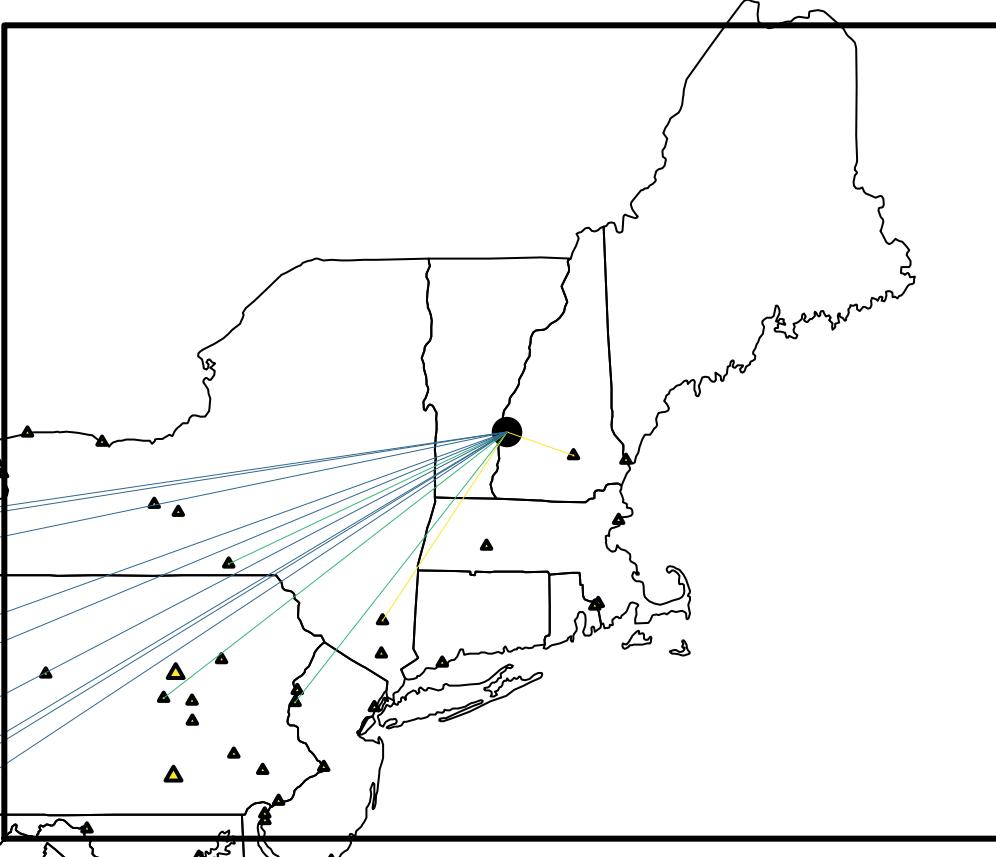
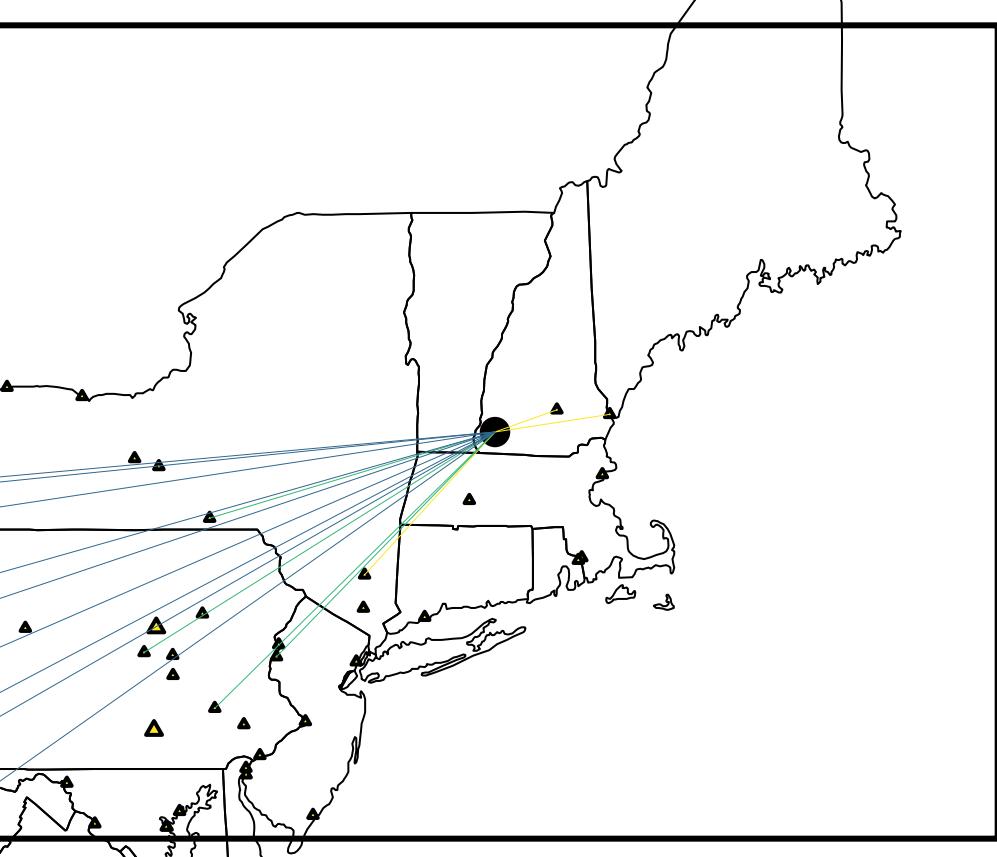
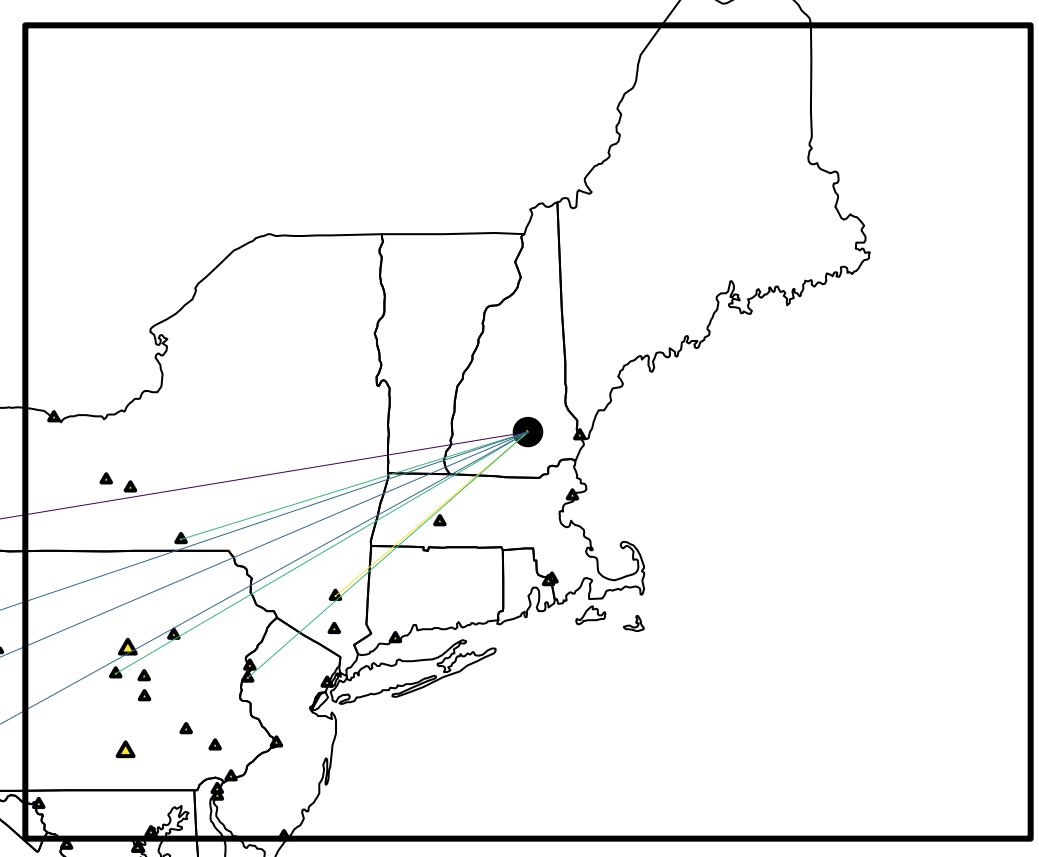
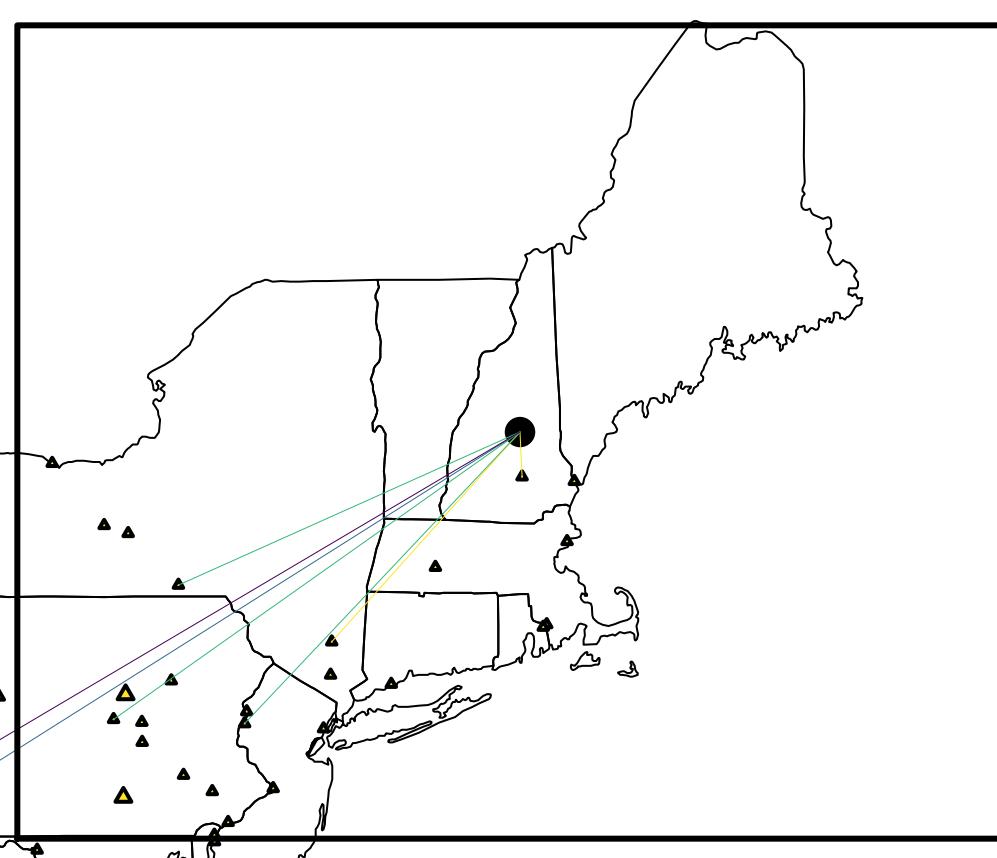
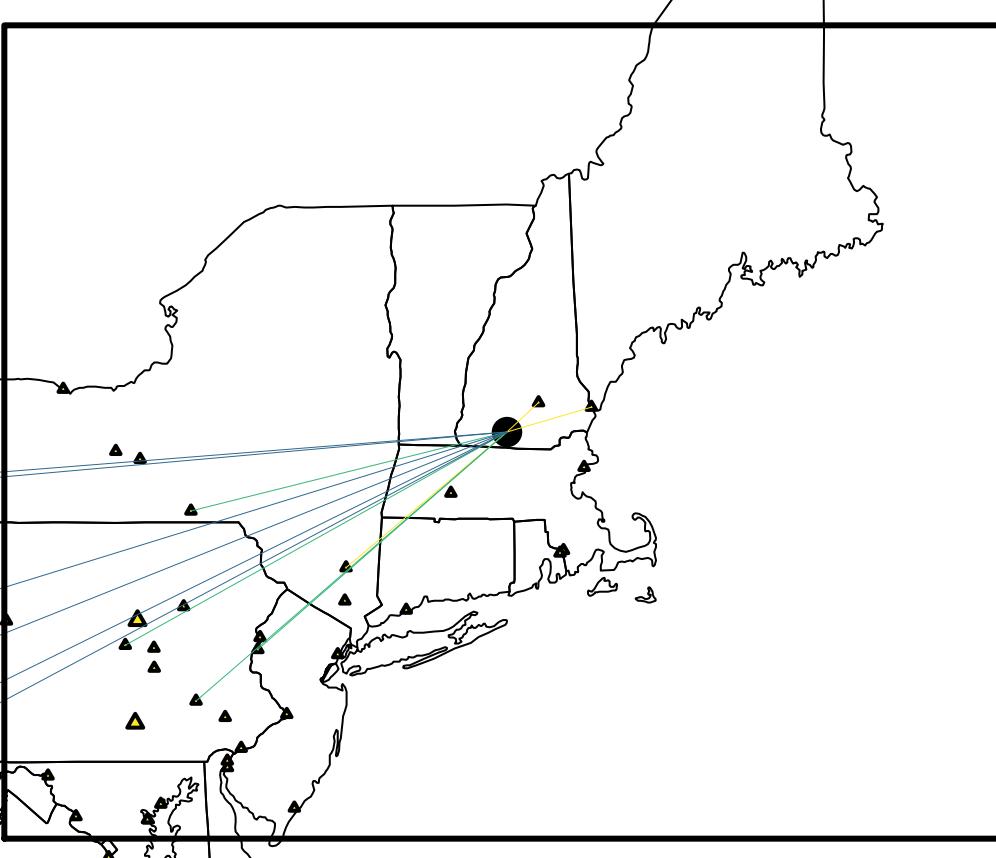
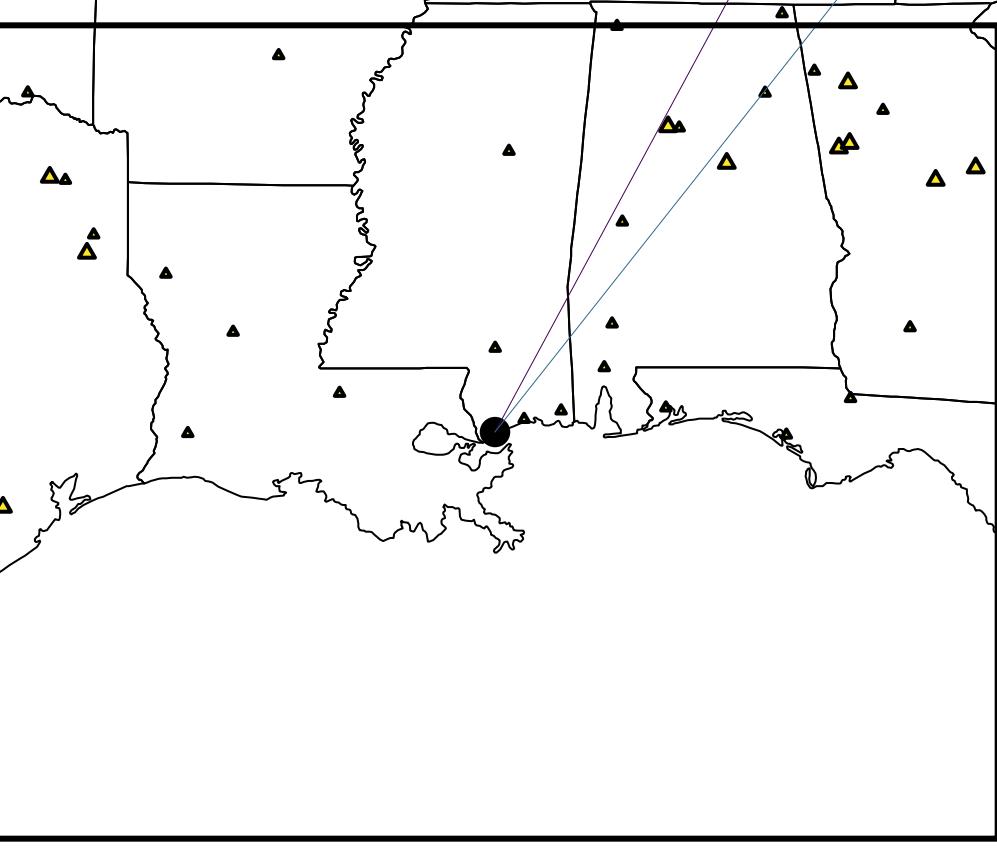
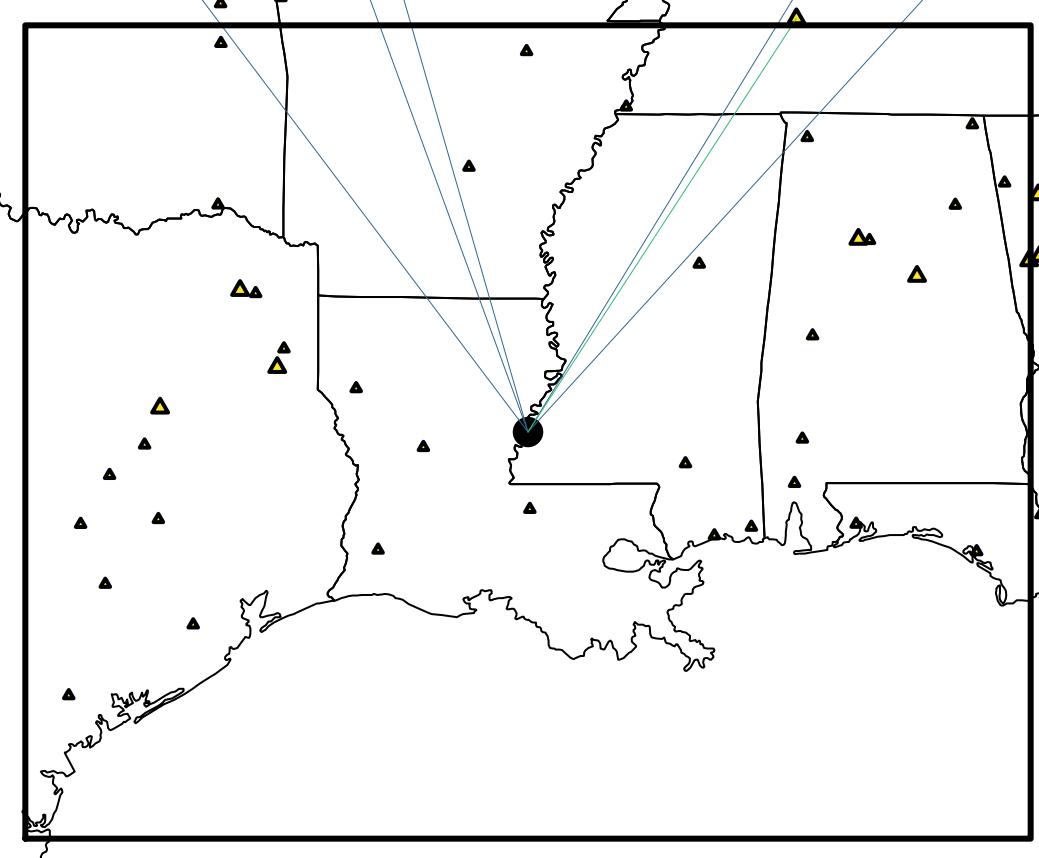


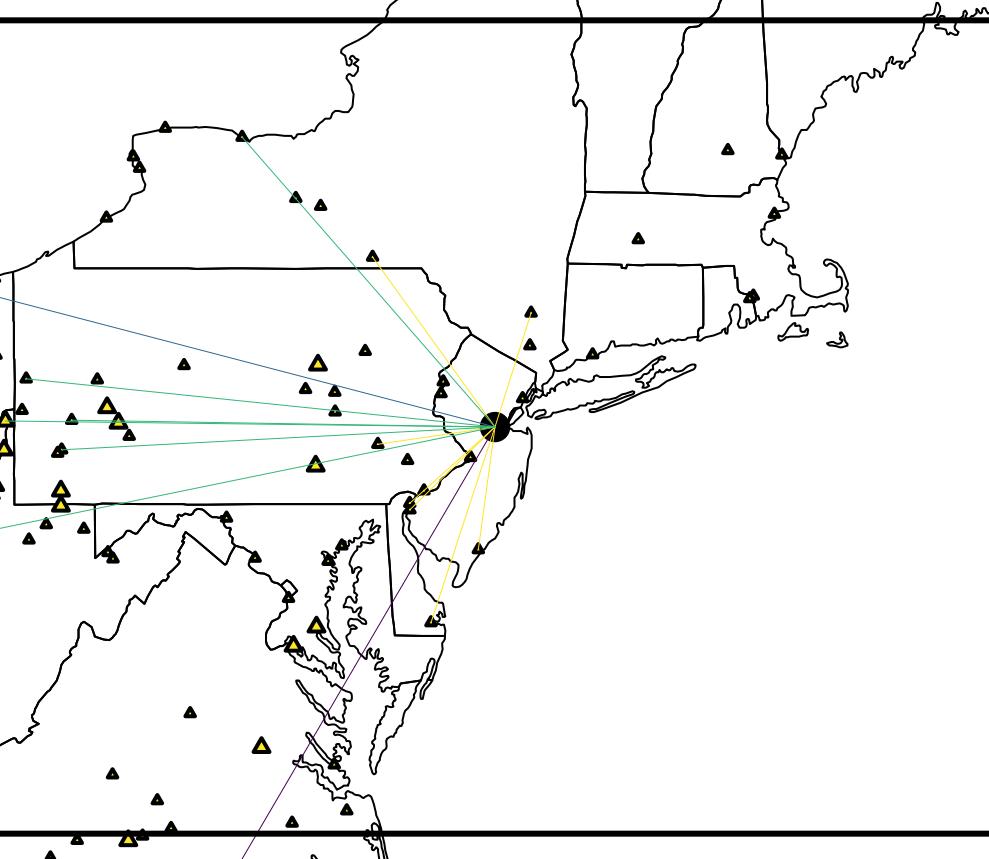
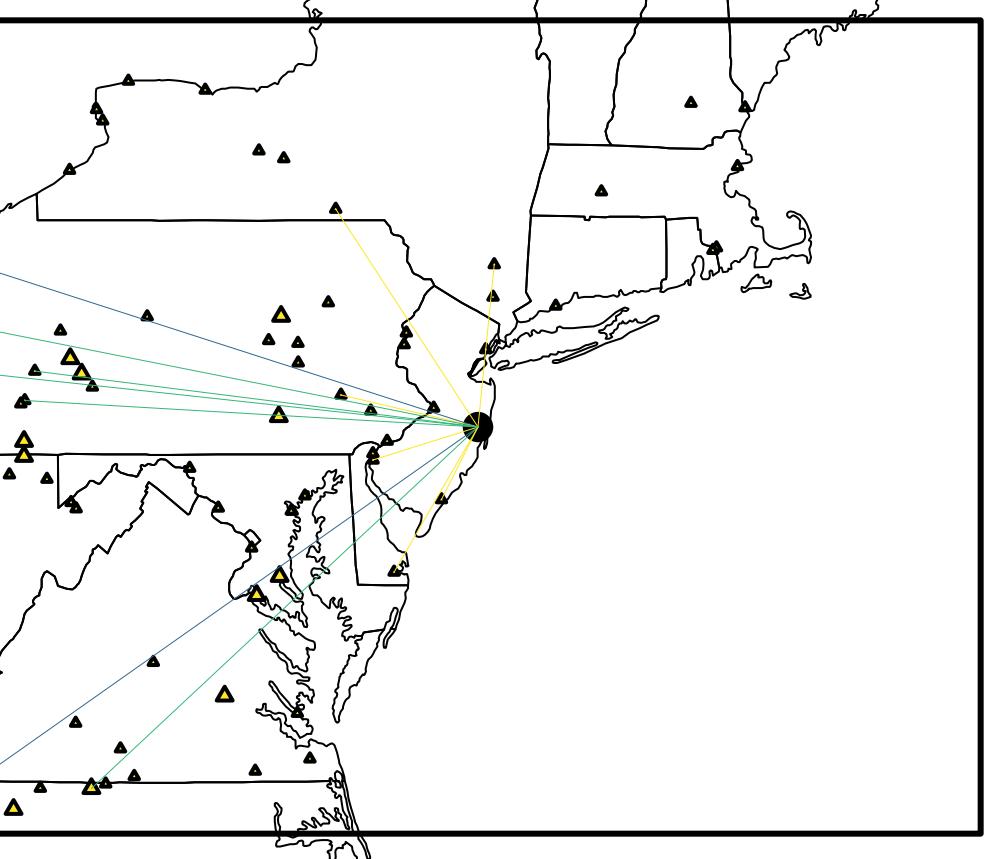
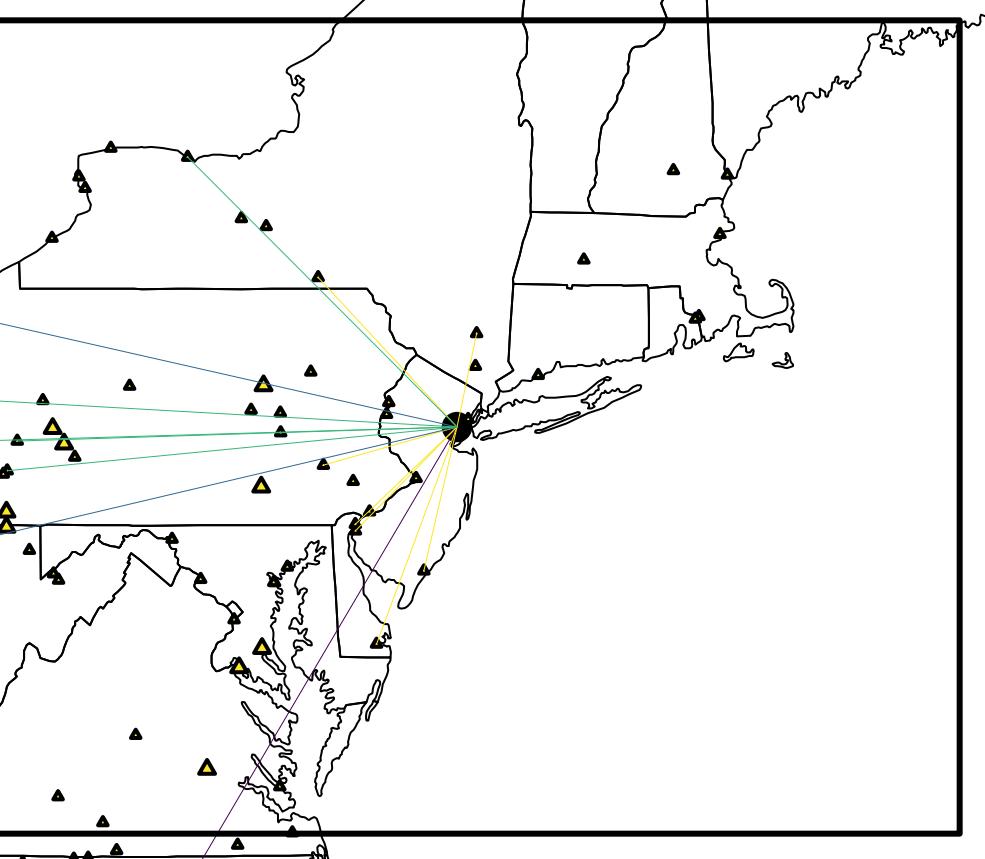
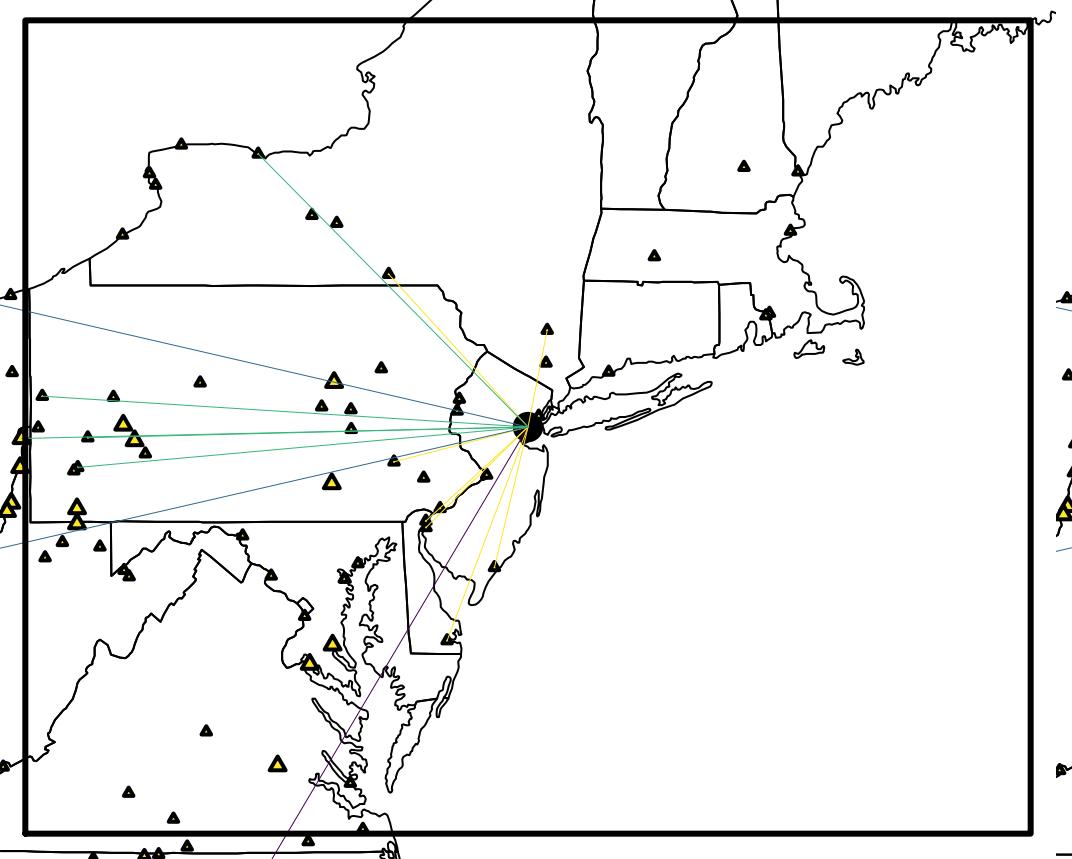
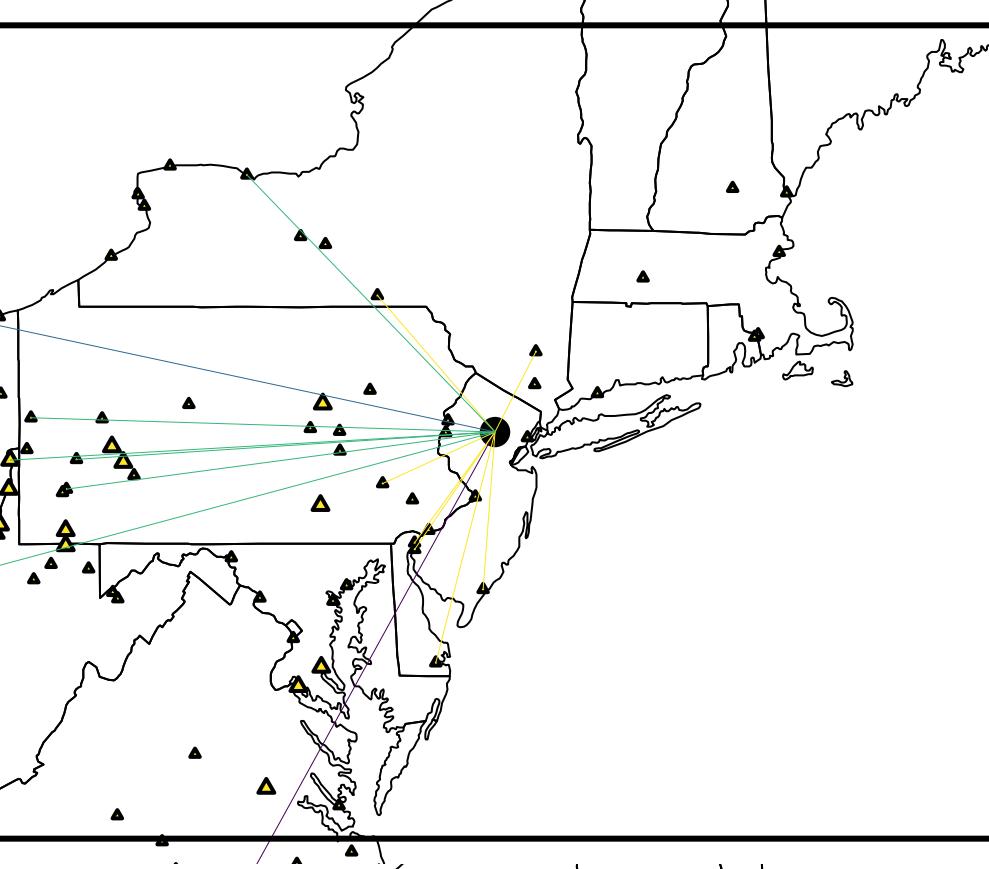
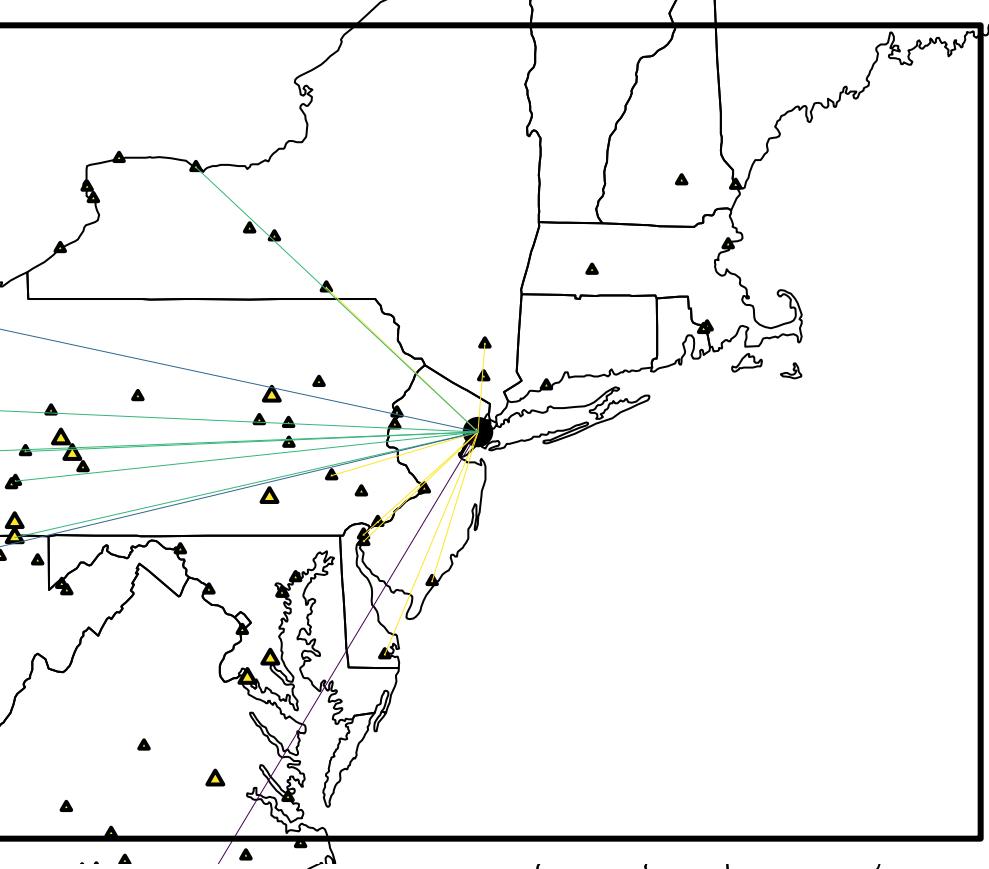
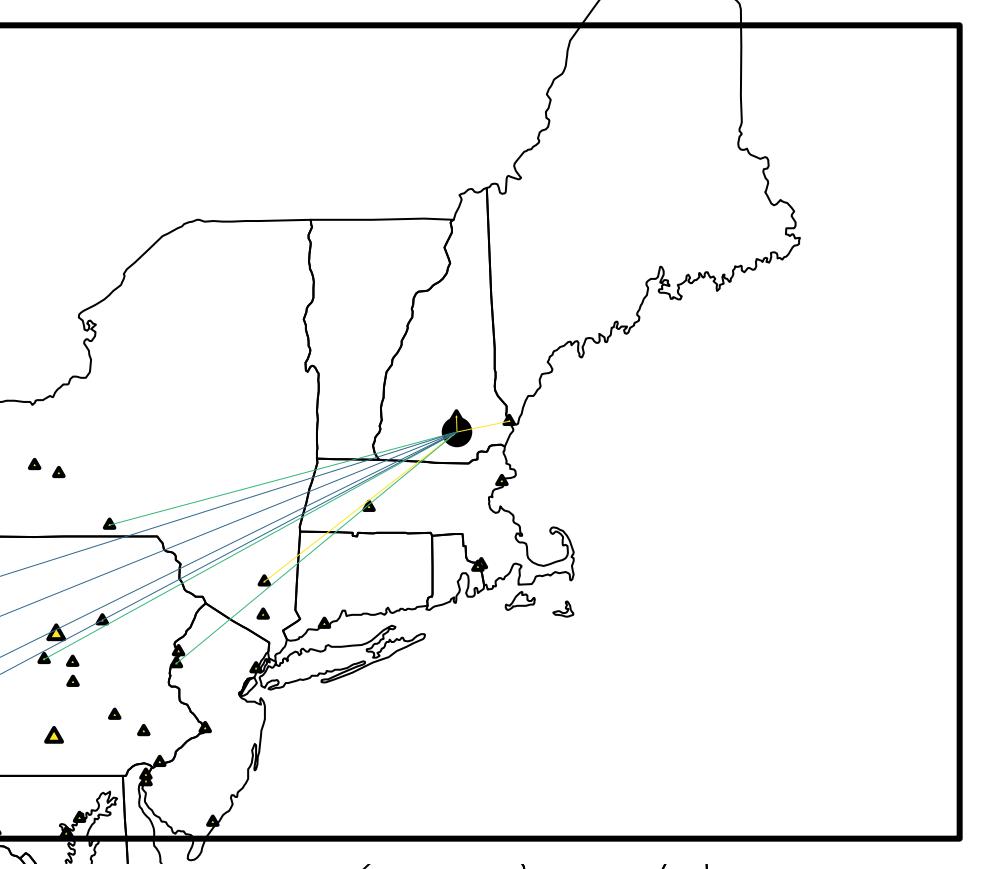
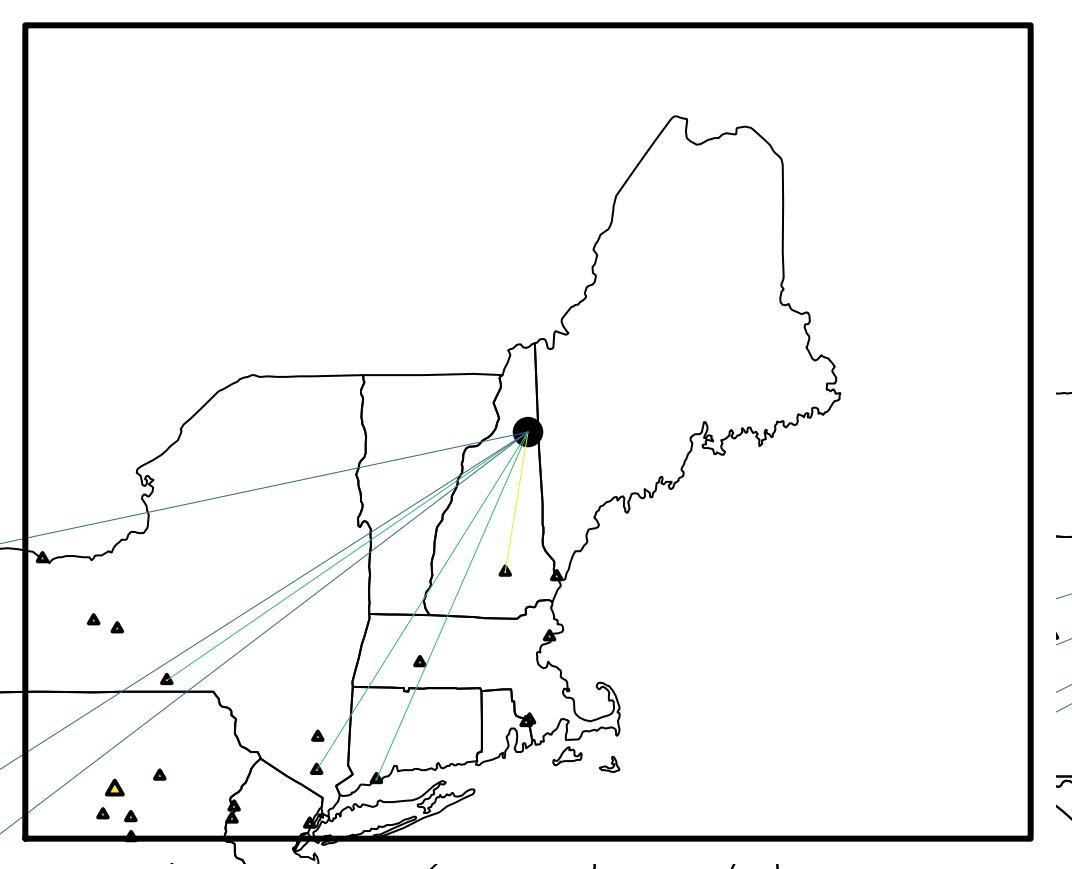


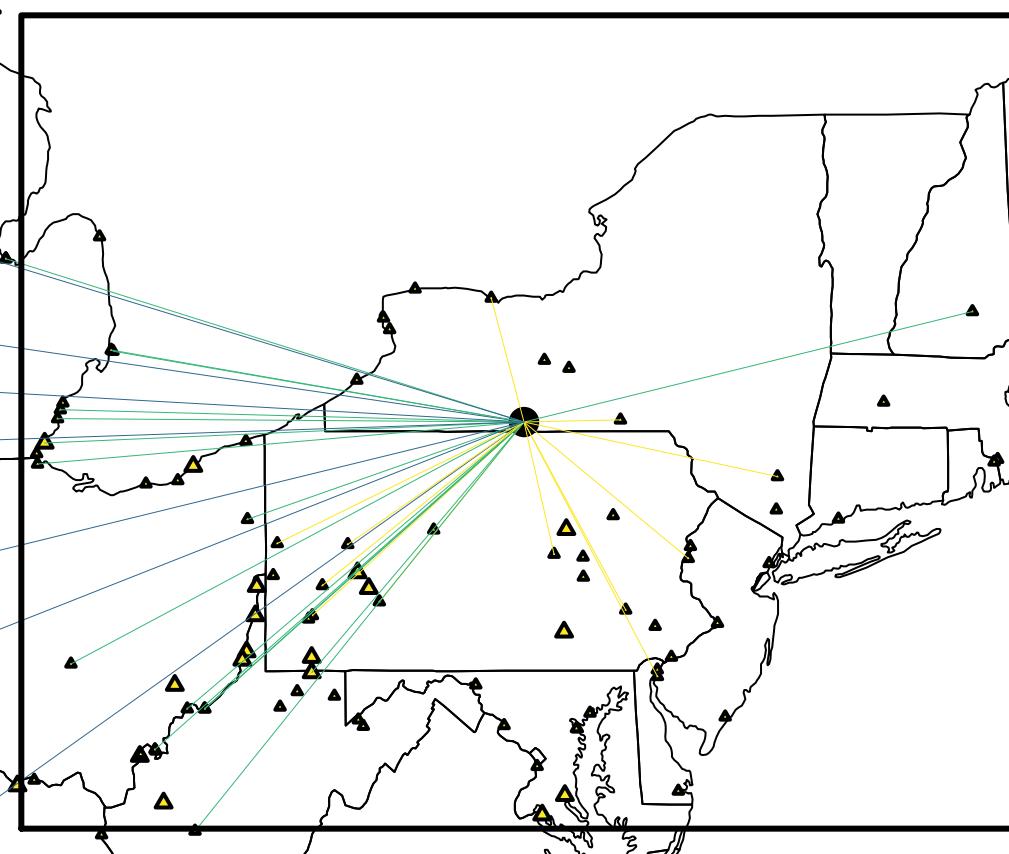
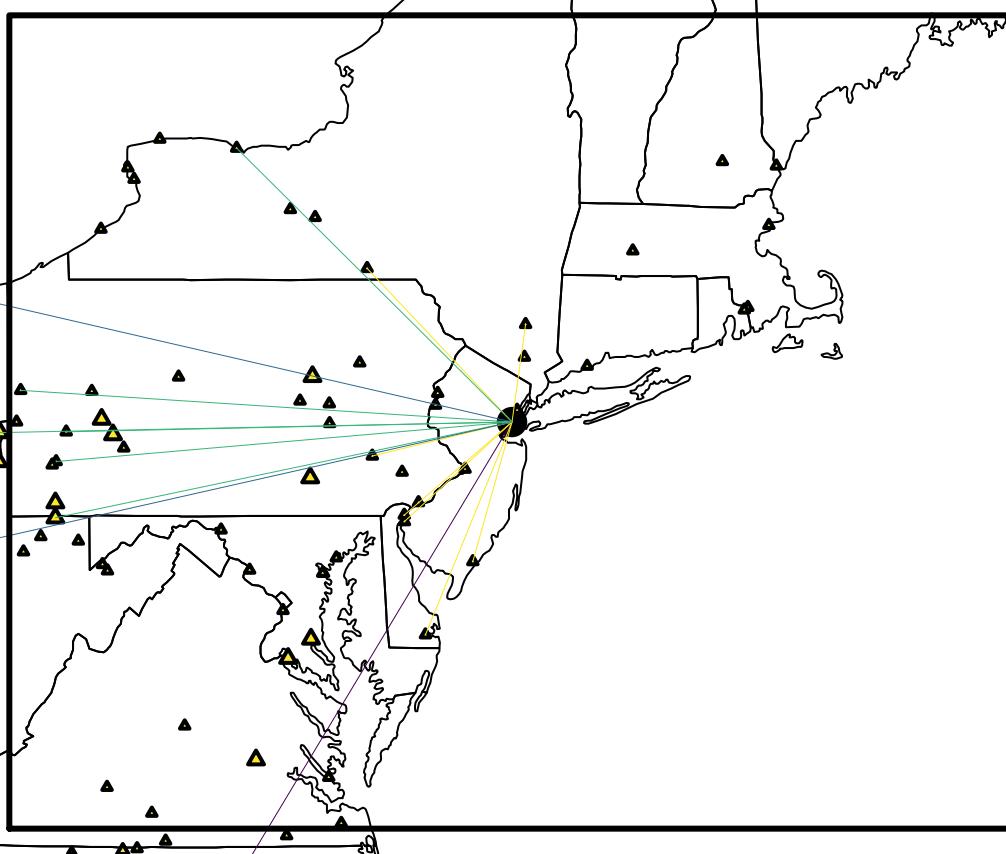
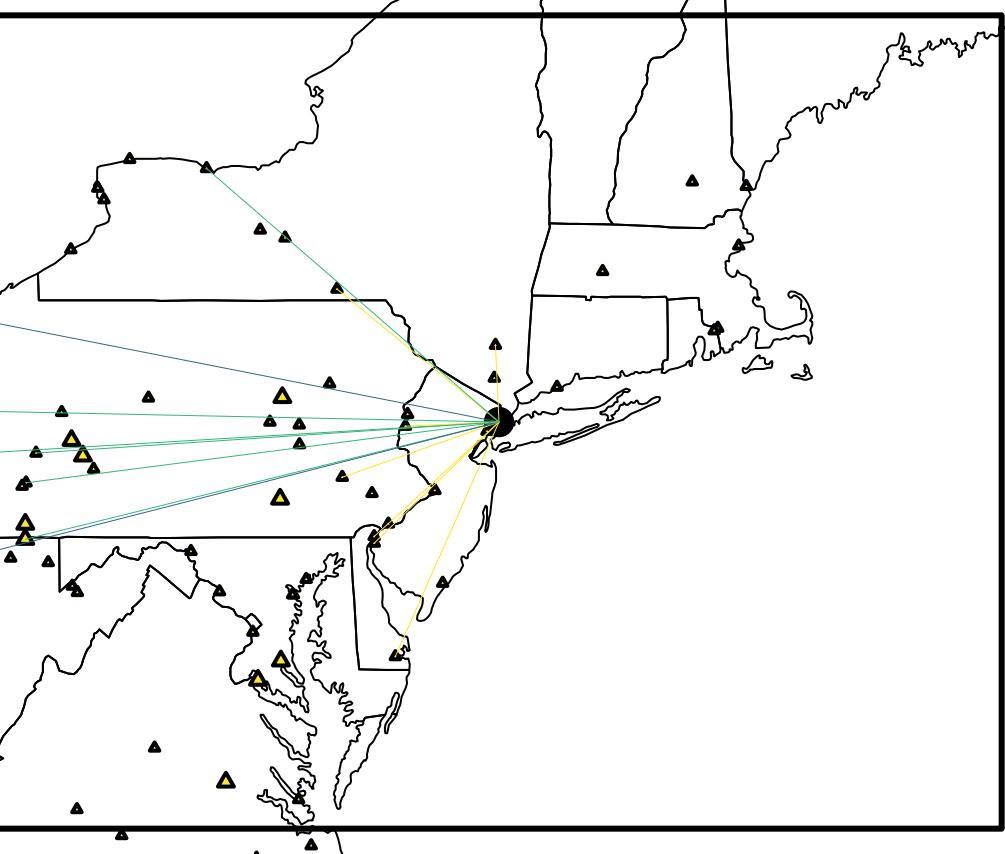
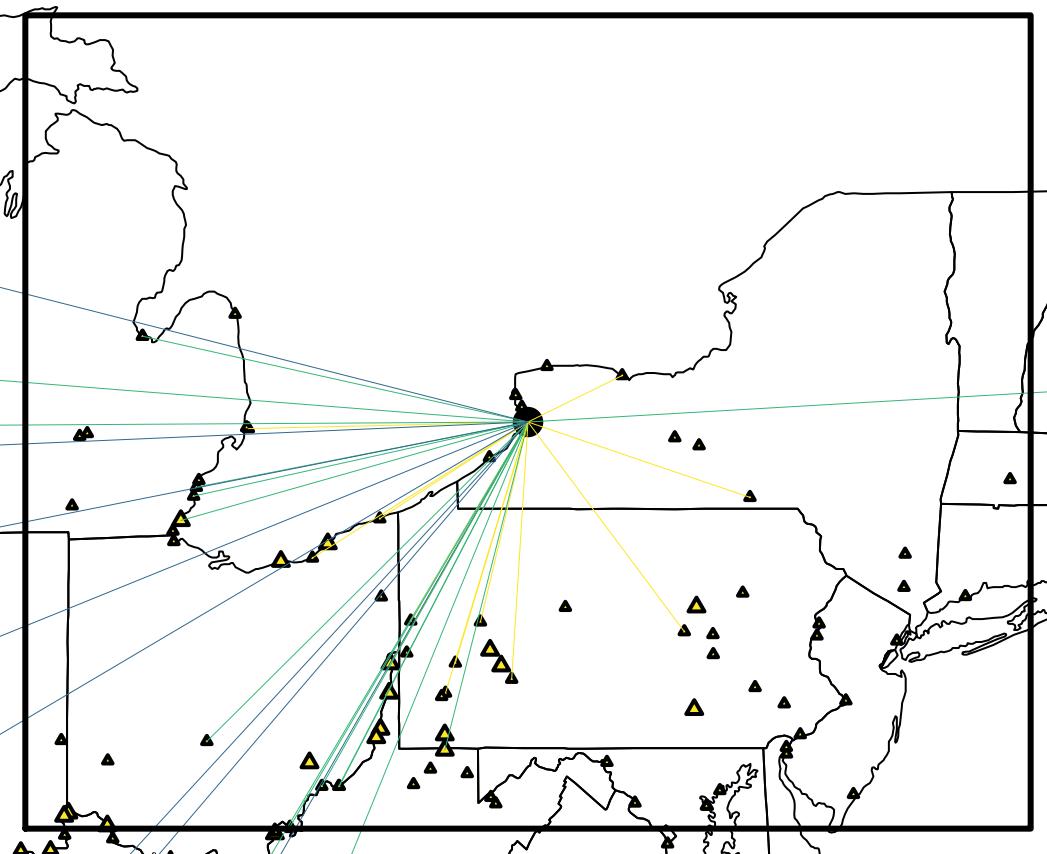
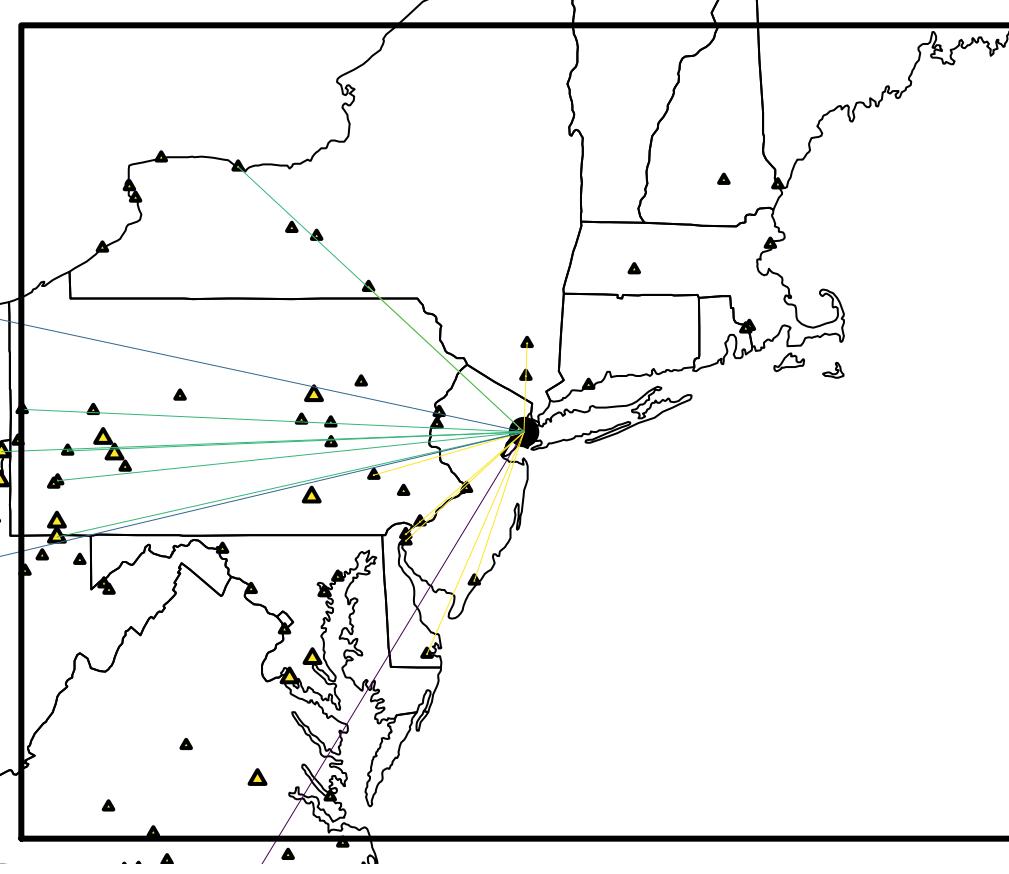
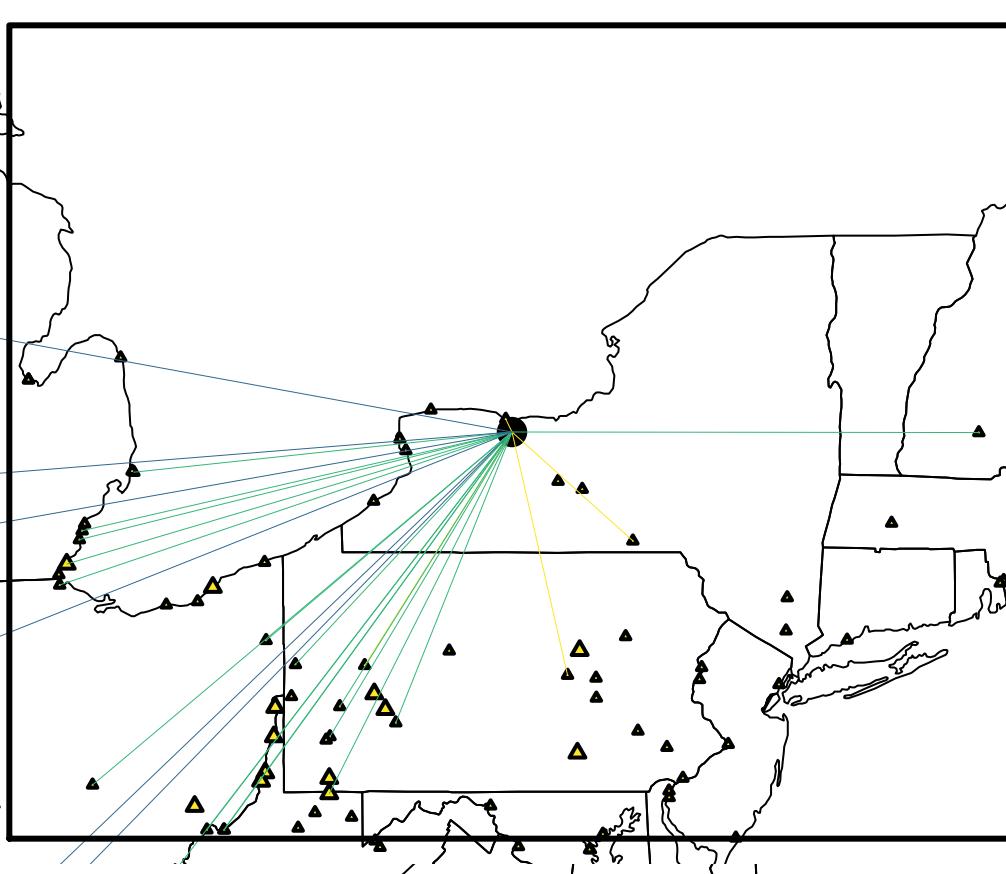
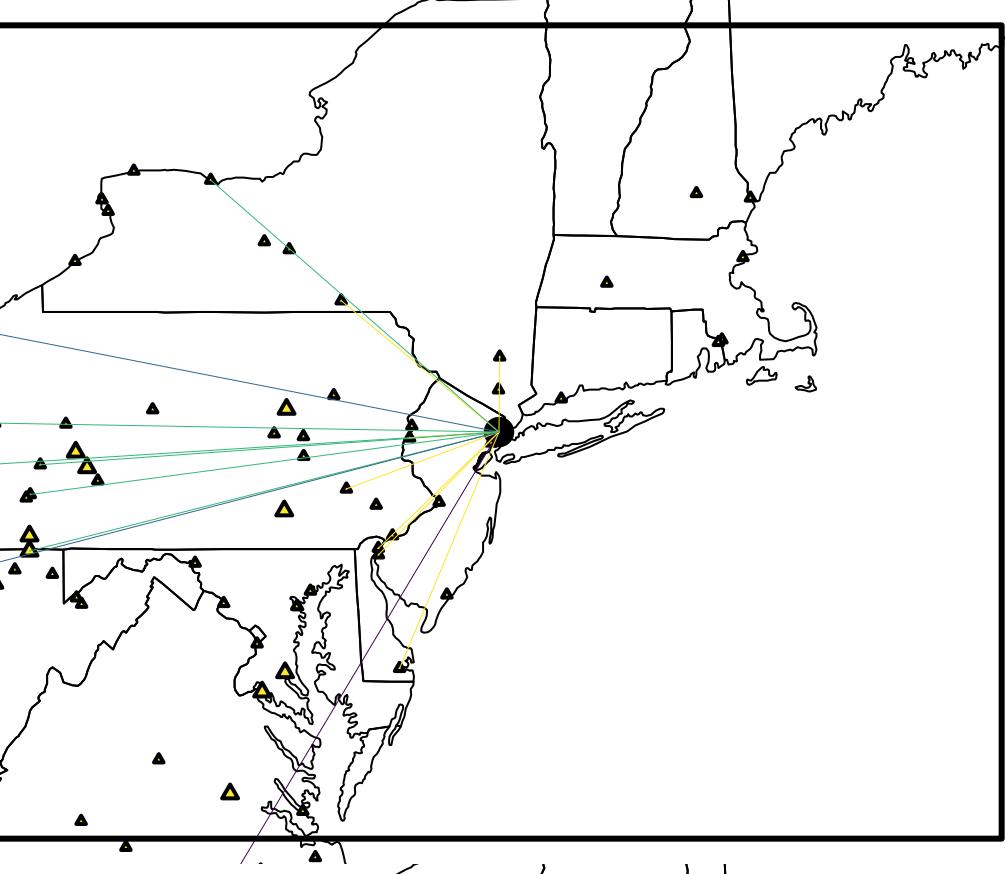
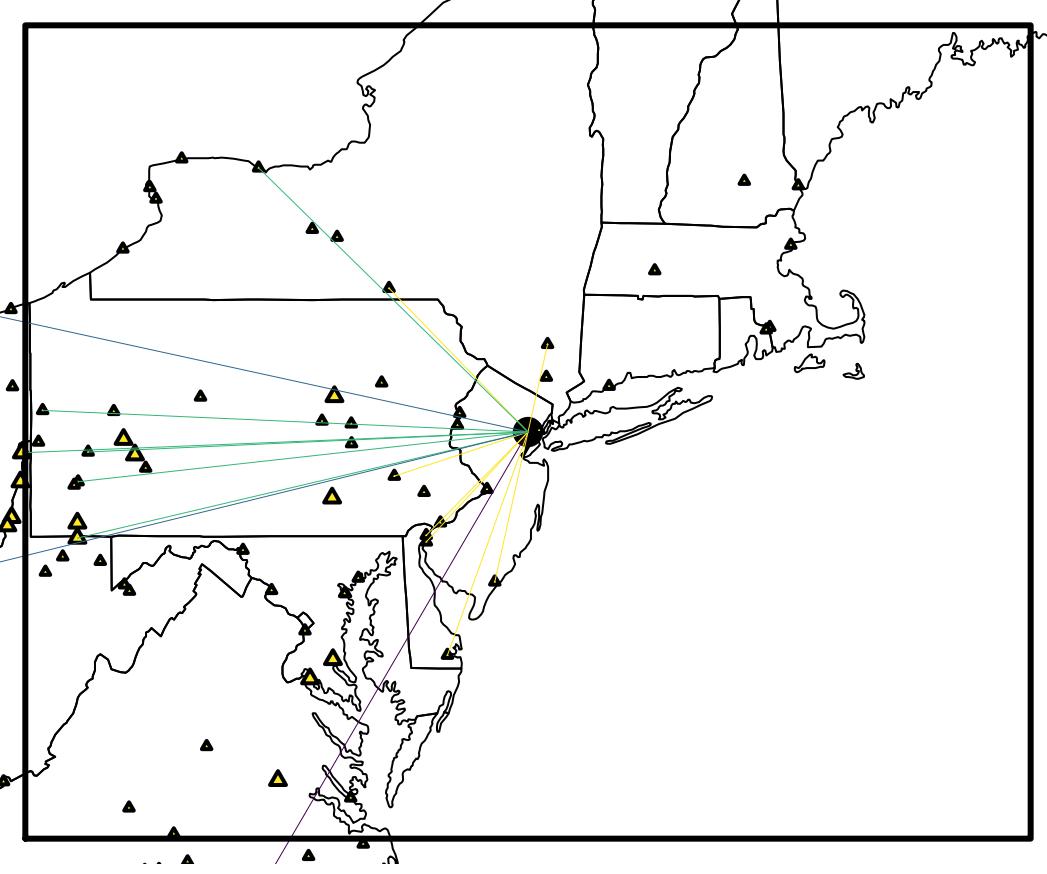


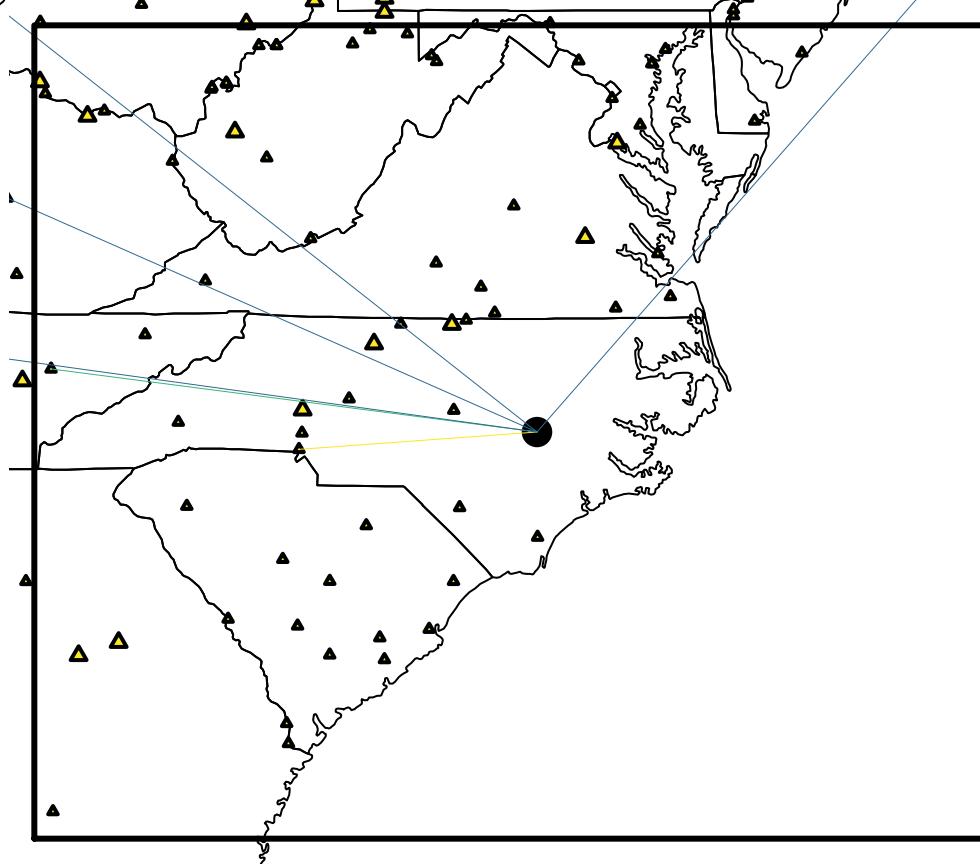
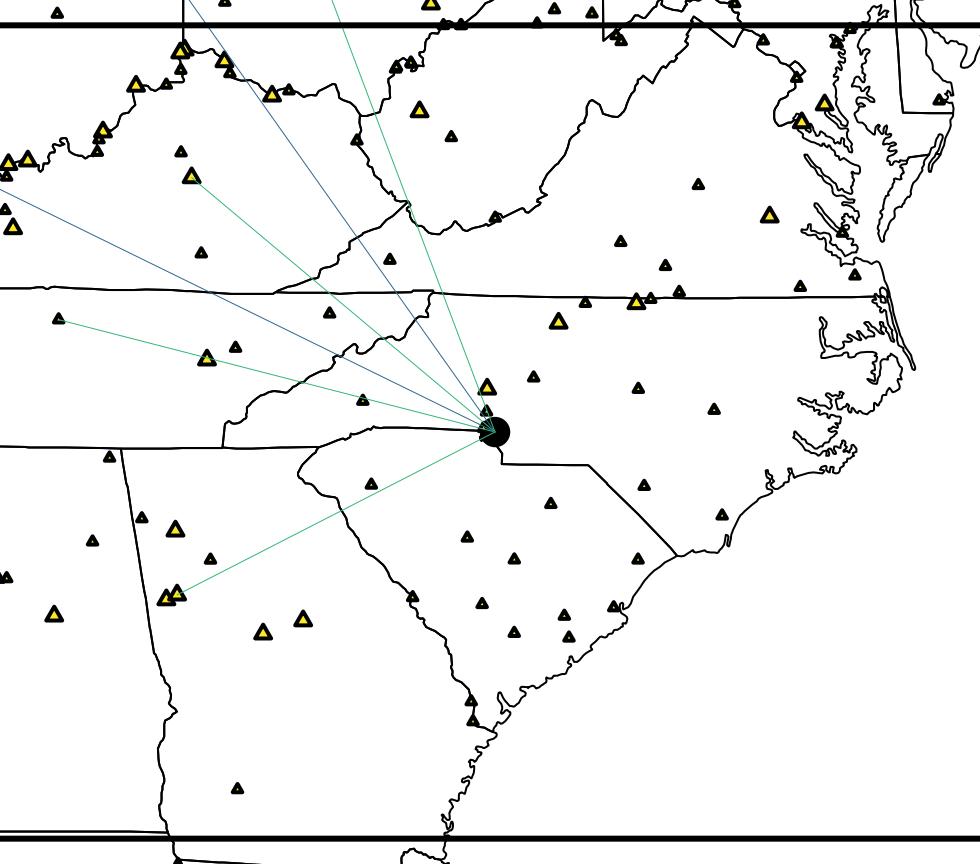
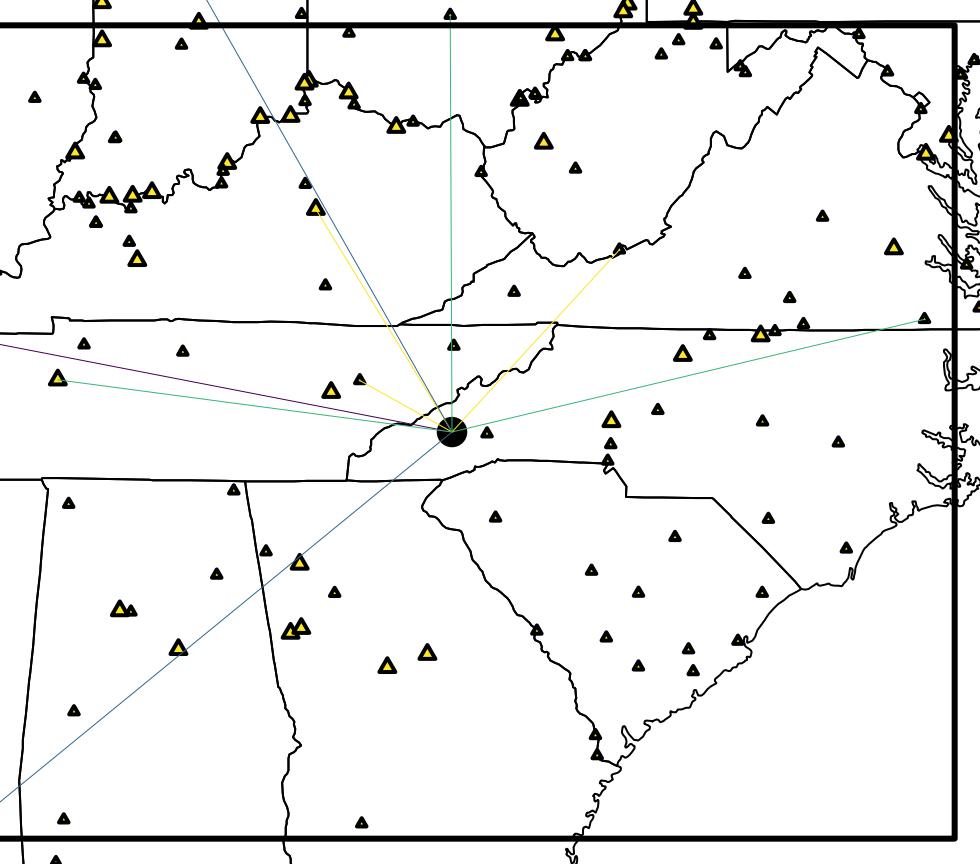
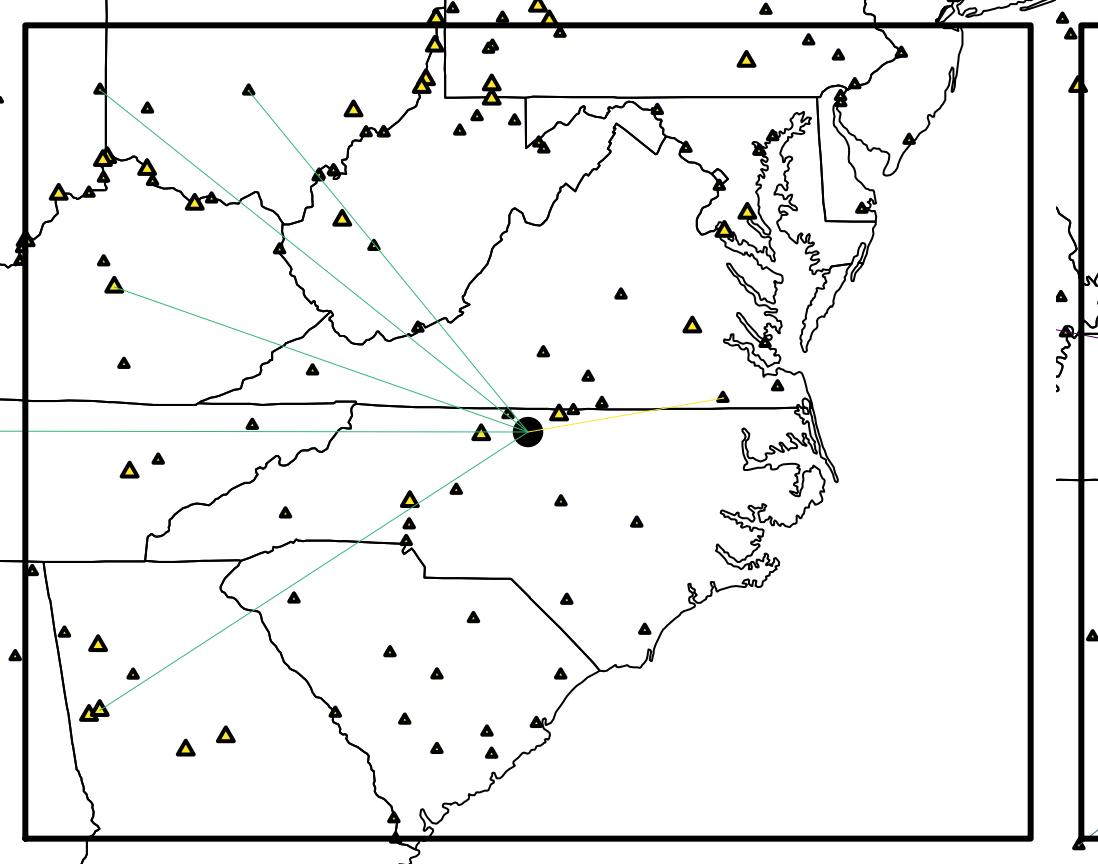
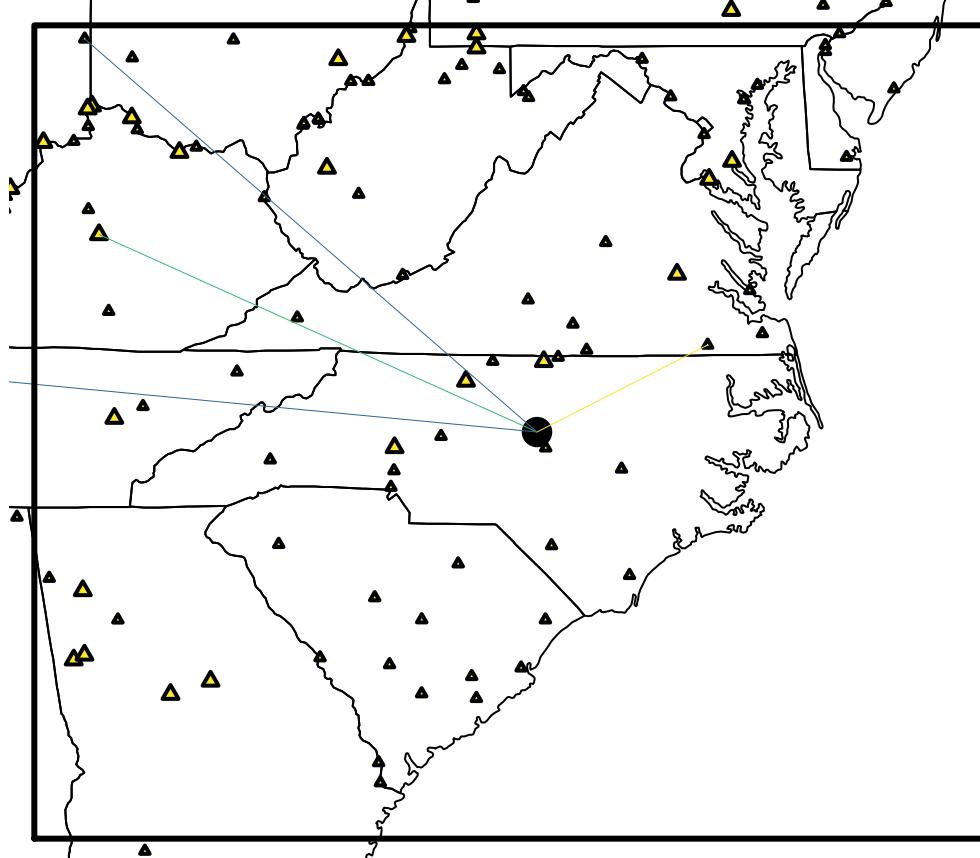
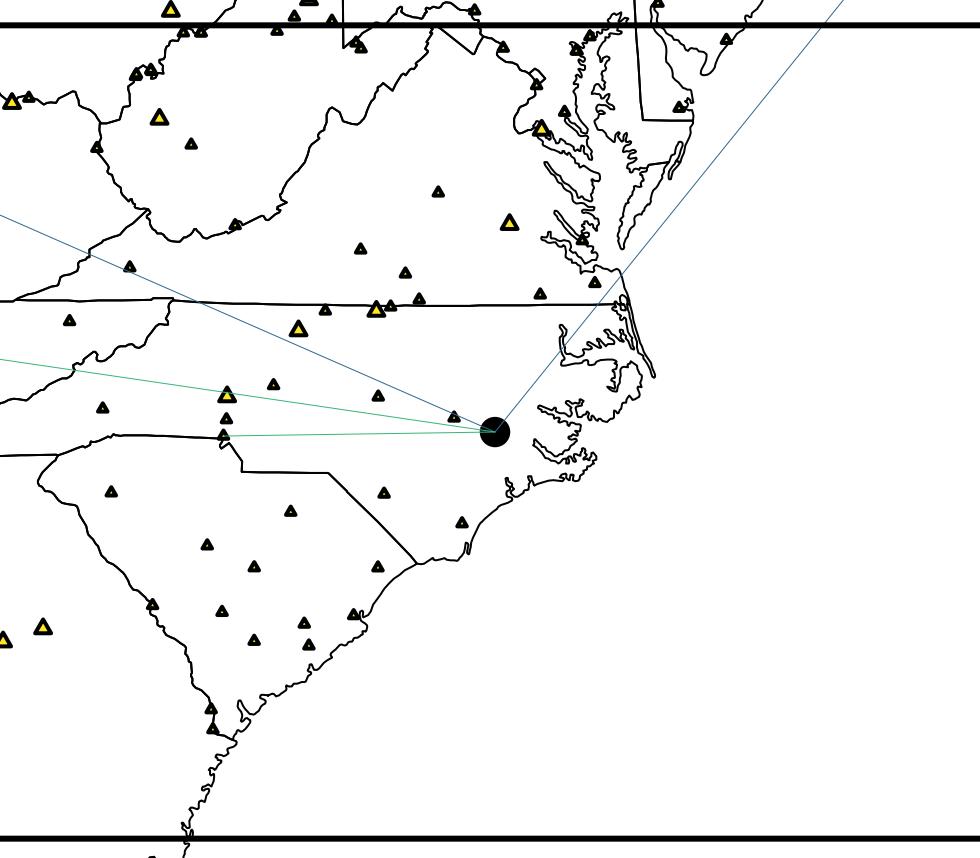
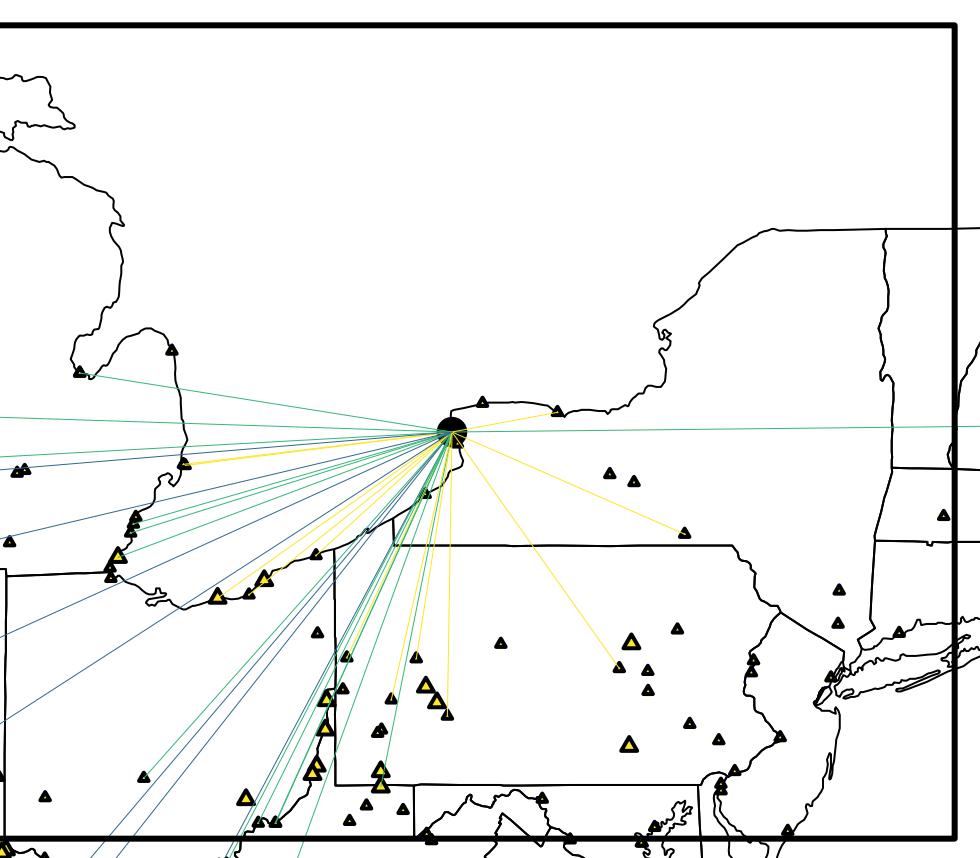
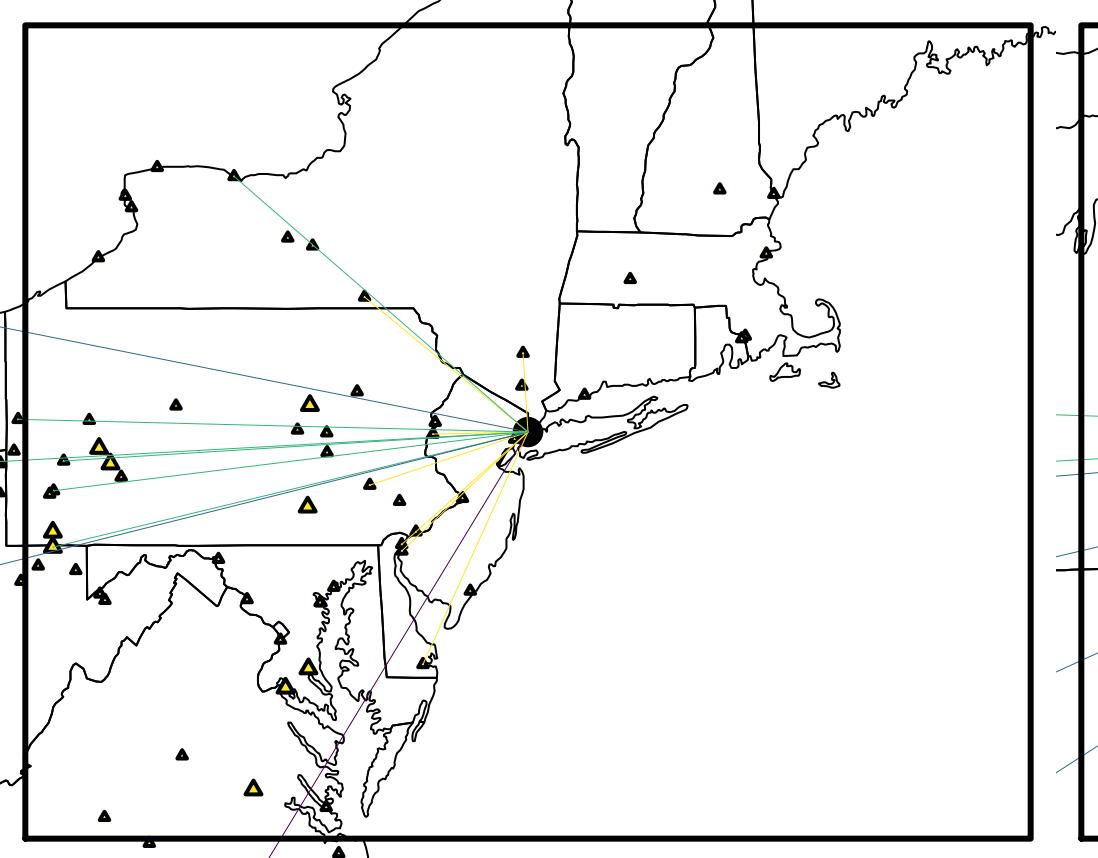


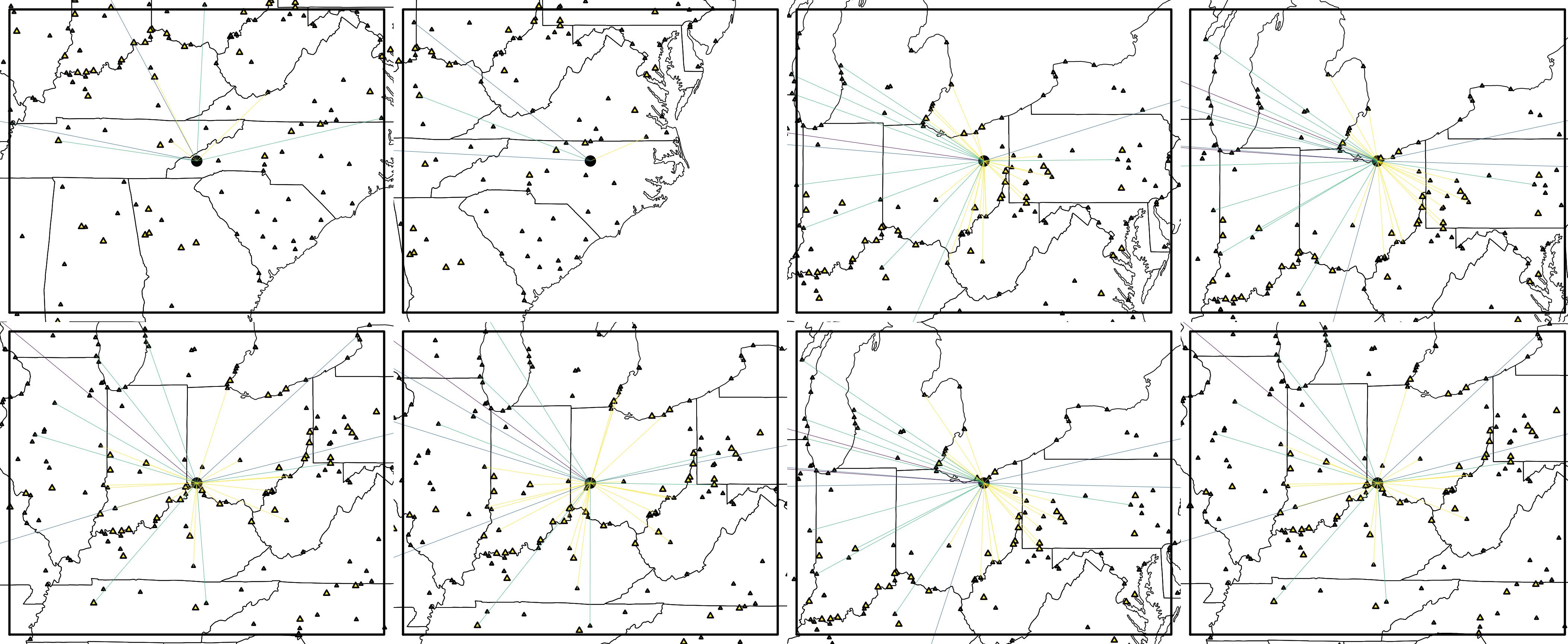


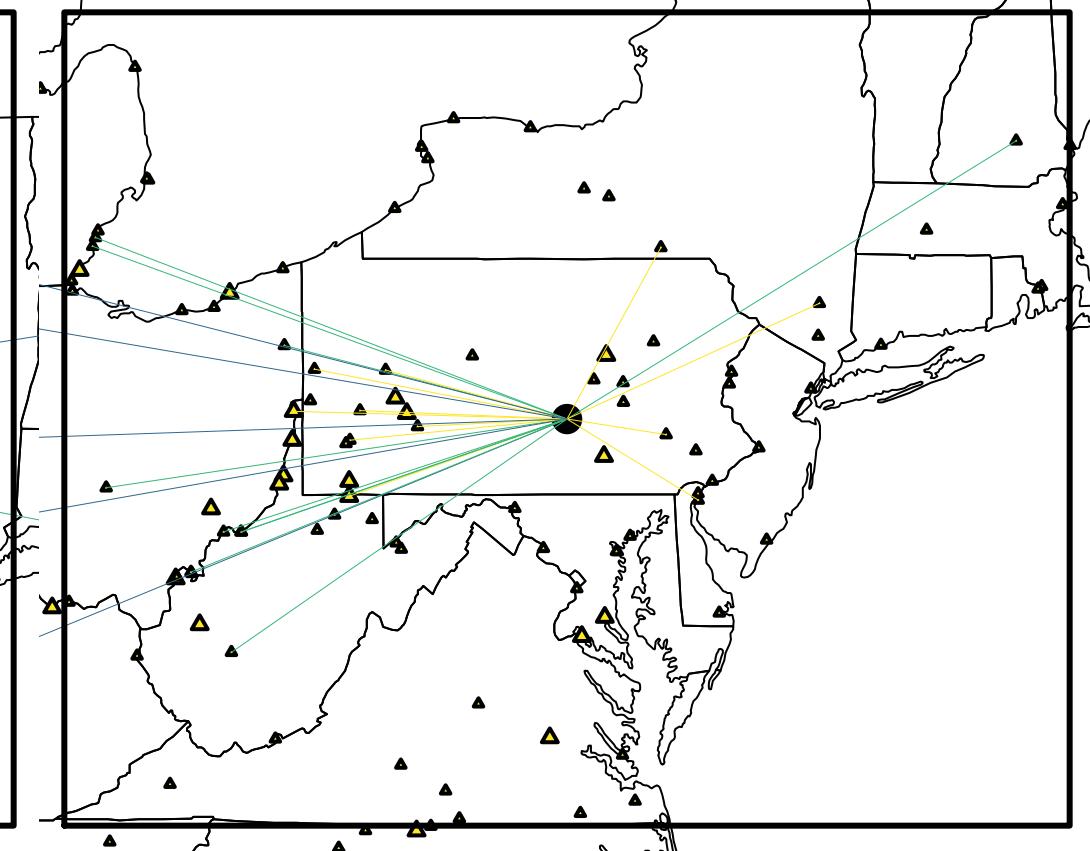
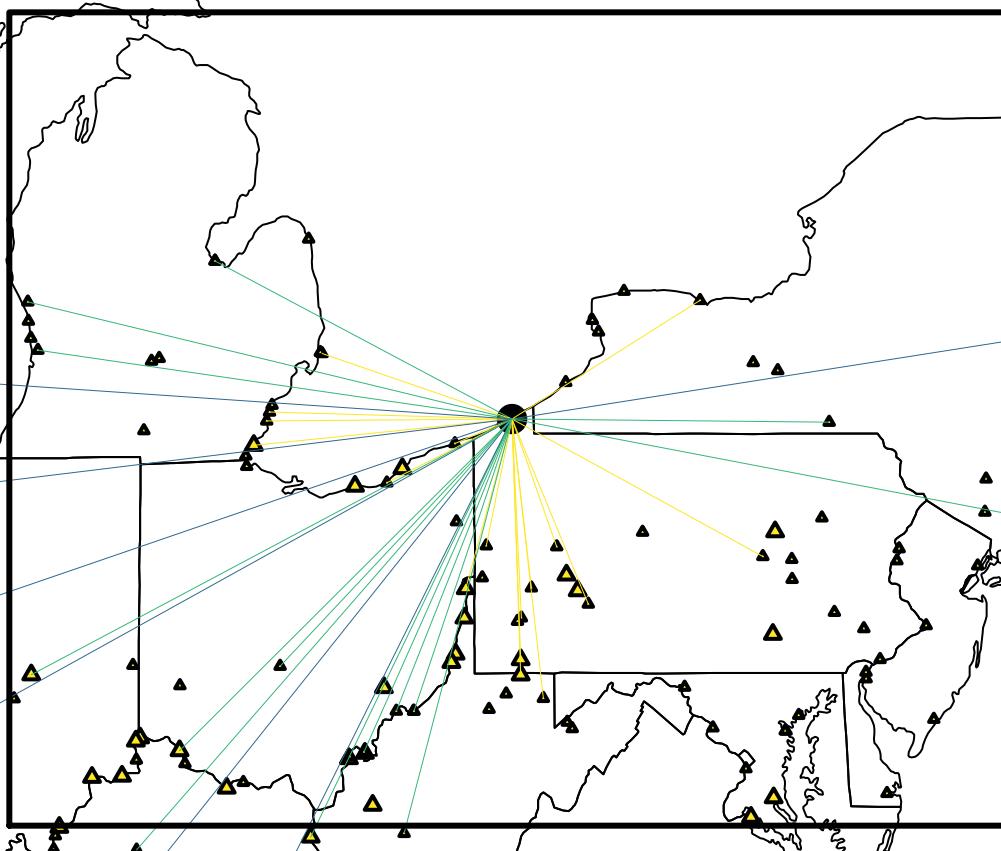
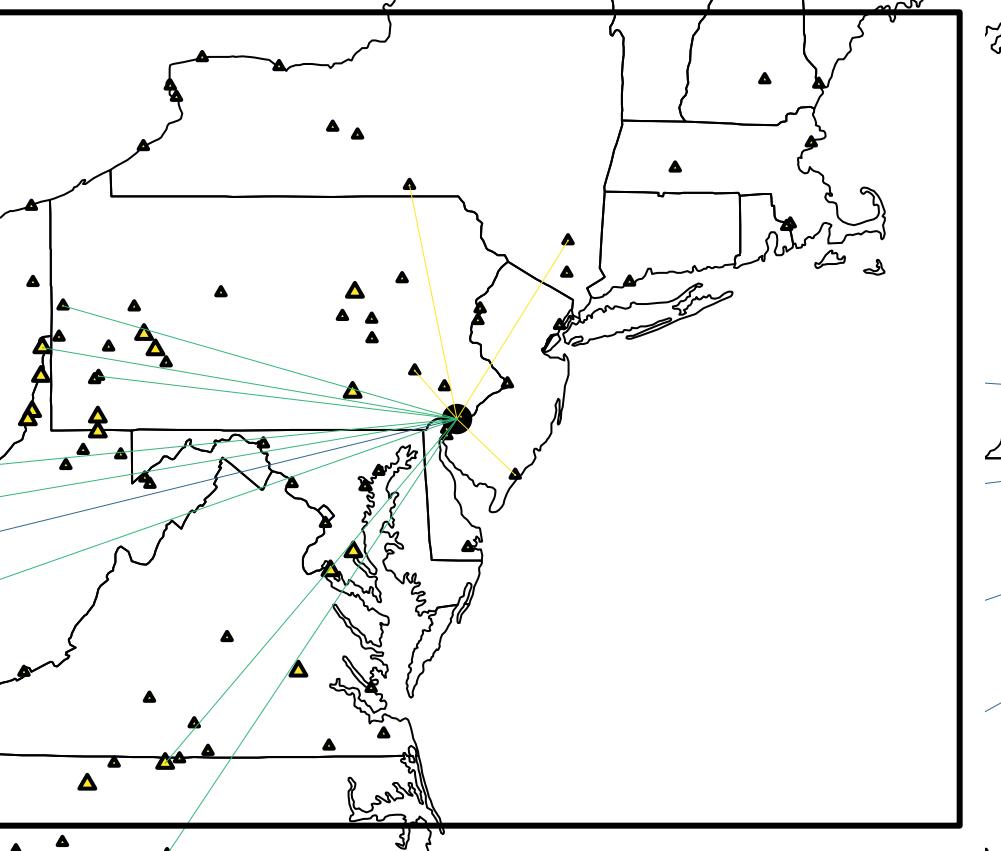
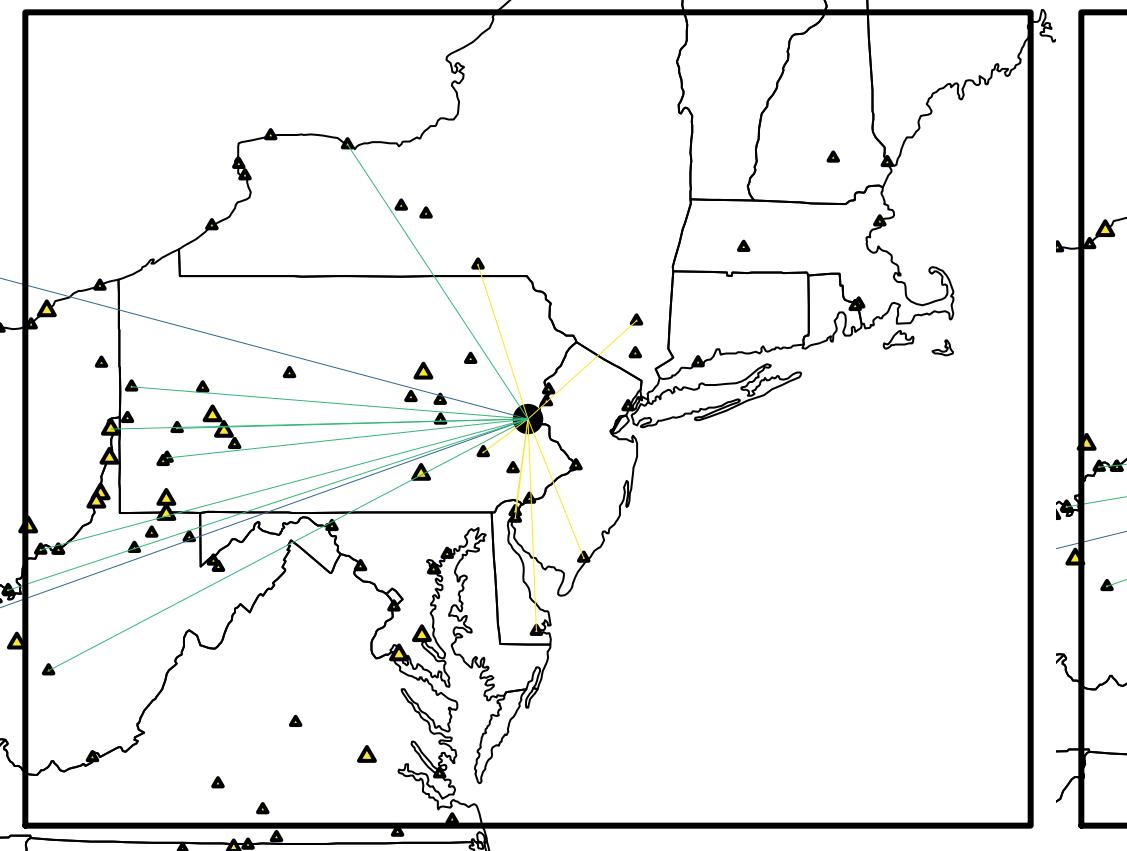
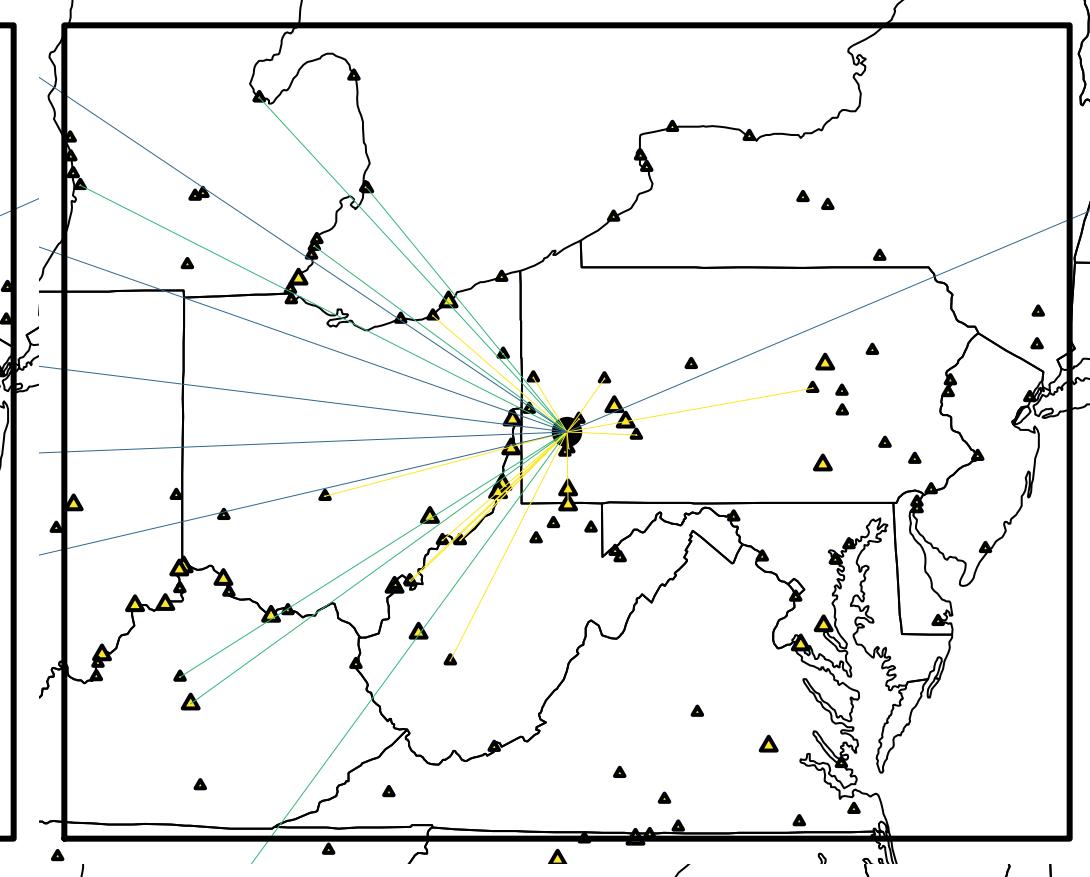
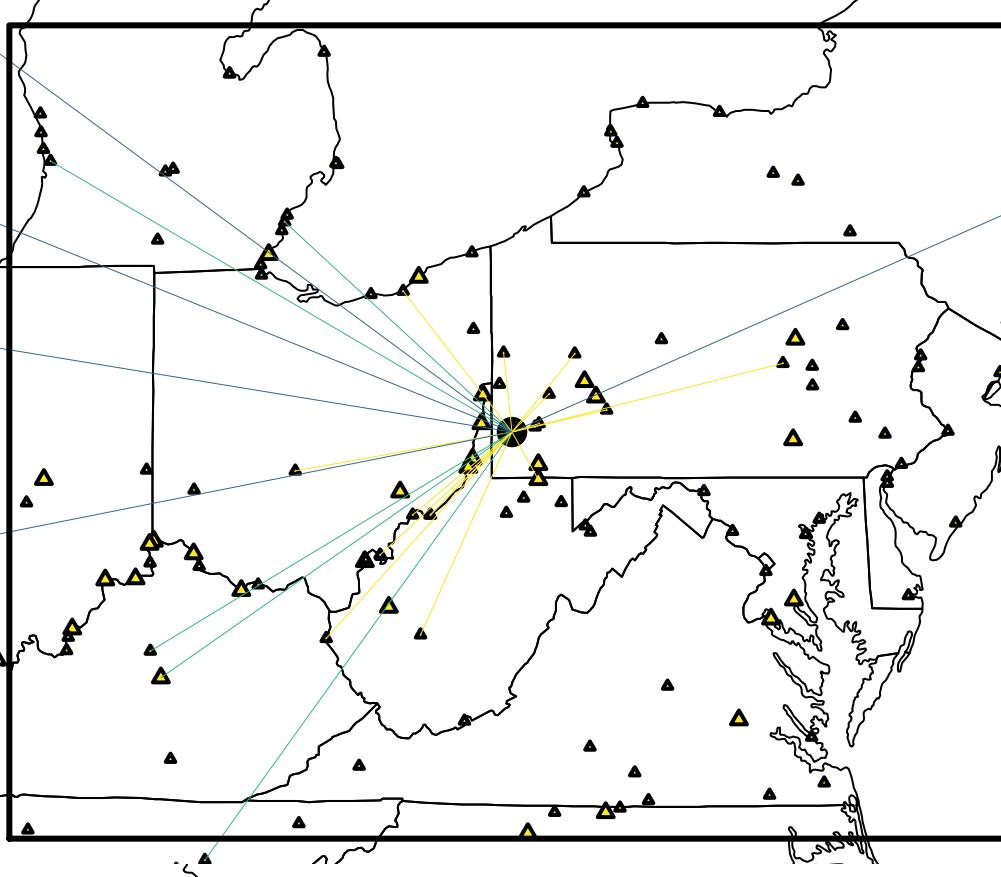
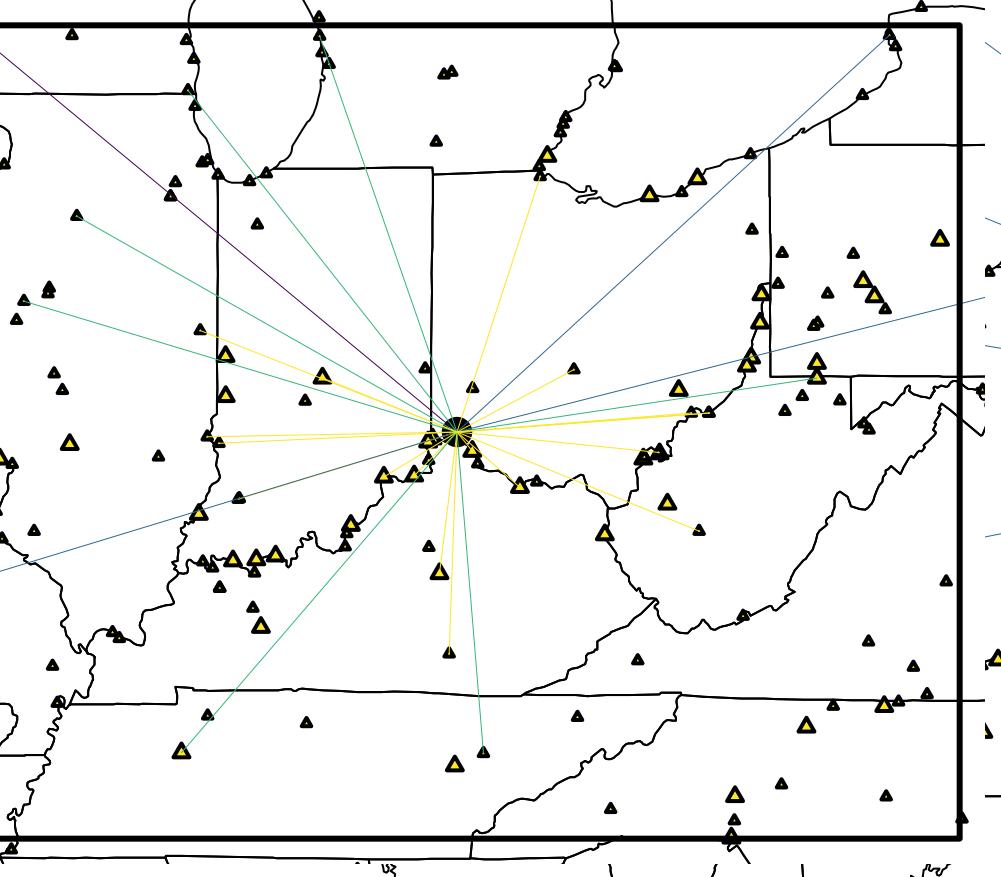
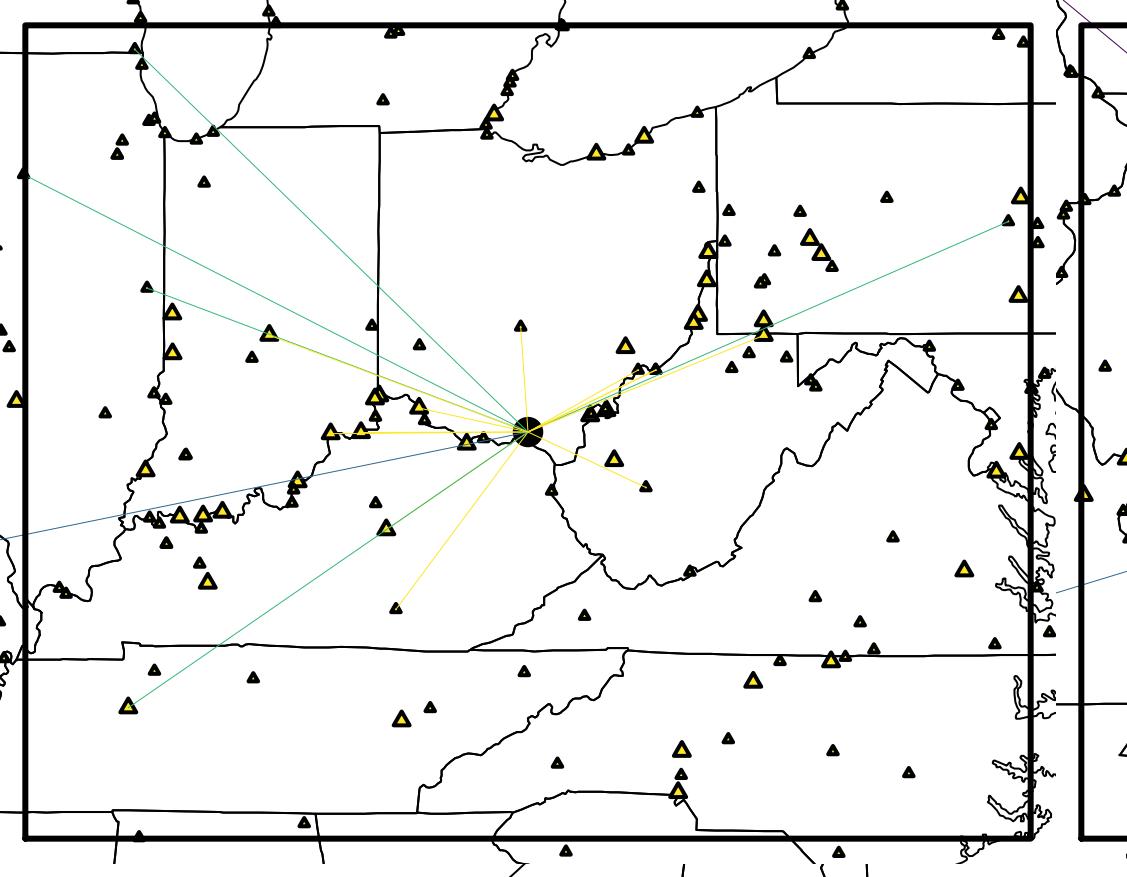


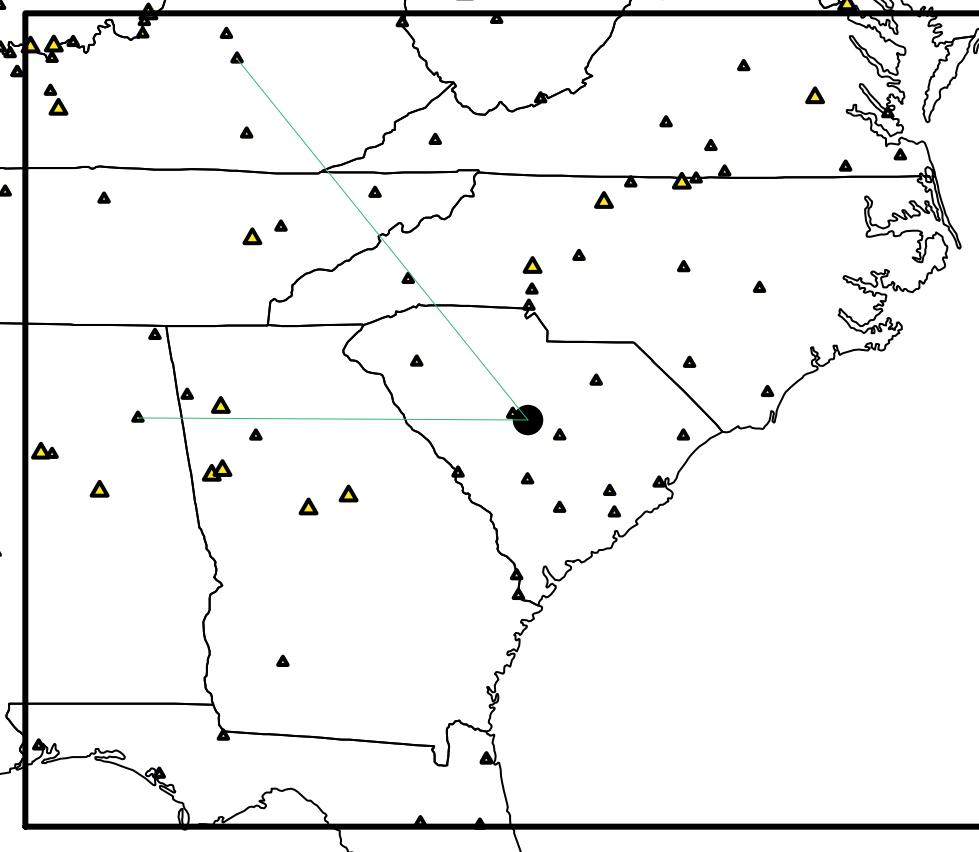
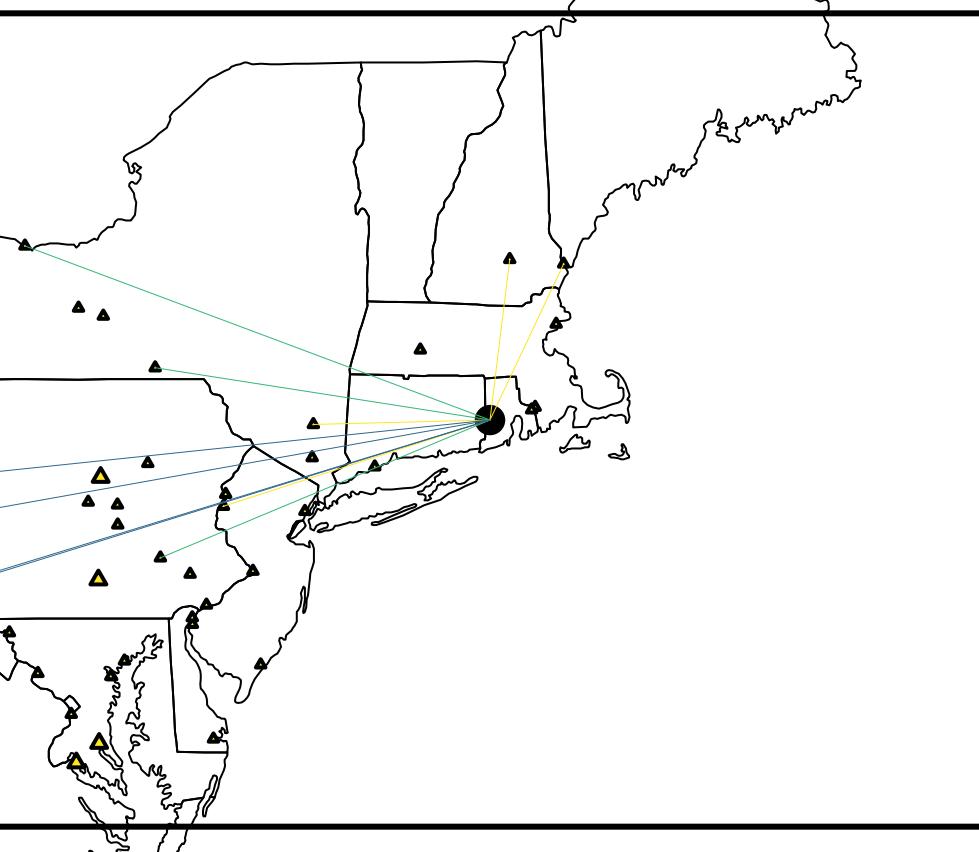
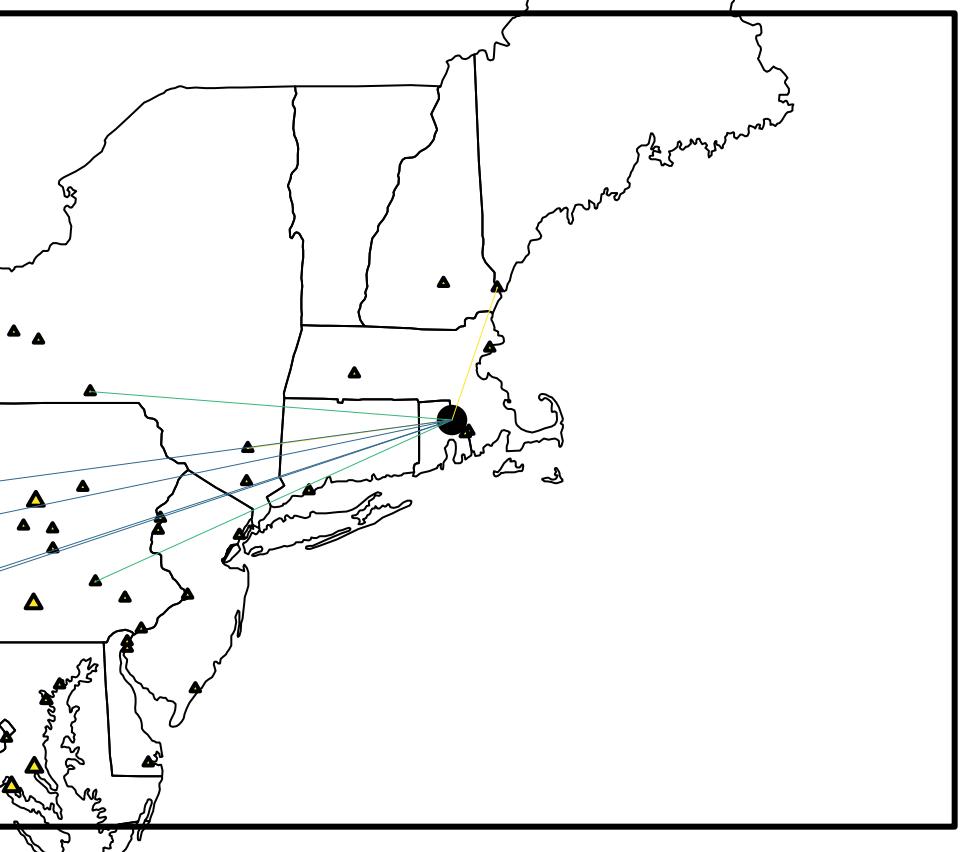
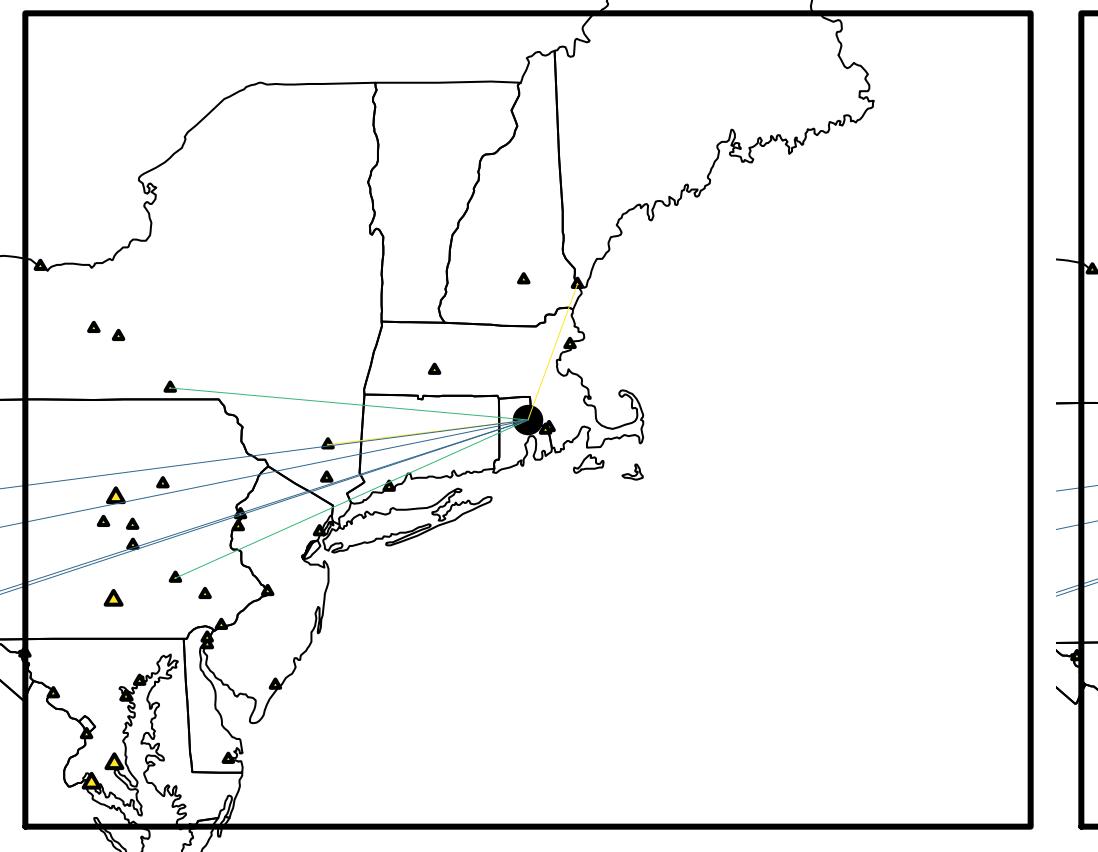
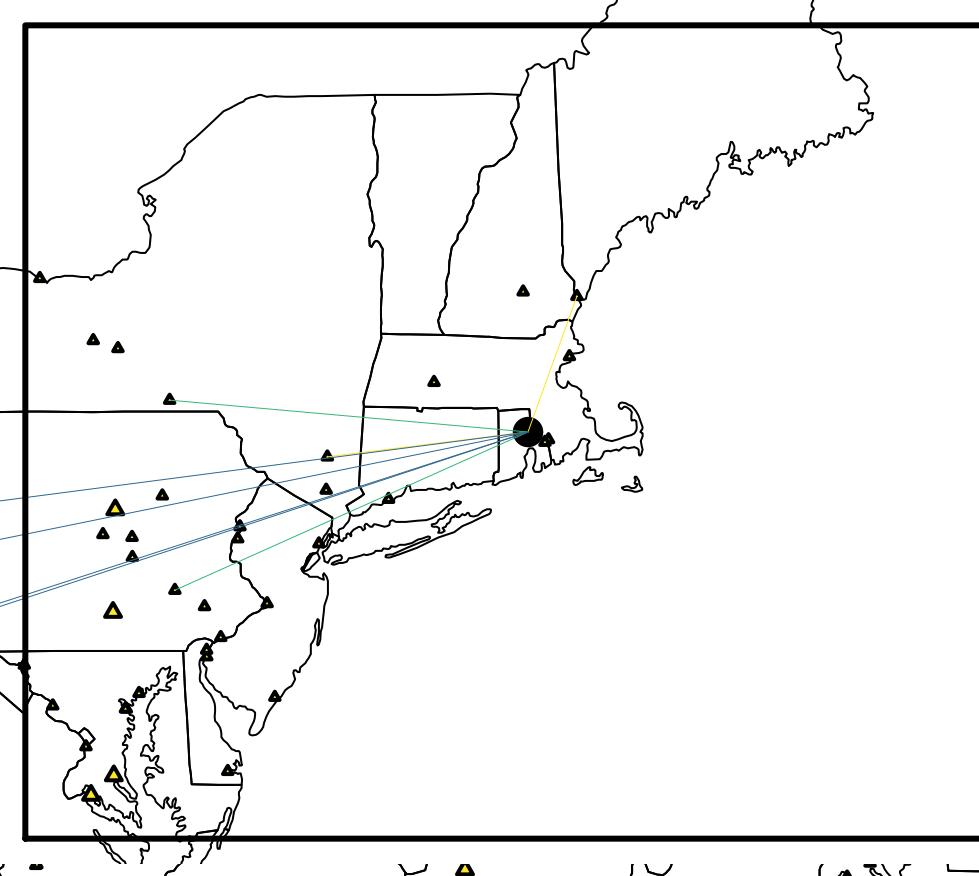
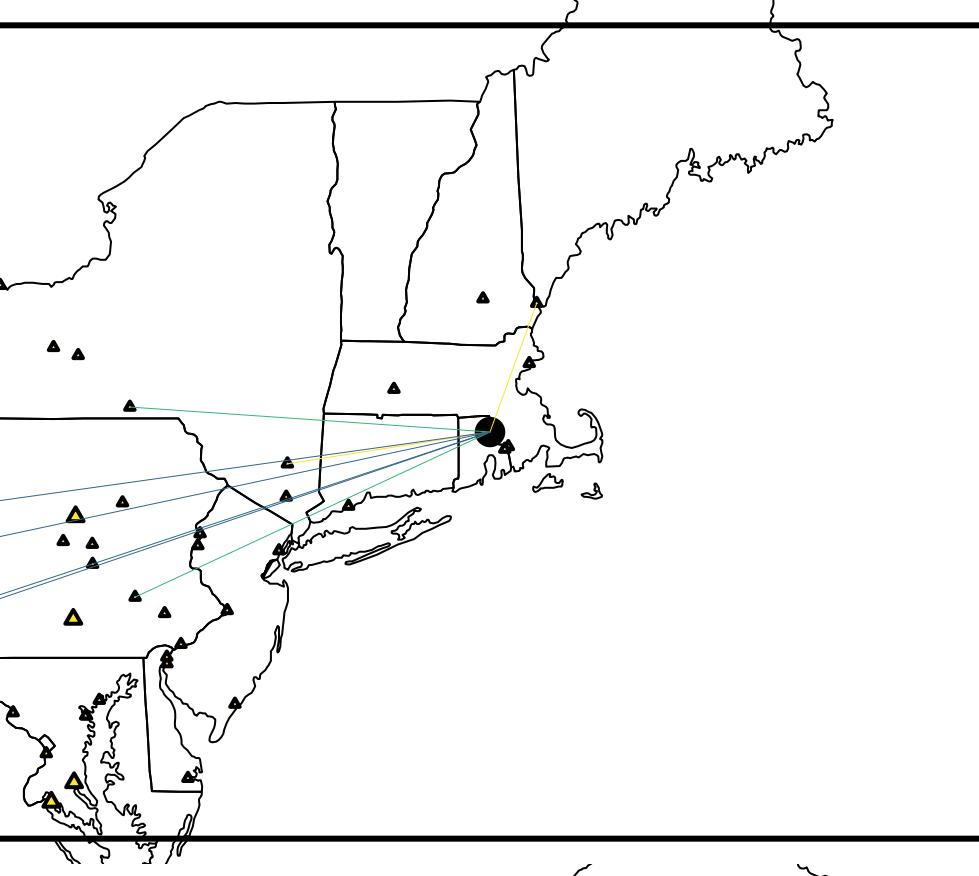
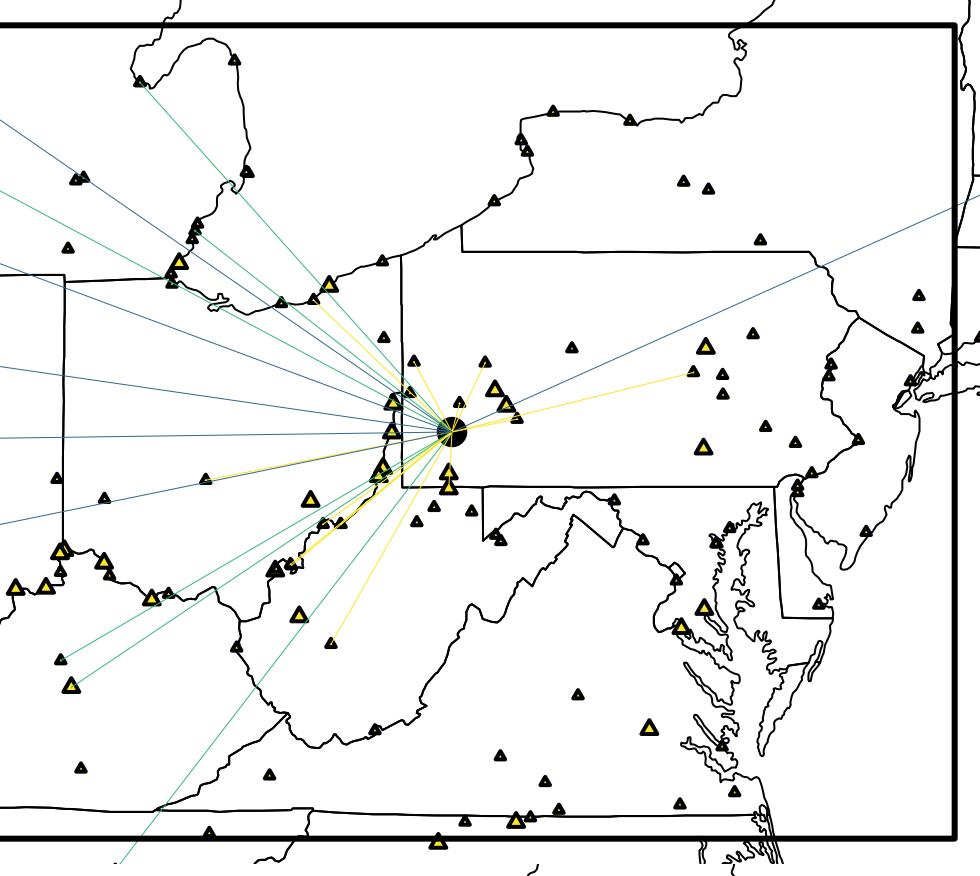
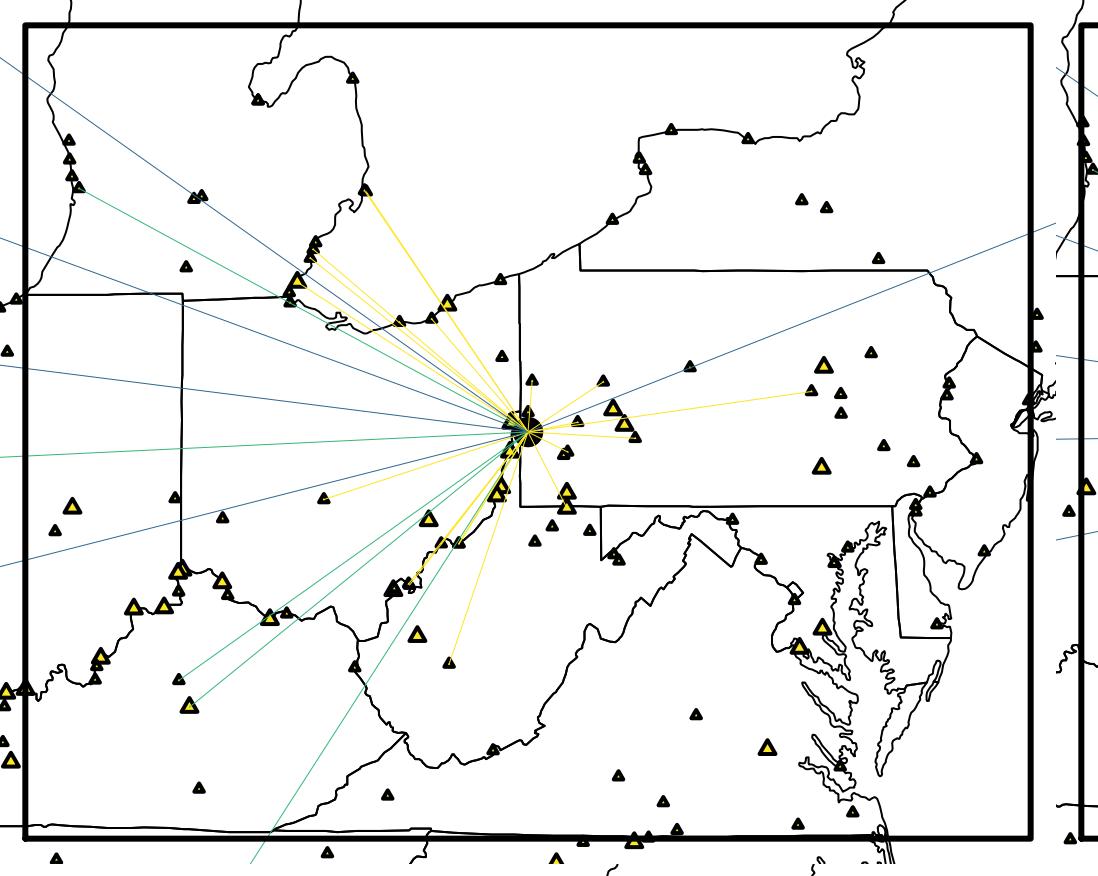


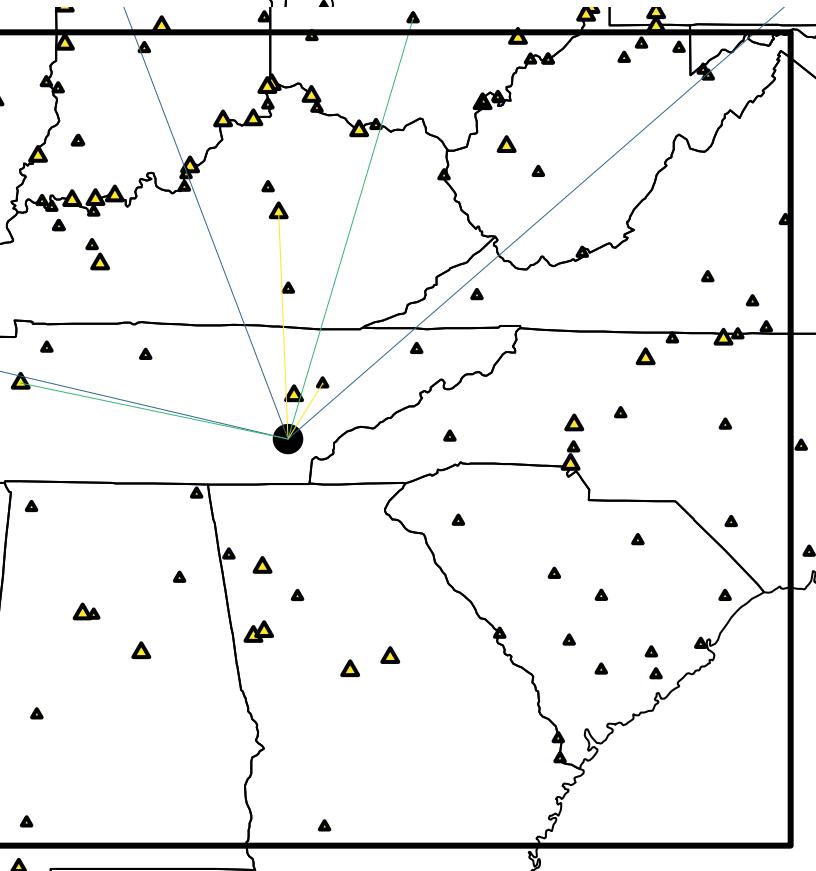
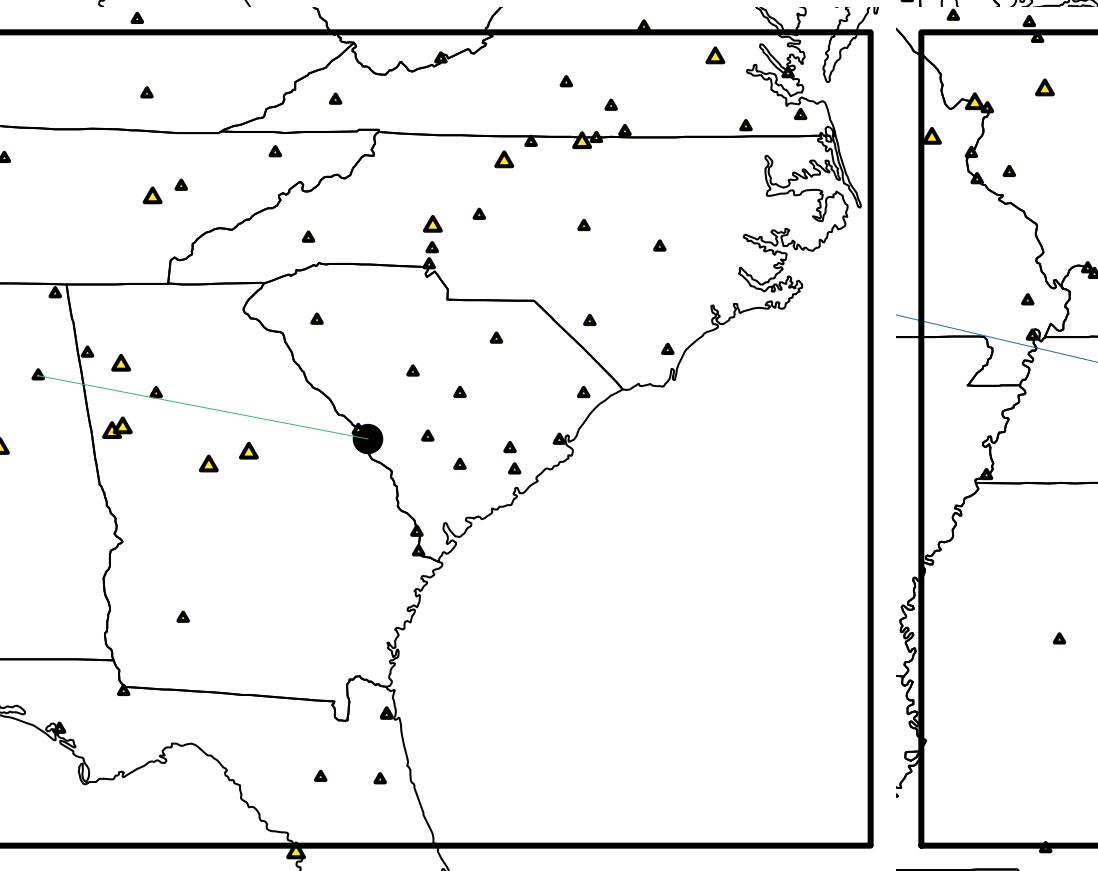
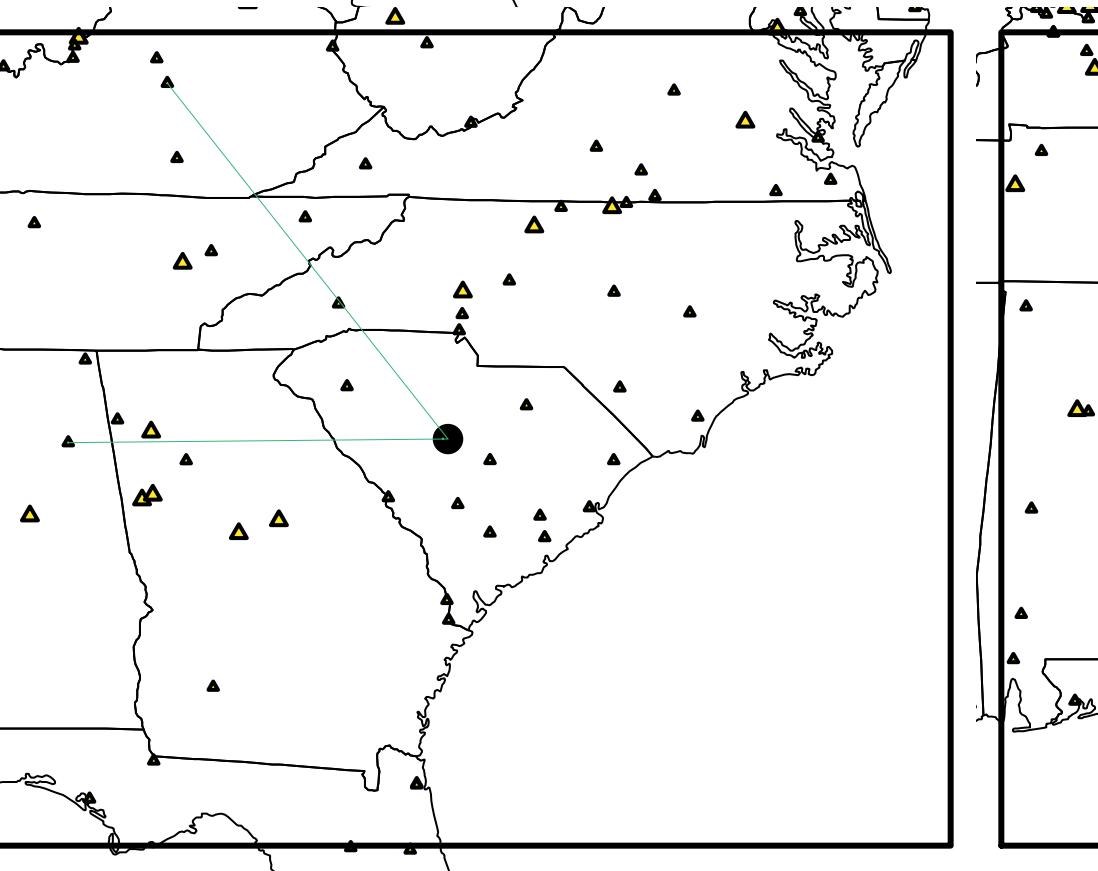
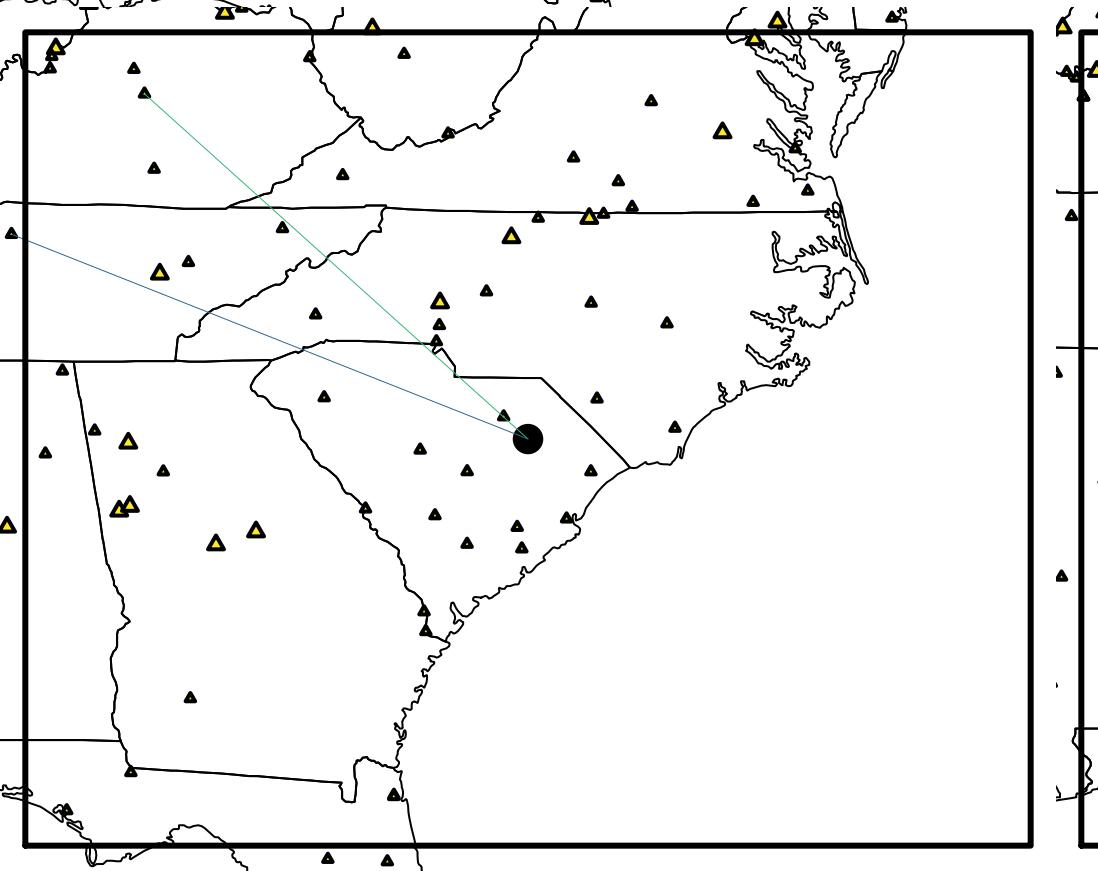
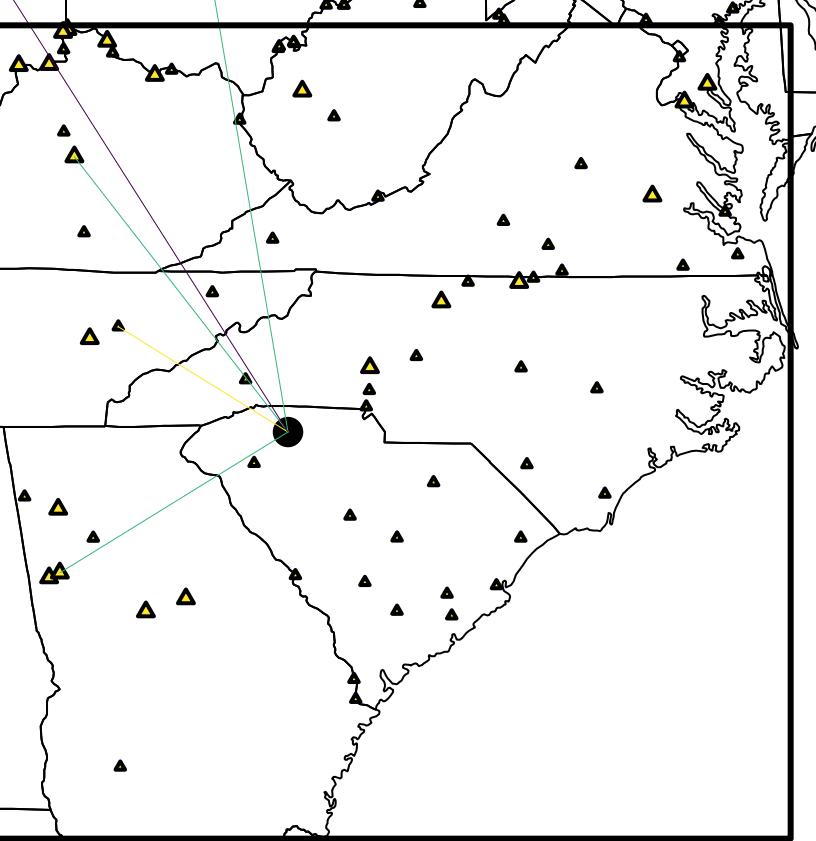
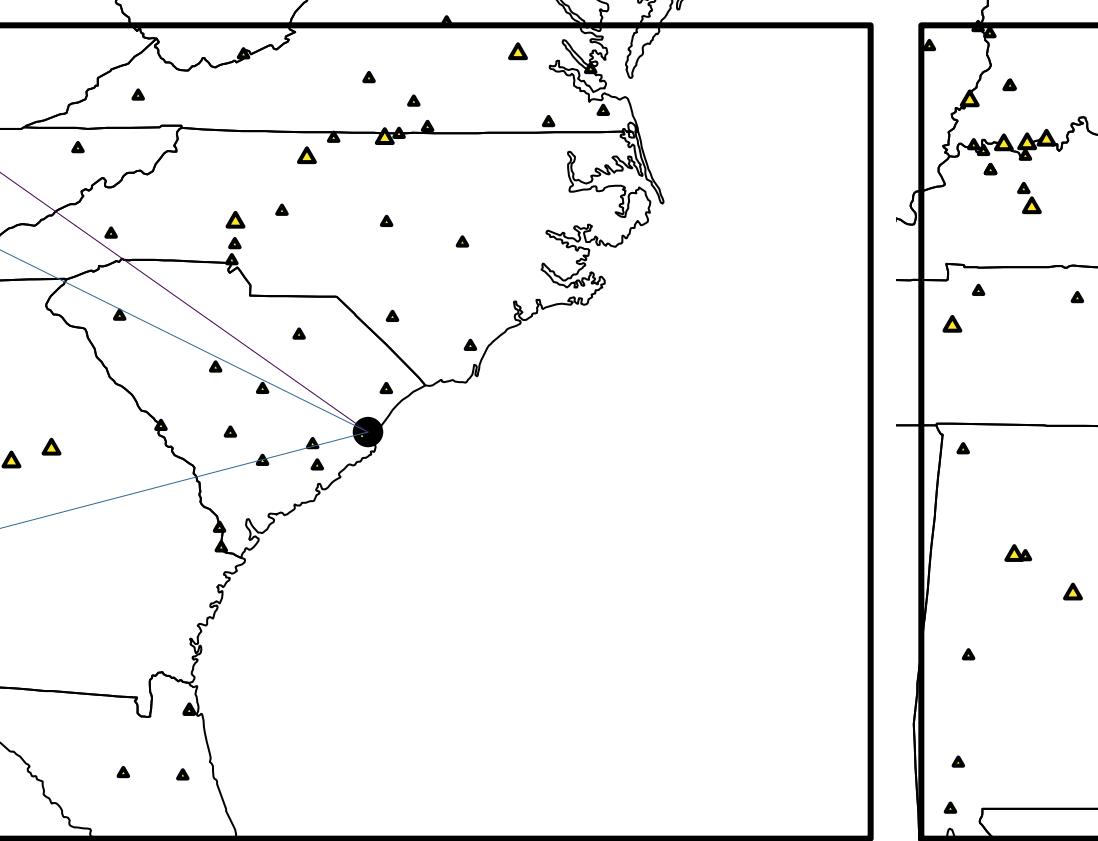
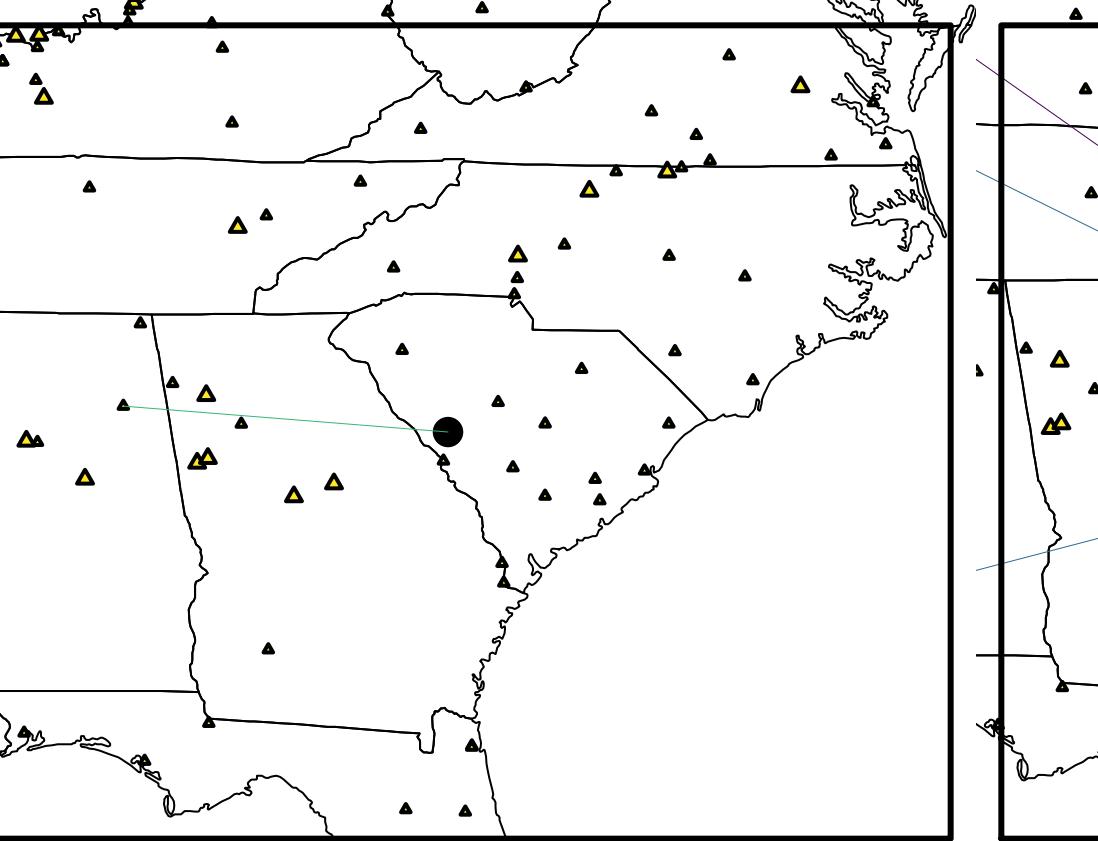
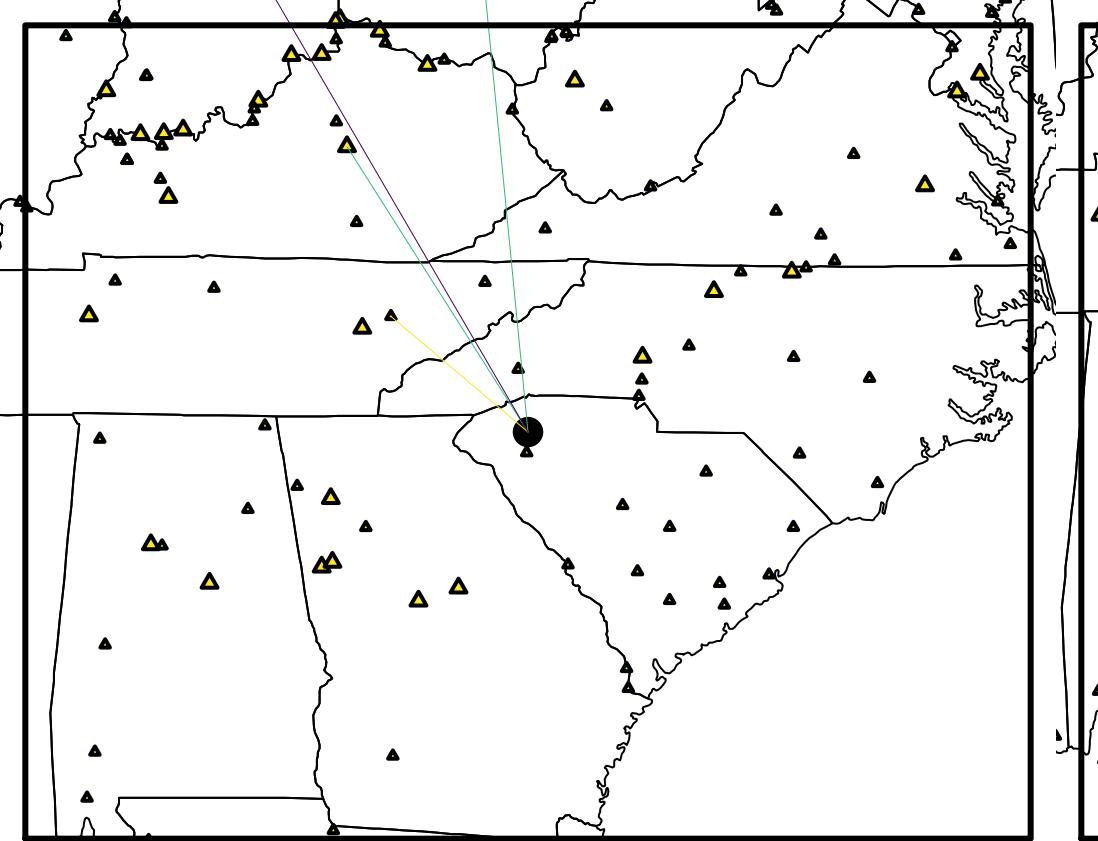


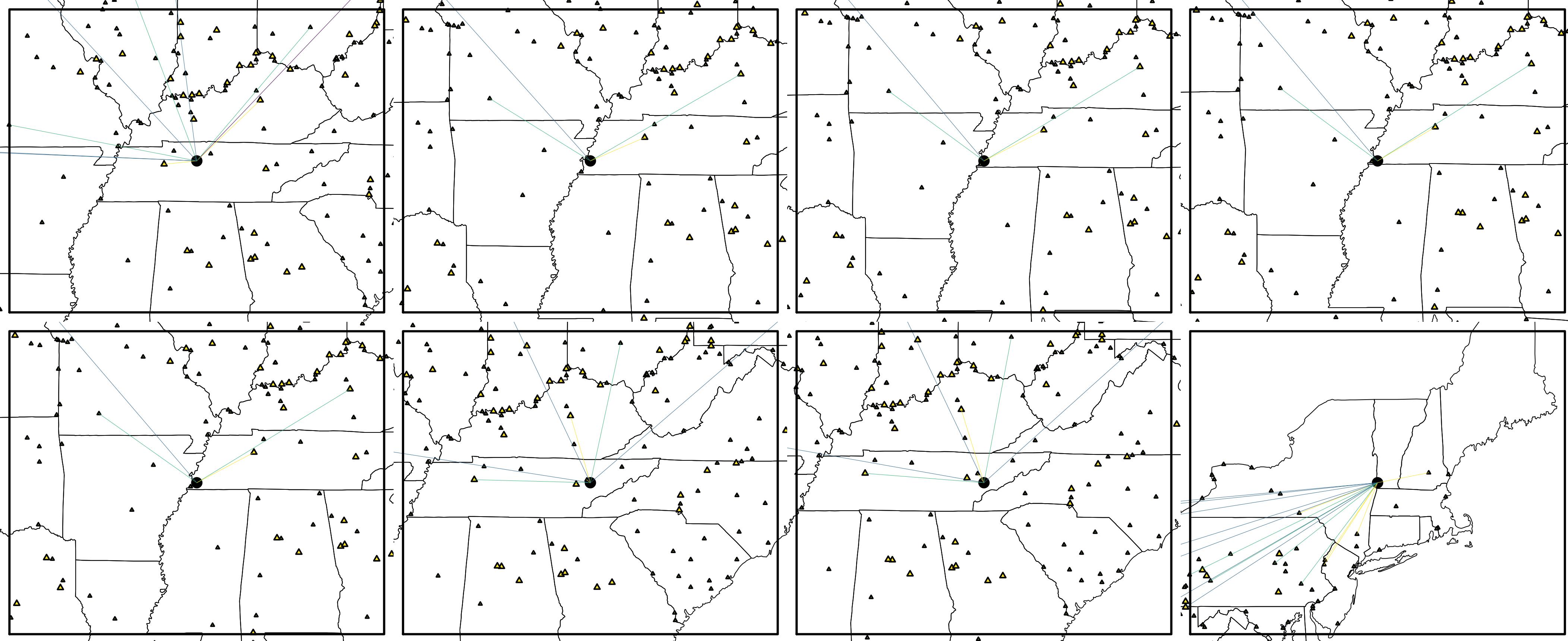


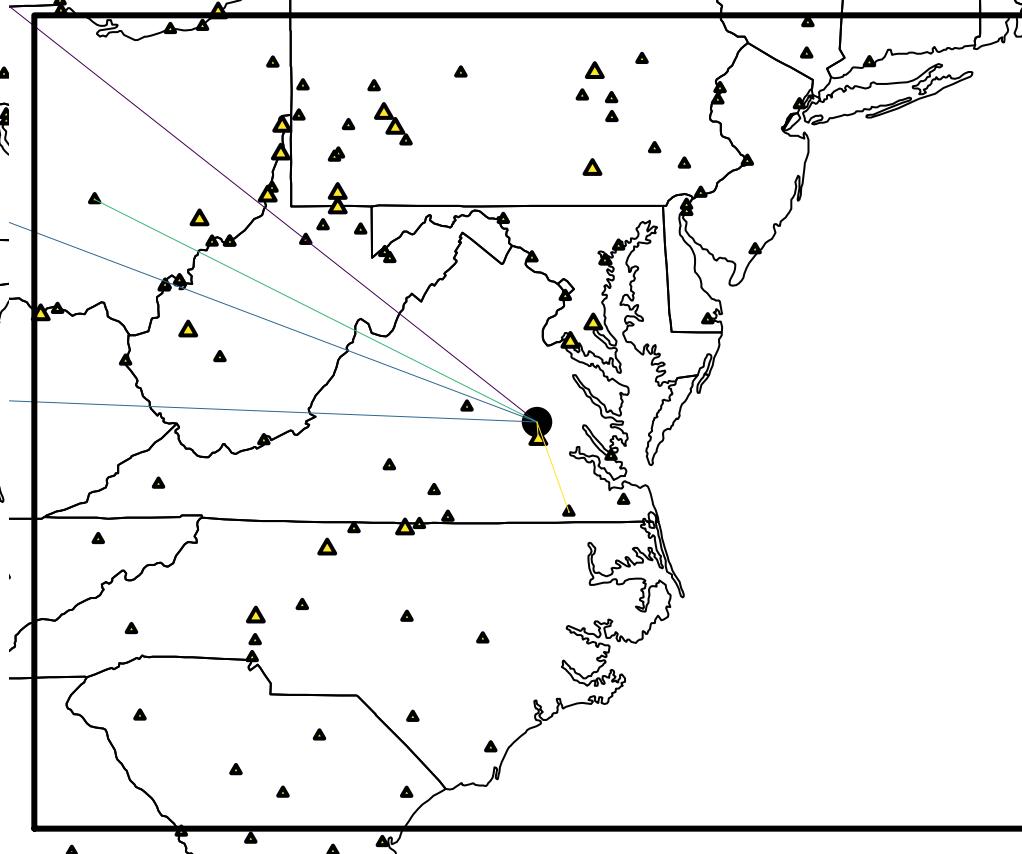
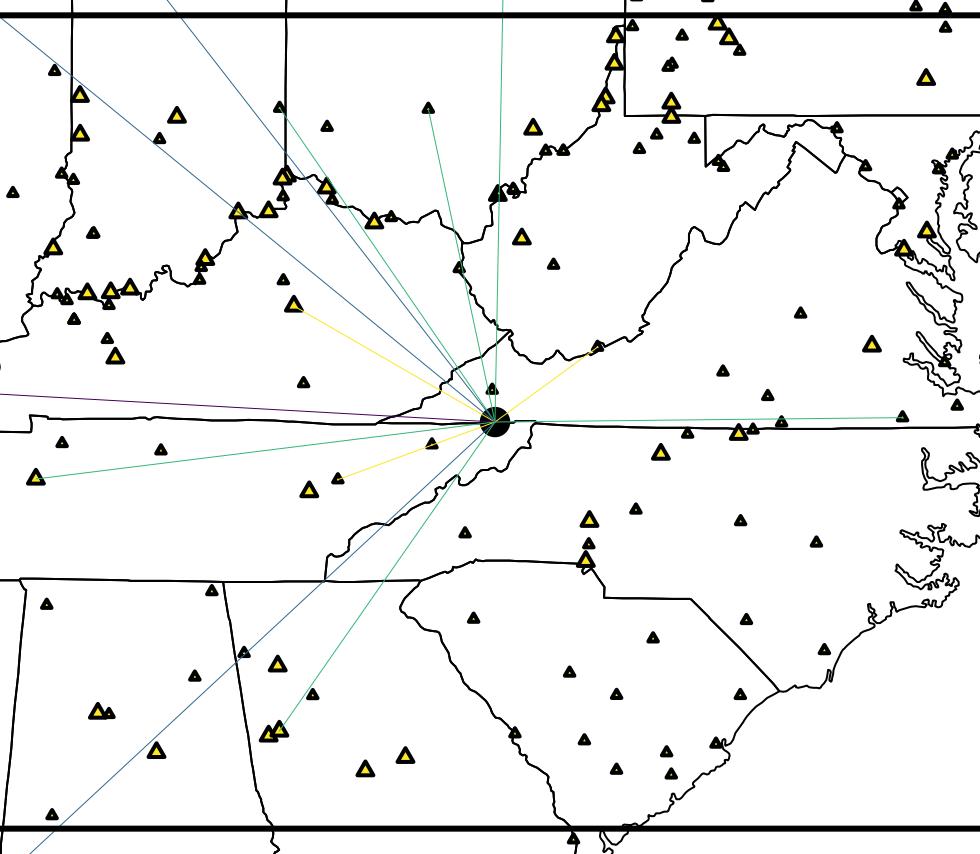
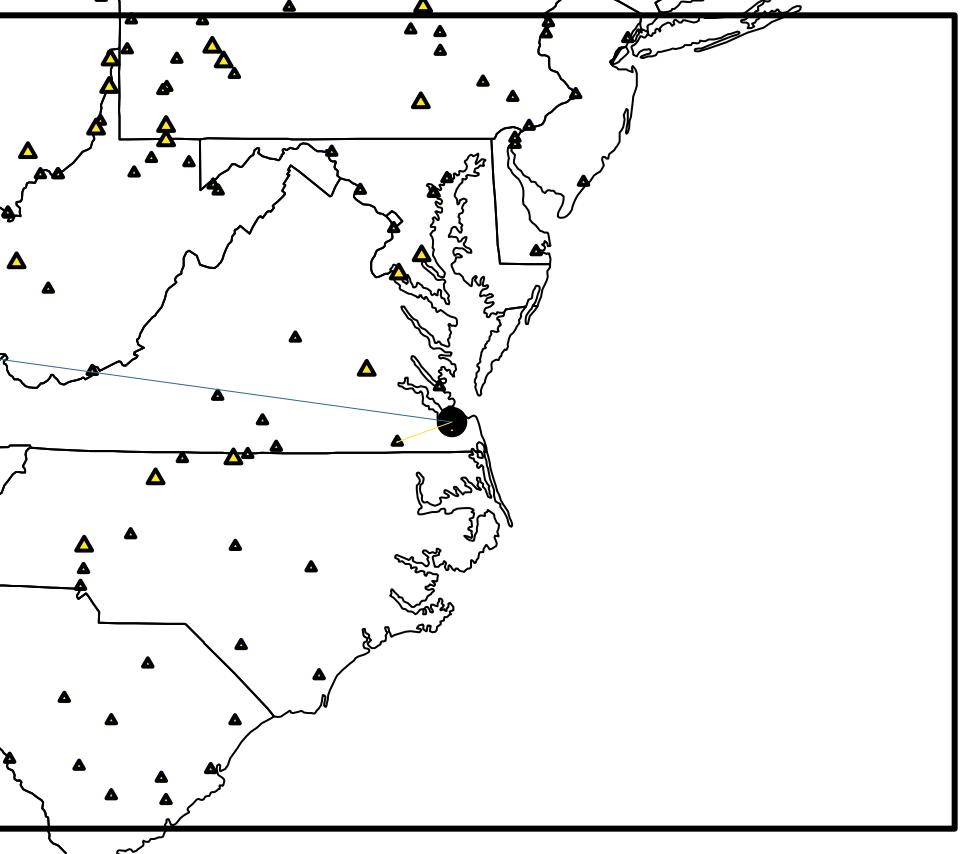
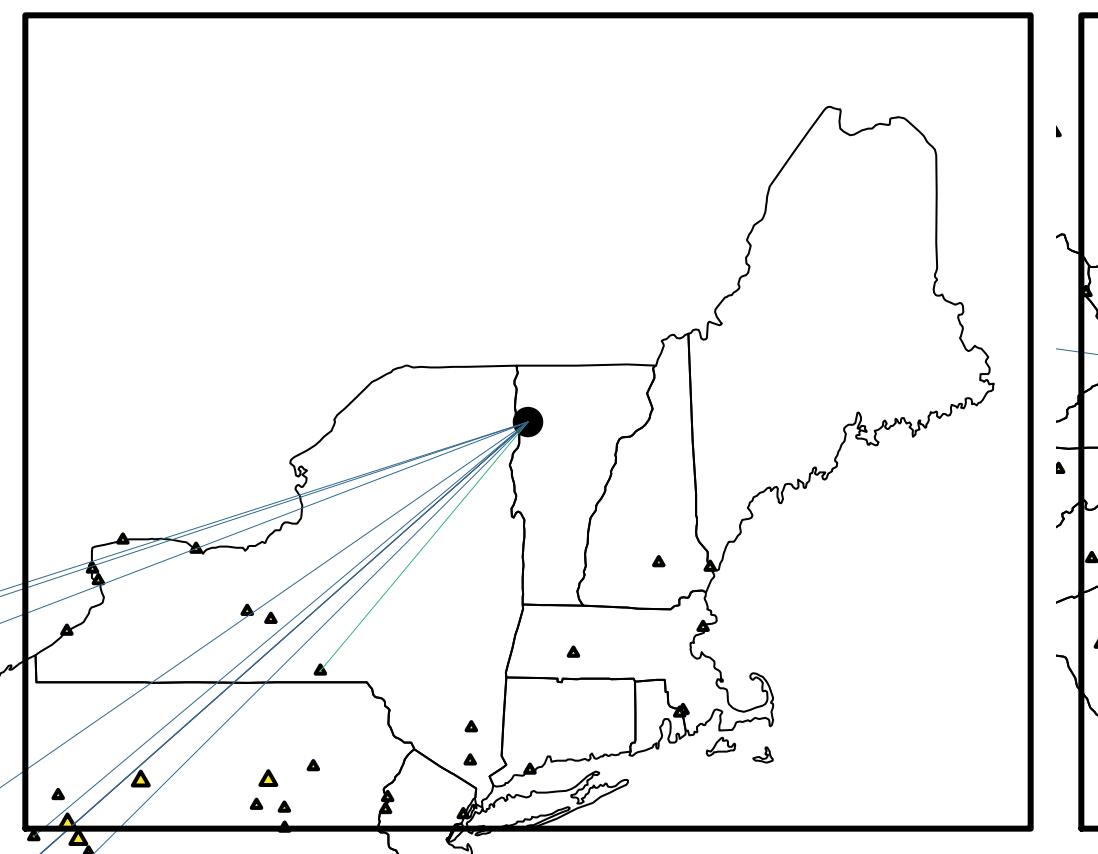
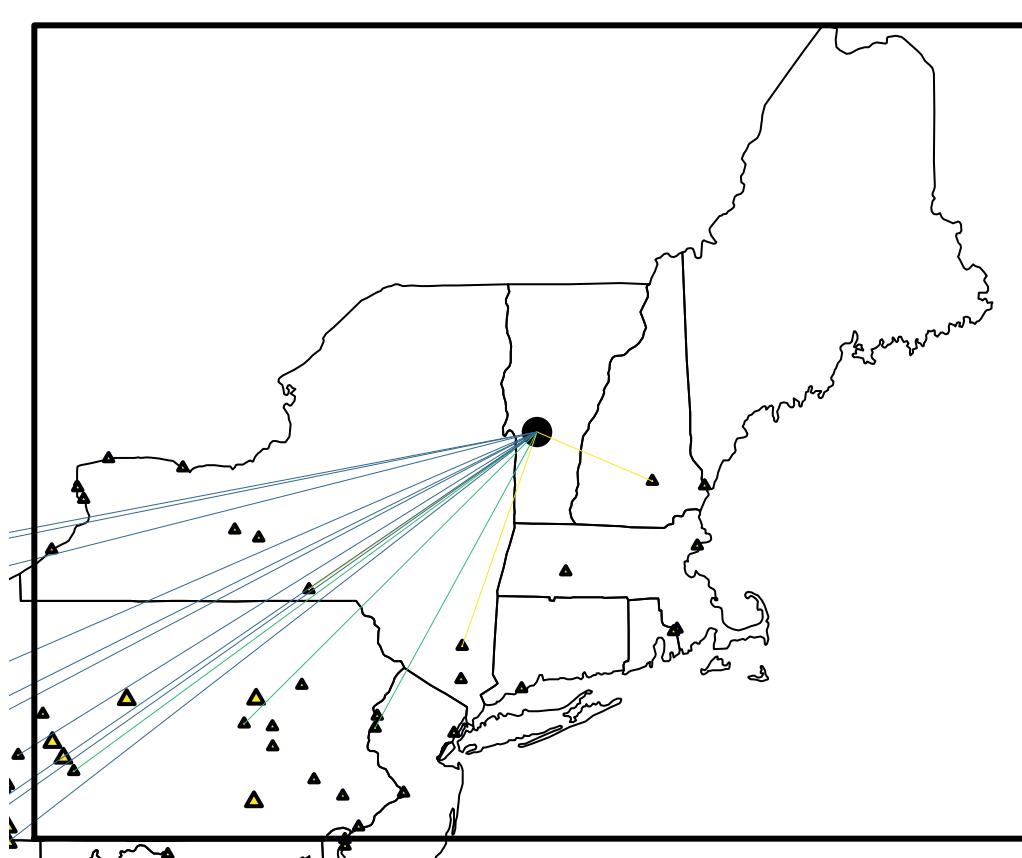
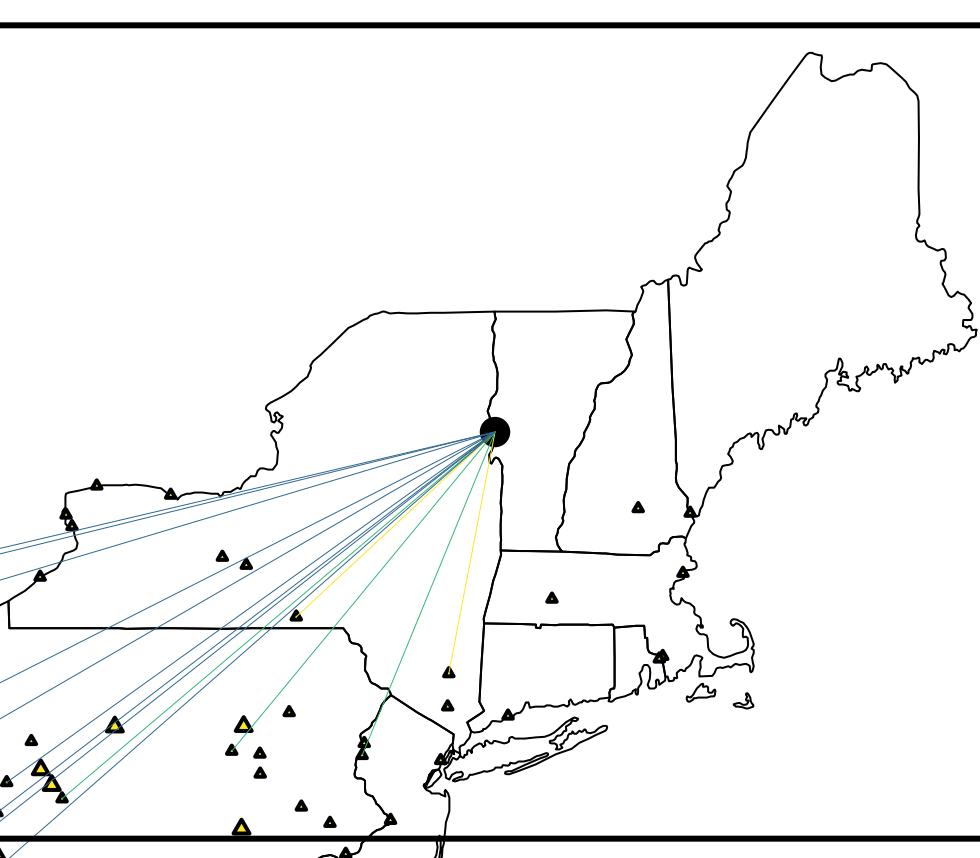
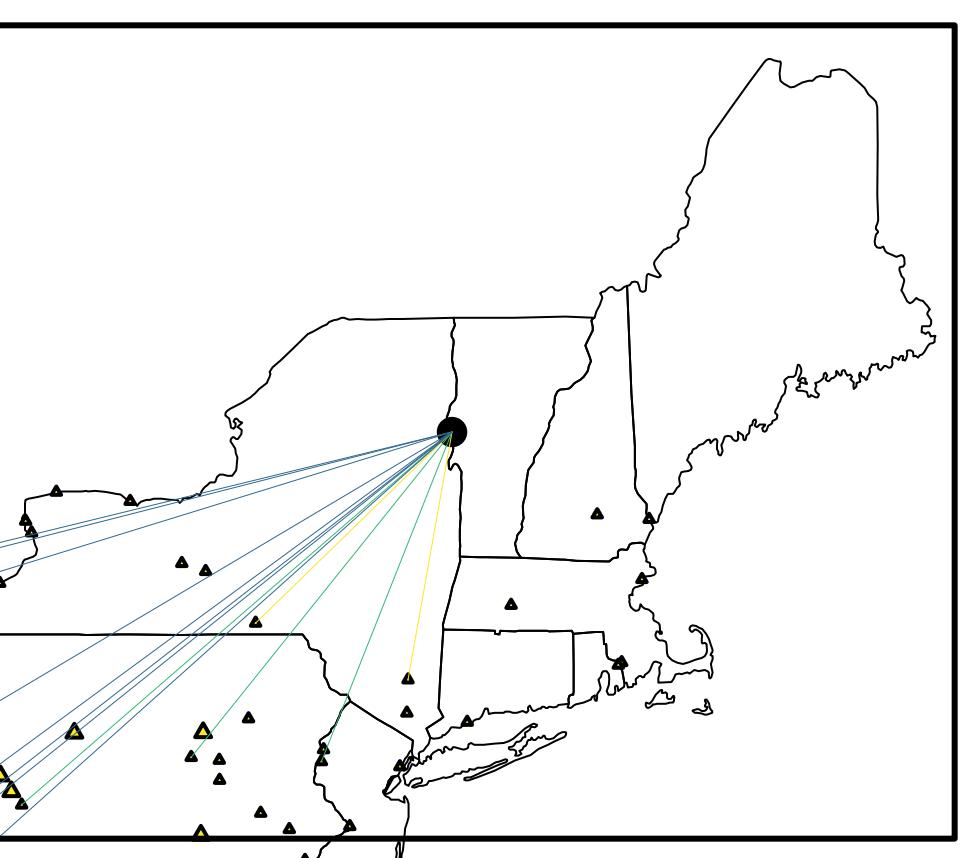
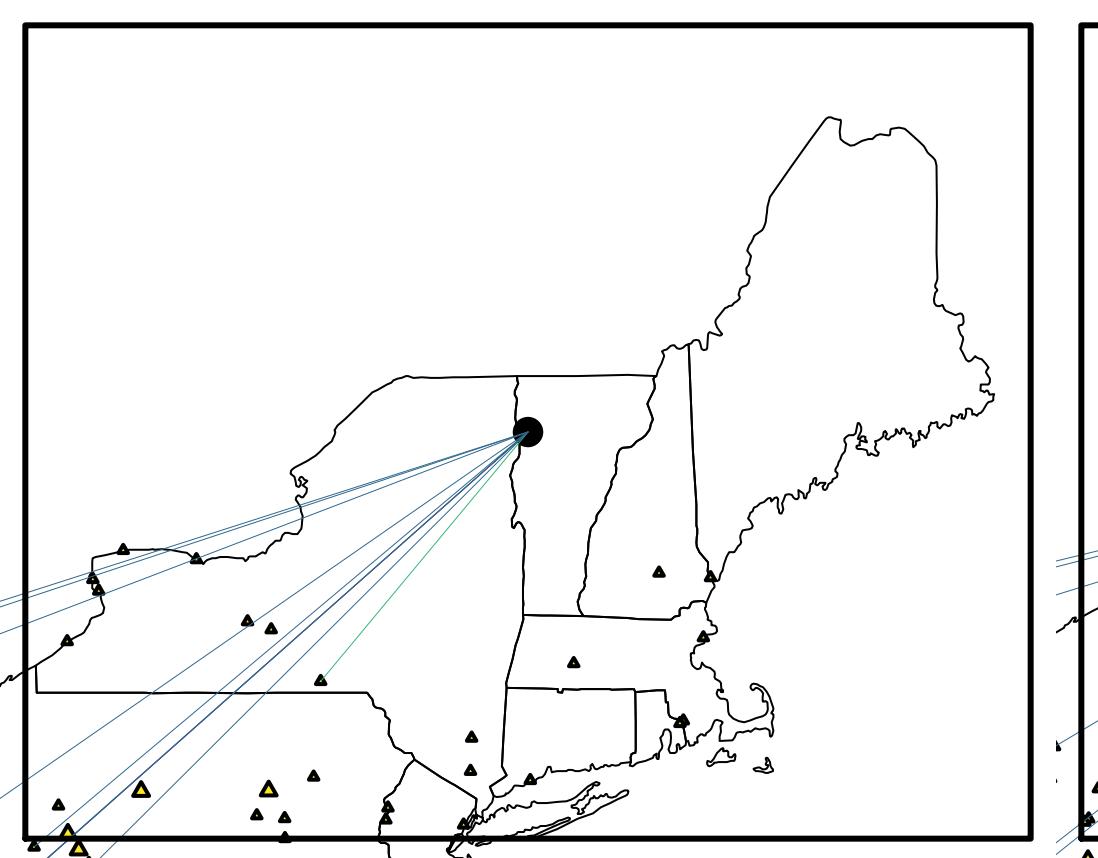


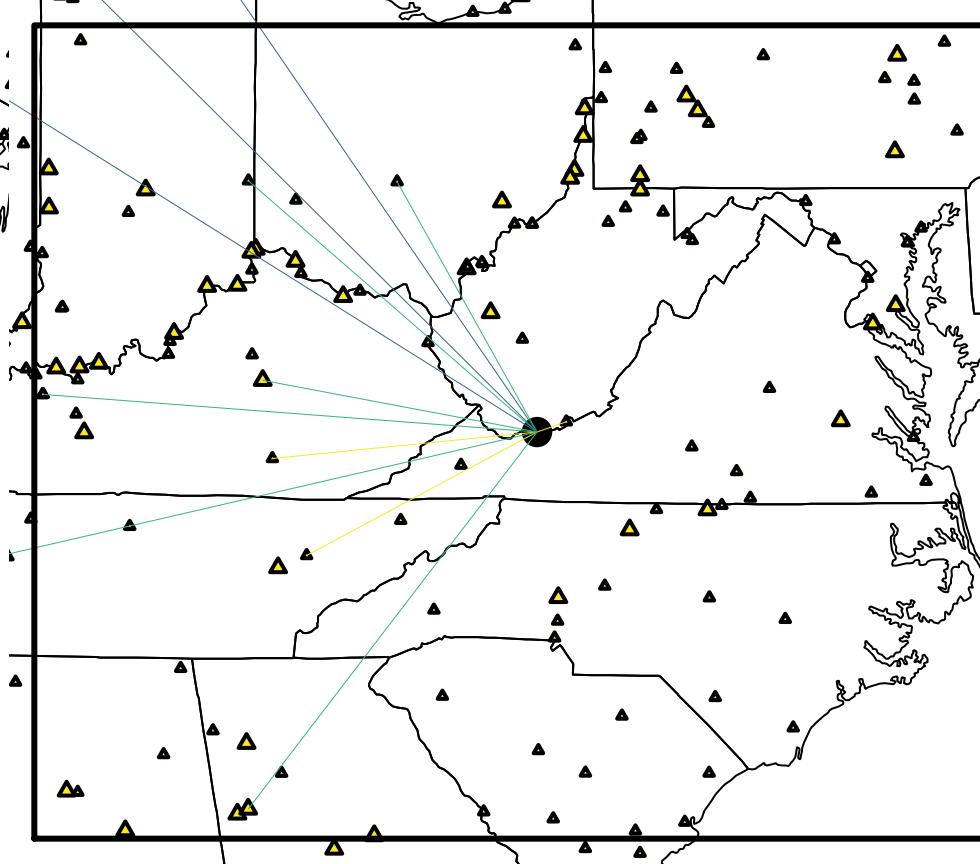
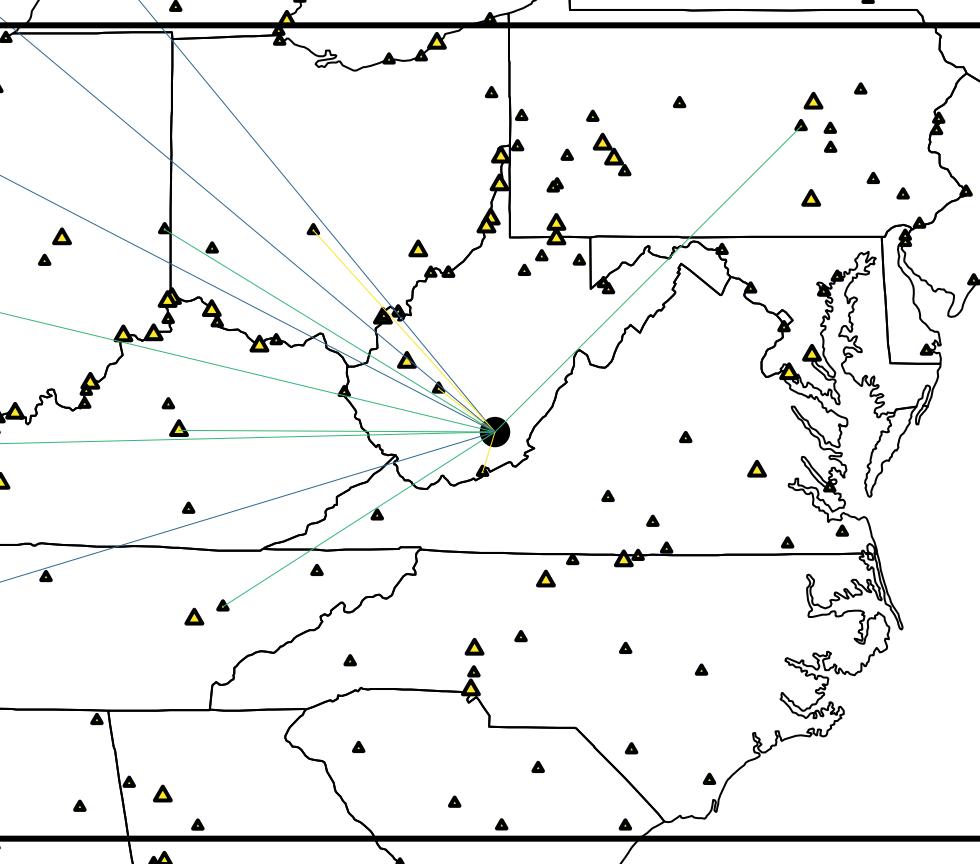
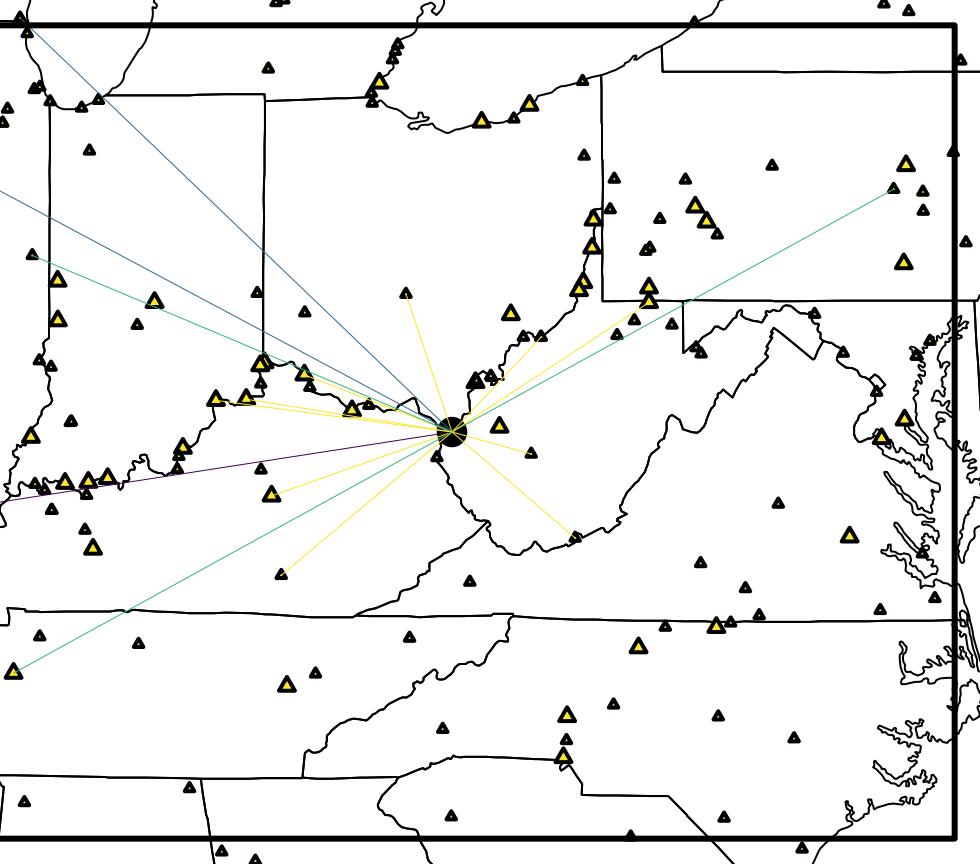
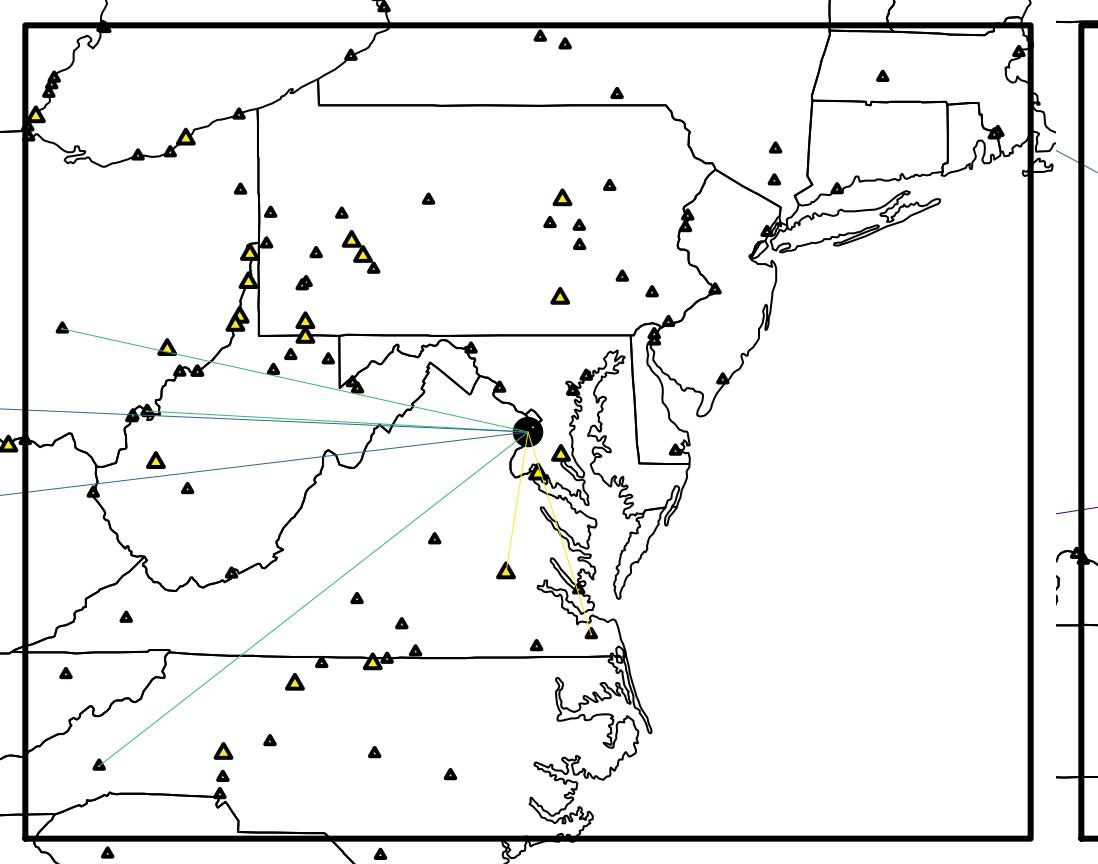
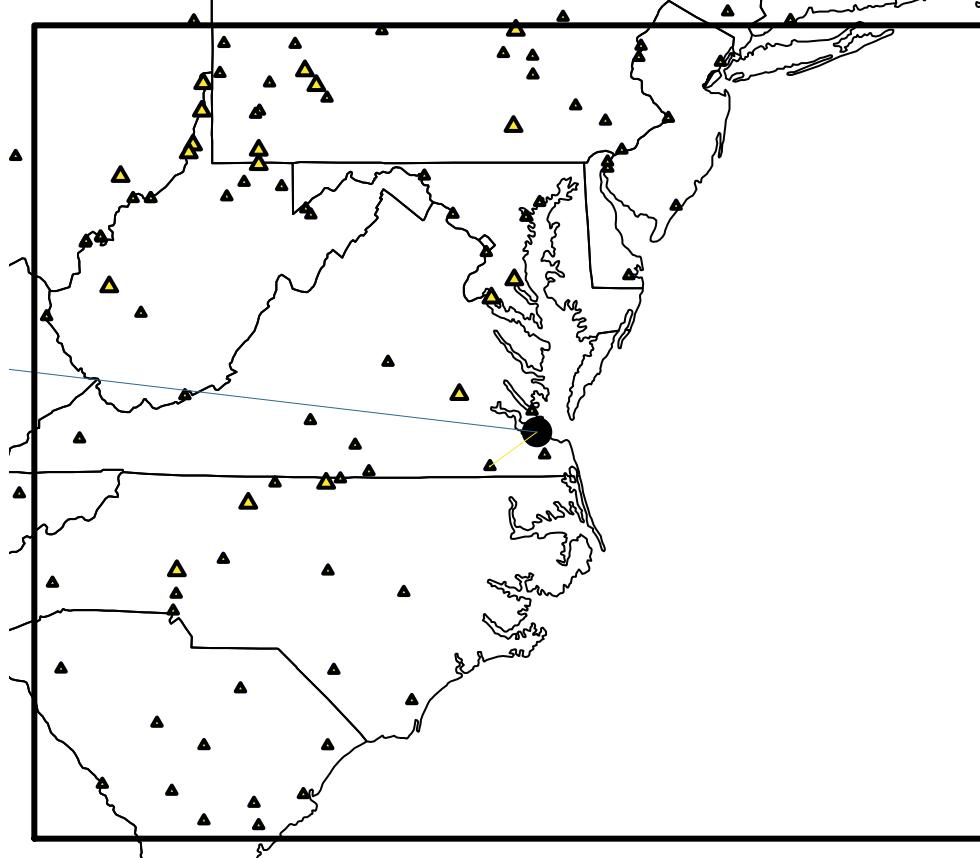
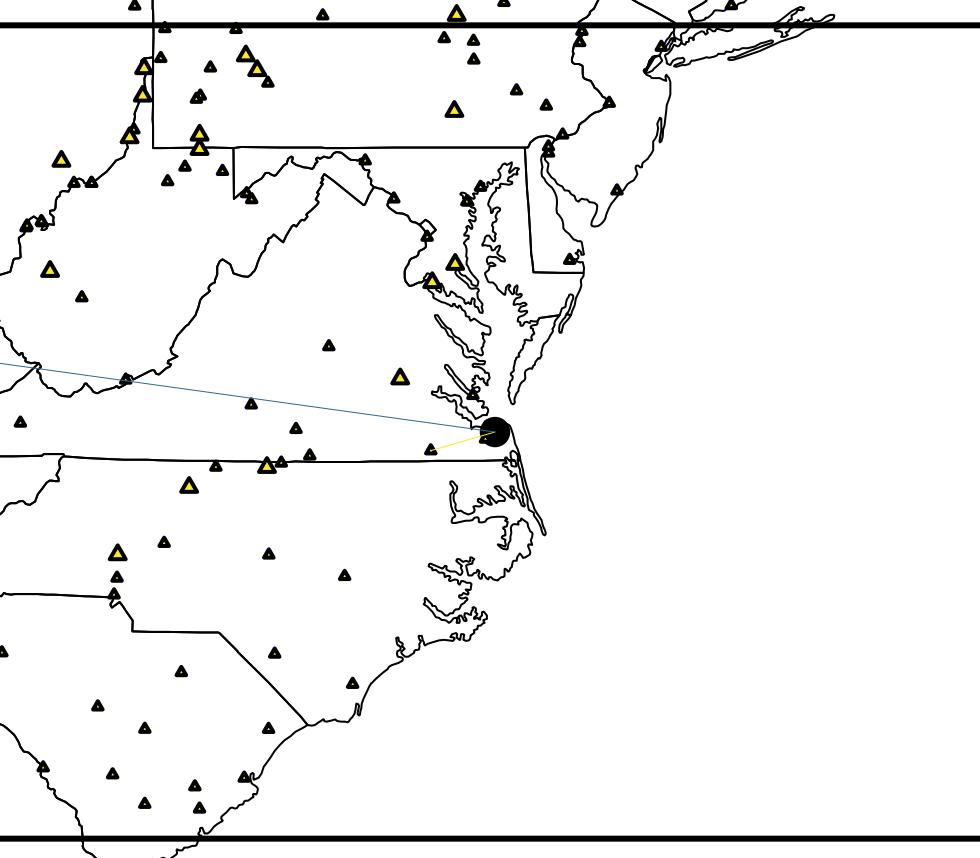
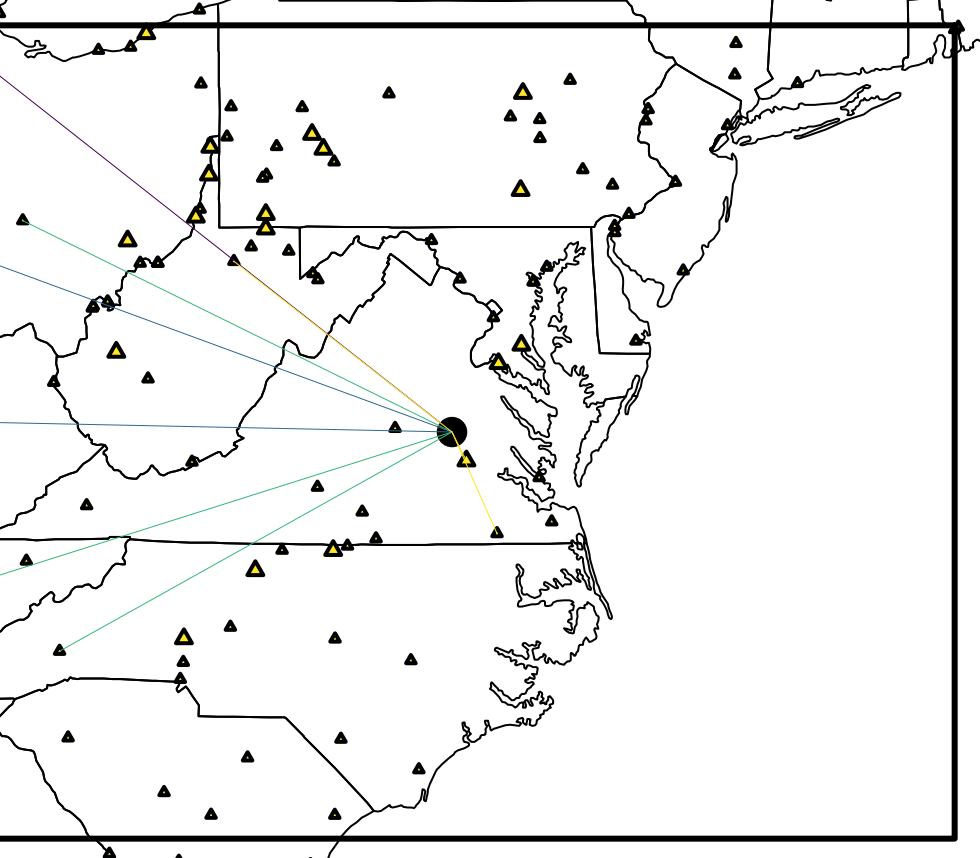
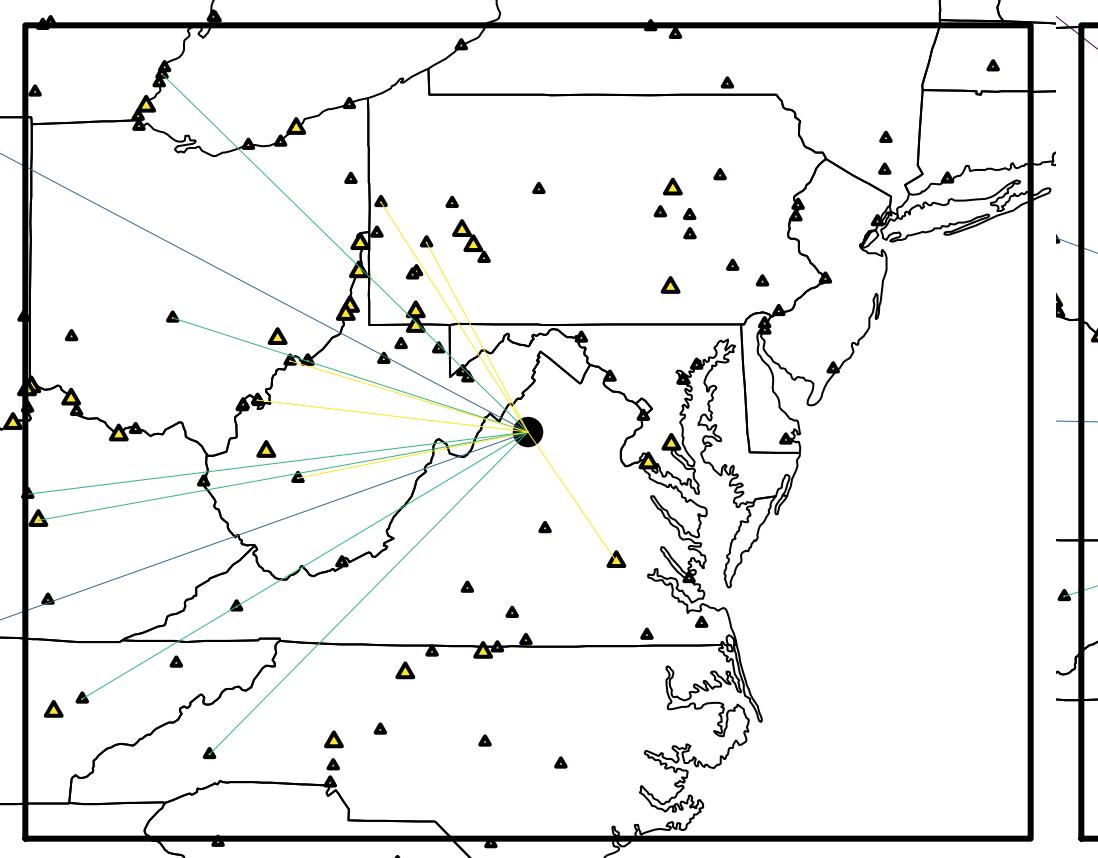


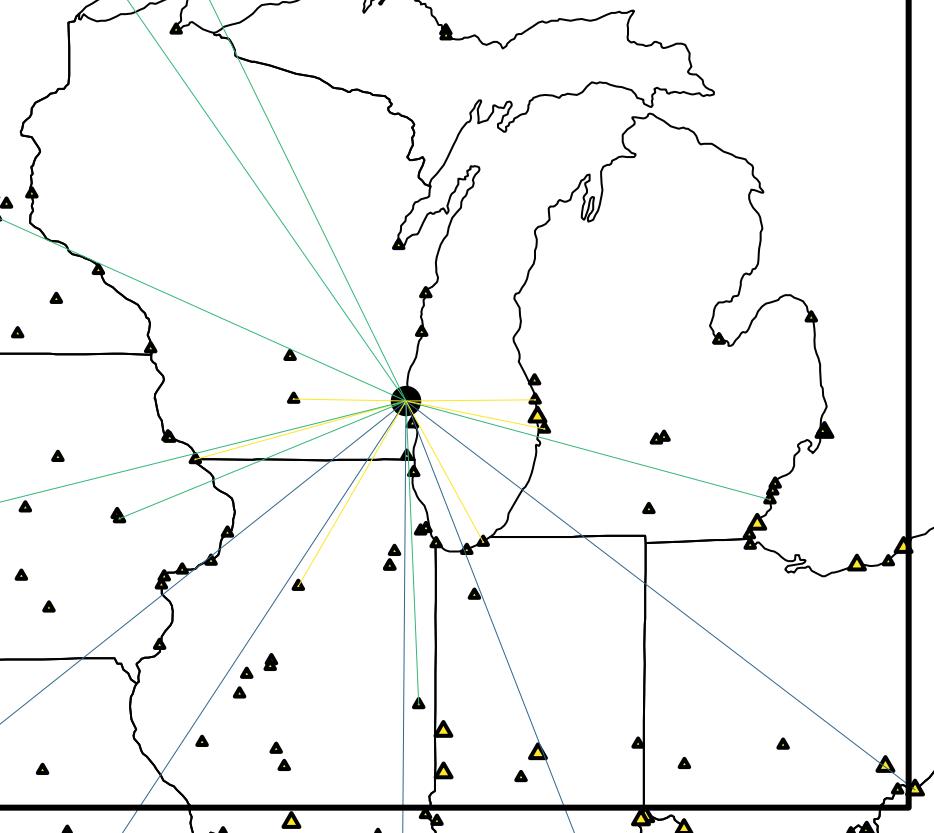
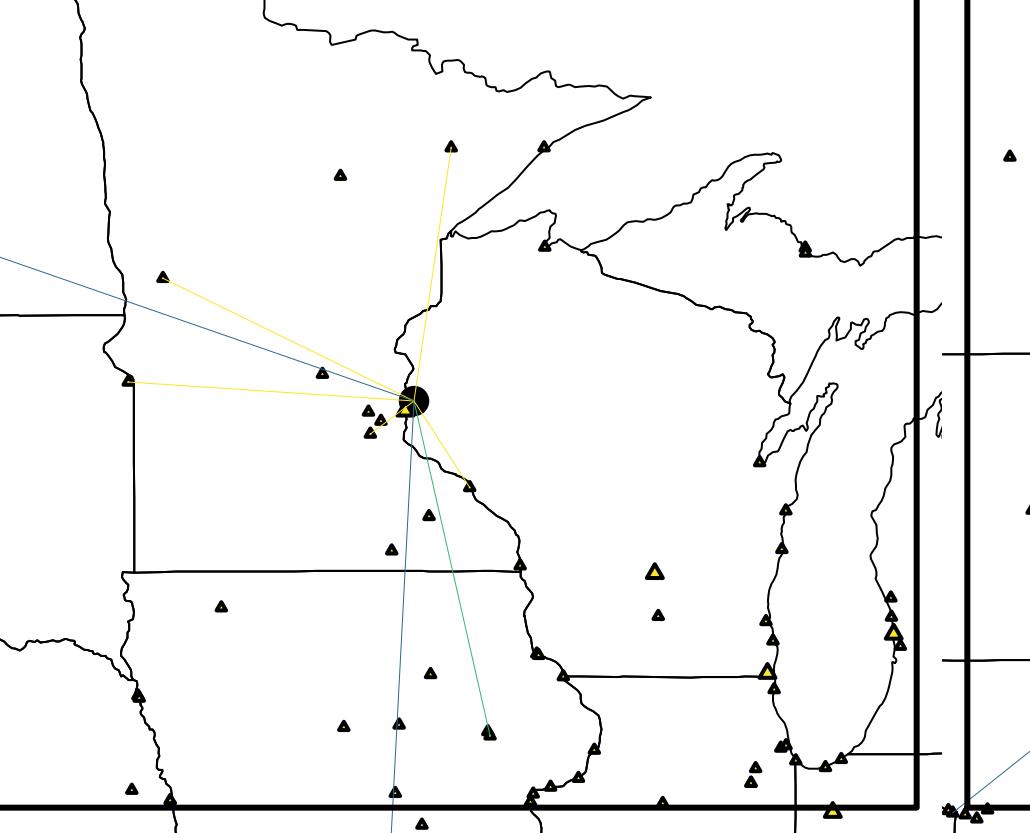
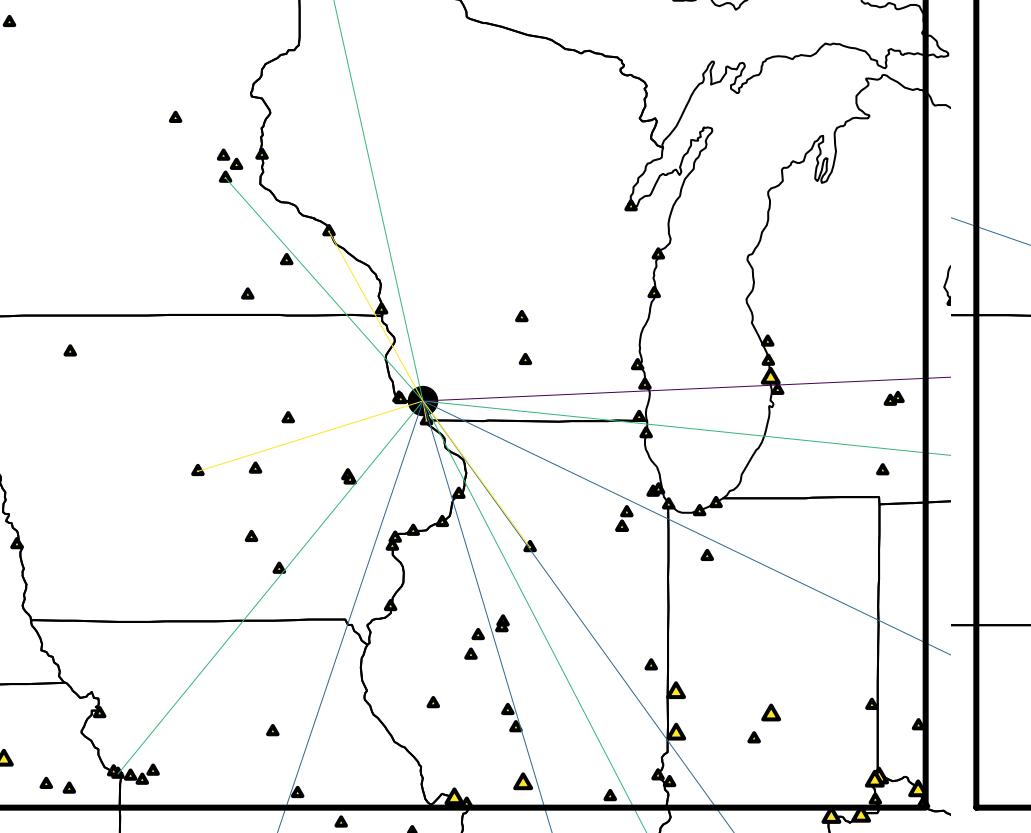
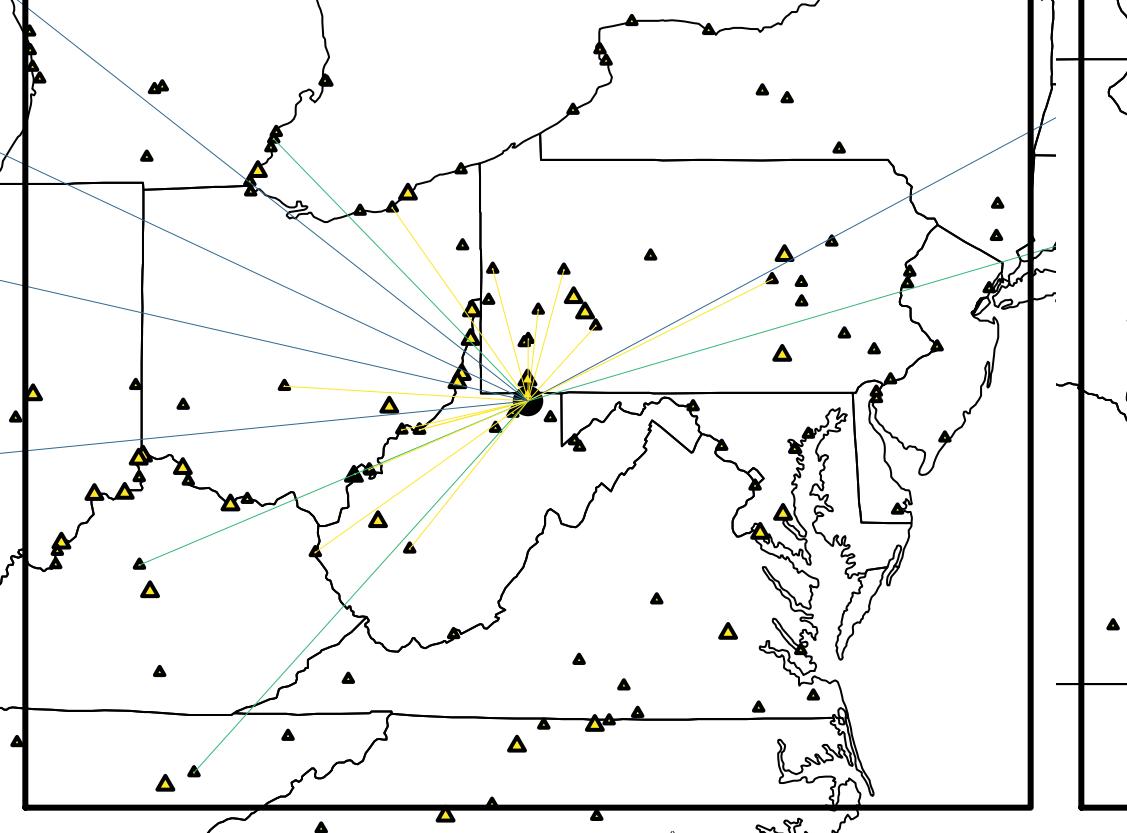
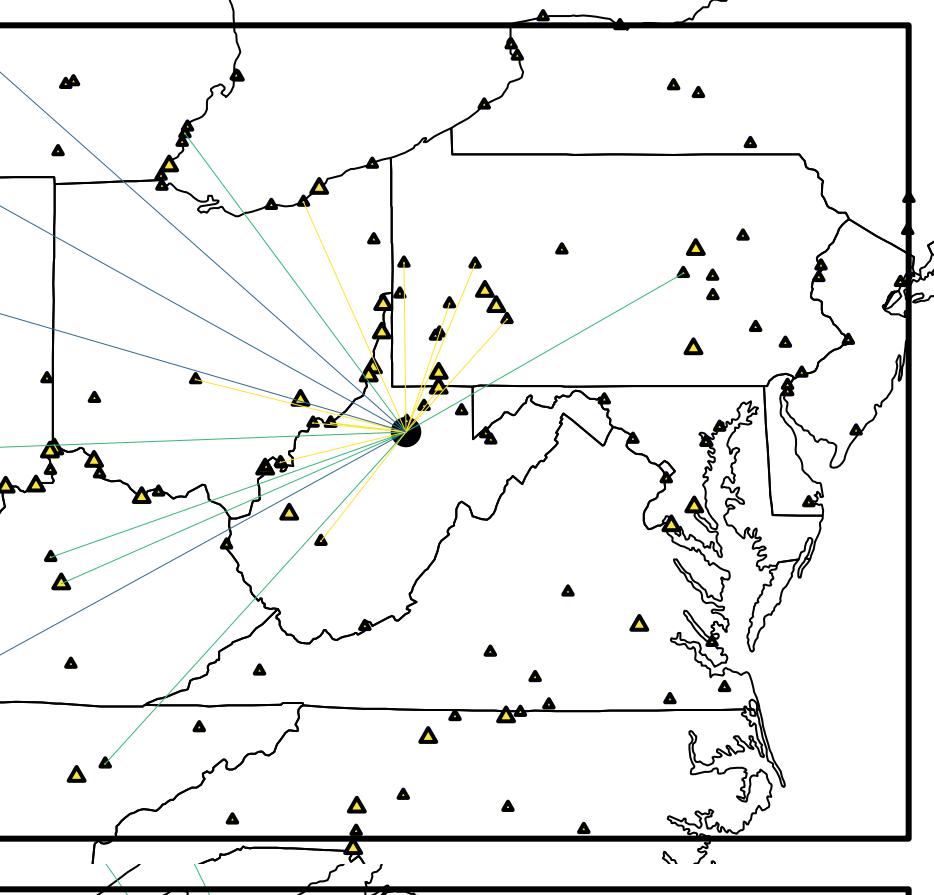
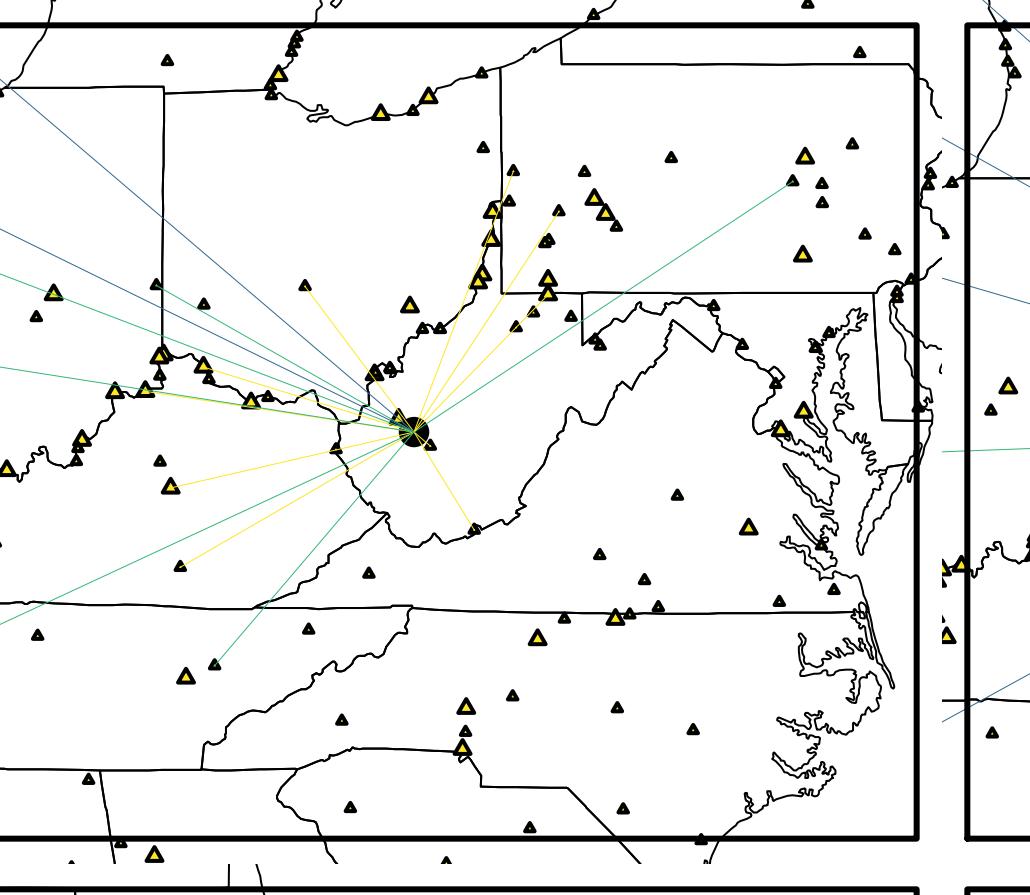
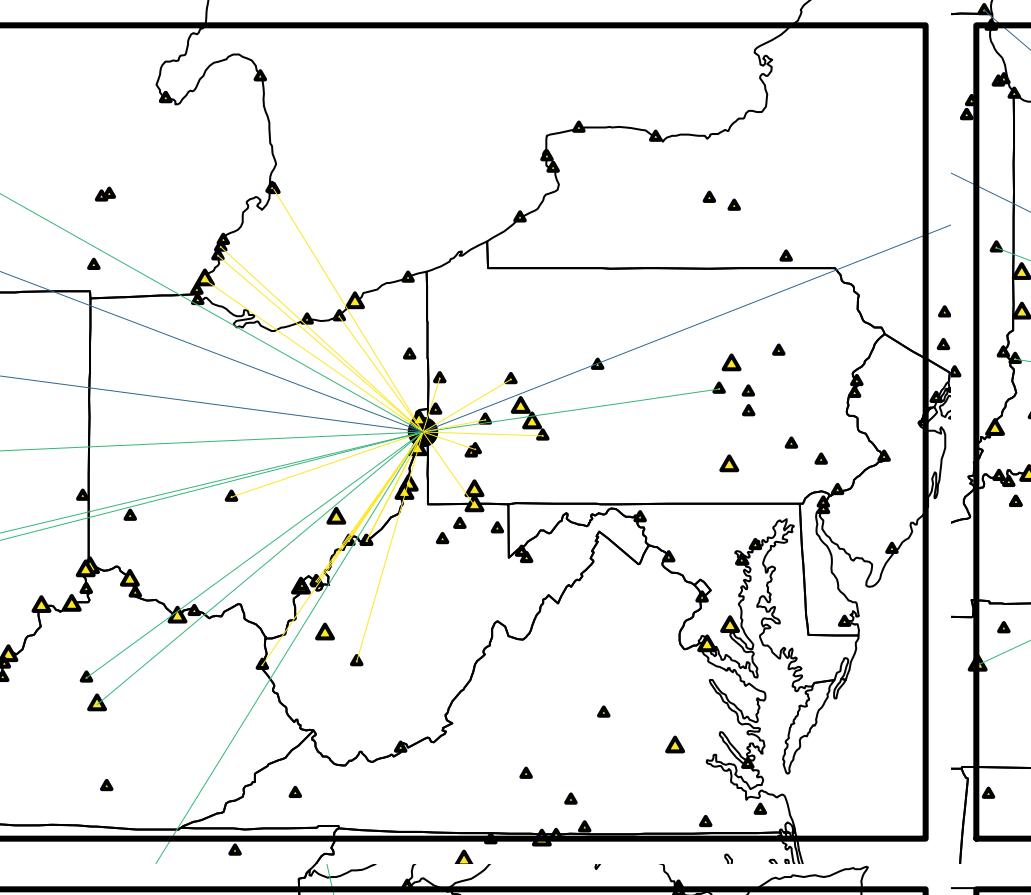
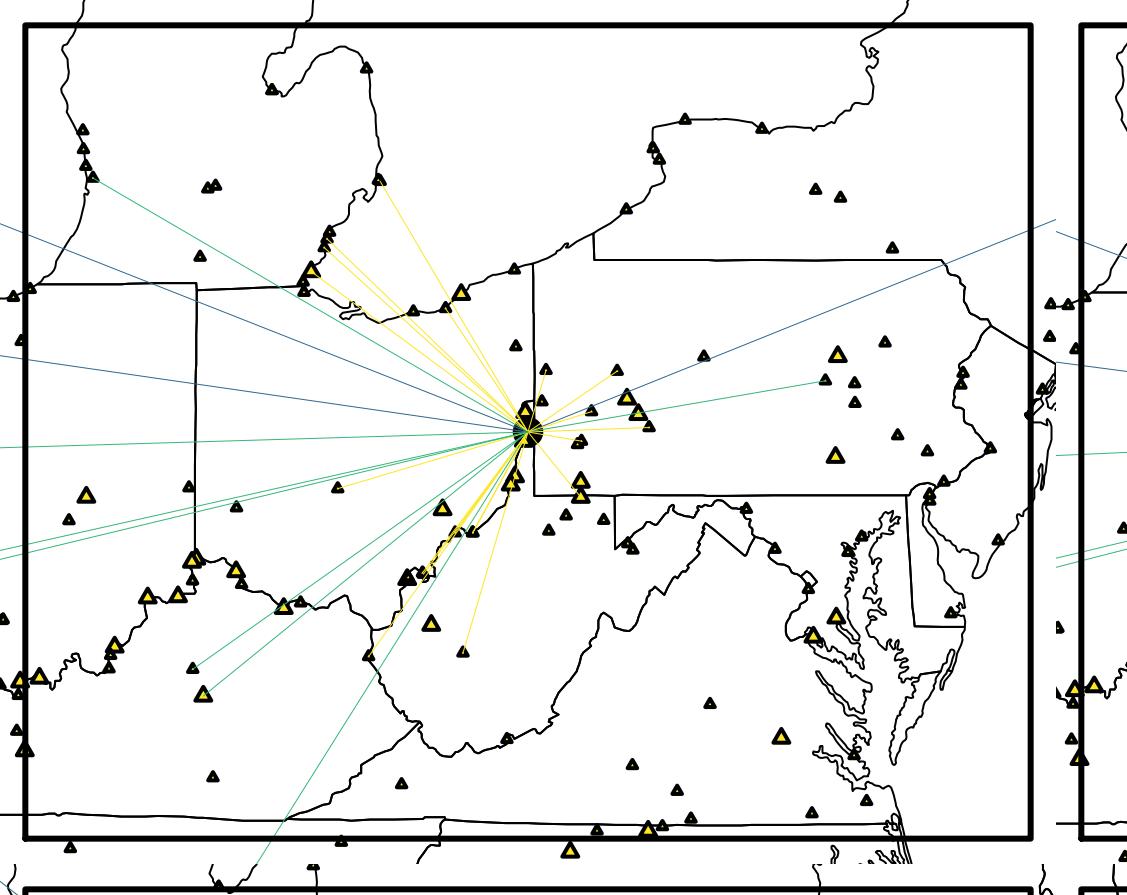


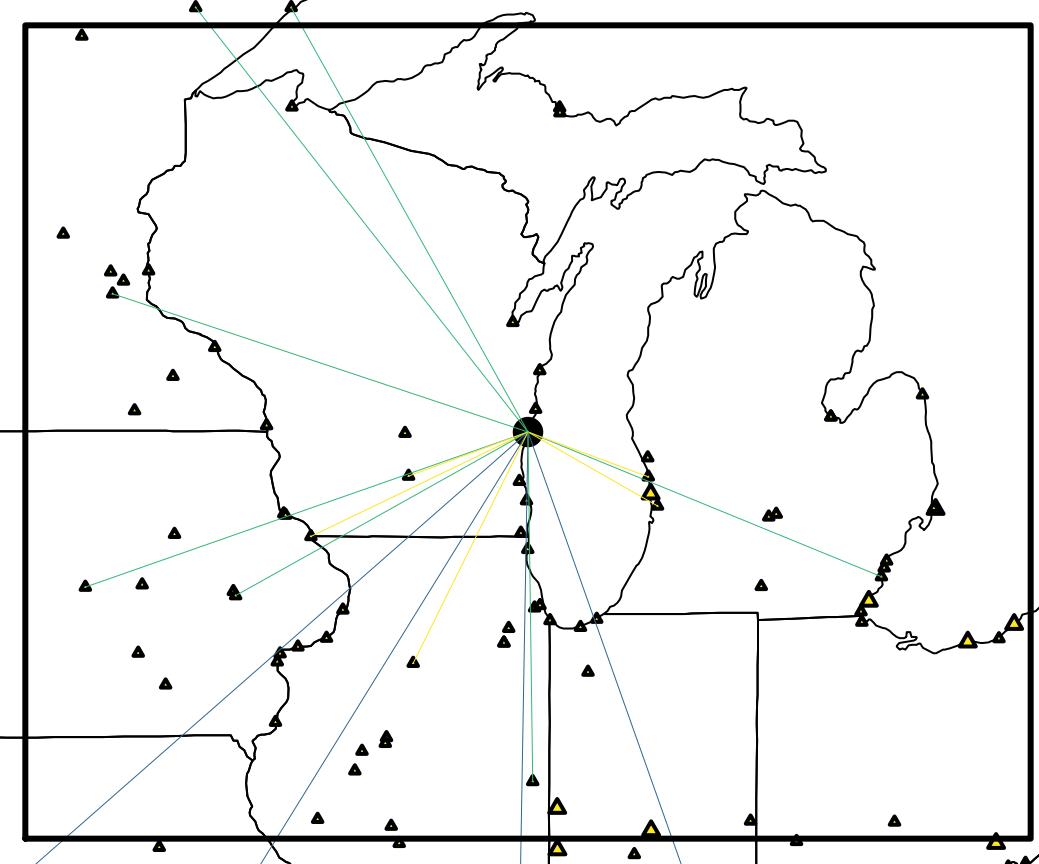
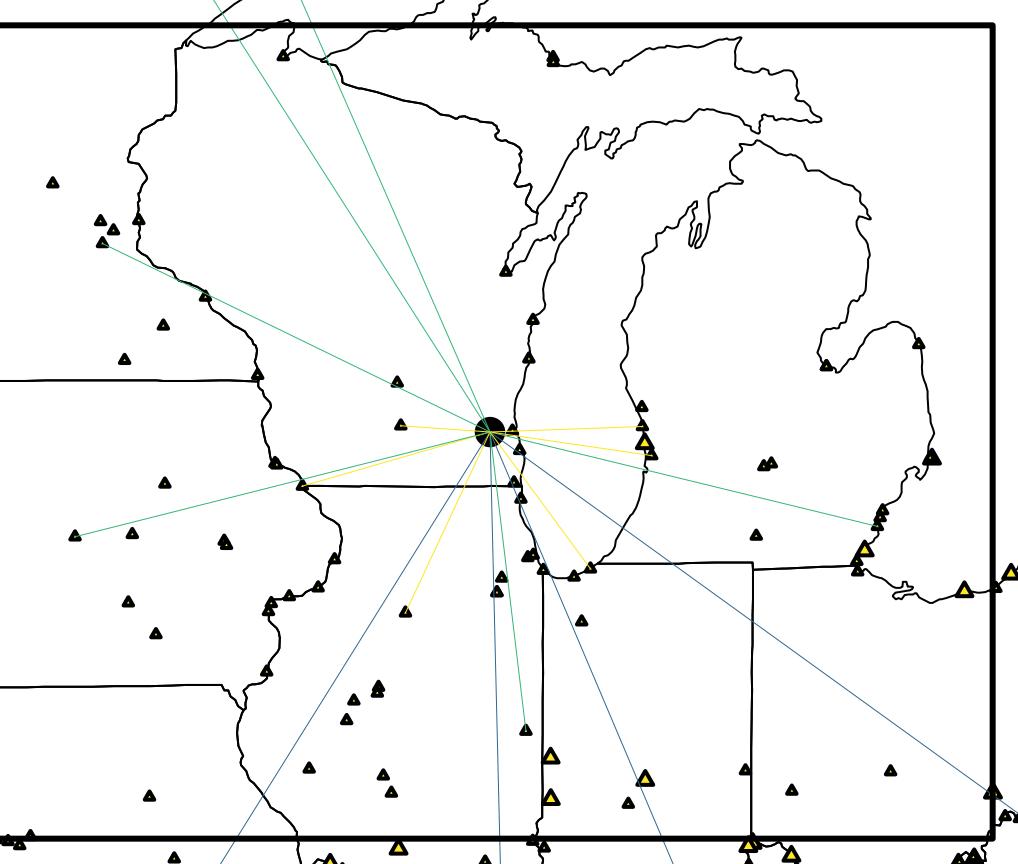
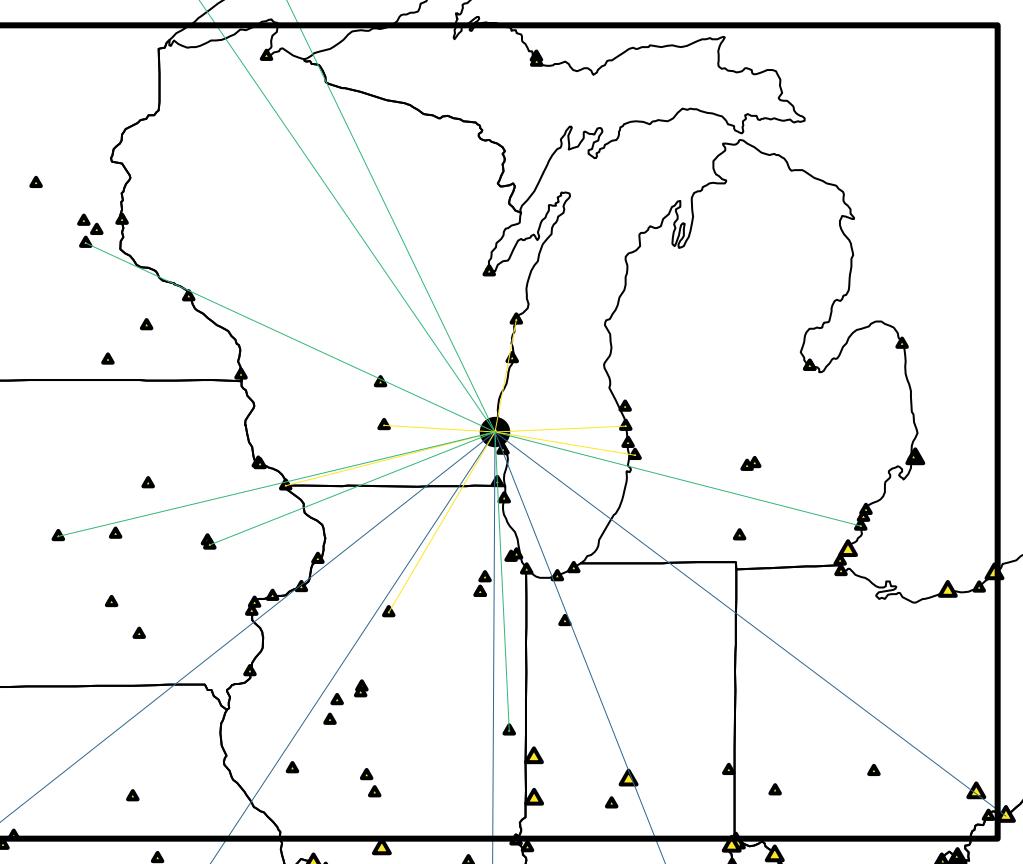
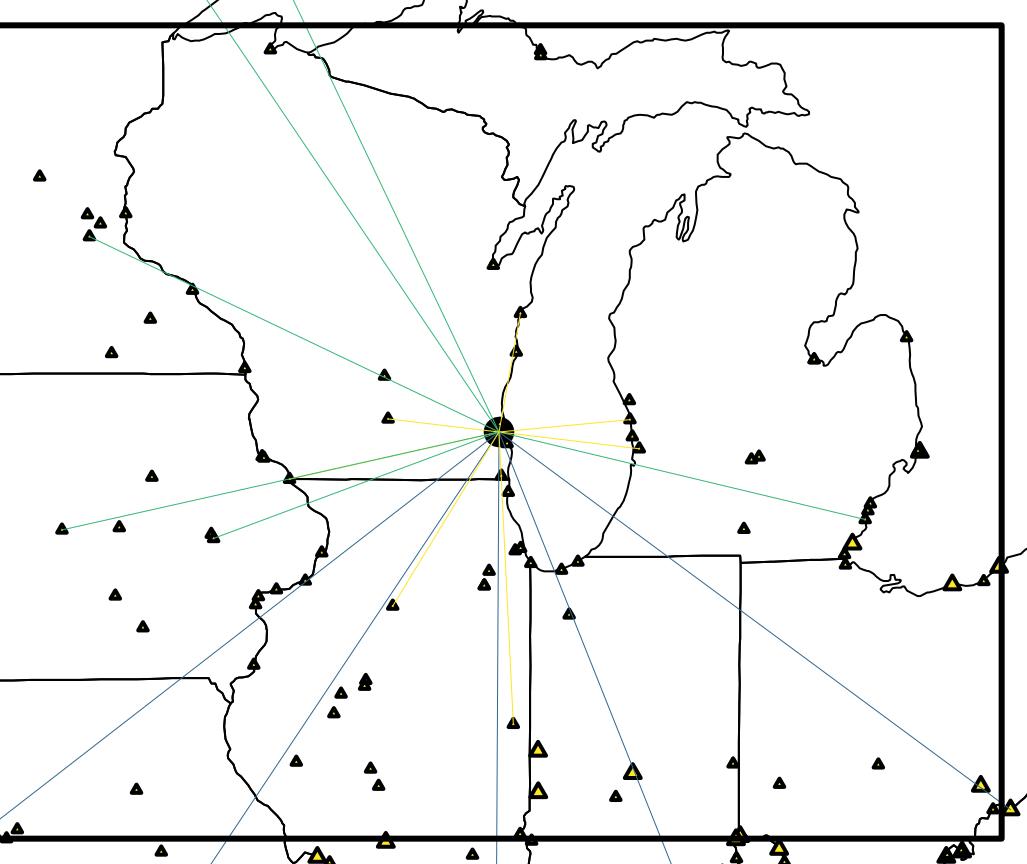
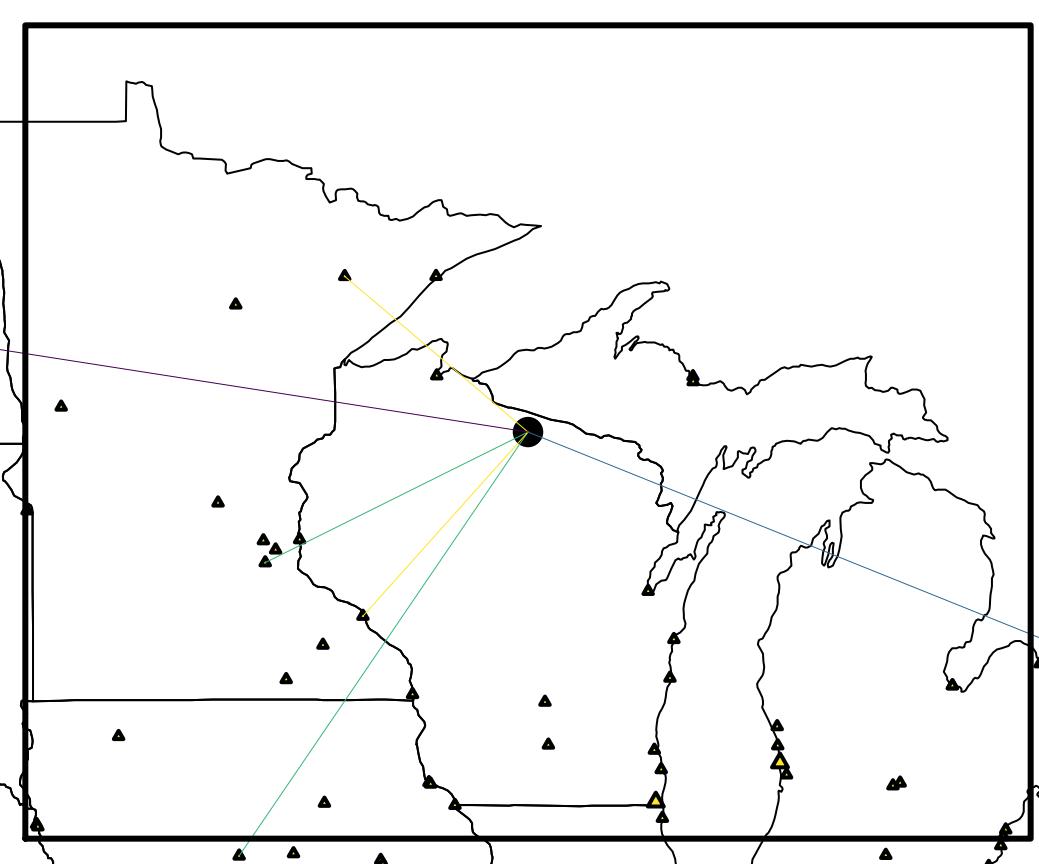




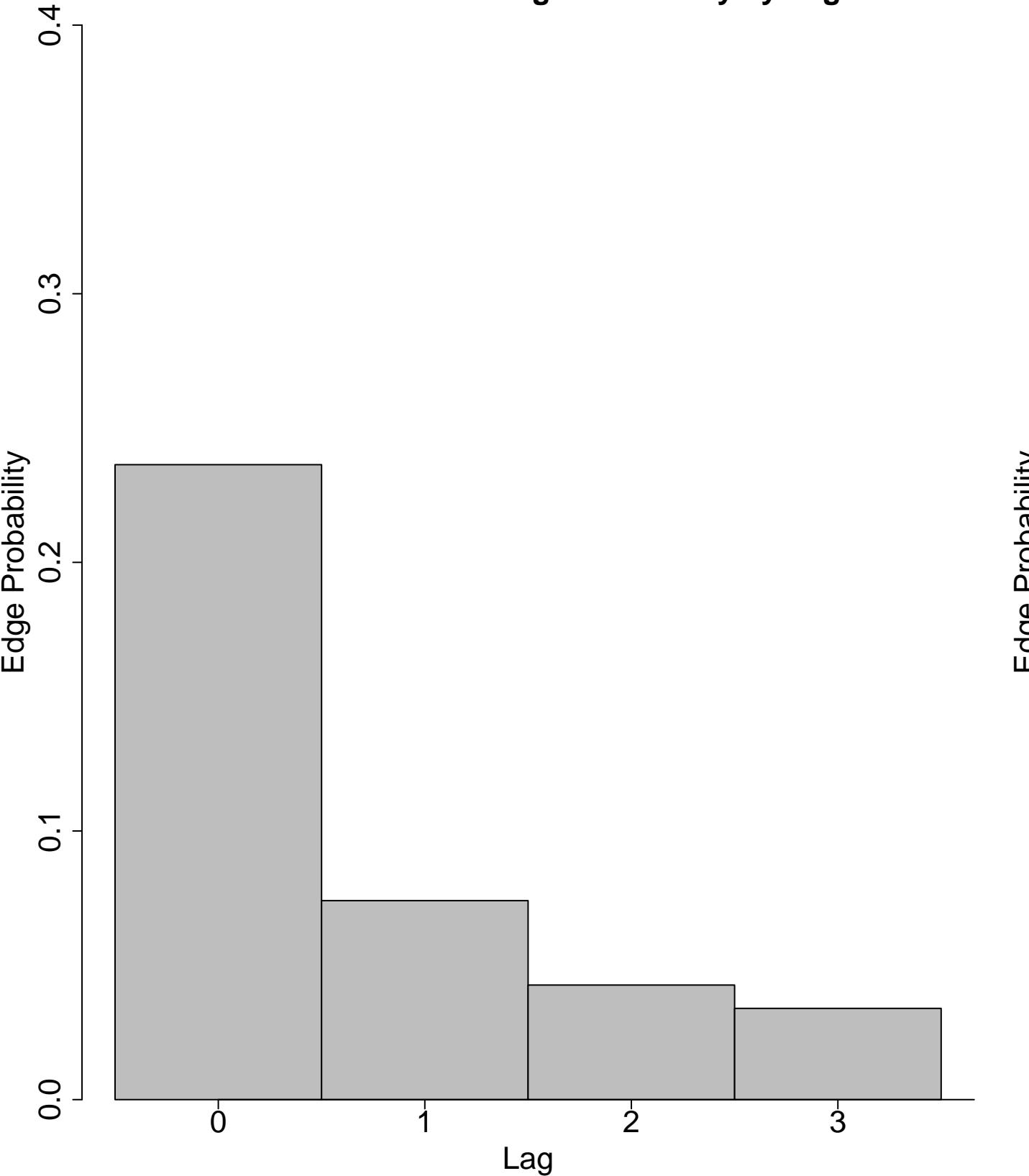




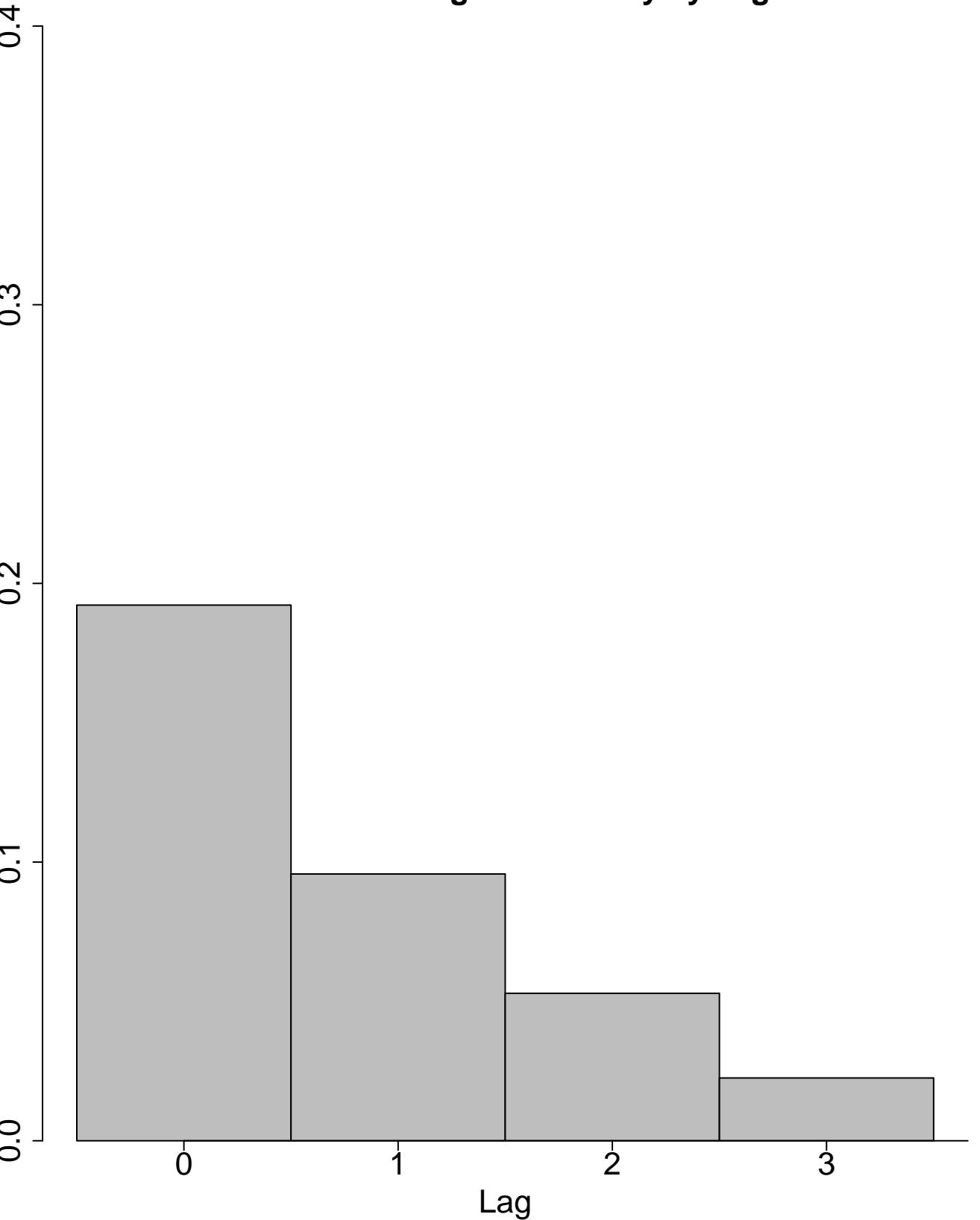




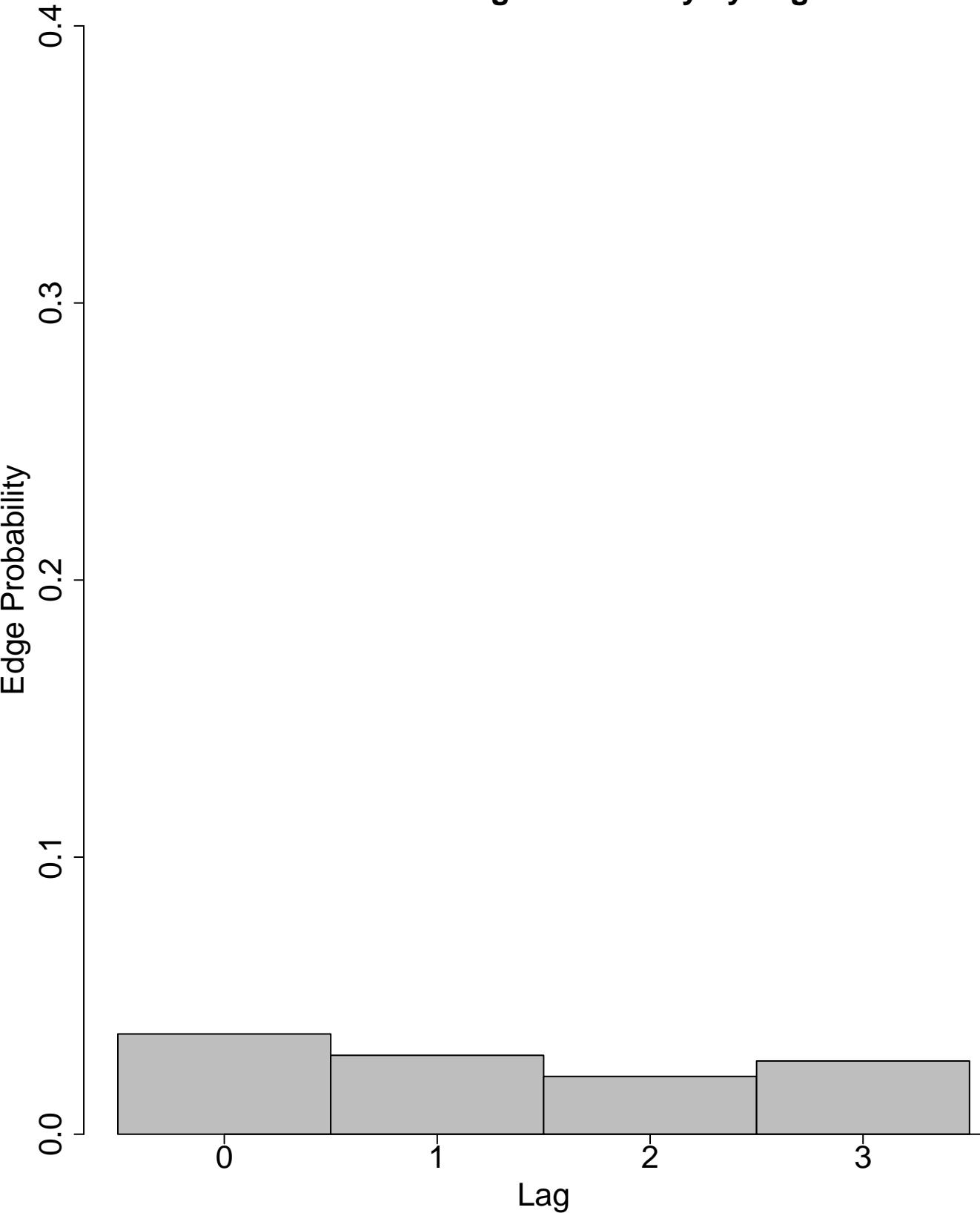
**IndustrialMidwest: Edge Probability by Lag**



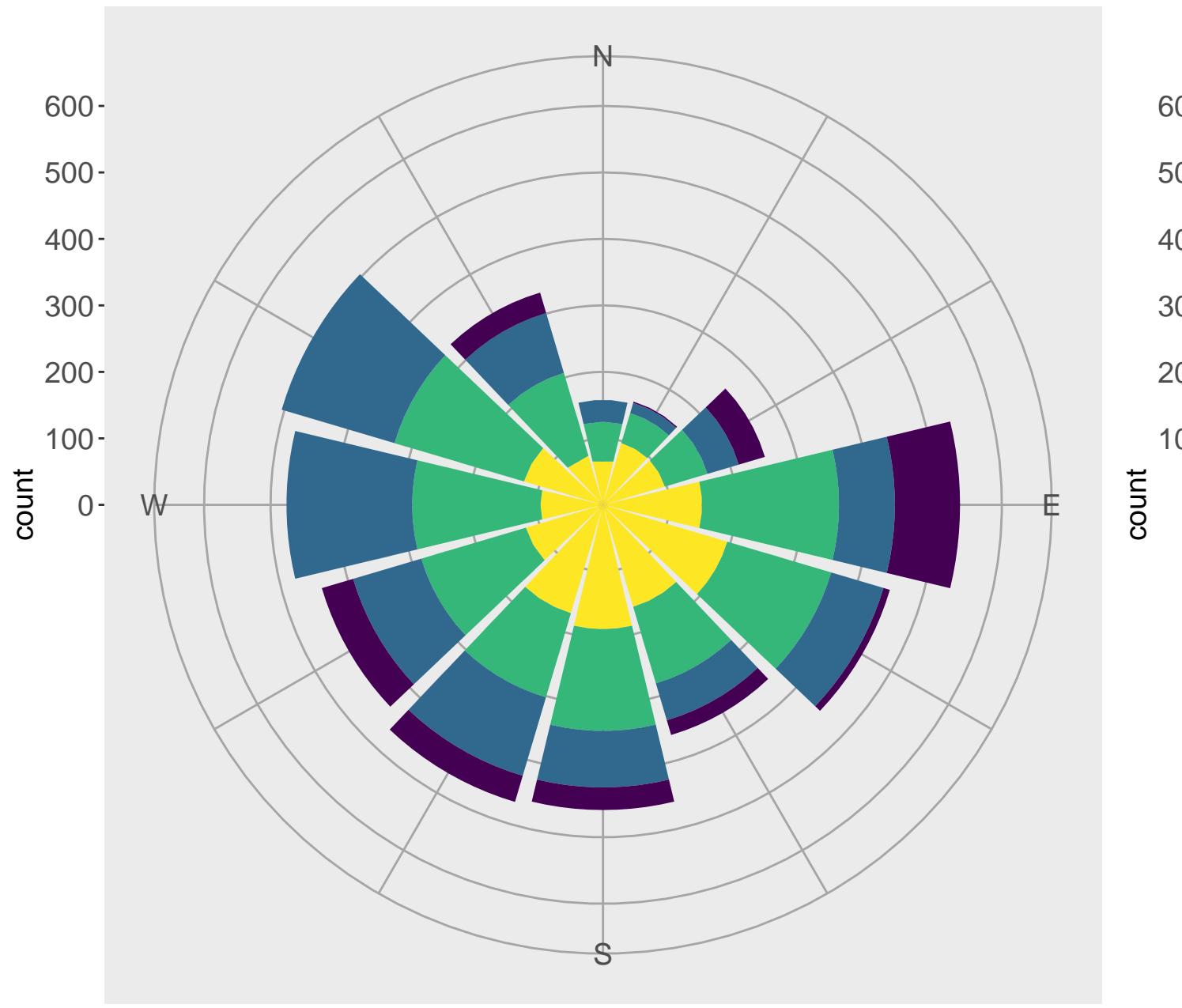
**Northeast: Edge Probability by Lag**



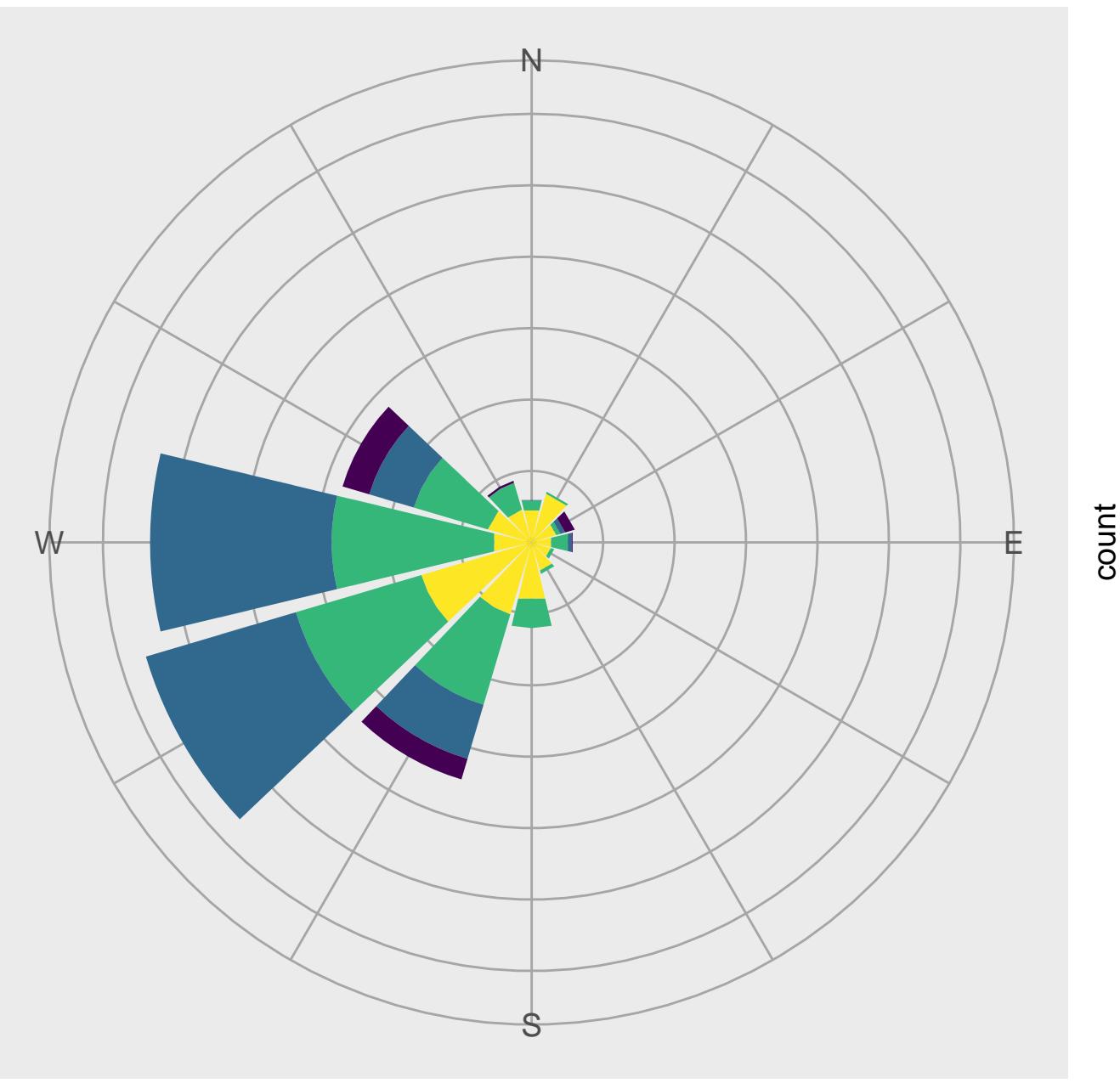
**Southeast: Edge Probability by Lag**



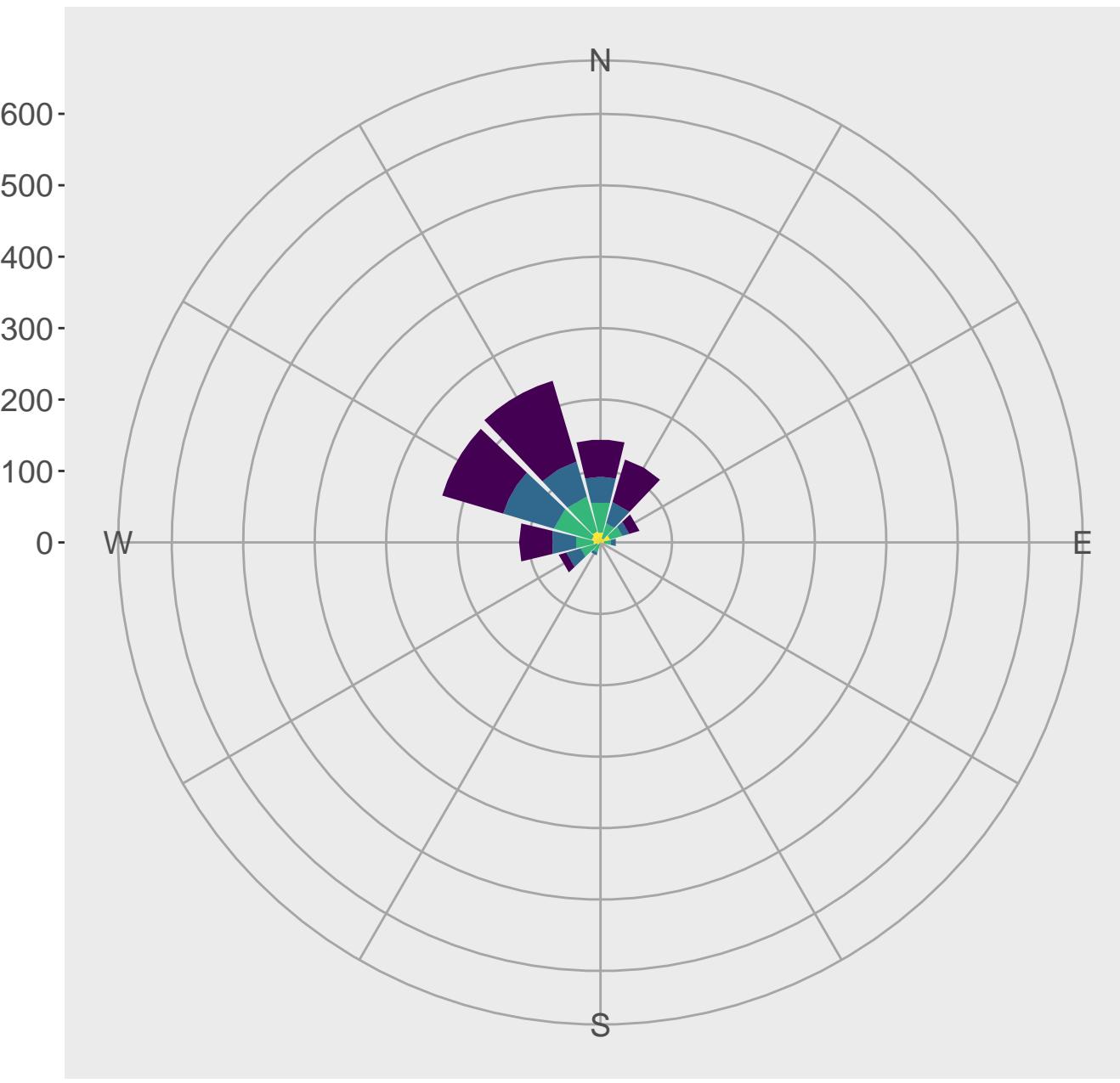
**Edge counts by distance/direction to source  
IndustrialMidwest receptors**



**Edge counts by distance/direction to source  
Northeast receptors**



**Edge counts by distance/direction to source  
Southeast receptors**

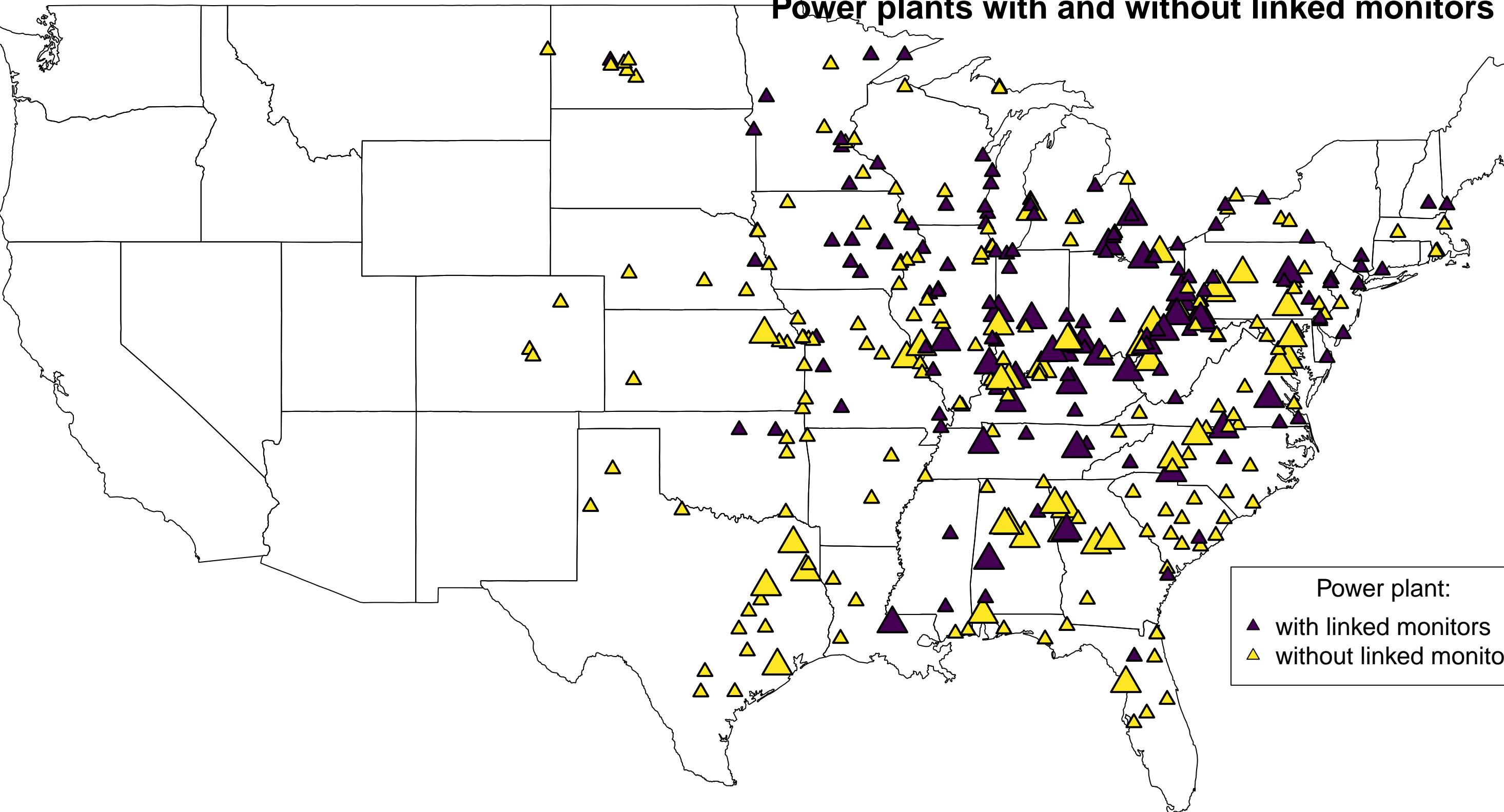


Distance to Source (km)    750–1000    500–750    250–500    0–250

Distance to Source (km)    750–1000    500–750    250–500    0–250

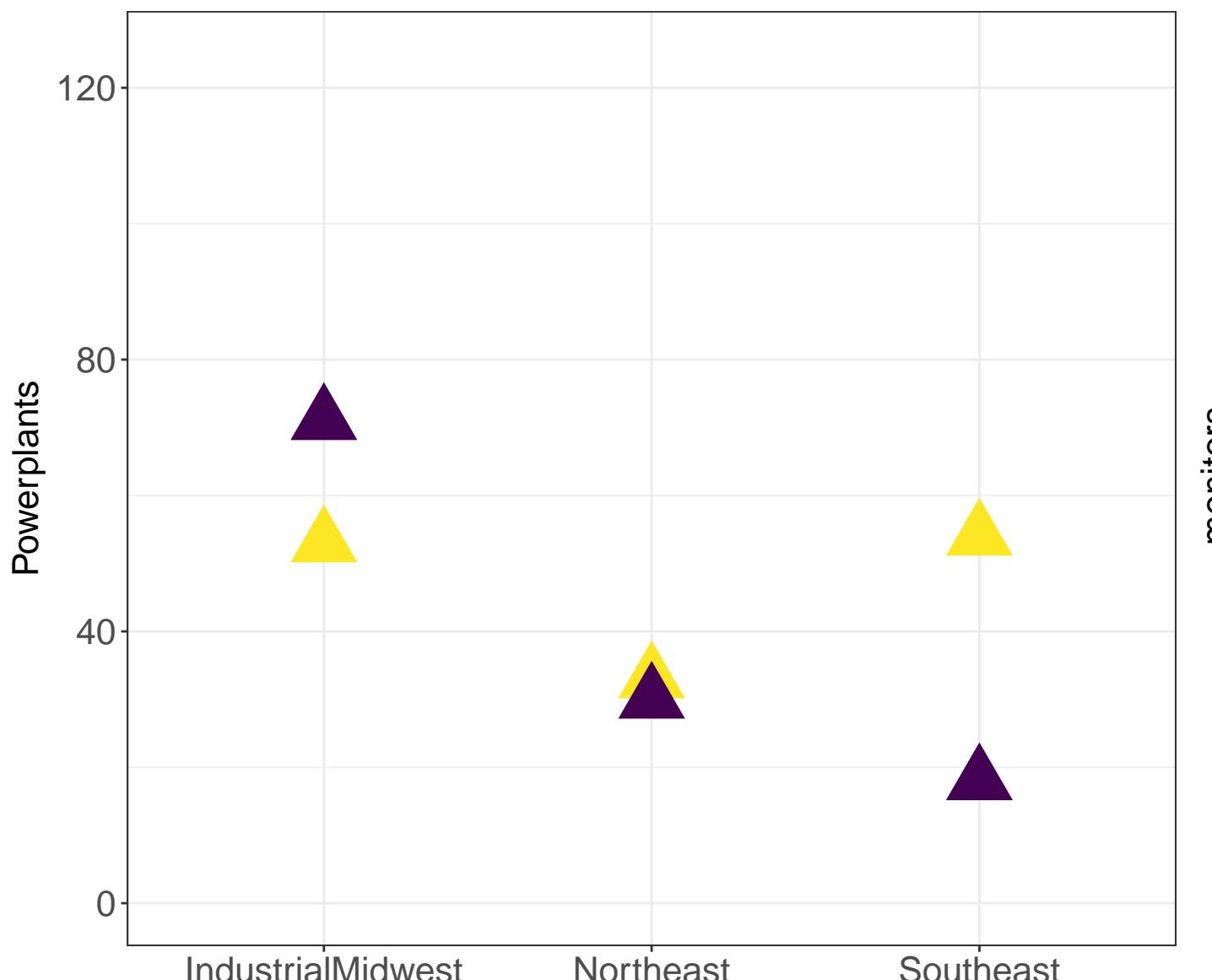
Distance to Source (km)    750–1000    500–750    250–500    0–250

## Power plants with and without linked monitors

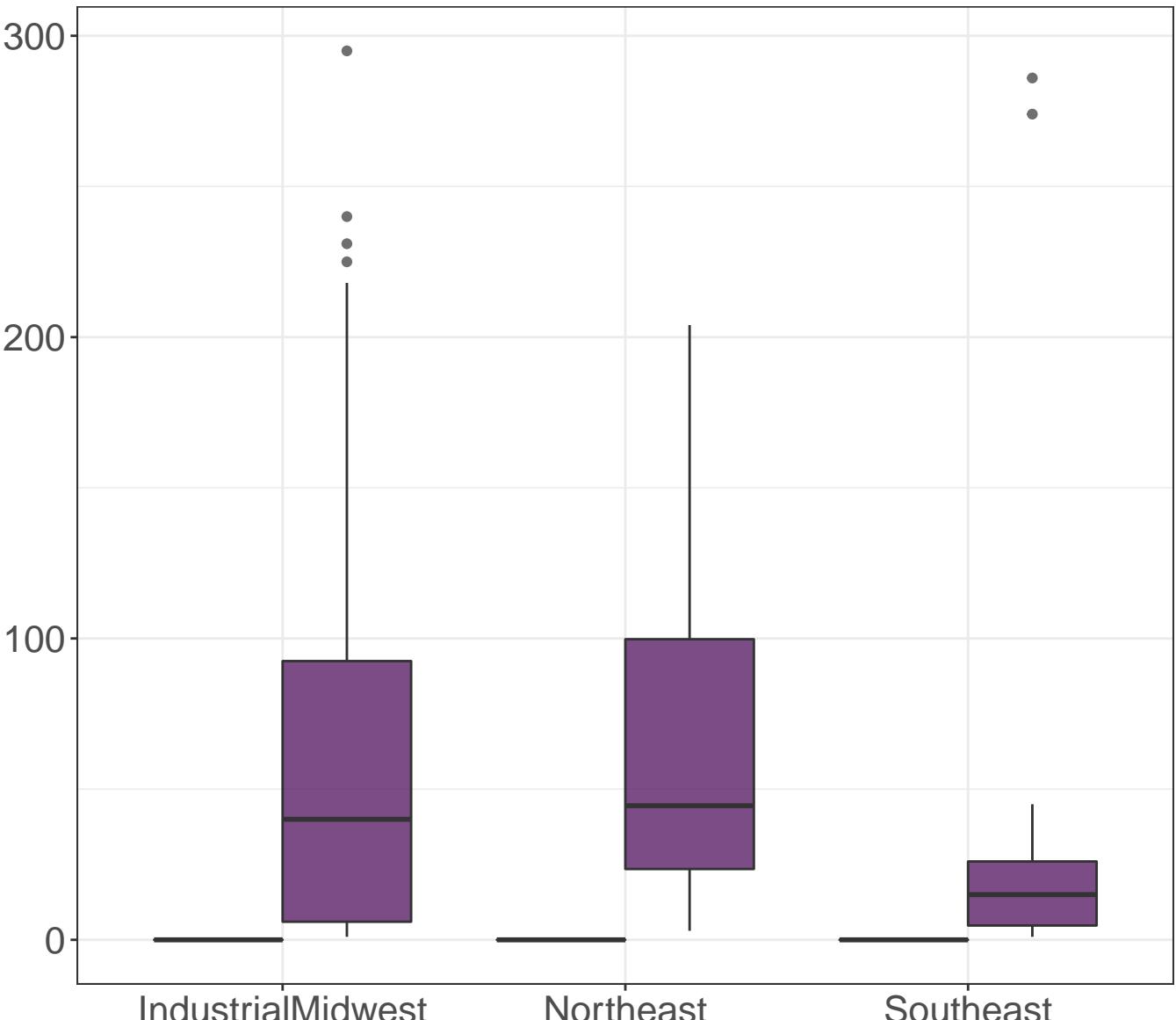


# Why do some power plants have linked monitors and others do not?

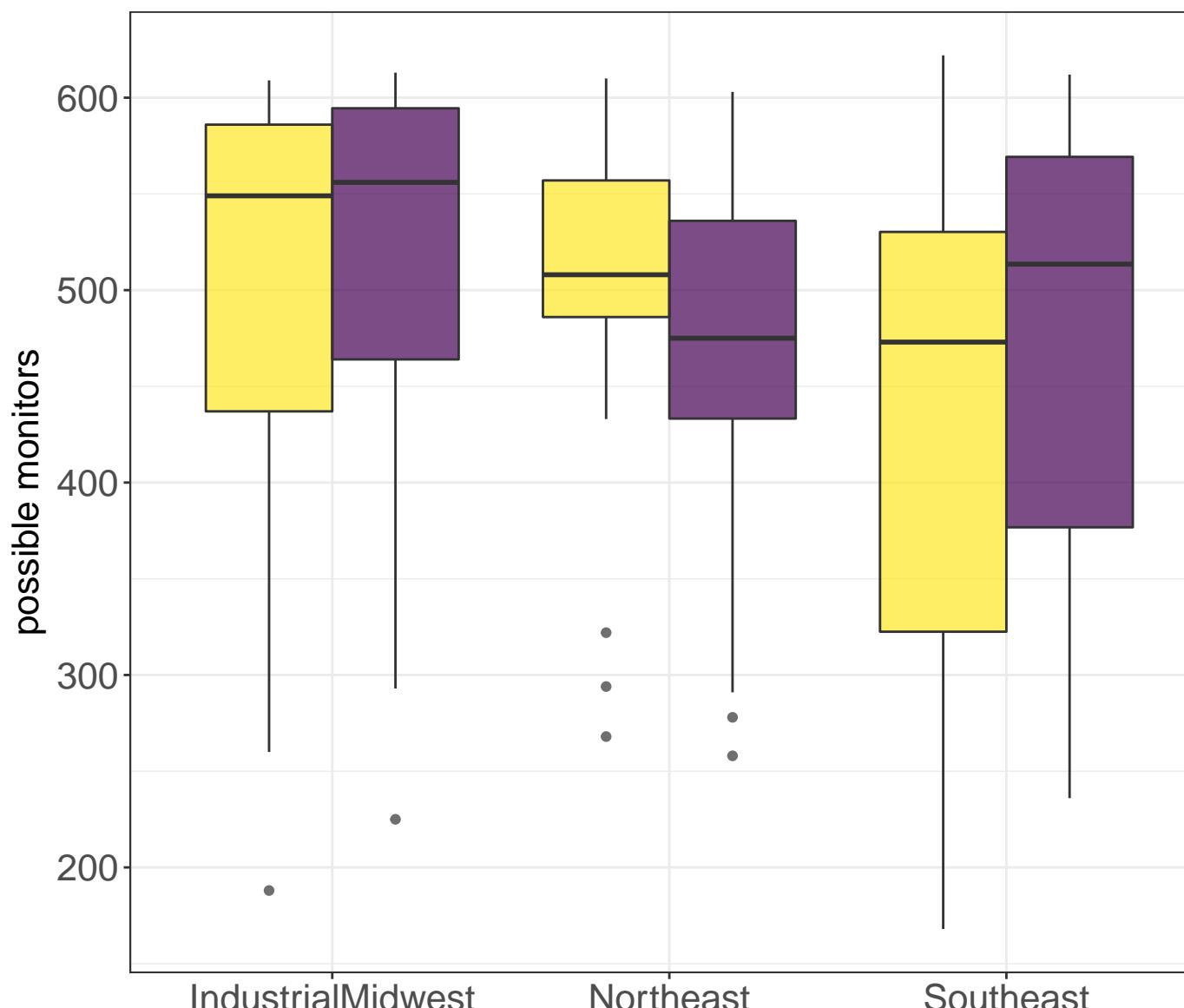
Number of powerplants



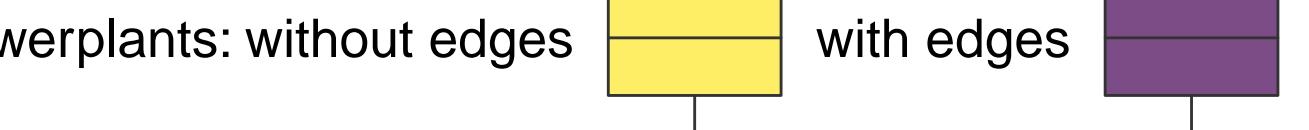
Number of linked monitors



Number of possible linked monitors



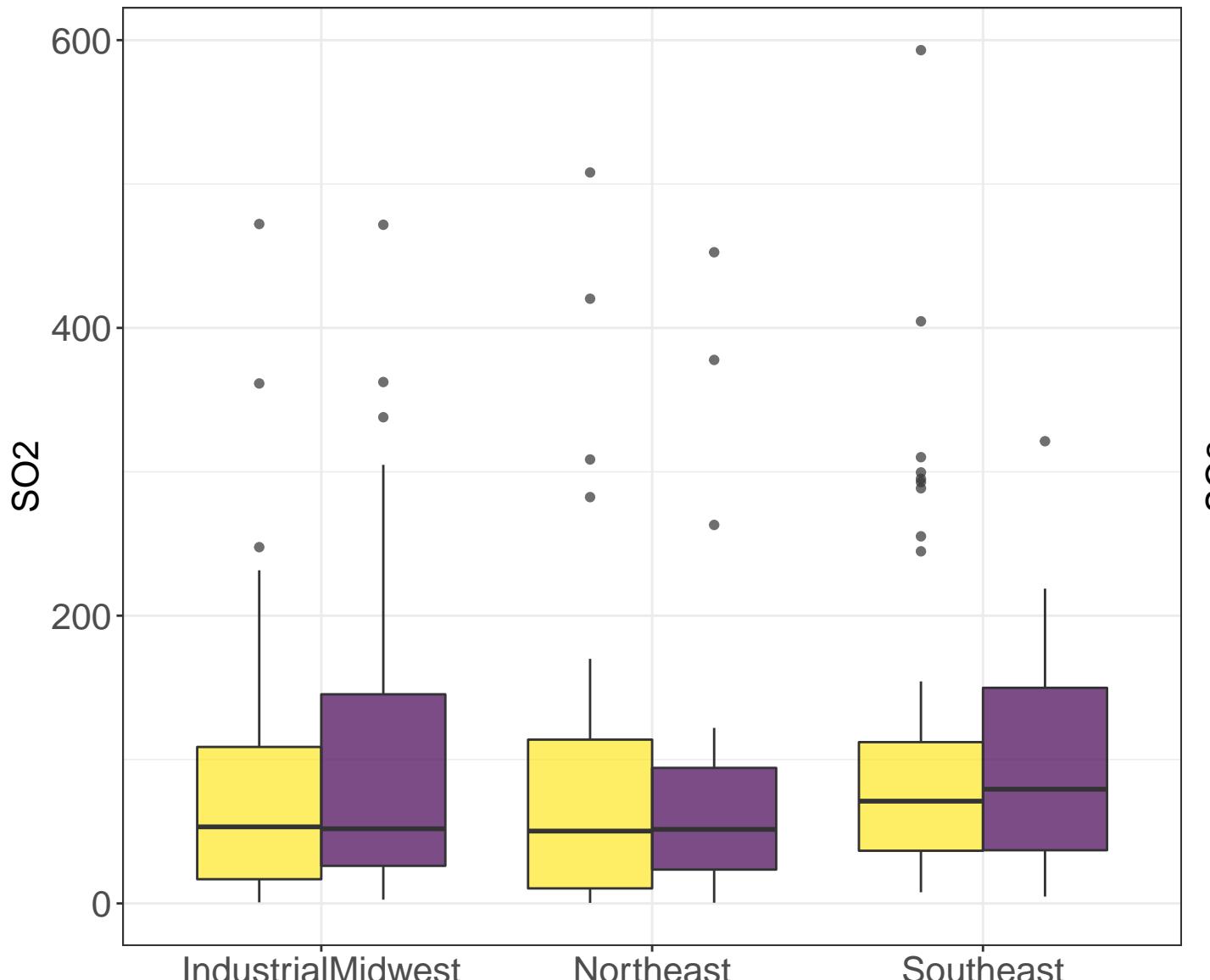
Powerplants: without edges



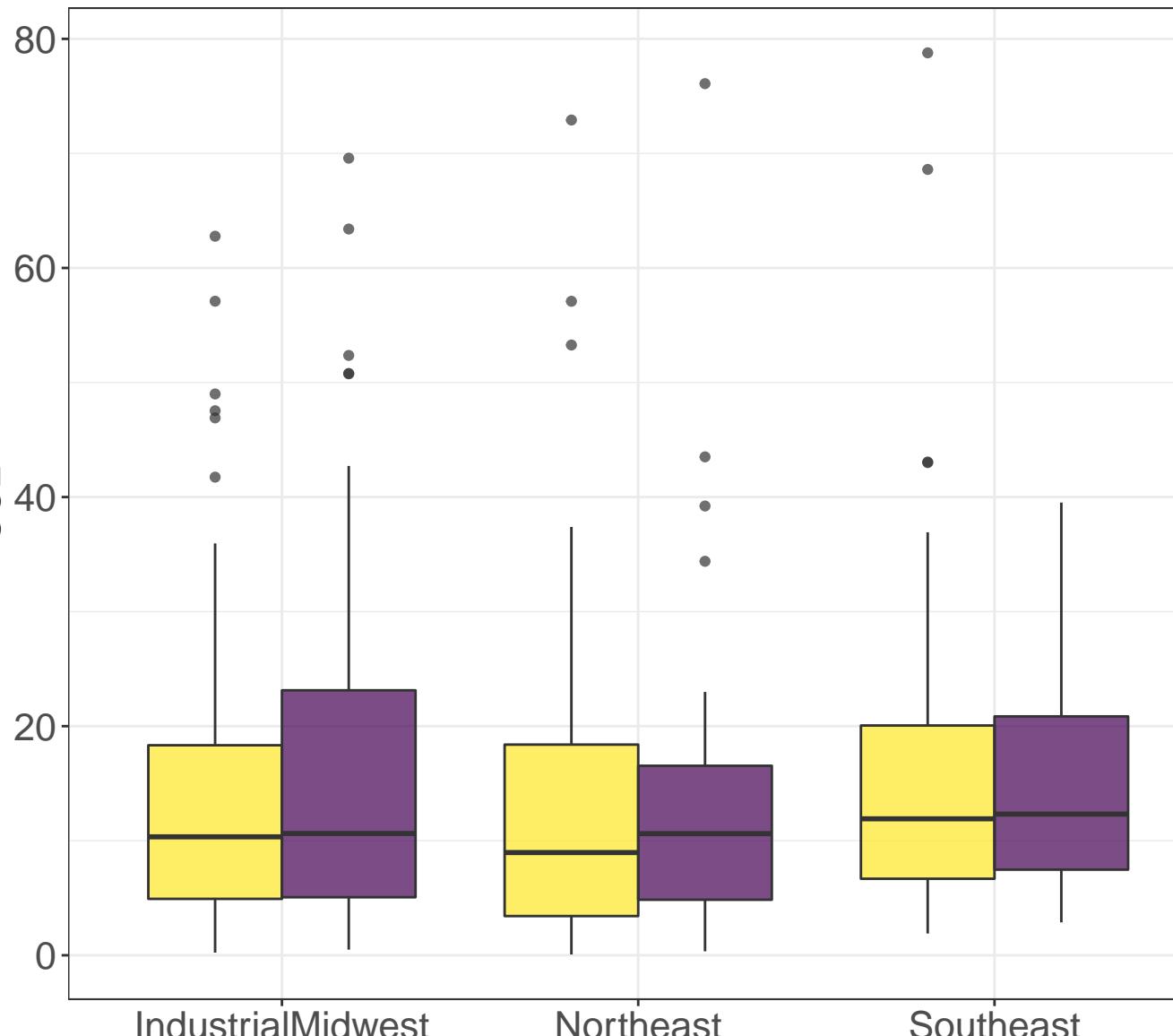
with edges

# Why do some power plants have linked monitors and others do not?

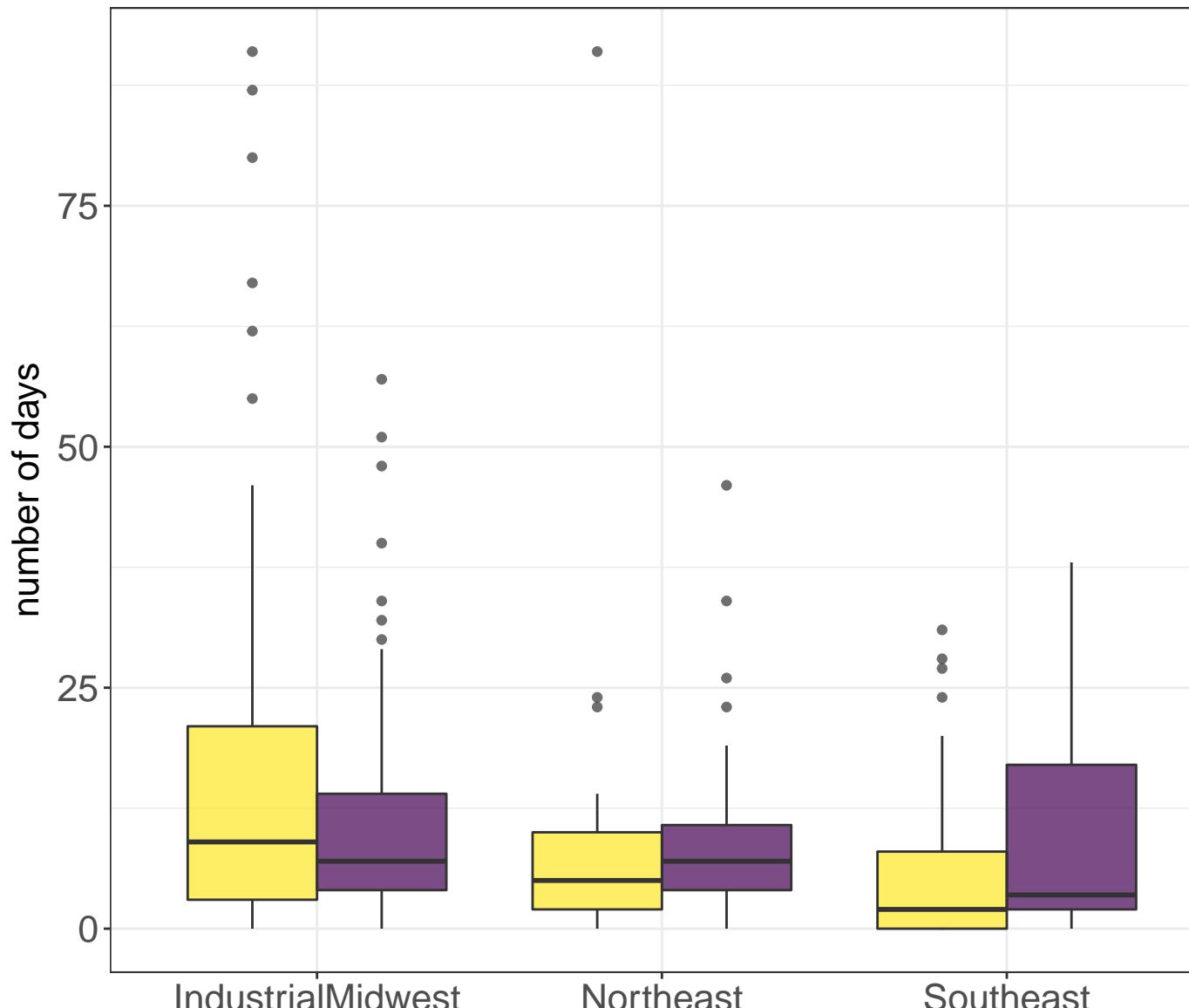
Average daily emissions



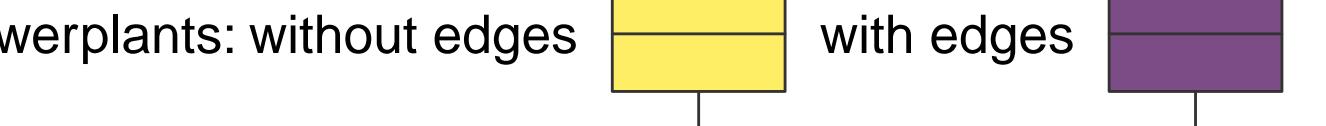
Standard deviation in daily emissions



Number of days (out of 91 total) with missing emissions data

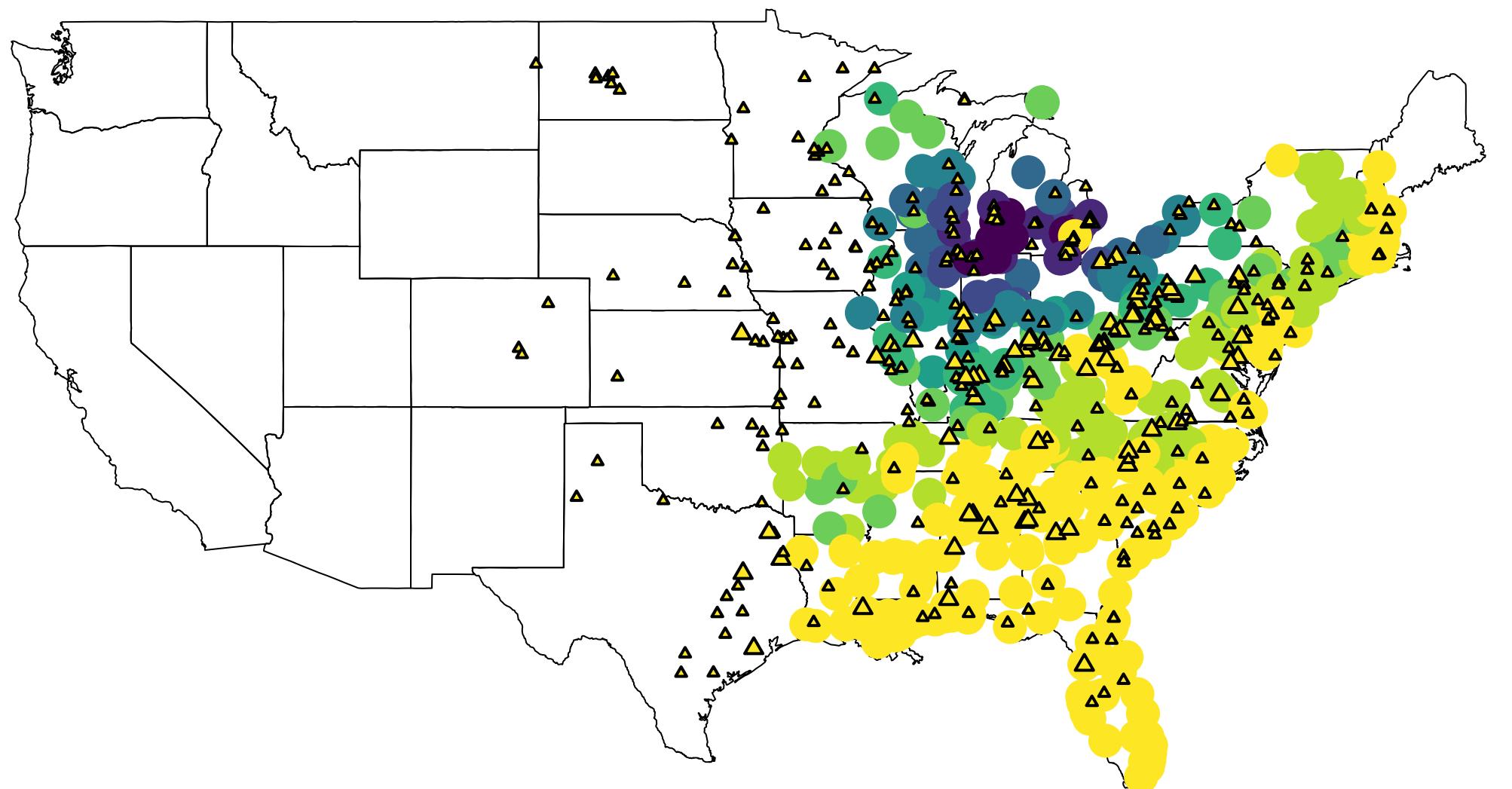


Powerplants: without edges

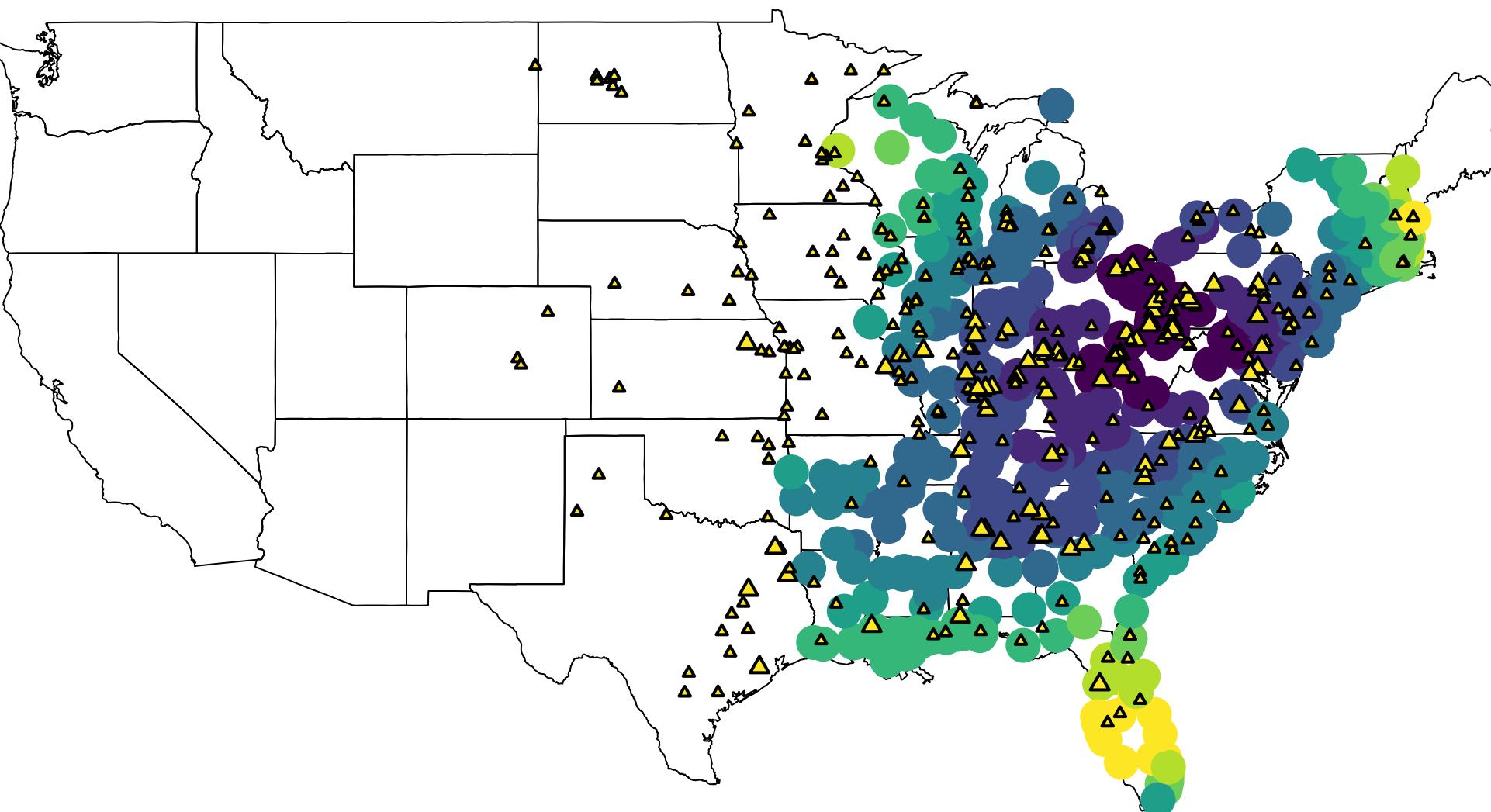


with edges

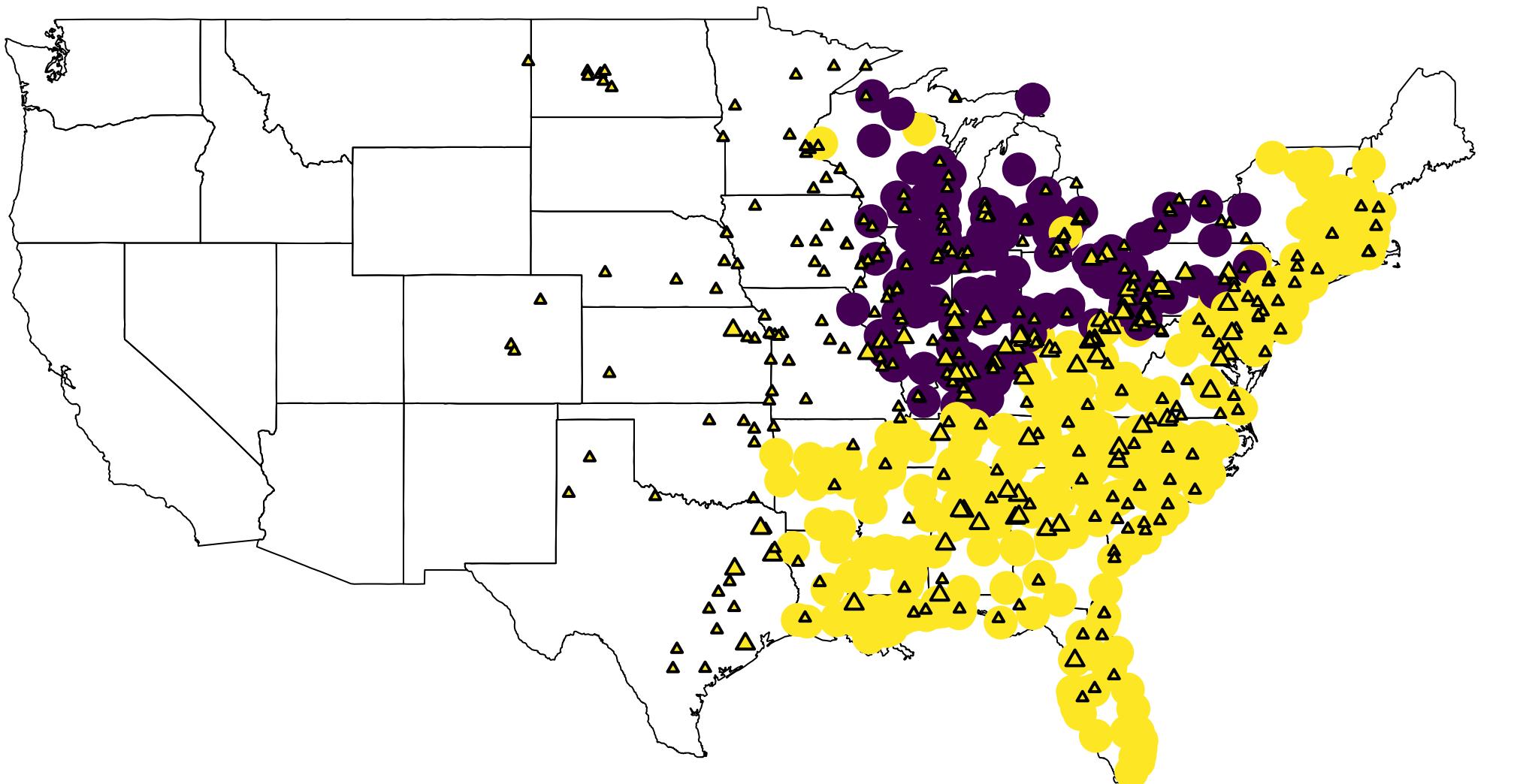
**Monitor exposure: sum of gams.coeff, summer\_test 2005**



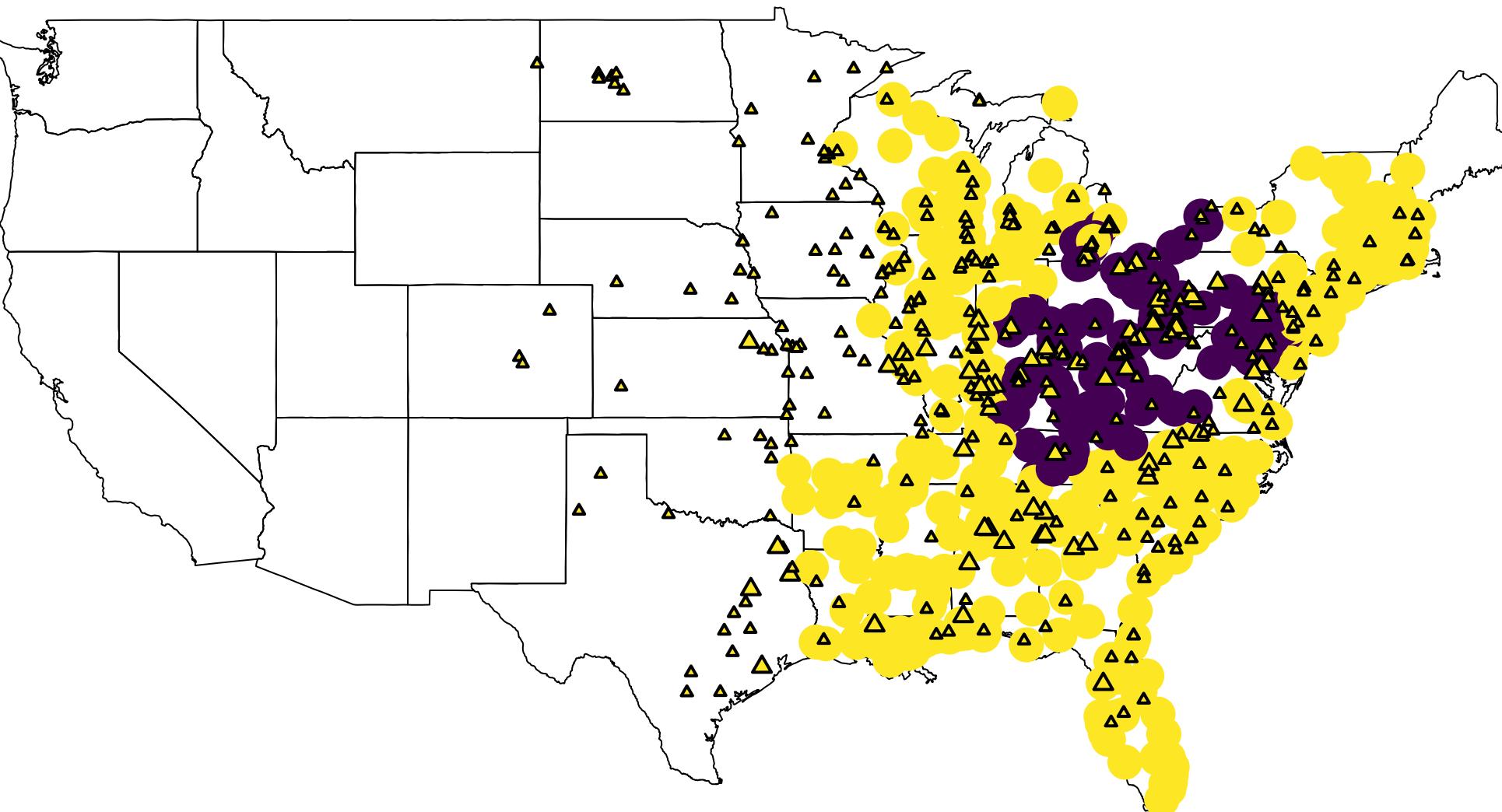
**Monitor exposure: avgPM, decomposed75 summer\_test 2005**



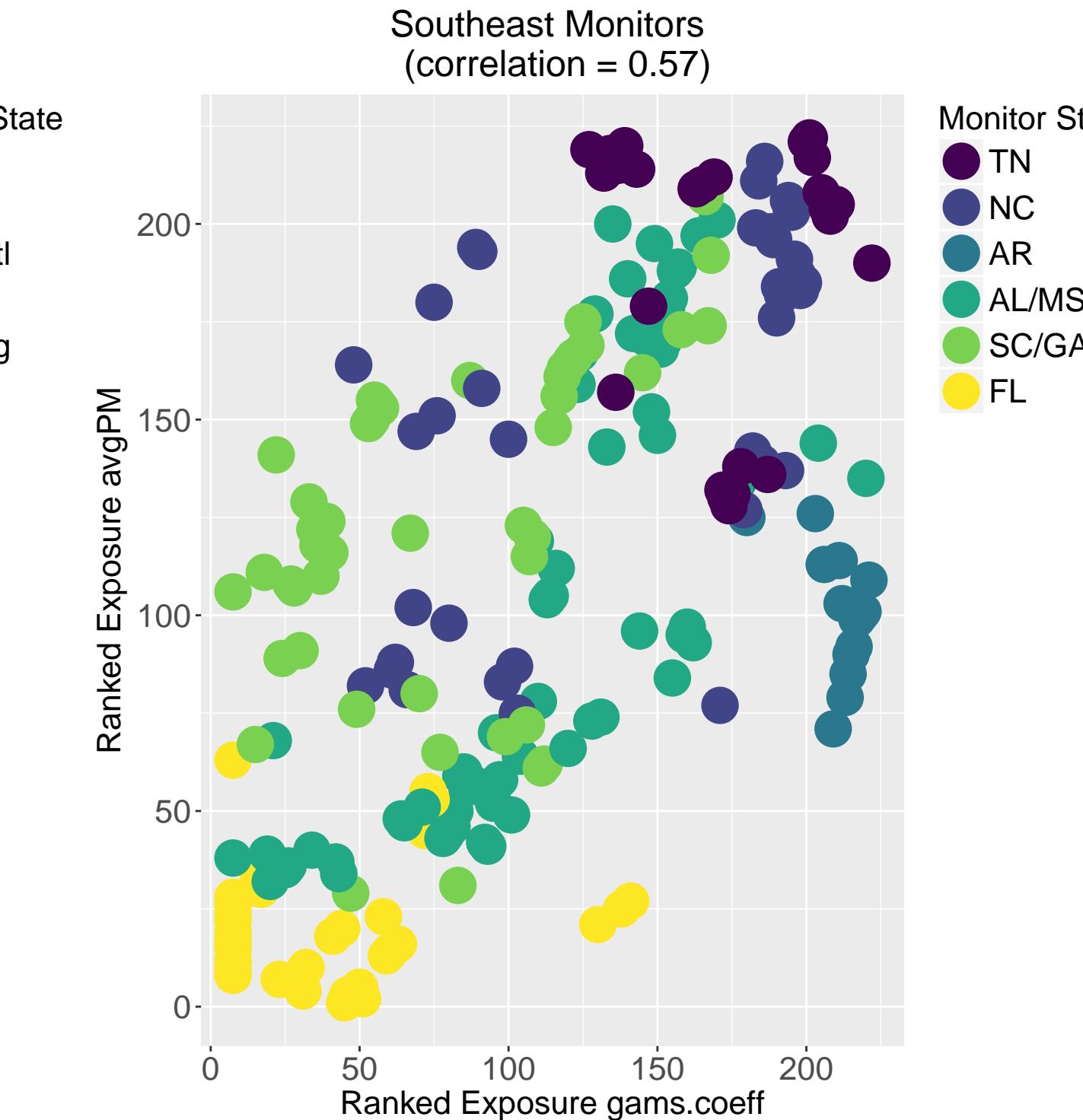
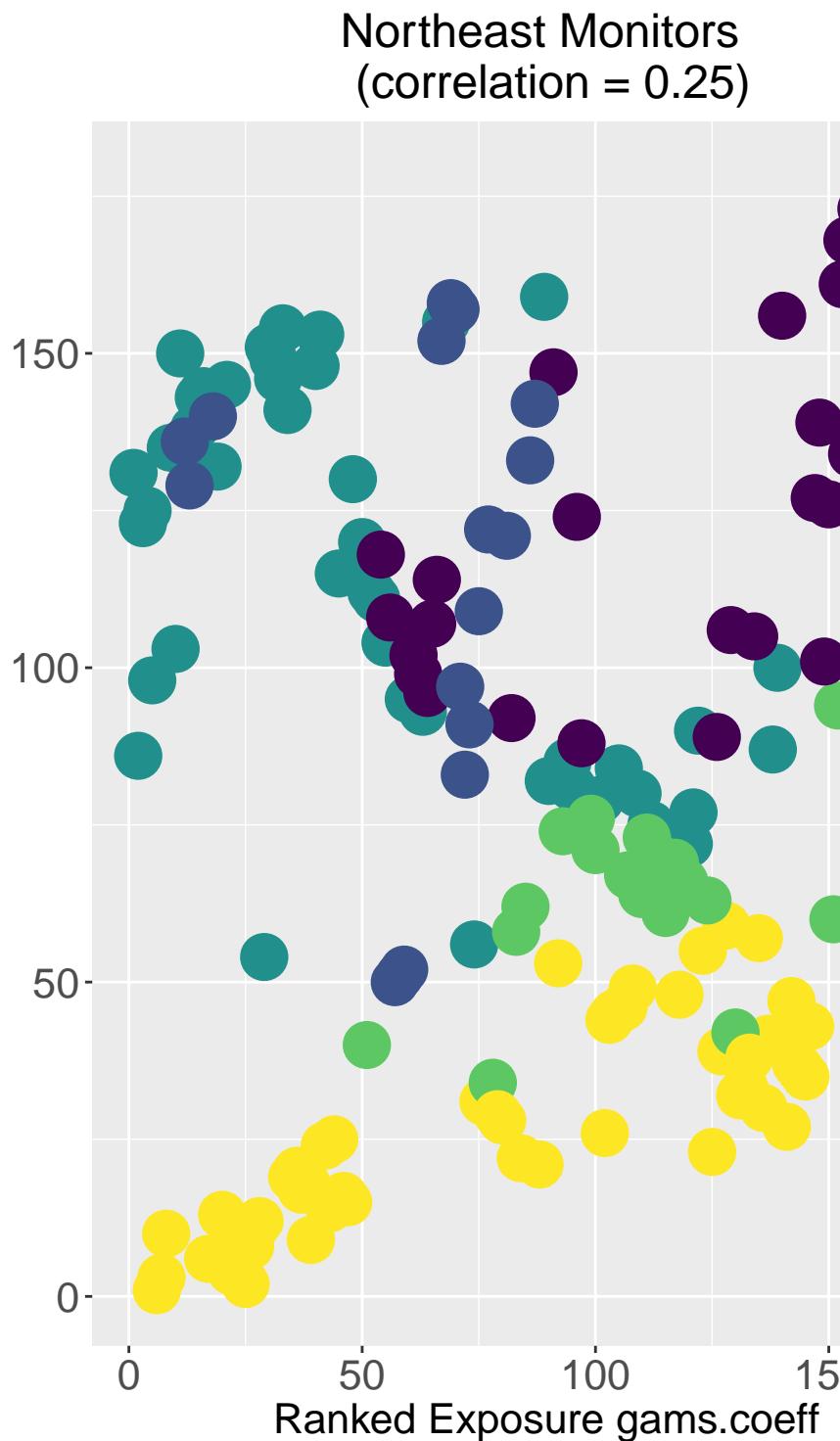
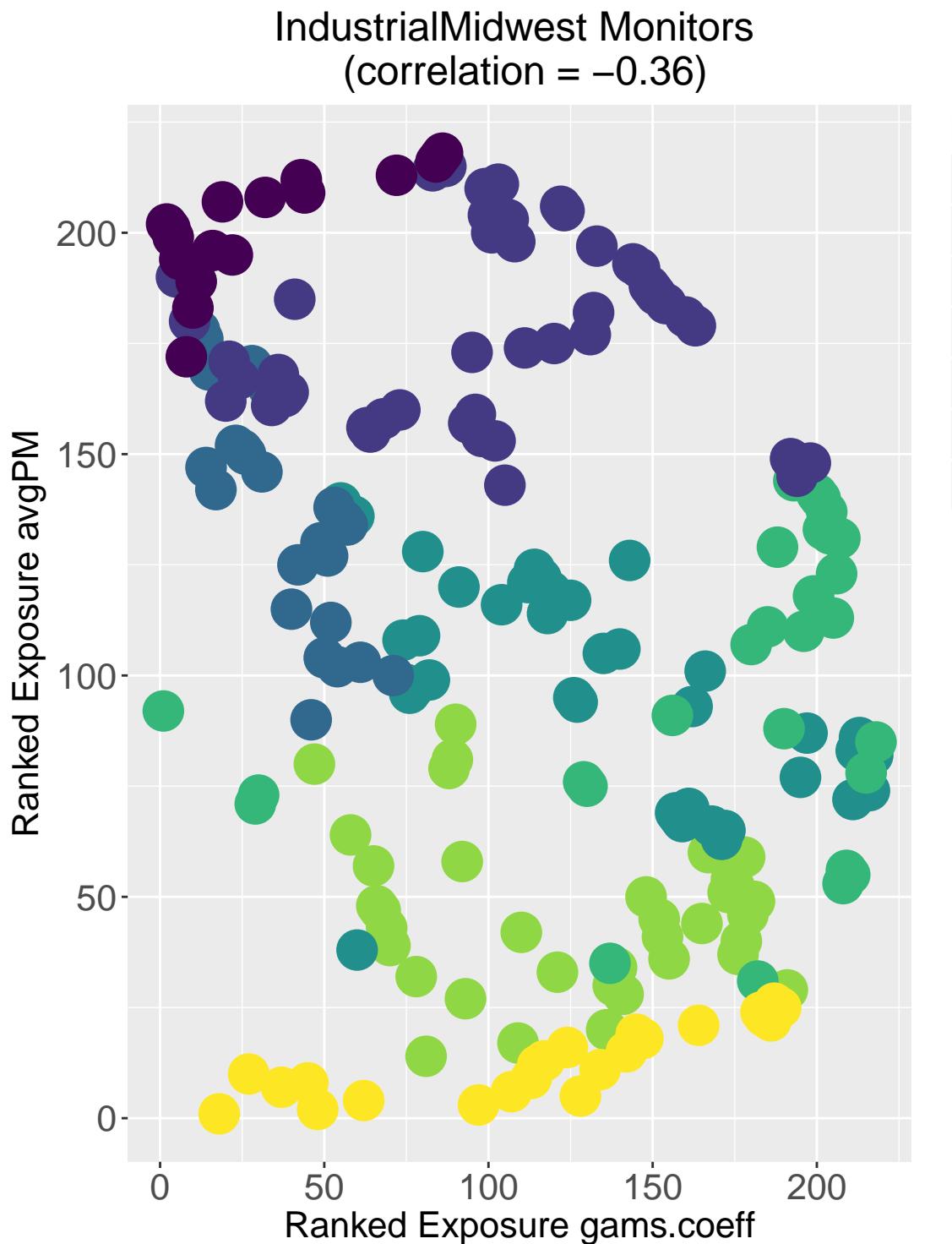
**Highest exposed: sum of gams.coeff, summer\_test 2005**



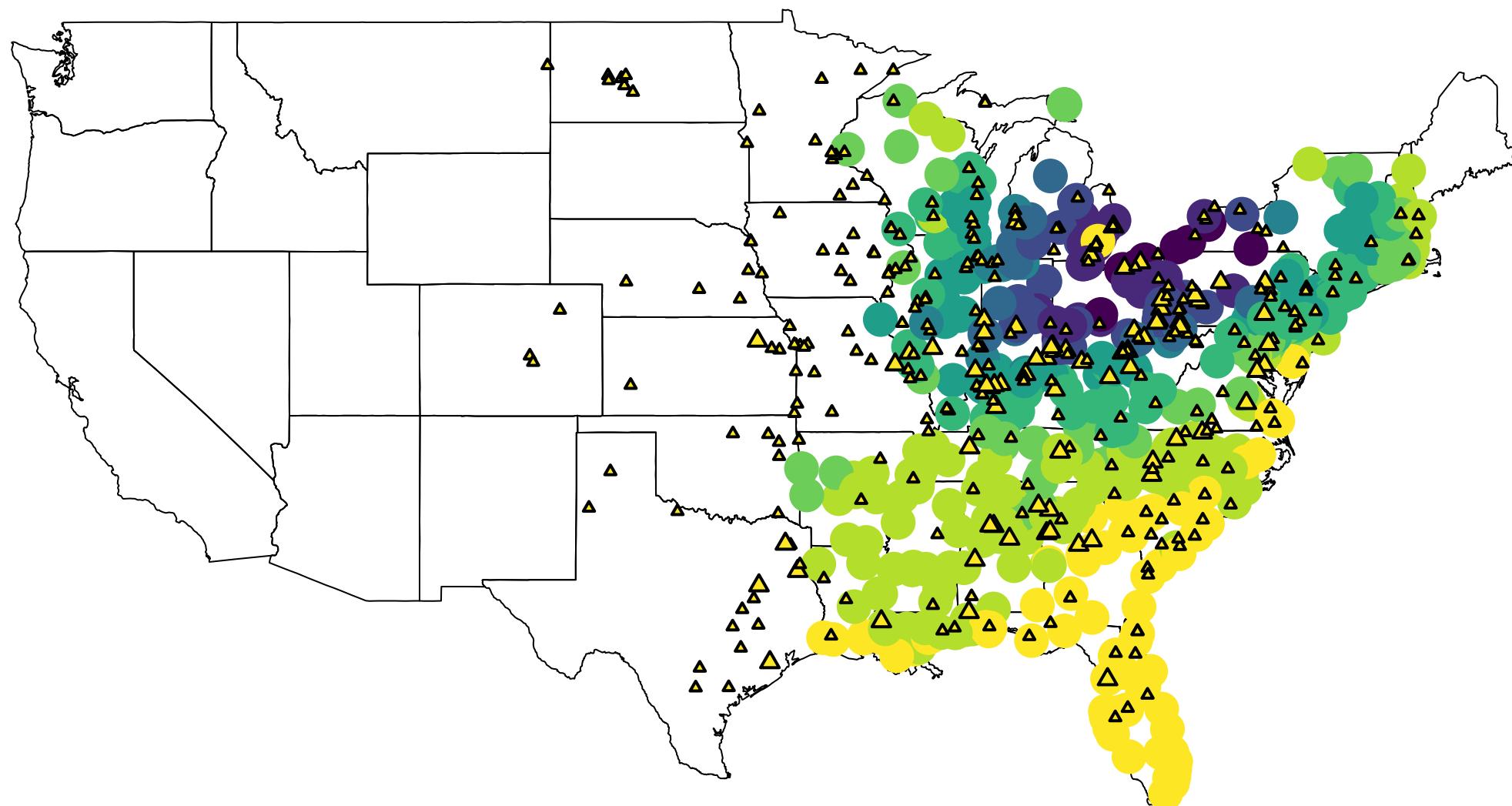
**Highest exposed: avgPM, decomposed75 summer\_test 2005**



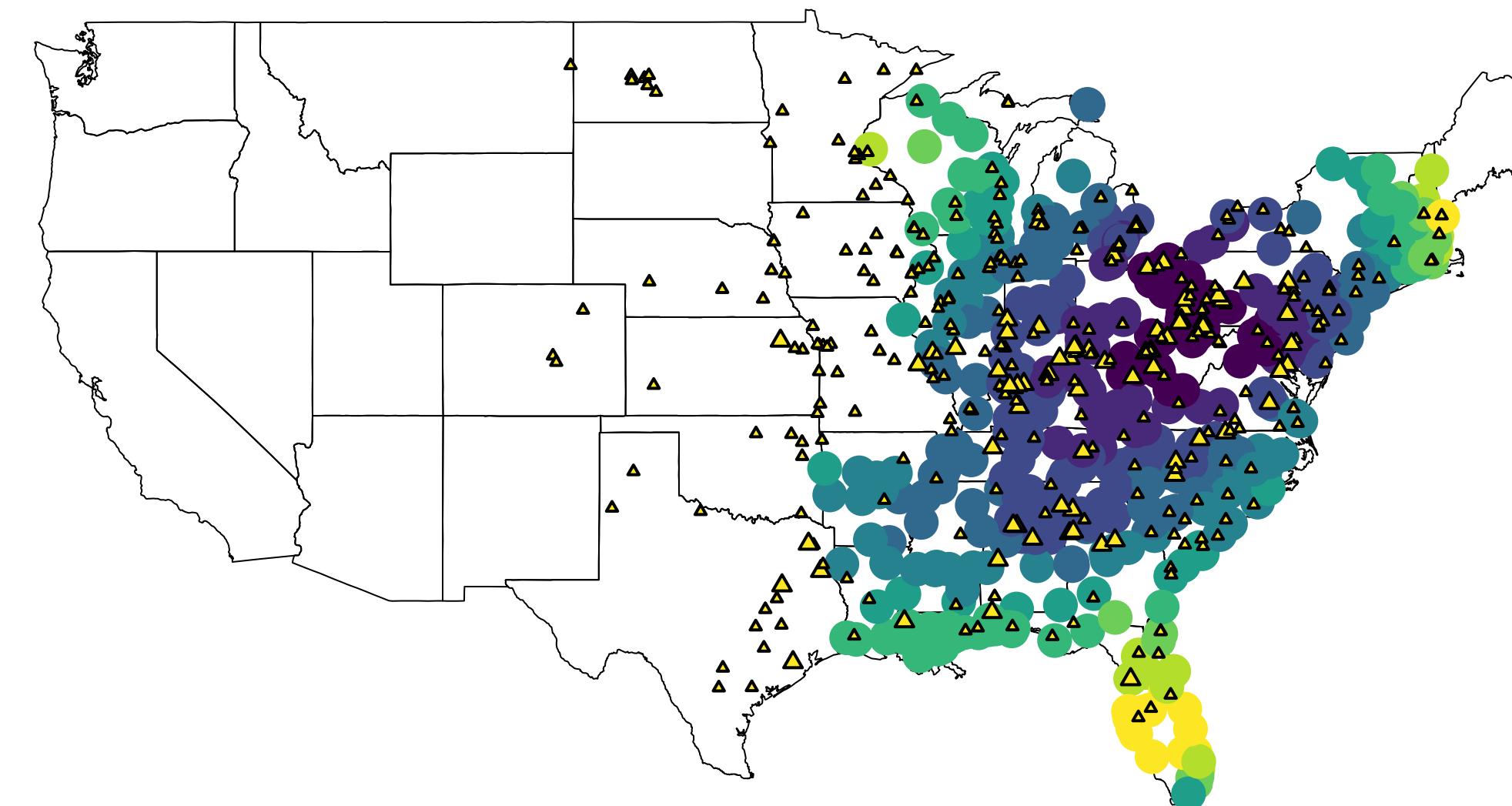
# Comparison of coal emissions exposure (sum of gams.coeff vs. low freq PM)



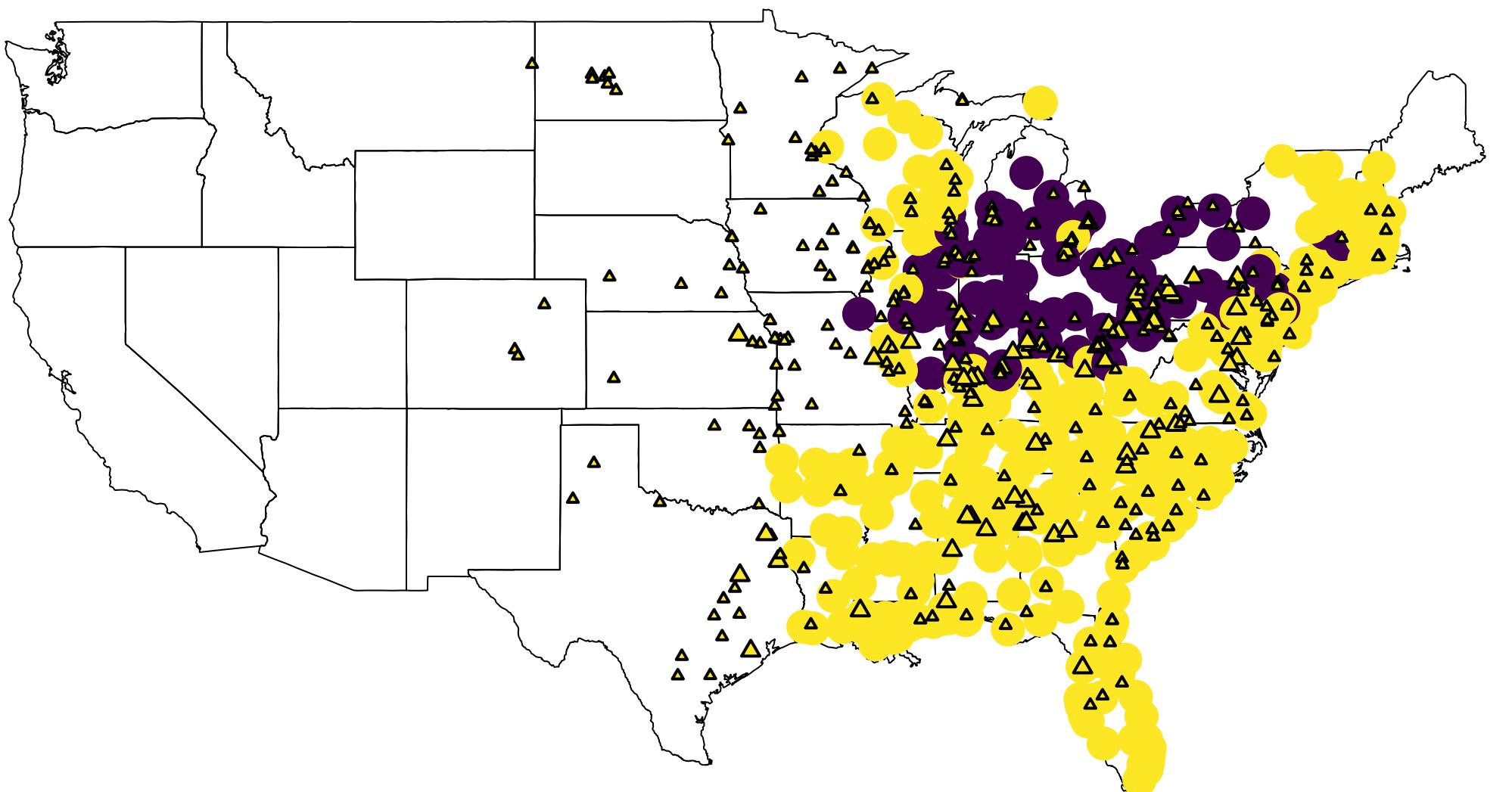
**Monitor exposure: num\_edges, summer\_test 2005**



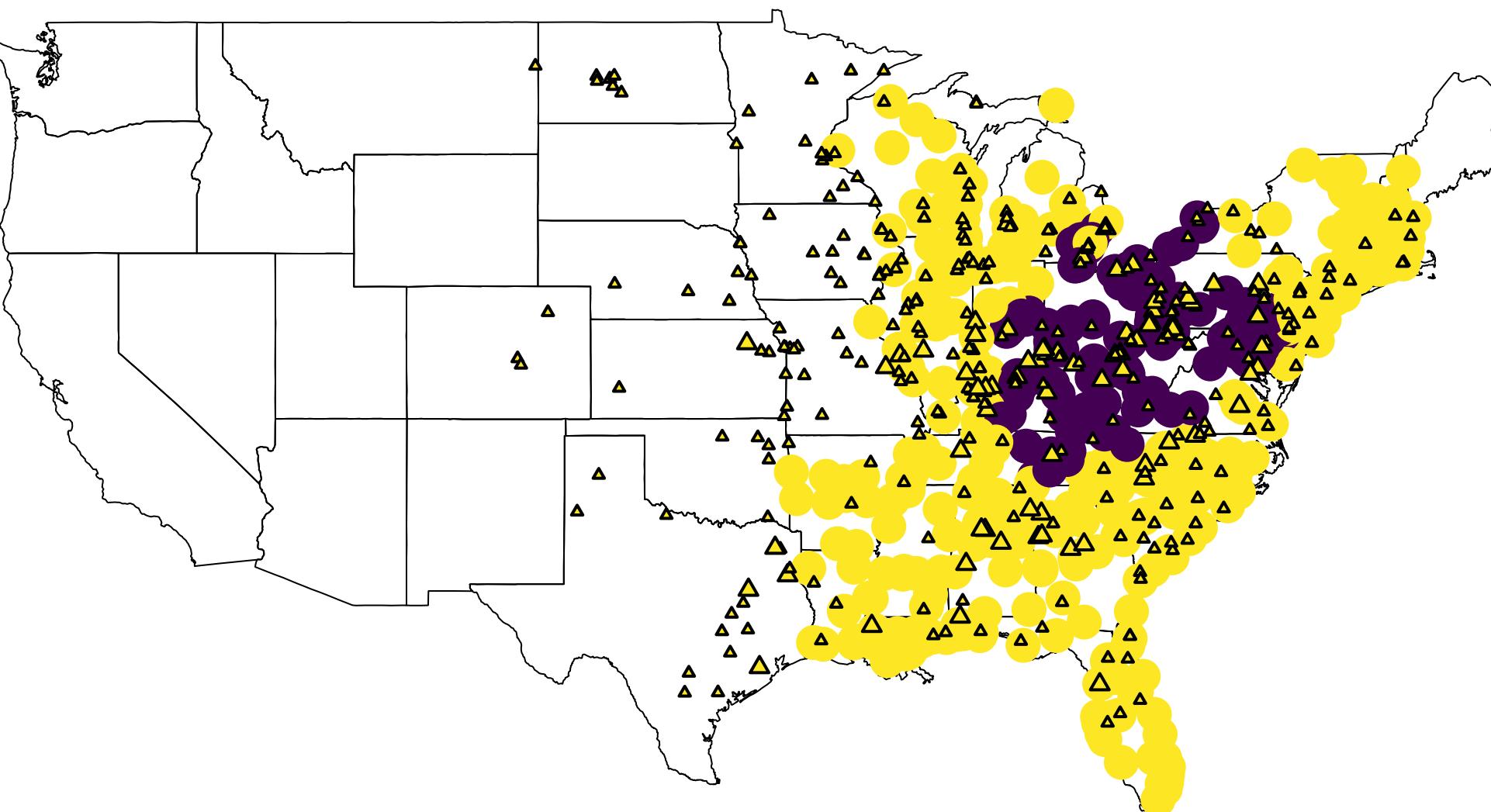
**Monitor exposure: avgPM, decomposed75 summer\_test 2005**



**Highest exposed: num\_edges, summer\_test 2005**



**Highest exposed: avgPM, decomposed75 summer\_test 2005**



# Comparison of coal emissions exposure (num\_edges vs. low freq PM)

