

**Question E:** Are there sources of ozone and aerosol precursors that are not represented in the reported emissions inventories?

**Question D:** What distribution of anthropogenic and biogenic emissions of ozone and aerosol precursors can be inferred from observations?

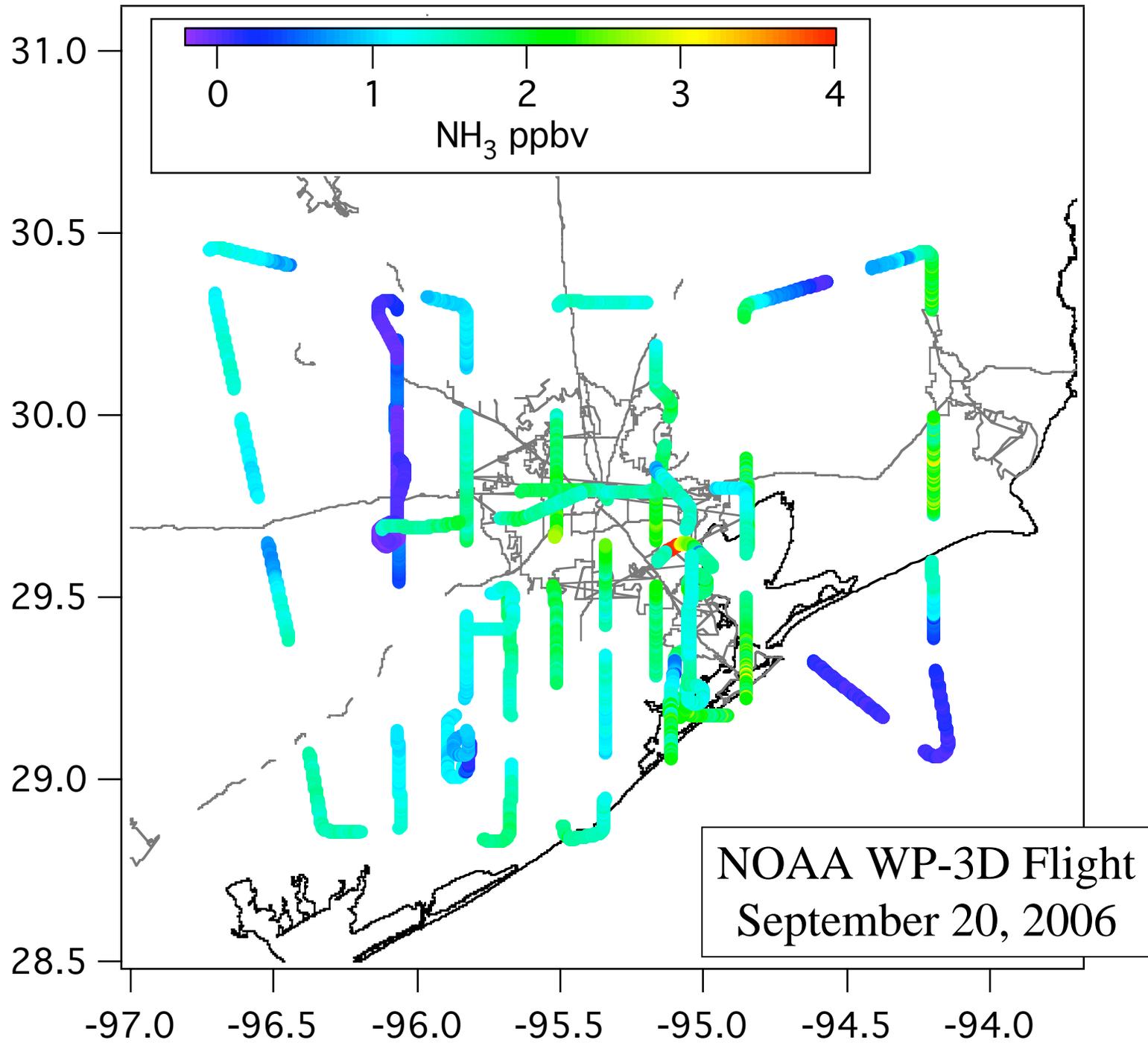
Ammonia measurements on the NOAA P-3 and RHB

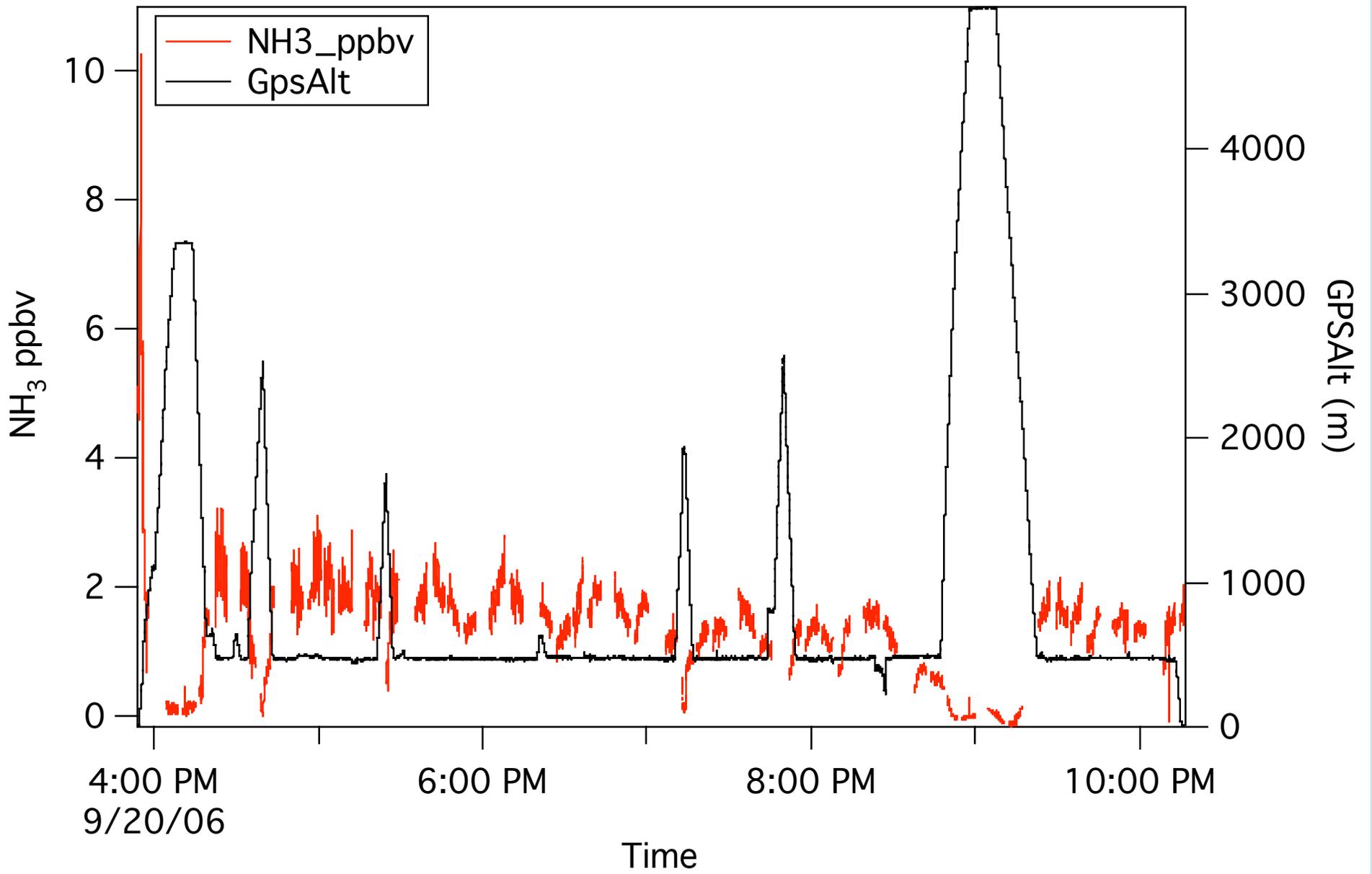
John Nowak - NOAA/CIRES

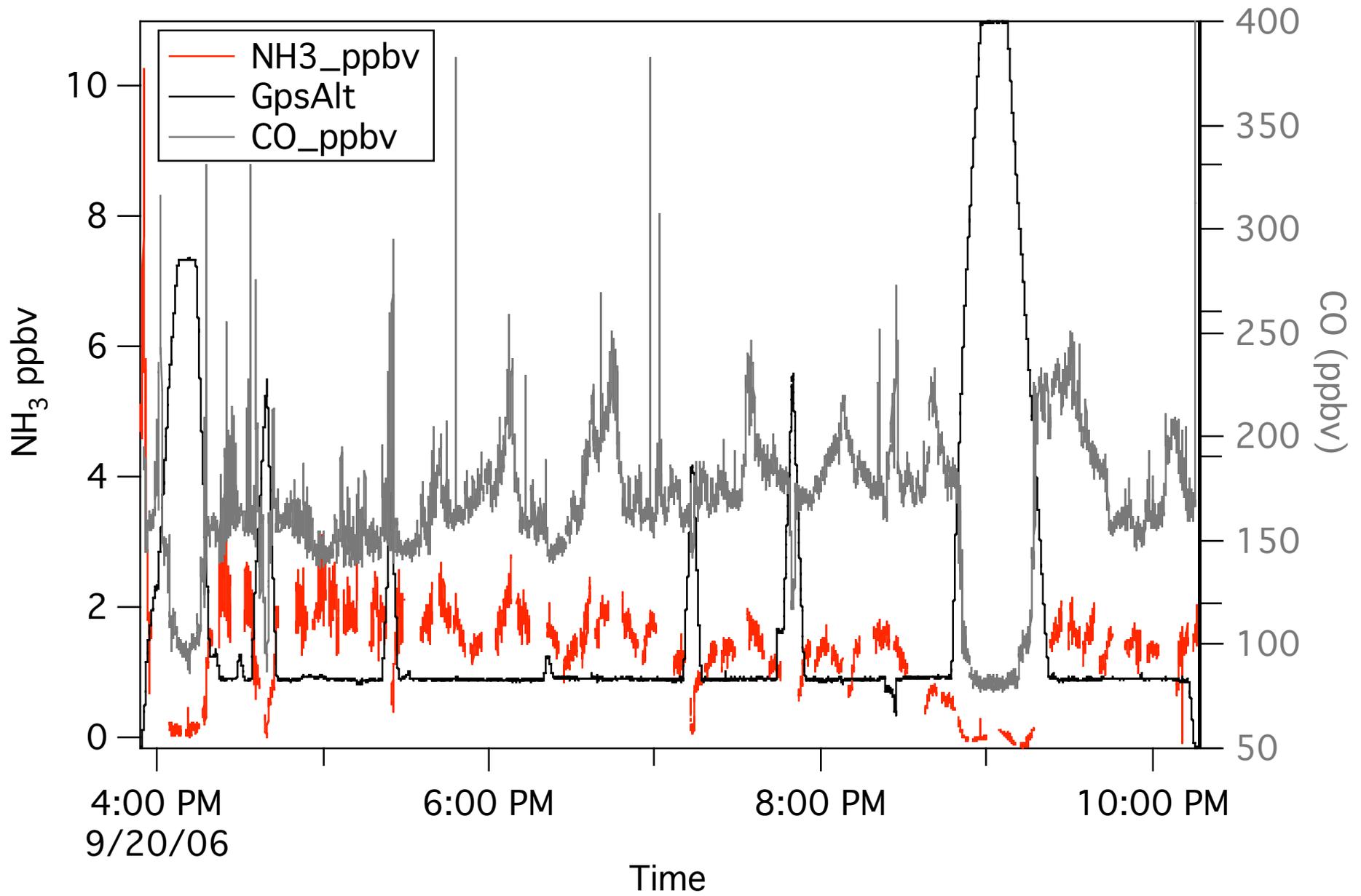
Scott Herndon - Aerodyne

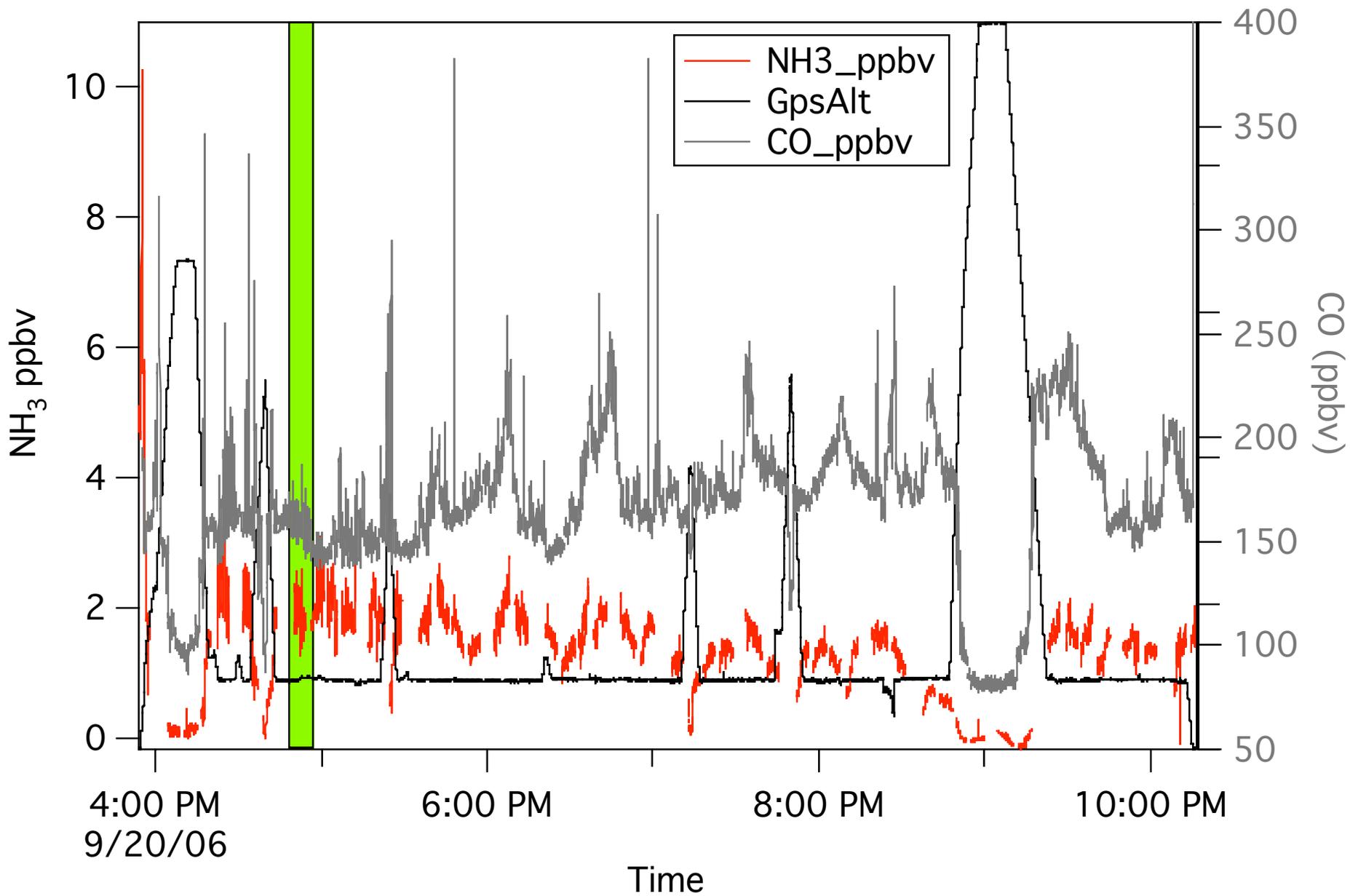
*This Presentation:*

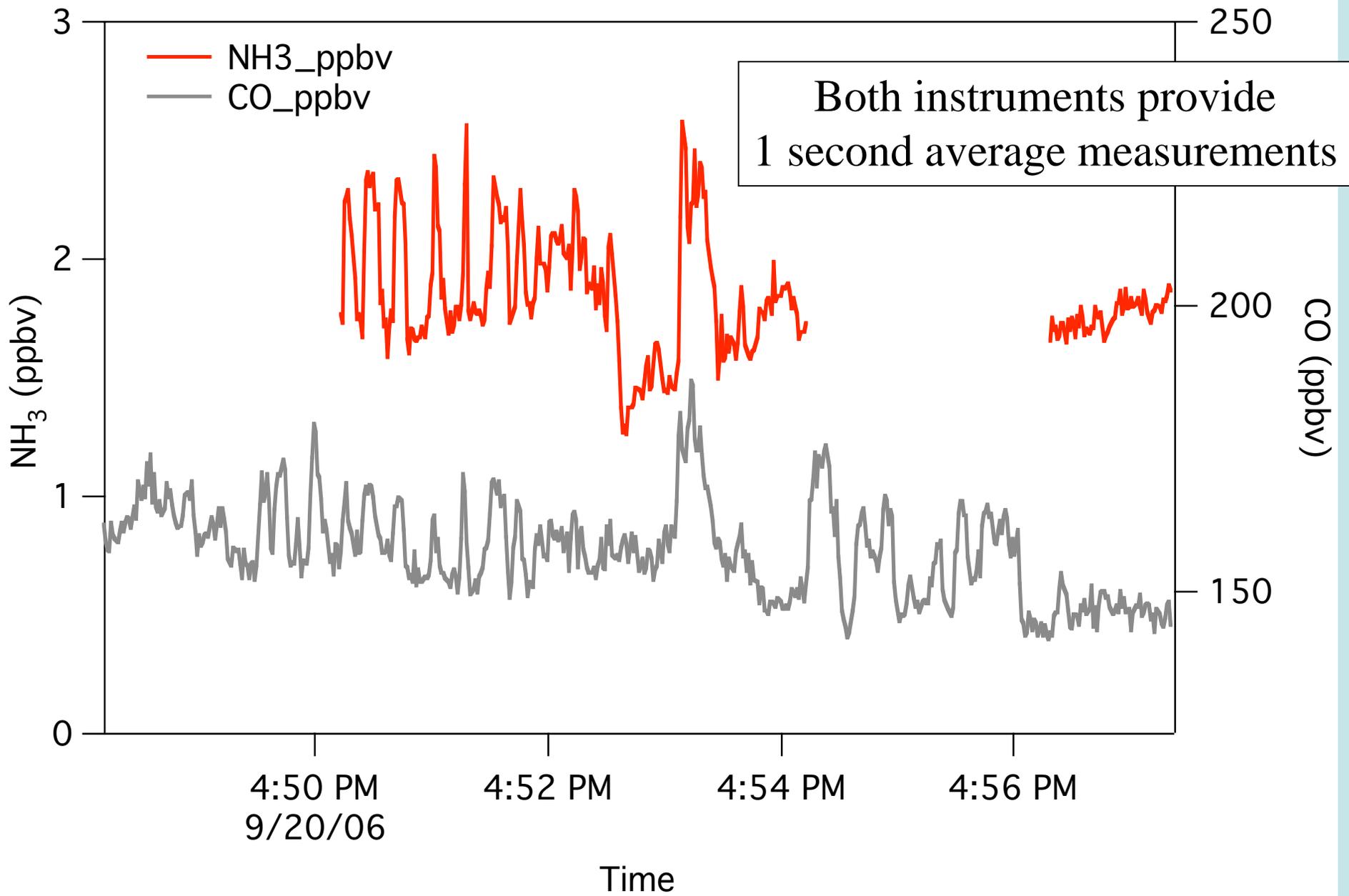
- Survey ammonia levels in Houston area
- Demonstrate capabilities of instruments

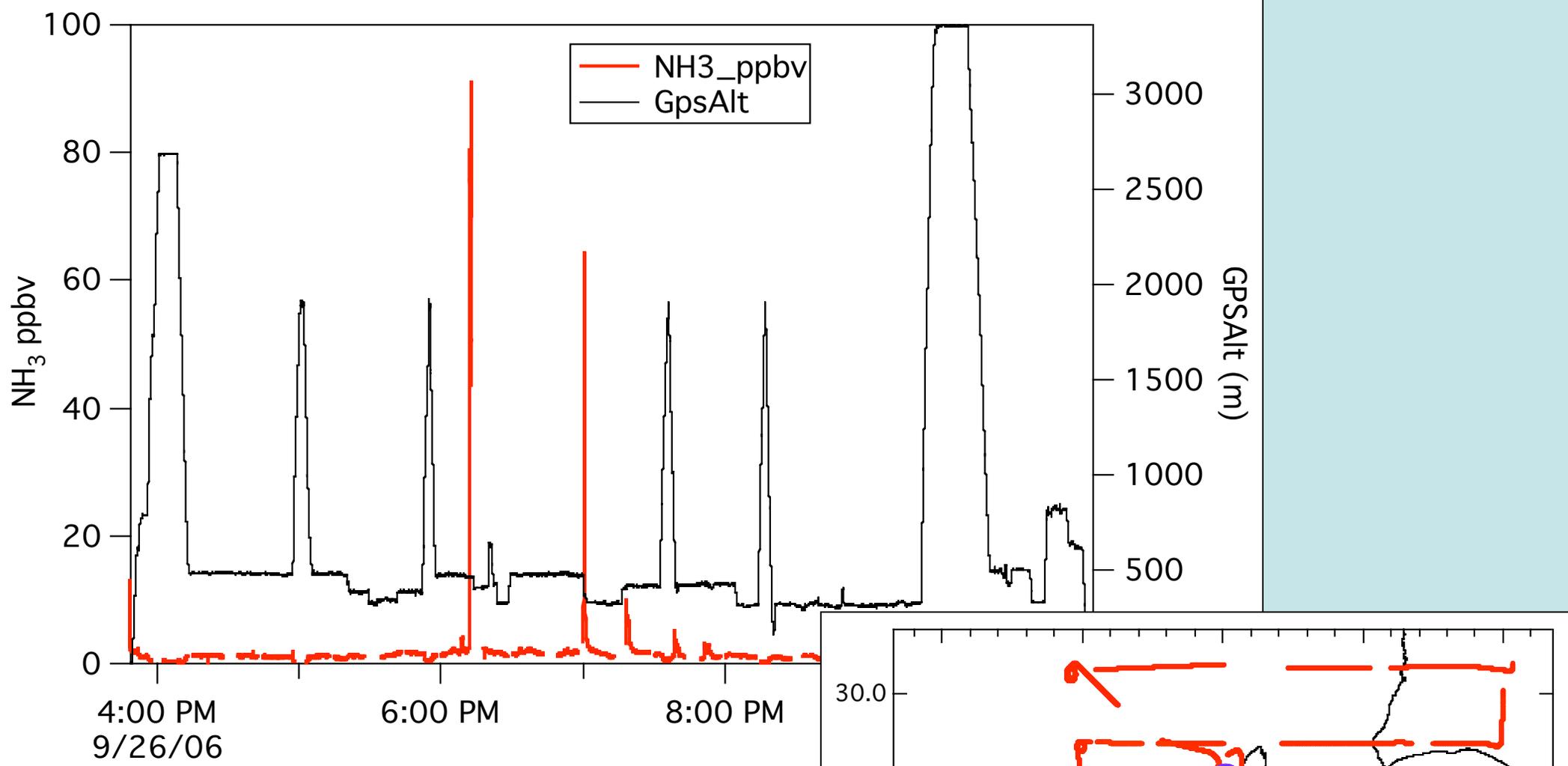




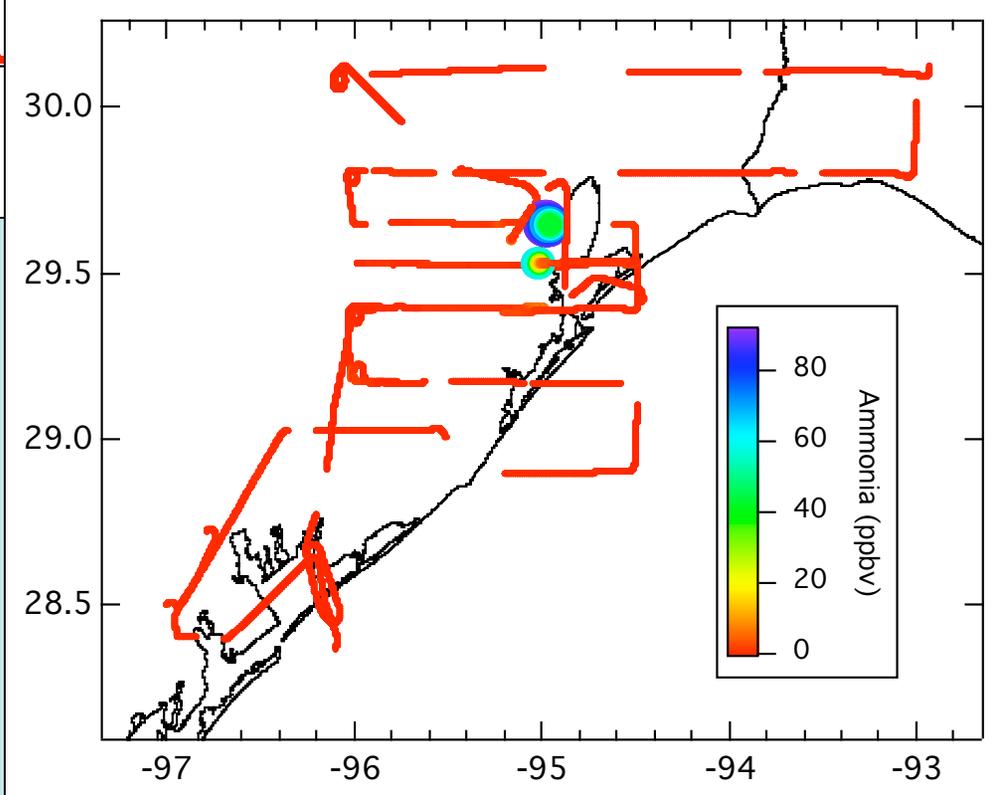


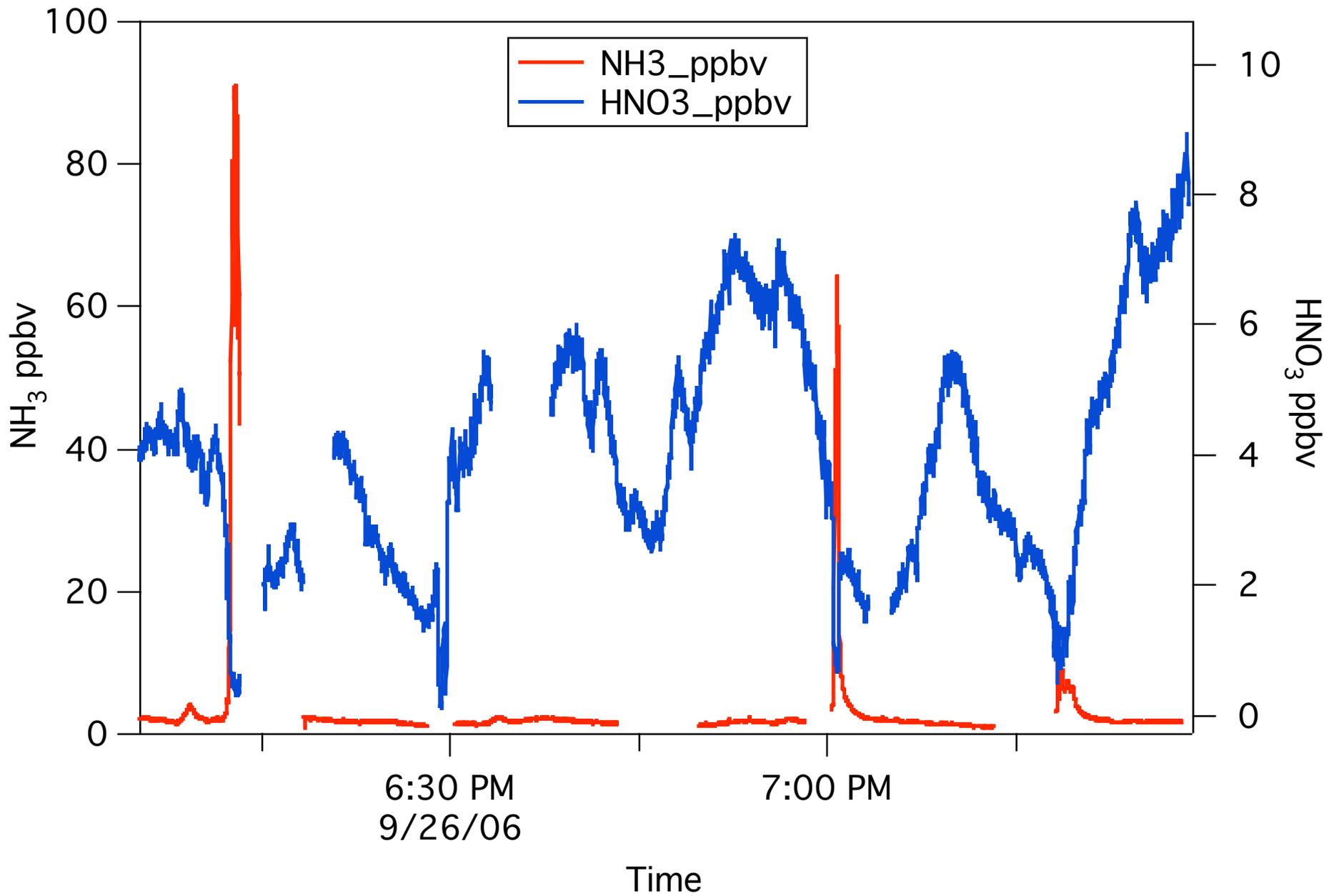


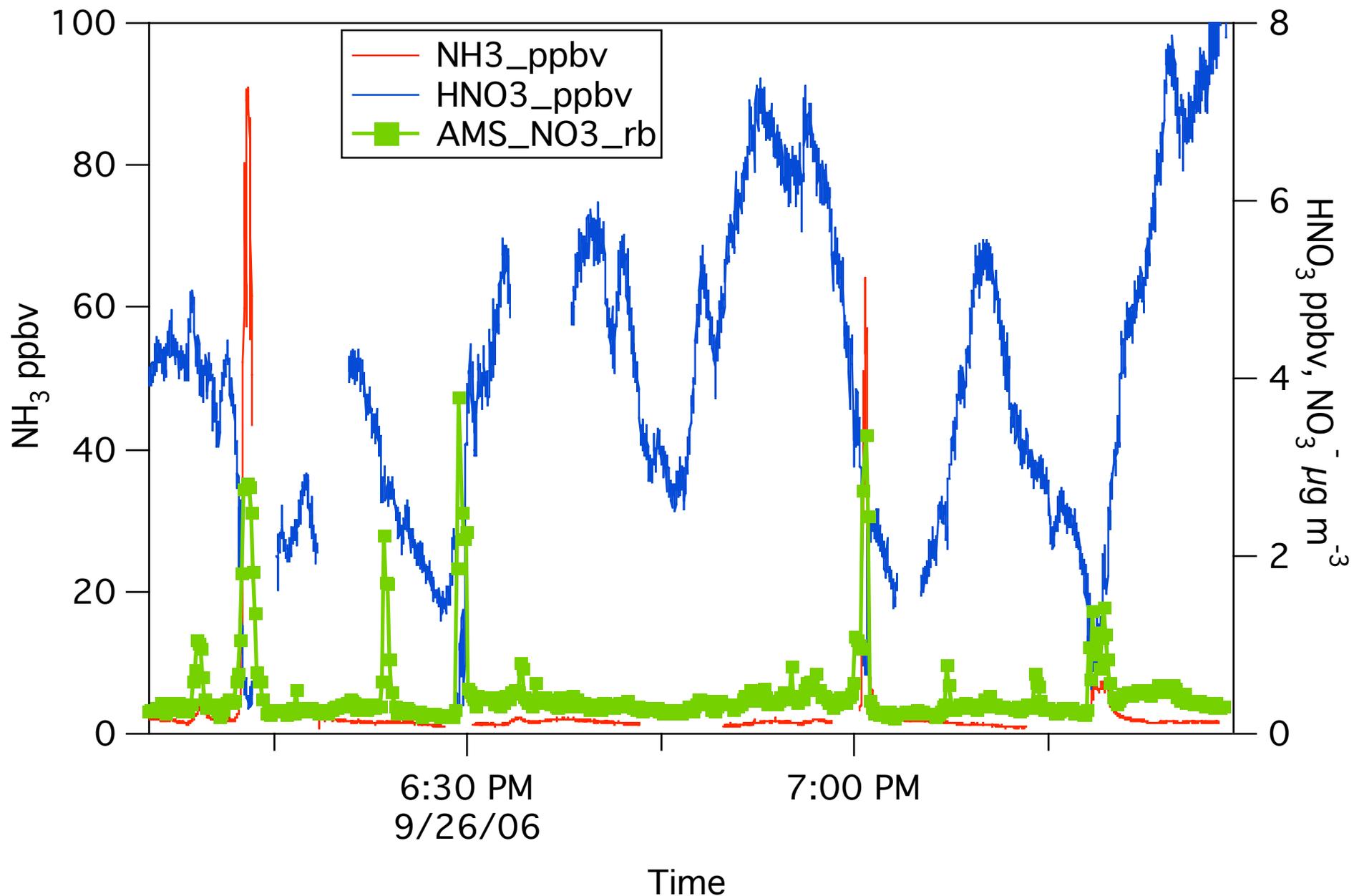




Concentrated ammonia plumes occasionally seen in HSC area



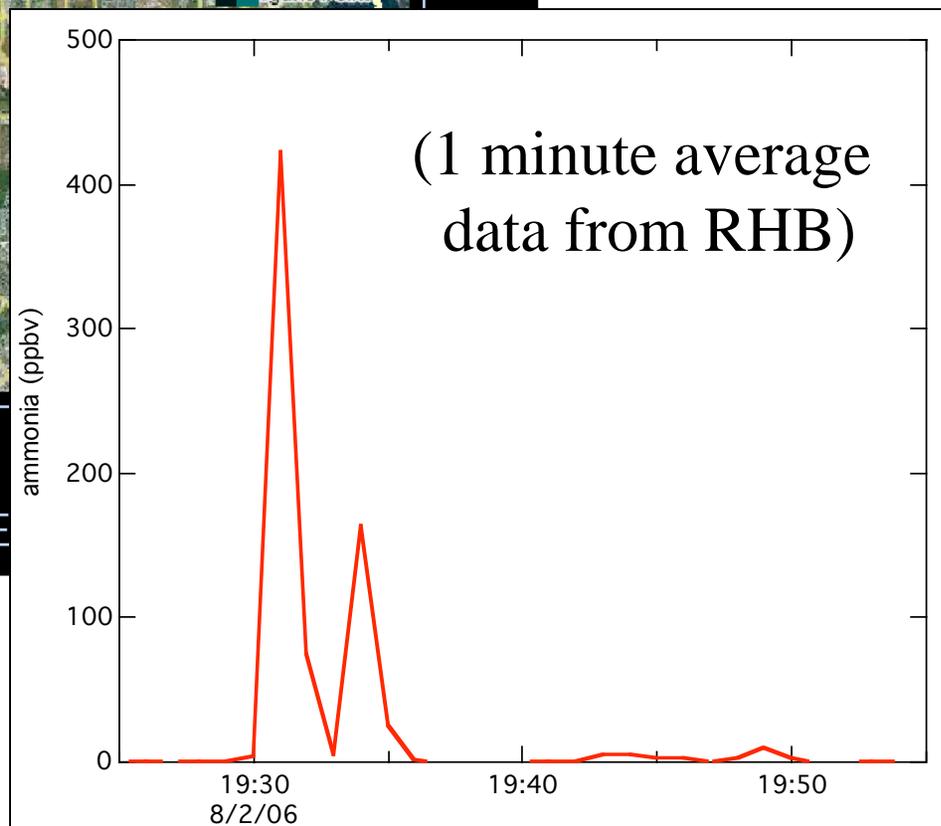
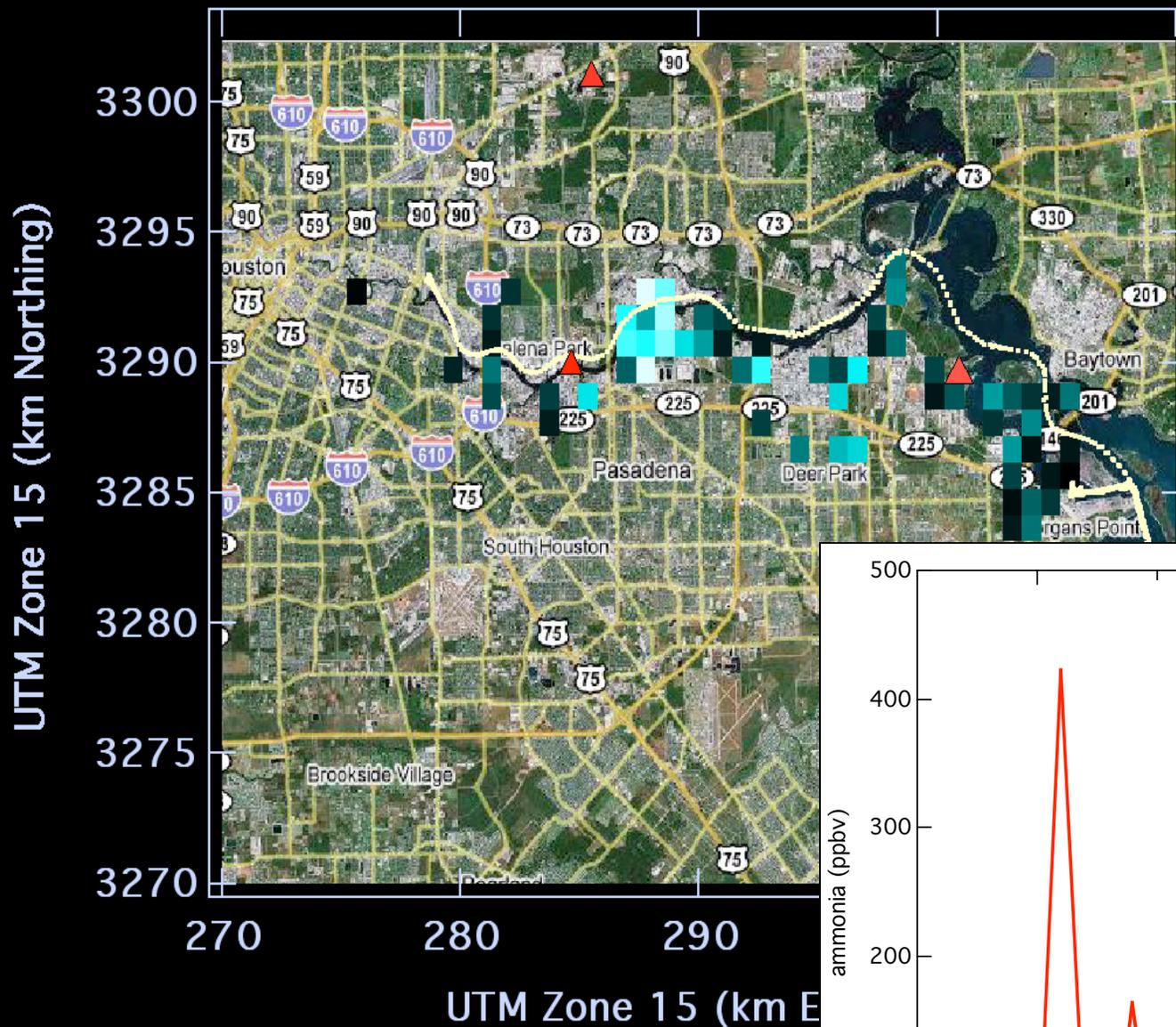




Concentrated ammonia plumes lead to ammonium nitrate formation (which will evaporate as plumes are transported and diluted.)

# Ammonia Analysis

Wind Projection: 10 minutes directly upwind



(Scott Herndon)

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- Measurements are in hand to evaluate ammonia inventory
- On-road mobile emissions seem to dominate in urban areas
- Occasional concentrated plumes are seen in HSC area.  
Air Quality implications?