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NESL's Atmospheric Chemistry Division Seminar

Airborne data addressing climate and air quality issues: connecting local emissions to global impacts

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Abstract

The Tropospheric Chemistry program carries out field research to study human effects on the natural atmosphere in fulfillment of NOAA mission goals. I will summarize recent findings from airborne and mobile laboratory field studies focusing on the atmospheric effects of emissions from agricultural, urban, and oil and gas source sectors in the U.S.

These field observations have been used to assess emissions inventory accuracy and constrain process understanding, with an emphasis on the spatial and temporal scales directly observable by aircraft intensive field missions. We are actively investigating ways to extend the use of these data to evaluate global-scale chemical-transport and chemistry-climate model performance. I will present initial ideas on how to bridge the disparate spatial and temporal scales between airborne field measurements and global-scale models via process-level constraints from the available field observations.

Monday, Sept. 15

3:15 p.m. Refreshments

3:30 p.m. – Seminar

FL2-1022, Large Auditorium