

AQRP Monthly Technical Report

PROJECT TITLE	Quantifying Ozone Production from Light Alkenes Using Novel Measurements of Hydroxynitrate Reaction Products in Houston	PROJECT #	14-026
PROJECT PARTICIPANTS	Dr. Tom Ryerson (NOAA) Dr. Greg Yarwood (ENVIRON) Dr. David Parrish	DATE SUBMITTED	6/8/2015
REPORTING PERIOD	From: May 1, 2015 To: May 31, 2015	REPORT #	12

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task

- The trajectory analysis and correlation analysis of photochemical species on the 19 August 2013, 4 September 2013, 18 September 2013, and 23 September 2013 SEAC⁴RS flights has been completed.
- A preliminary draft of the final report describing the data analysis was submitted; this draft will serve as the initial starting point of the peer-reviewed publication.

Preliminary Analysis

Data Collected

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

Goals and Anticipated Issues for the Succeeding Reporting Period

- Port hydroxynitrate chemistry updates from SCICHEM 3.0 Beta to final release version of SCICHEM 3.0, released June 1, 2015
- Conduct SCICHEM simulations for the 18 September 2013 flight and determine if the model can capture the hydroxynitrate formation seen in the aircraft measurements.
- Dr. Parrish will provide meteorological data and background concentrations to ENVIRON colleagues for remaining SEAC⁴RS flights (8/19, 9/4, and 9/23)
- Present data analysis results at AQRP workshop in June 2015.
- Continue writing peer-reviewed data analysis manuscript.

Detailed Analysis of the Progress of the Task Order to Date

Submitted to AQRP by: Greg Yarwood

Principal Investigator: Tom Ryerson