

AQRP Monthly Technical Report

PROJECT TITLE	Spatial Mapping of Ozone Formation near San Antonio	PROJECT #	17-032
PROJECT PARTICIPANTS	Ezra Wood	DATE SUBMITTED	1/9/2017
REPORTING PERIOD	From: 12/6/2016 To: 12/31/2016	REPORT #	1

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 goal of Task #1 “Recruit Post-doc” has been accomplished: Daniel Anderson, a recent Ph.D. recipient from the University of Maryland, was interviewed and recruited in November and will be starting as a post-doc at Drexel starting in the research group of the PI starting Feb 7 2017. Dr. Anderson has experience conducting research related to vehicle emissions and ozone chemistry, and has operated a laser-induced fluorescence instrument for quantifying formaldehyde on an airborne platform. Additionally, the PI has secured co-funding from Drexel University for a co-op undergraduate student who will work full-time in the PI’s research group from six months from April through September. This co-op student, though not hired yet, will work part-time on this AQRP project with the rest of his/her time devoted to other atmospheric chemistry projects. There was no work on any other tasks.

Preliminary Analysis

The PI engaged with conference calls with Dr. Herndon and others from Aerodyne Research concerning the instrumental payload of the Aerodyne mobile laboratory, and with Mark Estes regarding the overall design of both this project and Aerodyne’s related project.

Data Collected

NA

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

A chemiluminescence sensor is needed for quantifying NO during the field measurements. The PI does not currently own one in his Drexel laboratory (though did at his former position at U. Massachusetts), but will either purchase one or borrow one for the project. A third possibility is for Aerodyne to measure NO using a quantum cascade IR absorption instrument.

Goals and Anticipated Issues for the Succeeding Reporting Period

Daniel Anderson (postdoc) will start work in early February; main goal is to ensure he arrives ready to work on the project (i.e., new computer is ready).

Detailed Analysis of the Progress of the Task Order to Date

Task 1 "Recruit Post-doc" has largely been completed. Task 2 "Laboratory Preparation" will start in February.

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

Yes No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQRP Project Manager and your TCEQ Liaison?

Yes No

Do you have any bibliographic publications related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

Yes No

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQRP Workshop).

Yes No

Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

Yes No

Submitted to AQRP by

Ezra Wood,
Principal Investigator