

AQRP Monthly Technical Report

PROJECT TITLE	Analysis of Ozone Production and Its Sensitivity in Houston Using the Data Collected during DISCOVER-AQ	PROJECT #	Choose an item. 14-020
PROJECT PARTICIPANTS	University of Maryland College Park	DATE SUBMITTED	4/8/2015
REPORTING PERIOD	From: March 1, 2015 To: March 31, 2015	REPORT #	2

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

During the period from March 1-31, 2015, the team at University of Maryland College Park has accomplished the following tasks:

- (1) We have set up the box model with the Carbon Bond Version 5 (CB-05) mechanism.
- (2) We have started the programming of data analysis program in Matlab that will process the box model output data.
- (3) CMAQ model output created for 14-004 was extracted along the P-3B flight tracks for the month of September for input to the box model.
- (4) Input files for the CMAQ model run with process analysis are being prepared.

Preliminary Analysis

None.

Data Collected

None.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None.

Goals and Anticipated Issues for the Succeeding Reporting Period

- (1) We will continue working on getting the input files set up for the Carbon Bond Version 5 (CB05) mechanism for the box model runs.

- (2) We will run the CB05 box model for the DISCOVER-AQ study in Houston in 2013 once the input data files are ready.
- (3) After input files for the CMAQ model run with process analysis are being prepared, we will run CMAQ with process analysis to map the ozone production efficiency (OPE) and nitrogen oxides (NO_x) and VOC limited areas throughout the Houston metropolitan area.

Detailed Analysis of the Progress of the Task Order to Date

We have set up the box model with the CB05 mechanism and are working on the data analysis program. The work with WRF-CMAQ modeling has started and generated some reasonable results. Everything regarding the Task Order schedule and progress is going well. There were no delays in completing tasks and project goals during this reporting period.

Submitted to AQRP by: Xinrong Ren

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