Monthly Technical Report

PROJECT TITLE	Development and Evaluation of an Interactive Sub-Grid Cloud Framework for the CAMx Photochemical Model	**PROJECT #**	14-025
PROJECT PARTICIPANTS	ENVIRON International Corporation Texas A&M University	**DATE SUBMITTED**	3/3/15
REPORTING PERIOD	**From:** 2/1/2015 **To:** 2/28/2015	**REPORT #**	9

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

This project was initiated on May 21, 2014. This report documents progress during the month of February 2015.

Task 1: Preparation and Software Design

This task was completed in August.

Tasks 2 and 3: Implementation of a Sub-Grid Convective Model in CAMx

These tasks were completed in October.

Task 4: Model Evaluation

In February, the updated codes for WRF, WRFCAMx and CAMx supporting the new CAMx convection treatment were transferred to Texas A&M (TAMU). The project team held a conference call on February 25 to coordinate on modeling and analysis priorities, methods, and schedule. TAMU began their modeling applications for the DISCOVER-AQ and START08 episodes.

Preliminary Analysis

None this period.

Data Collected

No additional data were collected by the project team.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None this period.

Goals and Anticipated Issues for the Succeeding Reporting Period

TAMU will continue running WRF and CAMx for the DISCOVER-AQ and START08 testing and evaluation episode.

Detailed Analysis of the Progress of the Task Order to Date

Progress on Task 1 (software design) was completed in August. Task 2 (implementation of a sub-grid convective model in CAMx) and Task 3 (implementation of chemistry and wet deposition) was completed in October. Task 4 (model evaluation) began in February as a result of delays related to our inability to solve technical issues with EPA's latest "multi-scale" version of the WRF Kain-Fritsch scheme. Task 4 is expected to be completed in late May.

The project remains on budget, but the schedule is roughly one month behind. Project completion and delivery of the final AQRP-reviewed report is scheduled for June 30, 2015.

Submitted to AQRP by: _Chris Emery_____

Principal Investigator: __Chris Emery_____