

Monthly Technical Report

PROJECT TITLE	Impact of large-scale circulation patterns on surface ozone concentrations in Houston-Galveston-Brazoria (HGB)	PROJECT #	14-010
PROJECT PARTICIPANTS (Enter all institutions with Task Orders for this Project)	Texas A&M University at Galveston	DATE SUBMITTED	02/09/2015
REPORTING PERIOD	From: 01/26/2015 To: 01/31/2015	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 (*Include all Task actions conducted during the reporting month.*)

Task 1: We have collected surface ozone concentrations over HGB at continuous ambient monitoring stations during the study period (1998-2013). We have also downloaded observational and reanalysis meteorological data, including meteorological variables like surface temperature, relative humidity and wind field (see data collected).

Task 2: Not started.

Task 3: Not started.

Preliminary Analysis (*Include graphs and tables as necessary.*)

Preliminary analyses are not yet available.

Data Collected (*Include observational data and reanalysis data.*)

1) Observational data:

Daily maximum 8-hour ozone concentrations from 1998 to 2013 at CAMS sites over HGB region;

Monthly gridded GHCN temperature data and monthly GHCN in situ temperature data

2) Reanalysis data:

NCEP/NCAR reanalysis data (monthly mean surface temperature and relative humidity, sea level pressure, surface and 850hPa wind field; daily surface temperature and sea level pressure);

ERA-Interim reanalysis data (monthly mean surface temperature and relative humidity,

sea level pressure, surface and 850hPa wind field);

NARR reanalysis data (monthly mean surface temperature, relative humidity, sea level pressure and surface wind field);

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None this period.

Goals and Anticipated Issues for the Succeeding Reporting Period

Other reanalysis data and observational data mentioned in the work plan including MERRA reanalysis and GHCN daily observational data and other meteorological variables of potential importance to the project will be downloaded.

In task 3, four sets of GEOS-Chem runs will be conducted, all at a spatial resolution of $2^\circ \times 2.5^\circ$. In preparation, we will set up the GEOS-Chem model for the full-chemistry simulation and tagged-ozone simulation.

Detailed Analysis of the Progress of the Task Order to Date*(Discuss the Task Order schedule, progress being made toward goals of the Work Plan, explanation for any delays in completing tasks and/or project goals. Provide justification for any milestones completed more than one (1) month later than projected.)*

Progress on the project is ongoing.

Submitted to AQRP by:

Principal Investigator: Yuxuan Wang