AQRP Monthly Technical Report

PROJECT TITLE	Modeling analysis of TRACER-AQ and over-water measurements to improve prediction of on-land and offshore ozone	**PROJECT #**	22-008
PROJECT PARTICIPANTS	Yuxuan Wang, James Flynn, Paul Walter, Xueying Liu	**DATE SUBMITTED**	05/09/2023
REPORTING PERIOD	**From:** 04/01/2023 **To:** 04/31/2023	**REPORT #**	8

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 for reporting period

Completed Task 4 (Photochemical Model Evaluation and Model Intercomparison). Submitted Deliverable 4.1 (Photochemical Model Evaluation and Model Intercomparison Report). Detailed analysis of Task 4 can be found from the Deliverable 4.1 Report.

Data Collected

None.

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

None.

Goals and Anticipated Issues for the Succeeding Reporting Period

We will start Task 5 (Investigation of Elevated Offshore Ozone's Sources) in the succeeding report period.

Detailed Analysis of the Progress of the Task Order to Date

N/A.

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**

Li et al., Understanding offshore high-ozone events during TRACER-AQ 2021 in Houston: Insights from WRF-CAMx photochemical modeling. To be submitted to *Atmospheric Chemistry and Physics*.

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**

Liu et al., Evaluating WRF-GC v2.0 predictions of boundary layer and vertical ozone profiles during the 2021 TRACER-AQ campaign in Houston, Texas. Submitted to *Geoscientific Model Development (GMD)*

Do you have any bibliographic publications (ie: publications that cite the project) 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**

Wang et al., Using TRACER data to Evaluate High-Resolution Air Quality Models for Houston and Understand High Ozone Episodes. Poster presentation planned for the TRACER Workshop during 16-17 May, 2023 at Texas Southern University.

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**

Have any personnel changes occurred that were not listed in the original proposal? If so, please include a detailed description of the personnel change(s) below.

☐ **Yes** ☒ **No**

Are any delays expected in the progress of the research? If so, please include a detailed description of the potential delay below.

☐ **Yes** ☒ **No**

Describe any possible concerns/issues (technical or non-technical) that AQRP should be made aware of.

Are you anticipating using all the available funds allocated to this project by the end date? If not, why and approximately what is the amount to be returned?

☒ **Yes** ☐ **No**

Submitted to AQRP by

Yuxuan Wang