

# AQRP Monthly Technical Report

<b>PROJECT TITLE</b>	Characterization of Corpus Christi and San Antonio Air Quality During the 2020 Ozone Season	<b>PROJECT #</b>	20-003
<b>PROJECT PARTICIPANTS</b>	Robert Griffin, Rice James Flynn and Yuxuan Wang, UH Rebecca Sheesley and Sascha Usenko, Baylor	<b>DATE SUBMITTED</b>	9 September 2020
<b>REPORTING PERIOD</b>	<b>From:</b> 1 August 2020 <b>To:</b> 31 August 2020	<b>REPORT #</b>	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 15<sup>th</sup> of the month following the reporting period shown above.

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## Detailed Accomplishments by Task for reporting period

The bulk of the work performed in this month was related to Task #1, campaign preparation.

The largest accomplishment for this project during the reporting month was an adjustment so that the planned field work will occur in spring 2021 rather than fall 2020 due to delays associated with task orders and the COVID pandemic. This entailed submission of a request and revision of the QAPP and statement of work. It also necessitated alteration of travel plans (cancelation and rebooking of lodging and RV sites for the mobile air quality laboratory).

In addition, the team has begun training of new graduate students and research staff and initiated instrumentation and mobile air quality laboratory preparation. Specifically, instrument evaluations have begun to allow for identification of maintenance issues required prior to deployment. In addition, a data comparison was performed using collocated measurements of the Baylor PTR-MS and the UH Aerolaser HCHO instrument. We identified necessary upgrades on the coolant system for the PTR-MS and will plan an additional comparison for further validation prior to deployment.

Additional work was performed for Task #3, data analysis. Here, initial generation of model input files to allow for data analysis post campaign was begun.

## Preliminary Analysis

None yet

## Data Collected

None yet

## Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

As referenced above delays in finalizing task orders and issues associated with the COVID pandemic have necessitated shifting the field work from fall 2020 to spring 2021. With approval from the AQRP, we have adjusted and added to the scientific questions to be addressed using our field data analysis and modeling.

### **Goals and Anticipated Issues for the Succeeding Reporting Period**

Model: Continue generation of appropriate input files for three-dimensional modeling efforts, continued training of researchers on use of the three-dimensional model

Field: Continue preparation of mobile air quality laboratory, continue assessment of equipment maintenance needs, continue training of researchers on equipment usage, and begin assessment of locations for deployment (in light of the new statement of work) and travel planning.

### **Detailed Analysis of the Progress of the Task Order to Date**

Given the late start and the approved change in project field work, we believe that our progress on the project has been appropriate.

**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 (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

**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

See response above regarding problems encountered. This is more a shift in timing as it will not impact our ability to complete the project by the scheduled end date.

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

None not addressed previously.

**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

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Submitted to AQRP by      Robert J. Griffin