

AQRP Monthly Technical Report

PROJECT TITLE	Galveston Offshore Ozone Observations (GO3)	PROJECT #	20-004
PROJECT PARTICIPANTS	James Flynn (UH) Yuxuan Wang (UH) Paul Walter (St. Edward's University) Gary Morris (St. Edward's University)	DATE SUBMITTED	6/9/2021
REPORTING PERIOD	From: May 1, 2021 To: May 31, 2021	REPORT #	11

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 14th of the month following the reporting period shown above.

Detailed Accomplishments by Task for reporting period

- James Flynn and Paul Walter met with Elizabeth Santos regarding potential student support for sonde launches.
- Visit with Pandora team regarding installation on the pontoon boat.
- Reorganize instrument layout on pontoon boat.
- Install first CL-51 on the pontoon boat.
- Replace fuel lines and starter motor on the pontoon boat.
- Install fuel flow sensor for range/duration determination.
- Build storage bench for auxiliary fuel tank and helium cylinder storage.
- Condense sounding equipment and other boat support equipment into one dry box.
- Install fire extinguisher.
- New document and first aid kit storage and waterproof bag.
- Tested GSP-photos cells with coordination from Air Quality Design (AQD).
- Determined that pontoon boat measurements would move forward with ceilometer, ozone, and ozonesonde launch while waiting on GSP's to complete the commercial ship installations.

Data Collected

No additional sampling data was collected during this period.

Preliminary Analysis

No additional analysis was performed

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

- Learned that the recommended power for the GSP's was running the lamps to hot and causing them to overheat and burn out. The GSP's sent back to AQD for rework using lower voltage power supply for increased durability.
- Vaisala informed us that they shipped second ceilometer May 10 but due to some delays from the carrier, we did not received instrument until May 28.

Goals and Anticipated Issues for the Succeeding Reporting Period

- Begin measurements from pontoon boat.
- Receive, install, test, and deploy the instrument cases and O_x instrument (pontoon only) once the GSPs arrive.

Detailed Analysis of the Progress of the Task Order to Date

The project is moving forward quite well with respect to the Task Order issue date. With the request from AQRP and TCEQ to delay deployment into the 2021 O₃ season the timeline has shifted which will allow more time for preparation and coordination.

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

The AQRP and TCEQ have requested the deployment to be delayed into CY2021.

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

Yes No

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

Acronyms/Abbreviations:

AQD: Air Quality Design

O₃: Ozone

O_x: Nitrogen Dioxide plus Ozone

Submitted to AQRP by

James Flynn