

AQRP Monthly Technical Report

PROJECT TITLE	Ozone Measurements and Platform Emission Factors in the Gulf of Mexico	PROJECT #	20-009
PROJECT PARTICIPANTS	Aerodyne Research, Inc.	DATE SUBMITTED	11/10/2020
REPORTING PERIOD	From: October 1, 2020 To: October 31, 2020	REPORT #	5

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

The reporting schedule for this project has changed, and the new dates have been noted.

In the past reporting period, the unrelated Aerodyne Mobile Laboratory campaign was delayed indefinitely. The ozone instrument remains installed in the Mobile Lab, and is measuring ambient signal in the Aerodyne parking lot. The data looks acceptable.

In the last month, we have met remotely with a representative of the Gulf Offshore Research Institute, a non-profit organization that has leased two decommissioned platforms from an oil and gas company and is setting them up to operate as research stations for air quality, meteorological, wind energy, and fisheries research projects. They will be able to provide platform access for the central tracer-release portion of the UNEP campaign. There are two platforms available. The first is 55 km east of Port Mansfield, Texas, (south of Corpus Christi). The second is 160 km south of Cameron, Louisiana (south-east of Galveston). The choice of platform will be made after consideration of logistical issues like transportation of release gases, and after consultation with the vessel operator.

We have also had a call with the vessel operator and one of its captains to discuss timing, logistics and COVID-19 related safety procedures. There is some additional flexibility in vessel timing for the spring semester, but other significant logistical concerns have been raised, and are discussed below.

Preliminary Analysis

There is no preliminary analysis to report.

Data Collected

There is no data collected.

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

Finding an offshore platform is no longer the limiting factor for the success of this campaign.

However, there is still some uncertainty about whether this project can be accomplished before the August 31, 2021 project deadline. This uncertainty is now largely related to the COVID-19 pandemic.

Pandemic-related safety concerns are now a central concern. Some combination of testing and quarantining prior to boarding the vessel will be pursued. Close quarters on the vessel (including bunk rooms) will make alternative risk mitigation steps ineffective. The length of the quarantine, the costs incurred (hotel and travel fees for Aerodyne; additional costs for vessel crew) and the willingness or ability of all parties (which may include undergraduate students for the RV Trident vessel) to comply is likely to present a barrier.

We have just begun serious discussions with the vessel and platform operators related to these questions. We have also obtained and reviewed the operational COVID-19 safety procedures followed by NOAA's aircraft operations division, who have continued with various missions throughout the pandemic. These procedures can serve as a guidance for us.

Another logistical problem that has been identified is that the RV Trident will not be able to transport the gas cylinders or personnel required for the release to the offshore platform. Docking at an offshore platform is not an operation they can perform.

Currently, the solution that is being pursued is looking for a second vessel. The Gulf Offshore Research Institute may be able to provide access to a supply vessel, which would be appropriate for transferring cylinders and personnel to the platform. It has yet to be determined whether such a vessel could serve as an alternate measurement platform.

Goals and Anticipated Issues for the Succeeding Reporting Period

In the next reporting period, we will continue logistical planning. Logistics include determining the exact tracer release gases and equipment that will be brought to the offshore platform; ensuring the platform chosen meets the experimental requirements; safety discussions surrounding offshore work; discussions about COVID-19 quarantines; and contracting between all parties.

Detailed Analysis of the Progress of the Task Order to Date

Progress is as expected. Activities on the broader UNEP project will ramp up now that a platform has been found. Progress (and spending) on this specific AGRP-funded sub-project to measure ozone offshore will still be focused on the weeks immediately surrounding the measurement campaign.

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

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
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