

AQRP Monthly Technical Report

PROJECT TITLE	Characterization of Boundary-Layer Meteorology During DISCOVER-AQ Using Radar Wind Profiler and Balloon Sounding Measurements	PROJECT #	14-006 UTA14-000538
PROJECT PARTICIPANTS	Sonoma Technology, Inc., and Gary Morris (St. Edwards University)	DATE SUBMITTED	8/8/2014
REPORTING PERIOD	From: July 1, 2014 To: July 31, 2014	REPORT #	2

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

Task 1: Characterize the Atmospheric Boundary Layer

- Processed and plotted ozonesonde data from the Smith Point and University of Houston launch sites.

Task 2: Determine Representativeness of Meteorological Conditions

- No activities performed on this task.

Task 3: Derive and Deliver Continuous Mixing Heights

- Began retrieval and processing of upper-air data from the seven radar wind profilers (RWP) operated in the Houston area as part of the DISCOVER-AQ program.
- Derived mixing heights from the Smith Point and University of Houston ozonesonde launches.

Preliminary Analysis

No analysis has yet been performed as of the period covered by this report.

Data Collected

- Ozonesonde data from the Smith Point and University of Houston launch sites.
- RWP data from the Beaumont, College Station, LaPorte, Round Top, Smith Point, and Wharton sites.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

Two ozonesonde launches from the University of Houston and three ozonesonde launches from Smith Point had malfunctions that resulted in loss of data; as a result, mixing heights cannot be determined from those launches. Data from the seven RWPs should still be sufficient to assess mixing layer heights on the affected dates.

Goals and Anticipated Issues for the Succeeding Reporting Period

During the month of August 2014, we plan to continue retrieving meteorological and air quality data needed to complete Tasks 1 and 2, and plan to continue deriving continuous mixing heights from the RWPs and from the Smith Point ozonesonde for Task 3. We hope to have the derived mixing height data available during the September reporting period.

Detailed Analysis of the Progress of the Task Order to Date

We have focused thus far on Task 3 of this project as the data required to complete this task are readily available and the derived mixing heights will be necessary in completing Tasks 1 and 2. We have already retrieved most of the needed ozonesonde and RWP data required to complete Task 3. No major technical issues have arisen regarding the air quality and meteorological data that have been collected thus far, aside from the five ozonesonde launches that experienced data loss. The budget for this Task Order remains on track.

Submitted to AQRP by: Daniel M. Alrick

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