

AQRP Monthly Technical Report

PROJECT TITLE	Development and Evaluation of the FINNv.2 Global Model Application and Fire Emissions Estimates for the Expanded Texas Air Quality Modeling Domain	PROJECT #	18-022
PROJECT PARTICIPANTS	University of Texas at Austin Sonoma Technology, Inc. Dr. Christine Wiedinmyer	DATE SUBMITTED	1/9/2019
REPORTING PERIOD	From: 12/1/2018 To: 12/31/2018	REPORT #	3

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. Development and Release of the FINN v.2 Global Application

The overall objective of this task is to produce a fully operational, documented global FINN application that is reflective of the state of the science.

1.1 Preprocessor and Model Development

Dr. Wiedinmyer and Dr. McDonald-Buller have been reviewing literature published since 2014 regarding emission factors for fires to determine if updates should be made to the default factors in FINN.

1.2 Accessibility for Global Scale Application

Dr. Kimura and Mr. Joseph have a preliminary working implementation of the FINN preprocessor within the Docker environment. They are currently working on debugging, quality assuring, and refining it to improve ease of use and flexibility and to evaluate test cases.

1.3. Porting and Testing

Not yet initiated.

Task 2. FINN v.2 Global Emissions Estimates

Not yet initiated.

Task 3. Assessment of FINN Performance Using Satellite Observations

The team is working on implementing the TCEQ's 2012 episode with PM chemistry enabled and determining how the output will be processed to obtain predictions of aerosol optical depths (AOD).

Preliminary Analysis

As above.

Data Collected

None.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None.

Goals and Anticipated Issues for the Succeeding Reporting Period

Major goals for the next reporting period include continued development, evaluation, and quality assurance of FINN and the Docker environment.

Detailed Analysis of the Progress of the Task Order to Date

The project is proceeding as planned.

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 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

Submitted to AQRP by

Elena McDonald-Buller