

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa Department of Transportation

### INSTRUCTIONS:

*Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.*

<b>Transportation Pooled Fund Program Project #</b> TPF-5(290)	<b>Transportation Pooled Fund Program - Report Period:</b> X Quarter 1 (January 1 – March 31, 2020) Quarter 2 (April 1 – June 30, 2020) X Quarter 3 (July 1 – September 30, 2020) Quarter 4 (October 1 – December 31, 2020)	
<b>Project Title:</b> Aurora Program		
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<b>Lead Agency Project ID:</b> RT 0034	<b>Other Project ID (i.e., contract #):</b> Addendum 156	<b>Project Start Date:</b> January 1, 2013
<b>Original Project End Date:</b> May 31, 2019	<b>Current Project End Date:</b> – December 31, 2019	<b>Number of Extensions:</b>

Project schedule status:

On schedule     
  On revised schedule     
  Ahead of schedule     
  Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
\$2,150,000	\$839,281.71	

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$71,720.42	N/A	

## **Project Description:**

The Aurora Program is a consortium of public agencies focused on collaborative research, evaluation, and deployment of technologies for detailed road weather monitoring and forecasting. Members seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures; ultimately lessening adverse impacts of inclement weather.

**Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.). These efforts are identified below.**

### Program Administrative Activities:

- Reviewed 2019 admin budget. Compared budgeted and actual expenses.
- Requested no cost extension of 2019 admin contract to continue support of 290-based projects. The extension was granted through May 31, 2021.
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- Addressed all board correspondence, administrative items resulting from the Fall 2019 meeting.
- Provided program management in terms of projects and program budgets.
- Planned the Fall 2019 pre-meeting (including financial and contract) and meeting details.
- Began planning Spring 2020 meeting.
- Participated in planning calls for the 2020 International Road Weather and Winter Maintenance Conference.
- Communicated with agencies regarding Aurora membership and information, including Nebraska, Nevada.
- Communicated with existing agencies regarding Aurora membership. Delaware will not participate in 2020.
- Coordinated with states regarding new (or interim) Board representatives, including Maine, Alaska, Colorado and Washington.
- Maine became an Aurora member.
- Facilitated review and voting of proposed project, "Invasive and Non-Invasive Sensing: Assessing Agreement between Measurement Systems"
- Shared information regarding the Aurora Pooled Fund regarding budget, accomplishments, projects, etc. This information was used by agencies to justify continued participation.
- Provided quarterly project reports upon request.
- Managed Aurora Board email list.
- Coordinated with Iowa DOT SPR Research Engineer regarding state participation in the new pooled fund, TPF-5(435).
- Participated in conference call with CIMA+ (new FOA member) and distributed company information to Board.
- Renewed the aurora-program.org domain.
- Updated website content and continued working on protected content access.
- Submitted proposal to Iowa DOT for 2020 administrative support.
- Provided a description of Aurora for SICOP, specifically <https://sicop.transportation.org/roster-of-agencies/>

### Facilitate Meetings and Conference Calls:

### Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

### Project-Specific Activities:

TPF Program Standard Quarterly Reporting Format

- Tracked project status and prepared a summary for recently completed, active, and all prospective new projects.
- 2018-01 RWIS Life Cycle Cost Analysis
  - Distributed invoices to project team for review and approval.
  - Distributed draft memos for review – Task 3 and 4.
  - Shared review feedback with researchers.
  - Distributed invoices for approval.
  - Distributed revised Task 4 memo and comment disposition table.
  - Coordinated presentation for Spring 2020 meeting.
  - Processed no cost extension until May 29, 2020.
- 2018-02 Non-Invasive Sensors
  - Coordinated with procurement agent regarding equipment and poles.
  - Tracked distribution of equipment. Coordinated with agencies, as necessary.
  - Facilitated trading of equipment among states, per Michigan request.
  - Addressed questions from State DOTs, including Washington and Michigan.
  - Distributed firmware update (<https://iastate.box.com/s/bw2nepi2c6utqghpnqokyiz3vklzsdxe>).
  - Coordinated with Washington DOT regarding intent of the project.
- 2016-03 Optimal RWIS Sensor Density and Location – Phase II
  - Distributed draft report for review.
  - Shared review feedback with researcher.
  - Coordinated with InTrans publication and researcher in preparation of final report.
  - Distributed link to final report.
  - Coordinated final project presentation at Spring 2020 meeting.
- 2014-01 Demonstration and Inter-comparison of Seasonal Weight Restriction Models, Phase II
  - Provided coordination with FROST Associates and demonstration states, including current appropriate contacts.
  - Reached out to demonstration states on behalf of FROST.
  - Coordinated with FROST regarding software.
  - Participated in a conference call (project update) with FROST and North Dakota DOT on January 27, 2020.
  - Coordinated regarding computer usage within contract.
  - Distributed invoices for approval.
  - Requested and received a project update for the Spring 2020 meeting.
- Pending projects.
  - 2020-01 Economic Impacts of Atmospheric Rivers in the Transportation Sector: Methodology and Preliminary Case Studies
    - Continued and completed contracting phase.
    - Contacted project champion regarding possible contacts at several agencies.
    - Worked on setting up project kick-off meeting.
  - 2019-01 Optimal RWIS Sensor Density and Location - Phase III: Continuous Mapping of Winter Road Surface Conditions via Big Data and Deep Learning
    - Continued and completed contracting phase.
    - Coordinated with Iowa DOT regarding possible issues with a non-US institution serving as prime contractor.
    - Coordinated kick-off presentation at Spring 2020 meeting.

- Continued work associated with assuming control and management of the RWIS training tool (<http://aurorabase.iteris.com/login/?destination=/>), including monthly billing.

**Anticipated work next quarter:**

Program Administrative Activities:

- Manage budget.

Facilitate Meetings and Conference Calls:

- Facilitate project correspondence, meetings and status reports regarding active 290 projects.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- N/A

Project-Specific Activities:

- Hold project kick-off meetings for 2020-01 and 2019-01.
- Distribute and finalize project report for 2018-01.
- Coordinate with states regarding 2018-02 data acquisition.
- Facilitate project correspondence, meetings and status reports regarding active 290 projects.

**Significant Results:**

- 2016-03 was finalized, including editing.
- 2018-01 was extended. Task tech memos were distributed.
- 2020-01 and 2019-01 contracts were finalized.
- Distributed firmware for 2018-01 and ensured all sensors and ancillary equipment were shipped and received.

**Circumstance affecting project or budget:**