

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.

Transportation Pooled Fund Program Project # TPF-5 (435)		Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2020) X Quarter 2 (April 1 – June 30, 2020) Quarter 3 (July 1 – September 30, 2020) Quarter 4 (October 1 – December 31, 2020)	
Project Title: Aurora Program			
Project Manager: Tina Greenfield		Phone: 515-233-7746	E-mail: tina.greenfield@dot.iowa.gov
Project Investigator: Zach Hans		Phone: 515-294-8103	E-mail: zhans@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 731	Project Start Date: January 1, 2020	
Original Project End Date: December 31, 2020	Current Project End Date:	Number of Extensions:	

Project schedule status:

X 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
\$159,019	\$36,683	

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$36,683	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:

- Coordinated with states regarding new (or interim) Board representatives, e.g. Illinois, Washington, Ohio, Alaska.
- Managed Aurora email list. In some cases, states requested multiple individuals be included in Aurora-related correspondence.
- Continued tracking state commitments.
- As part of the Spring 2020 meeting, integrated and distributed list of project ideas to Aurora Board. Compiled votes for new project ideas.
- Facilitated discussions via auroraboard@iastate.edu, including:
 - AVL
 - Subsurface temperature probe placement (per vendor request)
 - VMS applications for snow
- Provided program management in terms of projects and program budgets.
- Continued planning the Spring 2020 meeting, including collaborating with the executive board to move the meeting from on-site to virtual.
- Participated in planning calls for the 2020 International Road Weather and Winter Maintenance Conference.
- Shared information regarding the Aurora Pooled Fund regarding budget, accomplishments, projects, etc. This information was used by agencies to justify continued participation.
- Updated website content.
- Distributed Spring 2020 minutes and received Board approval.
- Discussed pooled fund fee with the Board. Board recommended keeping the fee at \$25,000.
- Coordinated with Iowa DOT SPR Research Engineer regarding state participation in the new pooled fund, TPF-5(435).
- Discussed Aurora Board membership options, specifically public agencies only or including private agencies. The Board voted to only include public agencies.
- Added OTT HydroMet to Friends of Aurora.

Facilitate Meetings and Conference Calls:

- Held virtual Spring 2020 meeting on April 7, 8 and 9.
- Hosted Board member 60-Minute monthly conference calls on:
 - May 14
 - June 11, included presentation from Jay Cohen of Connect Management, LLC, speaking about "VirtualRWIS".
- Organized addition vendor presentations at upcoming monthly meetings.
 - July: Björn Zachrisson of Nira Dynamics, speaking about "Crowdsourcing Winter Road Conditions"
 - August: Patrick Baglien of Frost Control Systems, Inc, speaking about "Battery Powered RWIS".
- Coordinated with Board regarding continued use of ZOOM platform for virtual meetings through CY 2020.

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- Coordinated with Iowa DOT, MnDOT, TRB, Clear Roads and SICOP regarding “2020 International Road Weather and Winter Maintenance Conference & Peer Exchange”.
- Solicited input from Board regarding possible 2020 travel restrictions due to COVID 19.
- Prepared handouts for the Spring 2020 meeting, including a research project update and compilation of submitted research ideas.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Cancelled Spring 2020 flights due to move from an on-site to virtual meeting.

Project-Specific Activities:

- Facilitated kickoff meeting for “2020-02 Roadway Ice/snow Detection using a Novel Infrared Thermography Technology”.
- Regarding approved project ideas from Spring 2020 meeting...
 - “Using Connected Vehicle Technology to Improve Network-wide RWIS Coverage”.
 - Obtained additional information from Maine regarding the idea.
 - Began researching and reviewing similar or related efforts.
 - Had a meeting with Paul Pisano regarding similar efforts.
 - “Roadway Friction Modeling and Forecasting” & “Establishing a Method to Combine Stationary and Mobile Data Sets”
 - Had meeting with NCAR and WTI regarding ideas. Given some similar tasks, the project ideas will be combined.
 - Received proposal and budget from NCAR and WTI for “Roadway Friction Modeling”, which is currently under review by the project champion.
- Tracked project status.

Anticipated work next quarter:

Program Administrative Activities:

- Continue Aurora website updates.
- Follow up with states, about possible membership.
- Manage budget.
- Track new solicitation contributions.
- Participate in planning calls for 2020 International Road weather and Winter Maintenance Conference & Peer Exchange.
- Continue to foster any Board approved research ideas during the Spring 2020 meeting.
- Update the Aurora Charter, Work Plan and Associate Members.
- Have discussion with Ontario regarding membership.

Facilitate Meetings and Conference Calls:

- Continue monthly Board meeting calls to generate research ideas, discuss important issues and have vendor presentations.
- Facilitate project correspondence and status reports.
- Coordinate with TRB regarding 2020 International Road weather and Winter Maintenance Conference & Peer Exchange costs, assuming the meeting will be held virtually.
- Begin planning Fall 2020 virtual meeting (per Board's recommendation), pending TRB's decision regarding the format (in person or virtual) of the 2020 International Road weather and Winter Maintenance Conference & Peer Exchange.

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Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- If and as appropriate: Consider funding mechanism for Board participation in 2020 International Road Weather and Winter Maintenance Conference & Peer Exchange.

Project-Specific Activities:

- Develop RFP or SOW for “Using Connected Vehicle Technology to Improve Network-wide RWIS Coverage”.
- Project updates for each project and research team.
- Track project status with champions and team members.
- Track project timelines and distribute project materials.

Significant Results:

- Held Spring 2020 meeting.
- Continued monthly Board meeting calls.
- Initiated “Roadway Ice/snow Detection Using a Novel Infrared Thermography Technology”.
- Obtained draft SOW and budget for “Roadway Friction Modeling”.
- Communicated with new Aurora representatives.

Circumstance affecting project or budget: