

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 # SPR-3(042)	Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2012) Quarter 2 (April 1 – June 30, 2012) Quarter 3 (July 1 – September 30, 2012) X Quarter 4 (October 4 – December 31, 2012)	
Project Title: Aurora Program		
Project Manager: Chris Albrecht	Phone: 515-294-7684	E-mail: calbrecht@iastate.edu
Project Investigator: Neal Hawkins	Phone: 515-294-7733	E-mail: hawkins@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #):	Project Start Date: 1996 - Ongoing Pooled Fund
Original Project End Date: Ongoing Pooled Fund	Current Project End Date: Ongoing	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
\$4,109,826	\$4,108,000	Ongoing Pooled Fund

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$250,520	N/A	Ongoing Pooled Fund

Project Description:

The Aurora Program is a very successful consortium of public agencies focused on collaborative research, evaluation, and deployment of advanced technologies for detailed road weather monitoring and forecasting. Program 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. Aurora's projects are designed to improve the efficiency of highway maintenance and distribute effective information to travelers, significantly reducing the adverse impacts of inclement weather on mobility.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

Program Administrative Activities:

- Worked out details of program financial records, both income and expenditures from several years, with Iowa DOT staff.
- Coordinated Aurora's participation in and contribution to the upcoming 2013 national winter maintenance peer exchange.
- Forwarded and responded to various emails and miscellaneous requests to board members, FHWA, and other interests.
- Maintained and updated the RWIS Knowledge Base website and the program website.
- Updated program work plan.

Facilitate Meetings and Conference Calls:

- Facilitated ongoing project updates, schedules, and correspondences.
- Scheduled and led activities for the October 2012 on-site board meeting in Toronto.
- Drafted minutes for administrative, project, and board calls.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Coordinated final reimbursements for the October 2012 on-site board meeting.
- Coordinated travel for the Toronto meeting, including airfare and hotel rooms.
- Paid contract with hotel in Toronto.

Project-Specific Activities:

- Updated several project status reports and summarized them for the board meetings and pooled fund website quarterly report.
- Communicated with project teams concerning project schedules, deadlines, and progress.
- Coordinated editorial reviews of project documents.
- Distributed project materials for ongoing projects.
- Finalized FY2013 research program.

Outreach and Membership:

- Prepared content January e-news.
- Coordinated participation of upcoming Friends of Aurora meeting.
- Prepared video for TRB with Iowa DOT.

Anticipated work next quarter:

Program Administrative Activities:

- Develop meeting and call agendas for spring.
- Update the main program website and maintain the RWIS Knowledge Base website.
- Distribute specific Aurora project documents to board and individual project team members.
- Continue to rectify financial information with Iowa DOT.

Facilitate Meetings and Conference Calls:

- Facilitate the April on-site meeting in Virginia.
- Facilitate and document web meetings.
- Facilitate project correspondence and status reports.
- Produce materials and presentations for the on-site meeting and calls.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Coordinate plan for spring 2013 meeting and Friends of Aurora event in Virginia.

Project-Specific Activities:

- Update project status reports.
- Track project status with champions and team members.
- Facilitate discussions with each research project team.
- Track project timelines and distribute project materials.

Outreach and Membership:

- Review membership status and contact SP&R representatives from member agencies.
- Draft January/February 2013 e-news.
- Attend TRB and do project reviews for committee meetings.

Significant Results:

To date, 46 research projects have been completed by the program. Very good progress has been made on several on-going research efforts in the past quarter. In addition, all ongoing projects will be reviewed to maintain funding.

Circumstance affecting project or budget:

A project status report detailing individual Aurora research efforts is available. These ongoing research projects are:

- 2007-01: RWIS Equipment Monitoring System, Phase 2 (\$135,000) = discontinued
- 2007-04: Development of a Freezing Drizzle Algorithm (\$85,000) = completed
- 2007-05: Multiple-Use ITS Data Collection Sites (\$15,000) = 20% complete
- 2008-01: National Road Weather Testing Program (\$11,000) = 65% complete
- 2008-03: MDSS Demonstration in Ontario (\$25,000 in-kind) = 95% complete
- 2009-01: Summary and Comparison of Sensors (\$55,000) = 80% complete
- 2009-04: Road Weather Education Enhancements (\$20,000) = 95% complete
- 2009-05: Further Development of PPAES (\$83,000) = 70% complete
- 2010-01: Enhancements of AI/RWIS CBT (\$50,000) = completed
- 2010-02: Mobile-Weather Data Collection Guidelines (\$25,000) = 10% complete
- 2010-03: Development of Models for Standards (\$120,000) = 90% complete
- 2010-04: RWIS Sensor Density Grid (\$100,000) = 25% complete
- 2010-05: Determining RPU and Sensor Failure (\$5,000) = 10% complete
- 2011-02: RWIS Training Tool (200,000) = 10% complete
- 2011-03: Instruction for Migrating to Open RWIS (\$75,000) = 80% complete
- 2011-04: Study of MDSS Costs (\$20,000) = 35% complete
- 2011-05: Funding Sources Identification (\$5,000) = 10% complete
- 2012-01: Validate Accuracy of Pavement Predictions (\$100,000) = 5% complete
- 2012-02: Winter Severity Index, Phase 2 (\$5,000) = 5% complete
- 2012-03: Cameras and Operational Impacts of Remote Conditions (\$20,000) = 5% complete
- 2012-04: Communicating and Publicizing Info (\$30,000) = 5% complete
- 2012-05: Seasonal Weight Restrictions Demo (\$250,000) = 5% complete
- 2013-01: Fourth National Winter Maintenance Peer Exchange (\$35,000 pending available funds) = 5% complete
- 2013-02: Transition of Clarus to MADIS (\$5,000 pending available funds) = 5% complete
- 2013-03: Improving Estimations of Real-Time Traffic Speeds for Winter Performance Measurement

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(\$130,000 pending available funds) = 5% complete

- 2013-04: Quantifying Salt Concentration on Pavement (\$150,000 pending available funds) = 5% complete
- 2013-05: Knowledge Base Content Management and Marketing (\$10,000 pending available funds) = 5% complete
- 2013-06: Make the Aurora Winter Severity Index Available to All (\$30,000 pending available funds) = 5% complete