

# Aurora Program

minutes

## **Aurora Board Meeting May 15, 2013 – Conference Call/Web Meeting**

### **Individuals Participating:**

Jason Norville, Pennsylvania DOT  
Dawn Gustafson, Michigan DOT  
Max Perchanok, Ontario MOT  
Travis Lutman, North Dakota DOT  
Mike Adams, Wisconsin DOT  
Joe Doherty, New York State DOT  
Tim Peters, Illinois DOT  
Ron Hall, Kansas DOT  
Jeff Williams, Utah DOT  
Jimmy White, Virginia DOT  
Tina Greenfield, Iowa DOT  
Linda Narigon, Iowa DOT  
Roemer Alfelor, FHWA  
Lee Smithson, AASHTO  
Neal Hawkins, Iowa State University  
Chris Albrecht, Iowa State University

### **Meeting Agenda:**

- 1) Call to Order (Jason Norville)
- 2) Approval of Previous Meeting Minutes (Chris Albrecht)
- 3) Program Administration and Management Contract (Chris Albrecht)
- 4) Fall On-Site Board Meeting in Vancouver (Chris Albrecht)
- 5) Work Plan (Chris Albrecht)
- 6) Ongoing Project Progress (Project Champions)
- 7) Other Business (All)

#### **1. Call to Order**

Jason Norville called the meeting to order.

#### **2. Approval of Previous Meeting Minutes**

After a short discussion, the board voted to approve the minutes from the April 2-4 board meeting in Virginia Beach. Chris noted that he would post the minutes on the website as soon as possible.

### 3. Program Administration and Management Contract

Chris Albrecht then briefly reviewed the latest management contract expenditures through May 15, noting that ISU costs were \$26,136 and board meeting costs were \$11,723. Both of these numbers were about 35% of the yearly budget, he added. He also noted that meeting costs should come in below estimated this year, due to the relative inexpensive Virginia meeting and sharing of costs of the fall meeting with the peer exchange. Chris also briefly reviewed the contract reporting requirements spreadsheet, noting dates of required actions and asking the administrative group to schedule 2 conference calls prior to the June and August board web meetings. After a short discussion, administrative calls were scheduled for June 20 and August 1, 2013.

### 4. Fall On-Site Meeting in Vancouver

Chris Albrecht then reviewed the latest plans for the next on-site meeting to be held in September, noting that it would be held at the Red Lion Hotel in Vancouver, Washington. Lee Smithson also added a few details and asked Chris to send the draft agenda to the board. He also asked that Chris post the revised eighth chapter of NCHRP 25-25(04) on the Aurora website as a resource for peer exchange attendees. Chris noted he would do so. The board also discussed the scheduling of the board meeting for this same week, deciding to meet on Monday, September 9 and Thursday, September 12 while in Vancouver.

### 5. Work Plan

Next, Chris Albrecht reviewed a draft of the annual program work plan that the board did not get to discuss in Virginia, due to a shortage of time. He noted that it had been updated significantly, with a new style and several images to make it more readable and useable for marketing purposes. He also asked the board to provide any comments to him by May 31.

### 6. Ongoing Project Progress

Project champions then gave updates on the status of ongoing research. Details of the reports are as follows:

**Project 2007-05 – Multiple-Use ITS Data Collection Sites:** Chris Albrecht reviewed this project, noting that the survey was almost ready to be sent out to agencies. He also noted that he would ask for final comments before putting the questions into the Survey Monkey system.

**Project 2008-01 – Development of a National Road Weather Testing Facility:** Tina Greenfield briefly reviewed what had been accomplished concerning this effort, noting that she had created and populated a Knowledge Base page with the information she received from various sources. Including WTI. After a sort discussion, the board voted to close out this project and consider it as completed.

**Project 2009-01 – Summary and Comparison of Agency Experiences with Sensors:** Dawn Gustafson noted that the team had not revised the spreadsheet since the Virginia Beach meeting. After a short discussion, Chris noted that he would schedule a call with Dawn to go over specific updates to the spreadsheet.

**Project 2009-05 – Further Development of PPAES:** Mike Adams briefly reviewed the latest on this effort. He noted that the final report was complete and in final editing by ISU. After a short discussion, the board voted to consider this project as completed.

**Project 2010-02 – Mobile-Weather Data Collection Guidelines:** No formal report was provided for this effort, but Chris noted that the team would need to review the white paper for clarity and accuracy in the next few weeks before it is ready for distribution.

**Project 2010-03 – Results-Based Winter Road Research:** Max Perchanok reviewed this project, noting that the University of Waterloo researchers were making very good progress to date.

**Project 2010-04 – RWIS Sensor Density:** Max Perchanok noted that the effort was also moving ahead steadily.

**Project 2010-05 – Determining RPU and Sensor Failure:** No report was provided for this effort.

**Project 2011-02 – RWIS Training Tool:** Tina Greenfield noted that this effort was now under contract, with a project kickoff meeting held in late April.

**Project 2011-03 – Instruction for Migrating to Open RWIS:** Tina Greenfield then reviewed the latest activity concerning this project. She noted that a Knowledge Base page had been updated with examples/information from both Utah DOT and Iowa DOT. It was noted that Michigan and Pennsylvania may also have information to share, but that could be added at a later time. After a short discussion by the board, they voted to close out this project.

**Project 2011-04 – Study of MDSS Costs:** Mike Adams reviewed this project, noting that the survey he sent out to several agencies did not turn up much useable data. After a short discussion, Mike proposed writing the report based on Wisconsin DOT's experiences and costs with information from other agencies mixed in where available. The board agreed that this "case study" format would be more helpful to those looking at MDSS costs overall. Mike noted that he would start on the report as soon as possible, with a goal of completion by June 30, 2013.

**Project 2011-05 – Funding Source Identification:** No report was provided for this effort.

**Project 2012-01 – Validate the Accuracy of Pavement Condition Predictions from Various Sources:** Max Perchanok reviewed the background to this effort, noting that he was currently working on a draft RFP. After a lengthy discussion, it was agreed that Max would arrange a conference call to discuss the RFP.

**Project 2012-02 – Winter Severity Index, Phase 2:** Tina Greenfield noted that this effort was intended to build on the system originally developed under Aurora Project 2004-04. A discussion followed, wherein Tina noted that she had circulated a draft guide to the entire board for review. She asked that the team get any final comments on the guide to her as soon as possible.

**Project 2012-03 – Cameras and Operational Impacts of Remote Road Conditions:** Travis Lutman noted that the project team had conducted a kickoff meeting with researchers from BYU on April 22, 2013.

**Project 2012-04 – Communicating and Publicizing Road Weather and Operations Information:** Joe Doherty and Chris Albrecht noted that they would get together via conference call soon to discuss the direction of this effort. Chris also noted that \$30,000 was set aside for this effort.

**Project 2012-05 – Seasonal Weight Restrictions Demonstration:** Max Perchanok reviewed the background on this project, noting that the RFP was ready for advertisement with Iowa DOT.

**Project 2013-01 – Fourth Peer Exchange:** Chris Albrecht noted that plans for the next peer exchange were discussed earlier in the meeting.

**Project 2013-02 – Transition of Clarus to MADIS:** No report was provided for this effort.

**Project 2013-03 – Improving Real-Time Traffic Speeds for Performance Measurement:** Tina Greenfield briefly reviewed the scope of this effort, which was funded for \$130,000. She noted that her preferred plan was to sole-source this effort to Iowa State University's Statistics Department, although there has been a delay in finding a starting time for the research until fall. After a short discussion, she noted that this delay may actually work out fine for both Aurora and the researchers.

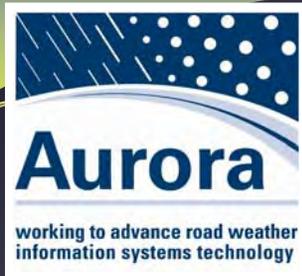
**Project 2013-04 – Quantifying Salt Concentration on Pavement:** Max Perchanok briefly reviewed the rough scope of this effort, noting that he would plan to have the RFP ready soon.

**Project 2013-05 – Knowledge Base Content Management:** Tina Greenfield noted that this project would be undertaken by InTrans as a way to update and market the knowledge base. Chris Albrecht noted that he and Neal Hawkins had discussed this and agreed to develop a scope for this effort.

**Project 2013-06 – Make Aurora Severity Index Available to Other Agencies:** Tina Greenfield noted that this effort is still in the process of contracting between Iowa DOT and AccuWeather.

## **7. Other Business**

No other business was discussed.



# Aurora Program Board Web Meeting

May 15, 2013

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- 5) Work Plan
- 6) Ongoing Project Progress
- 7) Other Business



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# 1) Call to Order

**Jason Norville**

*Aurora Program Chair*

Pennsylvania Department of Transportation

[janorville@state.pa.us](mailto:janorville@state.pa.us)

**Travis Lutman**

*Aurora Program Vice Chair*

North Dakota Department of Transportation

[tlutman@nd.gov](mailto:tlutman@nd.gov)

**Dawn Gustafson**

*Aurora Program Past Chair*

Michigan Department of Transportation

[gustafsond@michigan.gov](mailto:gustafsond@michigan.gov)

**Chris Albrecht**

*Aurora Program Manager*

Iowa State University – InTrans

[calbrecht@iastate.edu](mailto:calbrecht@iastate.edu)

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## 2) Approval of Minutes

### Aurora Program

minutes

**Aurora Board Meeting  
April 2-4, 2013 – Virginia Beach, Virginia, USA**

***DRAFT #1***

#### **Individuals Participating in the Meeting:**

Jason Norville, Pennsylvania DOT  
Jimmy White, Virginia DOT  
Gene Martin, Virginia DOT  
Curt Pape, Minnesota DOT  
Abner Johnson, Ohio DOT  
Ron Hall, Kansas DOT  
Tina Greenfield, Iowa DOT  
Mike Adams, Wisconsin DOT  
Jack Stickel, Alaska DOT&PF  
Max Perchanok, Ontario MOT  
Jeff Williams, Utah DOT  
Dawn Gustafson, Michigan DOT  
Mike Chapman, NCAR

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# 3) Program Administration

Year 10	474-77-41	January 1, 2013 - December 31, 2013			
		<b>Total</b>			
	ISU Labor	\$14,945.01			
	ISU Travel	\$2,161.37			
	ISU Other	\$9,029.10			
	Board Meetings	\$6,833.66			
	Board Travel	\$4,889.18			
	<b>Total</b>	<b>\$37,858.32</b>			
			<b>Brief Summary of Year 10 (through 5/15/2013)</b>		
			<b>Budget</b>	<b>Actual</b>	
			CTRE	\$71,626.00	\$26,135.48
			Board Meetings/Travel	\$34,020.00	\$11,722.84
				\$105,646.00	\$37,858.32

36% of budget

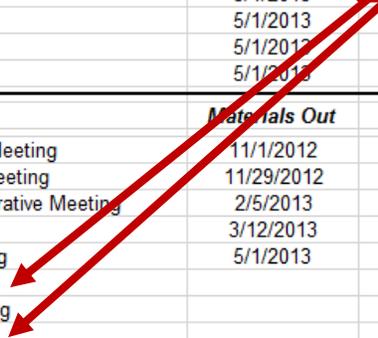
34% of budget



# 3) Program Administration

<b>Aurora Contract Reporting Requirements</b>							
<b>Quarterly Reports</b>	<b>2013 Q1</b>	<b>2013 Q2</b>	<b>2013 Q3</b>	<b>2013 Q4</b>	<b>2014 Q1</b>	<b>2014 Q2</b>	<b>2014 Q3</b>
Project 2007-05	5/1/2013						
Project 2008-01	5/1/2013						
Project 2009-01	5/1/2013						
Project 2009-05	5/1/2013						
Project 2010-02	5/1/2013						
Project 2010-03	5/1/2013						
Project 2010-04	5/1/2013						
Project 2010-05	5/1/2013						
Project 2011-02	5/1/2013						
Project 2011-03	5/1/2013						
Project 2011-04	5/1/2013						
Project 2011-05	5/1/2013						
Project 2012-01	5/1/2013						
Project 2012-02	5/1/2013						
Project 2012-03	5/1/2013						
Project 2012-04	5/1/2013						
Project 2012-05	5/1/2013						
Project 2013-01	5/1/2013						
Project 2013-02	5/1/2013						
Project 2013-03	5/1/2013						
Project 2013-04	5/1/2013						
Project 2013-05	5/1/2013						
Project 2013-06	5/1/2013						
<b>Meetings / Minutes</b>	<b>Materials Out</b>	<b>Minutes Sent</b>	<b>Approved</b>	<b>Posted</b>			
November 14, 2012 Board Meeting	11/1/2012	11/29/2012	12/6/2012	12/10/2012			
December 6, 2012 Board Meeting	11/29/2012	2/3/2013	4/3/2013	4/19/2013			
February 19, 2013 Administrative Meeting	2/5/2013	3/6/2013					
April 2, 2013 Board Meeting	3/12/2013	4/24/2013					
May 15, 2013 Board Meeting	5/1/2013						
?							
June 27, 2013 Board Meeting							
?							
August 8, 2013 Board Meeting							

Would like to schedule two administrative calls



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## 4) Fall Meeting

- Fourth National Winter Maintenance Peer Exchange
- September 9-13, 2013
- Vancouver, Washington
- Red Lion Hotel Vancouver at the Quay

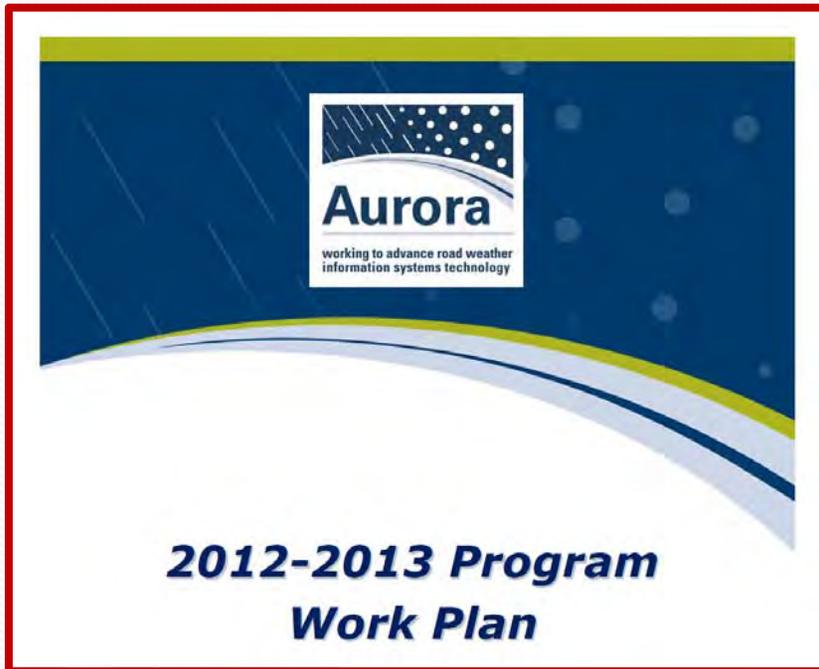


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# 5) Work Plan



## 7. ONGOING AURORA PROJECTS

This section provides overviews of the research projects funded prior to FY2013 that remain underway at the time this work plan was produced.

### 7.1 Multiple-Use ITS Data Collection Practices (2007-05)

**Champion:** Alaska Department of Transportation and Public Facilities

**Background:** There are a number of factors that contribute to trip safety: road surface condition, weather, sub-surface temperatures, traffic volume and speed, vehicle classification and weight. State DOTs use a variety of sensors to measure these parameters. Sensor station location depends on how representative the site data is, how the site fits into the agency's traffic data plan, ease and safety of sensor installation, site environment, and availability of power and communication. Deploying sensors for multiple intelligent transportation system (ITS) application at a single site can maximize funding, and reduce maintenance risks.

**Objective:** The objective of this effort is to document existing state/provincial or local agency applications of atmospheric and traffic data collection. This documentation would include Aurora Program member states and other agencies with unique applications identified through surveying the AASHTO SICOP Snow-Ice List-Serve membership.

**Approach:** Under the first phase, researchers will document existing applications of innovative multiple data collection practices using various advanced technologies that fall under the umbrella often referred to as intelligent transportation systems (ITS). These data collection practices would include road surface condition, precipitation, wind speed, air temperature, humidity, sub-surface



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# 5) Ongoing Projects

## Aurora Program - Ongoing Project Status

April 29, 2013

### **FY 2007 through FY2009**

- 2007-05: Multiple-Use ITS Data Collection Sites (\$15,000) = 25% complete
- 2008-01: National Road Weather Testing Program (\$5,000) = 70% complete
- 2009-01: Summary and Comparison of Sensors (\$5,000) = 85% complete
- 2009-05: Further Development of PPAES (\$83,000) = >95% complete

### **FY 2010**

- 2010-02: Mobile-Weather Data Collection Guidelines (\$5,000) = 50% complete
- 2010-03: Results Based Winter Road Maintenance Standards (\$155,000) = 80% complete
- 2010-04: RWIS Sensor Density and Location (\$100,000) = 35% complete
- 2010-05: Determining RPU and Sensor Failure (\$5,000) = 15% complete

### **FY 2011**

- 2011-02: RWIS Training Tool (\$265,000) = 10% complete
- 2011-03: Instruction for Migrating to Open RWIS (\$5,000) = 80% complete
- 2011-04: Study of MDSS Costs (\$5,000) = 40% complete
- 2011-05: Funding Sources Identification (\$5,000) = 10% complete

### **FY 2012**

- 2012-01: Validate the Accuracy of Pavement Condition Predictions (\$100,000) = 5% complete
- 2012-02: Winter Weather Severity Index, Phase 2 (\$5,000) = 45% complete

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