

# **Aurora Program**

**minutes**

## **Aurora Board Meeting December 2, 2010 – Conference Call/Web Meeting**

### **Individuals Participating:**

Joe Doherty, New York State DOT  
Bill Hoffman, Nevada DOT  
Tina Greenfield, Iowa DOT  
Mike Adams, Wisconsin DOT  
Dawn Gustafson, Michigan DOT  
Mike Kisse, North Dakota DOT  
Brad Darr, North Dakota DOT  
Dean Kernan, Illinois DOT  
Max Perchanok, Ontario MOT  
Daniel Huang, Environment Canada  
Lee Smithson, SICOP  
Chris Albrecht, Iowa State University

### **Meeting Agenda:**

- 1) Call to Order (Joe Doherty)
- 2) Program Administration and Management (Chris Albrecht)
- 3) 2010-2011 Work Plan (Chris Albrecht)
- 4) March Board Meeting and *Clarus* Meeting in Colorado (Chris Albrecht)
- 5) 2011 Peer Exchange in Montana (Chris Albrecht)
- 6) Project Status Reports (All)
- 7) Other Business (All)

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

Joe Doherty called the meeting to order.

#### **2. Program Administration and Management**

Chris Albrecht asked the board if there were any issues concerning program administration that needed to be discussed. None were noted.

#### **3. 2010-2011 Work Plan**

Chris Albrecht briefly reviewed the final work plan, noting the FY2011 projects he added. He also noted that he has contacted Jerry Roche of FHWA to sit down and go over the work plan.

#### **4. March Board Meeting and *Clarus* Meeting in Colorado**

Chris Albrecht noted that initial plans are in the works for the March meeting in Boulder. He has been coordinating on an extended agenda and meeting locations with Sheldon Drobot of NCAR, he added.

#### **5. 2011 Peer Exchange in Montana**

Lee Smithson briefly reviewed the draft agenda for the September 2011 peer exchange to be held in Bozeman, Montana. A discussion and several questions followed concerning the scope of the event. Lee noted that a planning group, including several Aurora representatives will be working hard on further details in the coming months. Chris Albrecht noted that he would send out more details to the board as they become available.

#### **6. Project Status Reports**

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

**Project 2000-01 – Benchmarking the Performance of RWIS Forecasts:** Max Perchanok reviewed this project, noting that they got good data from the few agencies that provided it. Next, NCAR will be conducting an analysis of this data.

**Project 2003-04 – Intelligent Image-Based Winter Road Condition Sensor - Phase III:** No update was provided for this effort.

**Project 2006-01 – Support of the *Clarus* Initiative:** Tina Greenfield had nothing new to report on Clarus activity.

**Project 2006-08 – Low Cost Mobile RWIS:** Chris noted that his staff was editing the materials from Claude Lapointe.

**Project 2007-01 – RWIS Equipment Monitoring System – Phase II:** No report was given for this effort.

**Project 2007-02 – Cold Weather Testing of the Halliday Road Grip Unit:** Tina Greenfield noted that Iowa DOT is working with UND to close this project out as soon as possible. She also noted that, from the last she had heard, Jeff Tilley was finishing up edits on the final report.

**Project 2007-04 – Development and Demonstration of a Freezing Drizzle Algorithm:** No report was given for this effort.

**Project 2007-05 – Multiple-Use ITS Data Collection Sites:** Jack Stickel reviewed this effort. A project email needs to be sent out, he noted. He also reviewed a few possible examples of projects that may be included in the study.

**Project 2008-01 – Development of a National Road Weather Testing Program:** Tina Greenfield noted that this effort is still on hold waiting to see what happens with the RWIS Knowledge Base.

**Project 2008-03 – Next Generation RWIS for Canada:** Max Perchanok noted that, as detailed in the status report handout, significant progress was being made on this effort. He also noted that he would give a presentation on this effort in Boulder.

**Project 2009-01 – Evaluation and Inter-comparison of the Lufft R2S Sensor:** No new update was provided.

**Project 2009-03 – Knowledge Base for RWIS:** Jack Stickel reported on this effort was moving ahead nicely, with a formal announcement of the site needed soon.

**Project 2009-04 – Road Weather Education Enhancements and Dissemination:** No report was given for this effort.

**Project 2009-05 – Further Development of Pavement Precipitation Accumulation Estimation:** No report was given for this effort.

**Project 2009-06 – Salinity Sensor Improvements and Development:** Tina Greenfield noted that there was nothing new to report.

**Project 2010-01 – Enhancements of AI/RWIS CBT:** No report was given for this effort.

**Project 2010-02 – Mobile Weather Data Collection Guidelines:** Bill Hoffman reported that he will review his notes and schedule a board meeting as soon as possible.

**Project 2010-03 – Co-Funding Winter Road Research:** Max Perchanok reviewed this project, noting that the contract between Iowa DOT and University of Waterloo had been signed.

**Project 2010-04 – RWIS Sensor Density Grid:** Nothing was reported for this project.

**Project 2010-05 – Determining RPU and Sensor Failure:** Nothing new was reported for this project.

**Project 2011-01 – Third Peer Exchange:** No report was given for this effort.

**Project 2011-02 – RWIS Training Tool:** Tina Greenfield noted that she will be getting the project team together soon to get moving on this project.

**Project 2011-03 – B/C and Instruction for Migrating to Open RWIS:** Tina Greenfield noted that she may want ISU staff to do some initial academic background research under this project.

**Project 2011-04 – Study of MDSS Costs:** No report was given for this effort.

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

## **7. Other Business**

The group also agreed to hold a board web meeting on February 10 at 1 pm (CST).

# Aurora Program Board Web Meeting

December 2, 2010

## Today's Agenda:

1. Call to Order
2. Program Administration and Management
3. 2010-2011 Aurora Work Plan
4. March Board Meeting and *Clarus* in Colorado
5. 2011 Peer Exchange in Montana
6. Project Progress/Status Reports
7. Other Business

## 2) Program Admin./Management

Year 6 474-17-53		January 1, 2009 - December 31, 2009	
	<b>Total</b>		
CTRE Labor	\$36,923.86		
CTRE Travel	\$1,127.70		
CTRE Other	\$18,440.78		
Board Meetings	\$9,308.52		
Board Travel	\$9,240.73		
<b>Total</b>	<b>\$75,041.59</b>		
		<b>Brief Summary of Year 6</b>	
		<b>Budget</b>	<b>Actual</b>
		CTRE	\$58,566.00 \$56,492.34
		Board Meetings/Travel	\$36,000.00 \$18,549.25
		<b>Total</b>	<b>\$94,566.00 \$75,041.59</b>

  

Year 7 474-17-51		January 1, 2010 - December 31, 2010	
	<b>Total</b>		
CTRE Labor	\$31,629.61		
CTRE Travel	\$2,058.32		
CTRE Other	\$17,316.59		
Board Meetings	\$10,716.23		
Board Travel	\$12,062.19		
<b>Total</b>	<b>\$73,782.94</b>		
		<b>Brief Summary of Year 7 (through 11/30/2010)</b>	
		<b>Budget</b>	<b>Actual</b>
		CTRE	\$70,464.00 \$51,004.52
		Board Meetings/Travel	\$25,000.00 \$22,778.42
		<b>Total</b>	<b>\$95,464.00 \$73,782.94</b>

## 4) March Meetings in Colorado

### **Hotel Options:**

1. Holiday Inn Express: \$99 (includes breakfast)
2. Boulder Outlook Hotel and Suites: \$74
3. Millennium Harvest House Hotel: \$104 (includes full breakfast)

### **Additional Invitees:**

- Colorado DOT (David Weider)
- Wyoming DOT (Cliff Spoonmore)
- Arkansas HDT (Jack Gazin)
- South Dakota DOT
- Montana DOT
- Idaho TD
- NCAR
- Mixon/Hill
- Meridian
- Iteris

## 6) Project Status Reports

### **Aurora Program Ongoing Project Status**

June 17, 2010

#### **FY 2000 through FY 2005**

- 2000-01: Benchmarking the Performance of RWIS Forecasts = 60% complete
- 2001-04: Inexpensive Inexpensive Street Winter Road Condition Sensor - Phase III = ~95% complete
- 2004-04: Weather Index Enhancements = 90% complete
- 2005-01: Development of an RWIS Quality Assurance Monitoring System = 5% complete
- 2005-02: RWIS Telecommunications Upgrade and Outlets = ~95% complete
- 2005-06: New Road Surface Condition Sensor = ~95% complete

#### **FY 2006**

- 2006-01: Support of the Climate Initiative = 55% complete
- 2006-08: Low Cost Mobile RWIS = 90% complete

#### **FY 2007**

- 2007-01: RWIS Equipment Monitoring System - Phase II = 5% complete
- 2007-03: Cold Weather Testing of the Halliday Road Grip Unit = 90% complete
- 2007-04: Incorporation of MDSIS into Winter Weather Forecasting - Phase I = 15% complete
- 2007-04: Development and Demonstration of a Freezing Degree Algorithm = 60% complete
- 2007-05: Mobile Use ITS Data Collection Sites = 5% complete

#### **FY 2008**

- 2008-01: Development of a National Road Weather Testing Program = 20% complete
- 2008-02: Evaluation of Utah DOT's Weather Operations RWIS Program = ~95% complete
- 2008-03: Next Generation RWIS for Canada = 30% complete

#### **FY 2009**

- 2009-01: Evaluation and Inter-comparison of the Loft R2S Sensor = 7% complete
- 2009-03: Knowledge Base for RWIS and Environment Data Loggers = 15% complete
- 2009-04: Road Weather Education Enhancements and Dissemination = 20% complete
- 2009-05: Further Development of PPALS = 5% complete
- 2009-06: Salinity Sensor Improvements and Development = ~3% complete

#### **FY 2010**

- 2010-01: Enhancements of AURIS CRT = 10% complete
- 2010-02: Mobile Weather Data Collection Guidelines = ~5% complete
- 2010-03: Co-Funding Travel Road Research = 7% complete
- 2010-04: RWIS Sensor Density Grid = ~5% complete
- 2010-05: Determining RFI and Sensor Failure = ~5% complete