



Western States

**Rural Transportation**

Consortium

[Western States Rural Transportation Consortium](#)

# **Western States Rural Transportation Consortium (WSRTC)**

**Steering Committee Meeting**

**November 9, 2010**

**Yreka, California**

**Meeting Minutes**

This document is the official record of the WSRTC Steering Committee meeting held Nov. 9, 2010, in Yreka, California.

## **COATS/WSRTC Steering Committee Meeting**

**November 9, 2010**

**Best Western Miners Inn  
Yreka, California**

### **Meeting Minutes**

*Approved December 10, 2010*

Prepared by

Leann Koon, Western Transportation Institute, Montana State University

#### **Welcome and Introductions**

David Veneziano called the meeting to order at 9:05 AM at the Best Western Miners Inn in Yreka, California on November 9, 2010. He welcomed the group and introductions were made around the room and via telephone. An overview of the agenda was given. Topics for discussion included an announcement of the Clarus project award, review of the 2010 Western States Forum, Forum and Consortium websites overview, COATS project updates, the WSRTC pooled fund, and year one and two incubator project discussions.

*PowerPoint presentations from the meeting will be available on the Consortium website.*

#### **Roundtable of Recent ITS Activities**

Meeting participants were invited to discuss recent ITS activities in which other group members might be interested.

**Galen McGill** listed several projects in progress at ODOT including work with rural traffic signals and adaptive traffic signal technologies, variable speed limit projects, traveler information, and dispatch software improvements.

**Ian Turnbull** indicated there were a number of activities of interest in Caltrans District 2, including:

- Added two new CCTV cameras on I-5 at Weed and Redding;
- Two additional Changeable Message Signs are operational on I-5 near Corning;
- Designed and awarded project to install 18 miles of fiber optic cable along I-5 in the Redding area. Construction will begin in the spring. Two additional follow-on projects will be required for full operation;
- Developed a system to place HAR messages and status on the web in real time. After full implementation, all field element message sets will be available on the web;
- Conducting an evaluation of the Fredonyer Icy Curve Warning System (ICWS);
- Testing the Automatic Safety Warning Controller system (ASWC) at Spring Garden during the winter season and tentatively plan to test it next summer with wind warnings;
- Installation of Intelligent Roadway Information System (IRIS) Advanced Traffic/Transportation Management System(ATMS);

- New RWIS standards developed by District 2 have been successfully used in a recently awarded project north of Redding;
- Bass Mountain Wireless Hub project won the Caltrans 2010 Excellence in Transportation Award for System Operations and the FHWA 2010 Excellence in Highway Design Award for Traveler Services.

**Doug Galarus** briefly mentioned some of the related projects WTI is working on, including the upcoming FHWA Clarus award which will be discussed later in the meeting. Other projects included:

- WTI facilitated a training course for Radio Frequency (RF) System Design as part of the Professional Capacity Building for Communications project.
- Phase 1 of the Integration of AWOS/ASOS with RWIS was wrapped up this past summer.
- Updates to the Automated Safety Warning Controller system are being completed to prepare the system for testing during the upcoming winter season.
- The I-90 Road Watch live and dead animal reporting system in Washington is up and running and received some recent press in the Seattle Times.
- The Responder System won the Best of Rural ITS Award for Best New Innovative Product, Service or Application at the 2010 National Rural ITS (NRITS) conference in Huntington, West Virginia.

**Sean Campbell** announced that approval has been received for COATS Phase 5 and funding for the majority of the pooled fund resources is secured.

**Ted Bailey** from Washington DOT shared a brief list of current ITS projects, including:

- Working on developing a smarter highway system using variable speed limits and lane control, for the I-90 floating bridges, SR 520 and on I-5. This system has been operational for two months and a second system went live on Nov. 16<sup>th</sup>.
- Expanding Sensys networks.
- Implemented a test project for commercially available Bluetooth readers deployed in a construction zone. The results were positive, so eight units are being purchased to conduct testing along rural roadways.
- Testing roadside devices for data and video feeds over the 700 MHz frequency.

**Denise Inda** from Nevada DOT mentioned several of their ITS projects, including efforts to get more information to the public in the Reno area. Travel times in work zones, camera images, and developing and maintaining a traveler information web interface for the public and the media were all elements being studied and deployed. NDOT is also studying and evaluating a wind warning system for the Washoe Valley and the Hoover Dam Bridge Bypass.

- **Scott Rutherford** of the University of Washington, mentioned a dust storm forecasting system and wondered whether Nevada was anticipating doing wind forecasting. Denise didn't think that would be the implemented data but is very interested in the study. She would certainly be willing to collaborate.

**Scott Rutherford**, University of Washington, indicated they are working with Bluetooth sensors and will share the data and results with the Consortium when they become available.

**Shyam Sharma** from ODOT's Region 3 stated they were currently observing active warning speed signs installed by Iowa State University's research team at four locations in Oregon, three of which are in Region 3. The research team is collecting relevant data to compare before and after statistics.

### **Clarus Announcement**

**Sean Campbell** and **Doug Galarus** announced the FHWA award for the *Western States One-Stop Shop for Rural Traveler Information – Research on Clarus System Data*. Sean gave an overview of the proposal and award process and Doug explained the concept, tasks, and deliverables for the project.

Comments and questions from the group included:

- Oregon's TripCheck has well documented data that is easy to get to as well as apply to other uses. Galen McGill stated that the challenge is making people aware of the system.
- Denise Inda mentioned the I-80 Corridor Coalition, which currently consists of the states of California, Nevada, Utah, and Wyoming. This group's goal is to integrate and provide continuity for winter maintenance operations and consistent, accurate, near real time traveler information along the corridor. If this project is developed for the Consortium, there is potential for funding to share the project with the I-80 Coalition.
- Ian Turnbull stated that a sound approach to an effective web presence has three tiers. The DOT (district) site that presents all data but is somewhat limited in presentation and features and is designed for low-bandwidth users. Raw data feeds (.xml, etc.) are available for "value added" users who use the data for presentation in their own websites. And "deluxe service" where improvements are often left to groups like the WSRTC to develop full-featured sites for more advanced, high-bandwidth users.
- Ted Bailey said deploying this system over the area west of the Mississippi is an appealing prospect.
- Ian Turnbull asked Ted Bailey if he foresees any issues with getting data for Washington. Ted replied that the easily accessible data should be no problem, but if extra steps were required than the process would be slower. He thought the process could be facilitated to remove potential bottlenecks.
- Matt Neeley from WSDOT added that weather station data is fairly easy to strip off. Doug Galarus indicated that receiving data through the Clarus system works fine and Matt mentioned that he had set that up and was familiar with it.
- Sean Campbell further added that it has been a long process with many pieces to get to this point. He clarified that the ultimate system would be a regional traveler information system covering western states to Consortium charter boundaries. At this point, the group is making progress and seeing good results. With cooperation from all of the member states, a system that approaches a One Stop Shop for rural traveler information can be developed.
- David Veneziano reiterated appreciation for the letters of support from each member state, stating that they were a key part of the proposal package.
- As a point of interest, FHWA's Resource Center representative in Oregon, Nathaniel Price, added that a rule for establishing a Real-Time System Management Information Program under Section 1201 SAFETEA-LU was just published in the Federal Register. The rule requires a real-time traffic and travel conditions system to be in place along the Interstate highway system. Potential support and interest for expansion of Consortium projects may be available in the future.

### **Western States Forum**

Leann Koon gave a brief overview of the 2010 Forum, including attendance, geographic representation of the audience, and presentation topics. The 2011 Forum is scheduled for June 14-16, 2011, in Yreka, California, at the Holiday Inn Express.

### **Western States Forum and Consortium Websites**

Leann Koon reviewed and demonstrated the purposes, design, and content of the Forum and Consortium websites. Positive feedback was received for both sites. Ted Bailey suggested that links to other Consortium members' projects would be of interest to include on the Consortium site. Anytime any member has a link they feel would be of interest to the group, please forward it to WTI for placement on the website.

### **COATS Project Updates**

David Veneziano updated the group on the status of the ongoing projects in COATS Phase 4, including the Radar Speed Sign Warrants, evaluation of the Fredonyer Summit Icy Curve Warning System (ICWS), and the Deployment Assistance task.

David Veneziano reviewed the objectives for the Radar Warrants project, discussed relevant literature and related research, and presented the project team's findings to date. Group questions, comments and discussion followed:

- Ian Turnbull provided an example of the need for this study by explaining that in some locales, a local group such as a non-profit or school group puts in a sign and pays for it, but the sign ends up being a hazard. There is a need for some constraints to be placed on groups like this for procuring and deploying such a sign.
- Ted Bailey asked if the project team was aware of or had come across any of the related research coming out of Iowa. David responded that the team was aware of it, but no results had been published as of this time, so it was not considered by this work. Ted also asked about availability of data on accident reduction because of the radar speed signs. David responded that very little is available, although one unscientific article/report showed a reduction in the number of accidents observed. Ted followed up by saying that the City of Tacoma has a number of radar speed signs deployed, but that placement seems somewhat haphazard. David reiterated to the group that this was one of the primary justifications for this research.
- Ian Turnbull commented on adding curve warning signs to the study topic. District 2 has five such signs and a recent safety report showed that there had been dramatic improvement in accident rates where these signs are deployed. Ed Lamkin from Caltrans District 2 added that this safety report was being prepared for publication and should be available.
- Ed Lamkin suggested determining the percentage of zones and/or areas that meet the warrants in the future.
- Ted Bailey commented that a study was conducted for issuing speeding tickets in work zones. Many tickets were given out and there were several double and triple repeat offenders.
- Ian Turnbull suggested that if people perceive the speed as reasonable, then they will adhere to the limit. However, if the limit is not perceived as reasonable, drivers tend to ignore it.
- After reviewing the minutes, Bill Legg from WSDOT added that the ENTERPRISE Pooled Fund program has developed an extensive ITS warrants analysis program which includes Dynamic

Speed Display Signs (DSDS). He indicated that the warrants have been used throughout the United States and Canada and are web-based. They can be found at <http://www.acconsultants.org/itswarrants/>.

David Veneziano also reviewed the objective for the Fredonyer ICWS evaluation project, background on the project, and the different analysis points. Clyde Aker and Clint Burkenpas commented on the chain control condition data availability, confirming that such data should be recorded somewhere.

Doug Galarus briefly discussed the primary goal of the Deployment Assistance task which is researching how to optimize the web applications, e.g., WeatherShare, so they run more efficiently and can handle larger traffic volumes. Ian Turnbull questioned when the report would be completed and Doug indicated potentially the end of November but certainly by the end of December.

### **WSRTC Updates**

Sean Campbell and Ted Bailey updated the group on the official status of the Consortium and the transportation pooled fund.

- The Charter has been signed by all parties and posted on the Consortium website.
- Ted Bailey drafted a strawman proposal for the Transportation Pooled Fund, Sean Campbell added to it, and together they distributed it to the Consortium members through David Veneziano. Relevant notes and comments include:
  - A minimum of \$50,000 per year will be contributed by Caltrans. Each other member state must contribute a minimum of \$2,500 per year.
  - The Transportation Pooled Fund program posted on Oct 14<sup>th</sup>, 2010.
  - Nevada is working to figure out the simplest way to participate in the Consortium, potentially through a division budget versus the research budget.
  - WSDOT is prepared to help other states facilitate contributions. They have flexibility.
  - The pooled fund is seeking 100 percent SP&R funds.
  - ODOT would like more instructions on how to pursue other contribution options besides SP&R funds.
  - In order to start the fund, WSDOT needs the commitment for the funds and then the actual logistics of contribution can be worked out appropriately for each contributor.
- ODOT cannot guarantee a commitment at this time, but will follow-up quickly after the meeting.
- NDOT said that a commitment is fairly likely and will follow-up with Ted Bailey with details.
- The pooled fund amount is set at \$230,000 which is equal to \$50,000 per year from Caltrans and \$2,500 per year from other member states for four years. Ian Turnbull moved to reduce the commitment to \$210,000 in order to get the fund in place and that Oregon and Nevada will make a best effort to secure their commitment. Ed Lamkin seconded the motion and a vote for approval by Steering Committee members followed. The motion passed unanimously. Ted Bailey explained that it will probably be approximately six weeks from receipt of commitments before the funds can be used.
  - Ted Bailey will start the paperwork through WSDOT's research office today (November 9, 2010). The TPF should be active around the first of the year (2011). Contract negotiations can begin while the fund is being established.
  - As of 12-10-10, CA, OR and WA have made their \$10k commitments, CA will drop the commitment level to \$210,000 by 12-17-10 at which point FHWA will receive notice that the pooled fund has reached full commitment level. It will take 2 to 3 weeks for FHWA to review. Concurrently, CA (and other states that have made their FY11 commitments)

will be contacted to release their budget(actual funds) for their year 1 commitments which are based on the aging schedules each state entering in the TPF system. If all goes well, we should be ready to sign project contracts by the 1<sup>st</sup> or 2<sup>nd</sup> week in January. However, there is still one more step, FHWA needs 2 to 3 more weeks to approve the transfer of funds into the pooled fund. This step seems like more of a formality (since we are approved to sign contracts before this step is complete). **The TPF should be funded for FY11 with full FHWA Approval around the 1<sup>st</sup> or 2<sup>nd</sup> week in February, 2011.**

### **One Stop Shop (OSS) Phase 2**

- A Consortium member can propose a project as long as the member state contributes the funds.
- Caltrans proposes to have OSS Phase 2, beyond the separate Clarus project, be the first project to go through the Consortium.
- Ed Lamkin moved to have OSS Phase 2 sponsored by the WSRTC. Ian Turnbull seconded the motion.
- Discussion:
  - The project would address OSS scalability, working to develop a more ruggedized application that the public (in a 4 state region) could use.
  - Clarus could be characterized as a prototype.
  - Funding is available so it is just a matter of moving it to the pooled fund. The WTI UTC program has matched 25 percent of the budget, so there is approximately \$200,000 slated for the project.
  - Ted Bailey (WSDOT) has preliminarily agreed to be the lead on the pooled fund for this project. WSDOT could potentially cover some administrative costs, possibly up to one FTE. To clarify, the one FTE offered by WSDOTs research office would allow WSDOT to recoup admin costs directly from the TPF, up to 1 FTE. Minor FTE costs for project admin can be absorbed into WSDOTs existing budget. Significant admin work would need to be recouped from the TPF which requires WSDOT to have an unfunded FTE or portion thereof on the books.
  - This project has great potential to promote the WSRTC. It is a cutting edge project and a great opportunity for the WSRTC.
- When voted on by the Steering Committee, the motion passed unanimously.

### **WSRTC Year 1 Project Discussions**

Two projects can be funded for year 1 (calendar year 2011).

The group agreed to defer the WeatherShare expansion project to year 2 (calendar year 2012) due to the Clarus and OSS Phase 2 projects.

### **Regional Integrated Corridor Management Planning**

- Galen McGill indicated that the work plan seemed to focus on detour routes and information with which personnel are generally already familiar. Discussion ensued about the actual intent of the work plan.
- Shyam Sharma asked about the study area. It will be all four western states (Consortium member states). More specific routes within the study area will be selected for actual application.

- Galen McGill clarified that the project and challenges are not purely related to route conditions. David Veneziano will address this in a revised work plan.
- Ian Turnbull stated that this project falls in the Operations category and the operations representatives should revise the scope to yield a useful product.
- Clyde Aker agreed with Galen and re-stated that there are lots of variables involved. He explained, that in general, what is in place along I-5 in northern California and southern Oregon is generally what is needed for corridor management. However, effective, efficient communication is most often the challenge and metrics don't always work as anticipated. Clyde gave the example that traffic is frequently restricted on I-80 in the winter which in turn impacts Highway 70. However, he thought there was little to no communication about the impacts and what to do with Highway 70, or other similarly affected routes.
- Ed Lamkin asked if part of this project was to provide semi-real time information. It was clarified that that was not the intent.
- In reference to Clyde's comments, Ian Turnbull said that the aim of the project was to identify where rural ICM could be of benefit to see if it is worth coming up with a management plan. He indicated that locally, management plans and procedures were generally familiar but questioned whether such plans were in place or even discussed regionally, and/or for longer routes, and/or for less frequent events.
- Clyde Aker said that I-80 would be great example test case. It would also involve a new Consortium member and Caltrans District 3.
- Ted Bailey asked if there would be any benefit to looking at what Emergency Operations Centers do. Is there a standard for planning methodology?
- Shyam Sharma stated that he felt the concept was good, but asked about including a strategy for implementation and studying one or two corridors in detail. This project may have the potential to determine how to calculate regional travel time during a major incident. He also questioned the size of the work plan and whether it may be too big or broad for an incubator project.
- Ted Bailey asked what other people are thinking about when planning. Ed Lamkin answered that they have looked at plans on a local scale but nothing larger.
- After this discussion, it was decided that David Veneziano would send out the work plan to the group for comments and suggestions on how to address the discussion points. Some ideas were:
  - Add to Task 7.
  - Cut off work at Task 5 or 6 and only include Tasks 1-4 and 9.
  - Clarify "these are the elements to consider" and then applying those elements on one route.
  - The project should scale up quickly encouraging a multi-state versus local line of thinking.
  - The plan should address less about inventory and more about operational protocols.
  - Overhaul of the entire work plan to focus on other aspects.
- David Veneziano will send out the current plan for comments, develop a comments matrix, and re-scope the project. Comments will be due in 30 days. A revised work plan will be sent out by January 15<sup>th</sup> or earlier.
- Incubator projects must fit within the constraints of a one year time frame and an approximate budget of \$30,000.

### **Survey of Western State Safety Warning Devices**

- The people present at the meeting will be some of the first to be contacted.
- Galen McGill commented WTI has evaluated most of what ODOT has.
  - While this is true, much has likely changed since that was done, and therefore, ODOT will be contacted for information once again.
- The work plan was approved by the Steering Committee.
  - Ian Turnbull stressed that this work must drill down and leave no stones unturned in terms of contacting people to get the necessary information.
- After reviewing the minutes, Bill Legg from WSDOT mentioned that the ENTERPRISE program is currently working on a project to document all of the dynamic intersection warning systems in use and begin some dialogue about standardizing their use. He can be contacted with any questions ([LeggB@wsdot.wa.gov](mailto:LeggB@wsdot.wa.gov)).

### **WSRTC Year 2 Project Discussion**

- These incubator projects will be for the 2012 calendar year.
- David Veneziano passed around a list of previously mentioned incubator project ideas.
- Since Year 1 projects fell into the Safety and Operations category, it was suggested that one of the Year 2 projects be in the Technology area.
- Similar to Year 1, funds will be available for two projects.
- The first project idea discussed was *“Determining rural travel times with Bluetooth technology.”*
  - A potential study area could be Redding to Medford. This corridor has roadside ITS devices already and instrumentation would be easy to place.
  - Galen McGill expressed interest in determining weather related delays and would definitely be interested in this topic as an incubator project.
  - The University of Washington would be interested in this project as well.
  - Ian Turnbull mentioned that he has apprehensions about the long-term viability of Bluetooth technology and rural applications for it, but noted that the demonstration at the 2010 Western States Forum worked better than he anticipated.
  - Ted Bailey and WSDOT have already committed funds to study rural applications of Bluetooth technologies and will need help evaluating the data. Clint Burkenpas asked him to clarify the definition of rural mountain passes (Average Daily Traffic is how much?). Ted replied and further explained the three potential test sites and why they were chosen.
  - Ian Turnbull suggested tying Bluetooth data in with chain control data and other data sets to determine travel times and an acceptable margin of error for travel times.
  - If the I-5 corridor is studied, then a tie-in to Washington is applicable.
  - Is it reasonable to use this technology in combination with other data sets to get accurate travel times and valuable traveler information?
  - Clint Burkenpas said that he had used Bluetooth technology to get travel times in a construction corridor. In this case at that time, the number of discoverable devices was low, there was low ADT, and a low percentage of vehicles with devices. These factors combined to make the technology not worth employing. However, the summer construction application is important to keep in mind in other cases.
  - Ted asked the group for ideas on how Bluetooth could be combined with other devices.
  - License plate readers were briefly discussed.
  - Applications in winter conditions were repeatedly discussed.

- Galen suggested that the group think about potential links to Intelli-drive for future applications and projects. The topic will be added to the potential project list. After reviewing the minutes, Bill Legg from WSDOT added that there is an Intellidrive Pooled Fund project led by Virginia DOT and WSDOT is a member.
- *“Feasibility and general approaches for providing point to point travel time for rural areas”* was another topic that was discussed. The group felt this topic fell more in the Operations category but had difficulty separating it from the Bluetooth project discussed above.
- The Bluetooth project may be more about collecting data.
- The feasibility of integrating other data sets was discussed. Scott Rutherford has more information about collecting and using third party data.
- What does it take to get the reliable travel times?
- Is there enough operational value to make a super-incubator? After some discussion, the group felt that a super-incubator project consisting of the *“Determining rural travel times with Bluetooth technology”* topic and the *“Feasibility and general approaches for providing point to point travel time for rural areas”* topic was a good idea. The super-incubator project would encompass both the Technology and the Operations categories and would have a \$60,000 budget. WTI will develop an executive summary to outline the project and present it to the Consortium for approval.

The incubator project idea list, including status of each topic, will be placed on the Consortium website so members can add to it as ideas come up. Directions on how to add project ideas to the list will be provided.

In reference to the project idea list, Ted Bailey mentioned that on November 9, 2010 a pooled fund study posted showing Washington as the lead state for a project to study the use of unmanned aerial vehicles in transportation applications.

### **Other Discussions**

The next gathering of the Consortium will be at the Western States Forum in June 2011. Another meeting will be at NRITS in Coeur d’Alene, Idaho at the end of August 2011. Interim conference calls can be arranged if needed.

Future annual Steering Committee meetings will be scheduled on the second Tuesday of November. Next year’s meeting is tentatively scheduled for November 8, 2011.

**Action Items**

<b><u>Item</u></b>	<b><u>Deadline</u></b>
1. Rework the scope for the <i>Regional Integrated Corridor Management Planning</i> incubator project work plan.	<ul style="list-style-type: none"><li>• <b>December 10, 2010</b> - Comments on the original draft due to David Veneziano</li><li>• <b>January 15, 2011</b> - Revised work plan sent to Consortium members for approval.</li></ul>
2. Write Year 2 super-incubator project concept and submit to the Consortium members for review.	No specific date determined, given this will be a 2012 project. However, the document will be distributed in early 2011.
3. Place incubator project idea list on the Consortium website.	<b>December 10, 2010</b>
4. Send to WTI any links of interest to be placed on the Consortium website.	As needed.

### **Meeting Participants**

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