The Western States Rural Transportation Consortium– A Partnership to Advance Rural ITS

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Overview

• Origins and history of WSRTC
• What the WSRTC is and what it does
• Challenges it addresses
• Benefits it provides
• Incubator and spinoff projects
• Technology Transfer
Origins

- 1991 - California Department of Transportation (Caltrans) inquired into rural concerns dealing with advanced transportation technologies
- 1995 - Initiated a Program for Advancing Rural Transportation Technologies (PARTT), a rural ITS scoping study
  - Reviewed advanced transportation technologies, identified key issues concerning them, and developed conceptual ideas for future activities
  - Geographic area in Northern California designated a study area to refine the need and application of ITS in a rural environment
  - Caltrans and the Oregon Department of Transportation (ODOT) expanded the Northern California study area into Southern Oregon to maximize resources, foster cooperation, and investigate feasibility of ITS in a bi-state study area
Origins

• COATS (1998-2000) - Identified several regional needs that ITS could address
• COATS Showcase (2001 – 2006) - Focused on demonstration and evaluation activities
• COATS Phase 3 (2005 – 2009) – Promote technology transfer and coordination
• COATS Phase 4 (2008 – 2011) – Continue technology transfer, initiate incubator project concept
  – Investigate expansion of COATS to include additional states
WSRTC History

• June 2009 - Informal discussions occur regarding Consortium establishment/expansion of the COATS project/region
• August 2009 - Formal discussions between COATS members of expansion/consortium development result in agreement to pursue development of WSRTC
• August 2009 – October 2009 - Development of Consortium charter and mission/vision/goals documents undertaken
• November 2009 - Formal discussion between potential consortium members regarding charter and mission/vision/goals documents, intended roles and responsibilities, etc. occurs. All parties agree to move forward in formalizing Consortium
• February 2010 - Follow-up discussions on Consortium documents occur; Year 1 incubator projects are discussed,
• April, 2010 - Scopes of Work completed for incubator projects
WSRTC – What it is and does

• Facilitates and enhances safe, seamless travel throughout the western United States
• Promotes innovative partnerships, technologies and educational opportunities to meet these objectives
• Provides collaborative mechanism to leverage research activities in a coordinated manner to respond to rural transportation issues
• Focuses on technology transfer/education and incubator projects centered on the pillars of technology, operations and safety
Challenges Addressed

• Tighter agency and research budgets reducing opportunities to conduct technology, safety and operational research aimed at rural transportation
• Projects must be justified, often requiring an initial proof-of-concept
• Research involving multiple agencies likely to be of interest and transferable to others
  – Mechanism to promote results and share developed products does not exist
• Need existed for agencies to partner and leverage research funding, share technical findings and products, and promote educational opportunities
• The WSRTC addresses these challenges through collaboration
Mission and Vision

• Mission: The WSRTC shall provide a collaborative mechanism to leverage research activities in a coordinated manner to respond to rural transportation issues among western states related to Technology, Operations and Safety.

• Vision: The WSRTC shall promote innovative partnerships, technologies and educational opportunities to facilitate and enhance safe, seamless rural travel throughout the western United States.
Goals and Benefits

• Provide a framework to leverage research and promote collaboration in solving rural transportation issues.
• To leverage research resources related to rural issues concerning technology, operations and safety.
• Provide technology solutions in the form of technology transfer to rural areas and training on a regular basis.
• Recycle and reuse existing research, applying its results to rural issues.
• Development of a rural western states integrated corridor management system to improve seamless, coordinated and safe transportation to the public.
• Continued fostering of tech transfer activities through venues such as the Western States Forum
WSRTC Incubator Projects

• Radar Speed Signs deployment guidance
• Evaluation of the Fredonyer Pass icy curve warning system
• Analysis and recommendations for optimization and deployment of web-based projects
• Survey of western states safety warning devices (ongoing)
• Regional Integrated Corridor Management planning (ongoing)
• Bluetooth and other passive ID technologies for weather-related rural travel times (upcoming)
Spinoff Projects

- One Stop Shop for rural traveler information
- WeatherShare
- Integration of aviation AWOS with RWIS
- Automated Safety Warning Controller
- Redding Responder
- Professional Capacity Building (PCB) for Communication Systems
One Stop Shop: http://oss.weathershare.org/
I-5 CLOSED AT FAUNDALE DUE TO ACCIDENT

FAUNDALE PRESET 3

2 - Pine Grove N/B - Shasta Lake City
Updated: 10:58 AM MST - Wed, Jan 18 2012

Vollmers
10:31 AM MST - Wed, Jan 18 2012

Vollmers PRESET 1

Western Transportation Institute
Prior and On-Going Investment in OSS

Past Projects

Western States OSS Prototype via Clarus FHWA 2010-2011

ICM Caltrans 2006-2009

OSS Phase 1 Caltrans 2008-2010

WeatherShare Phase 1 Caltrans 2003-2005

WeatherShare Phase 2 Caltrans 2006-2009

COATS IV Deployment Assistance Caltrans 2009-2010

WeatherShare Phase 3 Caltrans 2012-2014

AWOS/RWIS Phase 1 Caltrans 2008-2010

AWOS/RWIS Phase 2 Caltrans 2012-2014

OSS Phase 2 Caltrans via WSRTC 2011-2013

OSS Phase 3 Caltrans via WSRTC TBD

Future Projects

Other? TBD

Ice= Covers WSRTC Region

Blue= Covers California

Other?

TBD
Integration of Aviation AWOS with RWIS

Integration of Aviation Automated Weather Observation Systems (AWOS) with Roadside Weather Information System (RWIS) Demonstration

Wind Speed/Direction Aloft (15000ft MSL) - 1:00PM Mon Feb 6 PST

Map  Satellite  Hybrid  Terrain

Surface Layers  Aviation Layers

- AWOS/ASOS (METAR)
- Pilot Reports (PIREPS)
- Terminal Aerodrome Forecasts (TAF)
- Radar: NWS CONUS Merged Reflectivity Composite
- Satellite
- Wind Aloft
- Temperature Aloft

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Automated Safety Warning Controller
Redding Responder

Redding Responder Incident Organizer

Summary: Rockslide 1.5 miles west of Pulga. Includes more than 200 yards of material including some weighing well over 200 tons.

Organization: Caltrans
Date: 2/28/2004
Time: 08:35 AM
Observer: Responder

Facility: Lane blocked
Incident Type: Rockslide/Mudslide

Road/Address: SR-70, Oroville, CA 95965
Mile Marker/Landmark: BUT 70 39.52
City: Butte
County: Butte
State: California

Maps and Location Data Set to Current Location
Professional Capacity Building (PCB) for Communication Systems
Technology Transfer

- Western States Rural Transportation Technology Implementers Forum (WSRTTIF)
- Consortium Website
Western States Rural Transportation Consortium (WSRTC)

OVERVIEW | HISTORY | CONTACTS | UPDATES | PROJECTS | ARCHIVED UPDATES | DOCUMENTS

The Western States Rural Transportation Consortium (WSRTC), comprised of California, Oregon, Washington and Nevada, has been established to facilitate and enhance safe, seamless travel throughout the western United States. The Consortium seeks to promote innovative partnerships, technologies and educational opportunities to meet these objectives. Additionally, the Consortium seeks to provide a collaborative mechanism to leverage research activities in a coordinated manner to respond to rural transportation issues among western states related to technology, operations and safety. Consequently, activities of the Consortium are focused on technology transfer/education (Western States Rural Transportation Technology Implementers Forum) and Incubator projects (small scale research projects intended to serve as a “proof of concept” for larger subsequent efforts) centered on the Consortium pillars of technology, operations and safety.

Please visit our project pages and visit this site frequently, as we continue to add content.

Recent Updates:

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<thead>
<tr>
<th>Date</th>
<th>Event Details</th>
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<tr>
<td>Friday</td>
<td>2/3/2012: WSRTC Steering Committee meeting to be held at NHTC.</td>
</tr>
<tr>
<td>Thursday</td>
<td>6/1/2011: WSRTC Steering Committee meeting held.</td>
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<tr>
<td>Friday</td>
<td>6/2/2011: WSRTC Steering Committee meeting to be held at NHTC.</td>
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<tr>
<td>Monday</td>
<td>12/13/2010: WSRTC Steering Committee meeting held.</td>
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Check back soon for more Western States Rural Transportation Consortium (WSRTC) updates.
Disclaimer

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Acknowledgements

• California Department of Transportation
• Nevada Department of Transportation
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Questions