Western States
Rural Transportation
Consortium

MONTANA STATE UNIVERSITY
Western Transportation Institute

SYSTEMS ENGINEERING DEVELOPMENT AND INTEGRATION PROGRAM

California Oregon Advanced Transportation Systems

Demonstrating and Evaluating Intelligent Transportation Systems in Rural Environments

The California Oregon Advanced Transportation Systems (COATS) established regional public and private sector cooperation to investigate and address rural concerns with advanced transportation technologies. This effort, dating back to 1998, has identified regional challenges, as well as developed and evaluated solutions to these throughout the northern California and southern Oregon region. It has served as the impetus for long-term partnerships, provided a forum for discussion and information dissemination, and provided an incubator for ideas that have evolved into stand-alone projects and products.

As COATS and its products have matured, it has gained interest from surrounding states. Consequently, the expanded COATS region now encompasses the Western States Rural Transportation Consortium (WSRTC) region, which includes the states of California, Oregon, Washington, and Nevada.

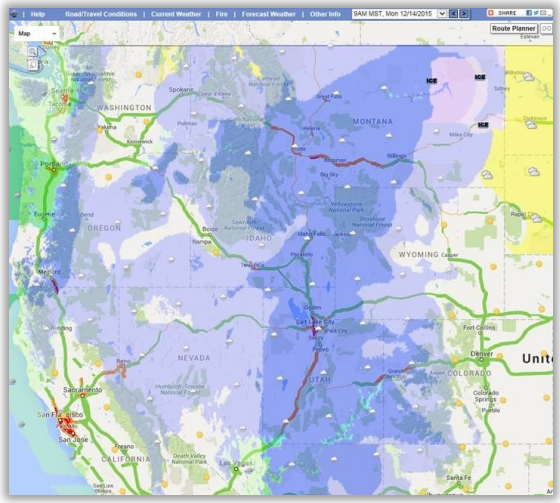
Benefits

Research in the COATS region, whether directly funded as a COATS project or as a spinoff project, has brought substantial benefits to the region as well as other stakeholders. These include the following:

- First-generation ITS planning and architecture documentation, which each state incorporated into its respective ITS efforts.
- Successful implementations of ITS technologies, including CCTV cameras, dynamic message signs, and road weather information systems, to address regional transportation challenges.
- Strengthened partnerships between the states which have improved operations and maintenance of the transportation system, especially near the state border.
- Innovative technology development activities, such as work providing new web-based traveler information mechanisms.
- Evaluations of rural ITS deployments, for which the results have been presented in national venues.
- Outreach to a variety of audiences, including the technology transfer activities of the Western States Forum.

Goal

To provide research and support activities to help California and Oregon achieve the COATS vision of "Promoting innovative partnerships, technologies, and educational opportunities to facilitate and enhance safe, seamless rural travel throughout the western United States."



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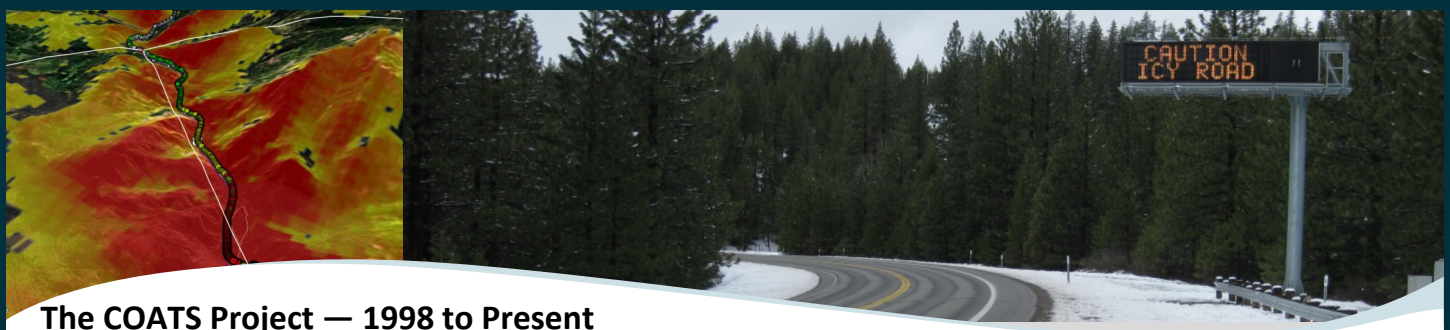
California Oregon Advanced Transportation Systems



The COATS Project — 1998 to Present

COATS ITS Strategic Deployment Plan (1998-2001). The purpose of the first phase was to encourage regional, public, and private sector cooperation between California and Oregon organizations to better facilitate the planning and implementation of ITS in a rural bi-state area extending between Eugene, Oregon, and Redding, California. Work completed in this phase included ITS Architecture Plan, Strategic Deployment Plan, two Rural TMCs, and Rural ITS Deployment.

COATS Showcase (2001-2006). COATS Showcase built on the foundation of the COATS ITS Strategic Deployment Plan by providing funding for increased deployment and evaluation of ITS. COATS Showcase was funded by Caltrans and the WTI University Transportation Center (UTC) in a four-year program. WTI engaged in a number of research and evaluation activities through COATS Showcase, which sought to provide information to improve the performance of existing ITS elements, and to provide data to justify, support, or direct future deployment of ITS in the COATS study area. Among other tasks, the Fredonyer Summit Icy Curve Warning System, Siskiyou Pass Traveler Information, and a Rural ITS Workshop were completed through COATS Showcase.

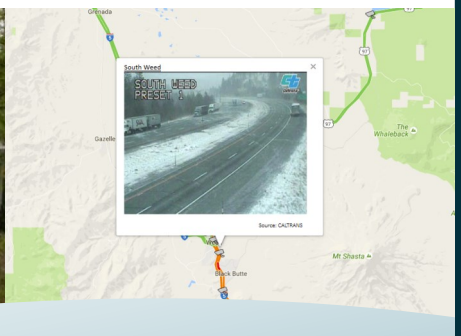
COATS Phase 3 (2005-2008). COATS Phase 3 provided research and support activities to help California and Oregon achieve the COATS vision. These activities included: fostering bi-state cooperation and communication, promoting technology transfer, assisting in ITS planning and architecture development efforts, evaluating ITS projects and systems, and providing assistance to mainstream deployment of field-tested ITS technologies. The Western States Forum was founded during this phase. Other work included Rural Integrated Corridor Management and the TMC One-Stop-Shop.

COATS Phase 4 (2008-2011). The fourth phase of COATS built on the success of earlier COATS phases to present the COATS region as an innovator in rural ITS. Tasks completed during this phase included WeatherShare Deployment, Radar Speed Trailer Warrants, and development of the WSRTC.

COATS Phase 5 (2011-2014). COATS Phase 5 continued advancing ITS implementation in rural areas by using the ITS experience and institutional knowledge of stakeholders in the region, combined with technology transfer activities including the Western States Forum and incubator projects. A Survey of Safety Warning Devices was completed during Phase 5, as were Regional ICM Planning, and Chain-Up Delay Using Bluetooth.

COATS Phase 6 (2014-2016). COATS Phase 6 built on the success of the prior five phases to preserve and expand the COATS region as an innovator in rural ITS demonstration. Tasks conducted during this phase included Data Quality for Traveler Information and Chain-Up Delay Using Bluetooth.

COATS Phase 7 (2016-Present). COATS Phase 7 will sustain the level of innovation in Rural ITS that has grown throughout all phases of the project.



For further information, please visit www.westernstates.org/Projects/COATS/, or contact

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