

Western States Rural Transportation Consortium (WSRTC)

**Annual Steering Committee Meeting
June 16, 2025
Yreka, California**

Meeting Minutes

This document is the official record of the WSRTC Steering Committee annual meeting held June 16, 2025, in Yreka, California, just prior to the **20th Annual** Western States Rural Transportation Technology Implementers Forum.

WSRTC Steering Committee Meeting

June 16, 2025

Meeting/WebEx

**Western States Rural Transportation Technology Implementers Forum
Yreka, California**

Meeting Minutes

Prepared by

Leann Koon

Western Transportation Institute, Montana State University

Leann Koon and Andres Chavez welcomed everyone and called the meeting to order at 2:30 PM Pacific Time. Introductions were made by those at the meeting site in Yreka, California. None joined the WebEx meeting. Leann reviewed the purpose of the meeting and the planned agenda, noting this was the 15th Western States Rural Transportation Consortium annual meeting.

The meeting agenda, presentation, and minutes are posted on the Consortium website at:
<https://www.westernstates.org/Documents/WSRTC/Default.html>.

Western States Forum

Leann Koon gave an overview of the 20th annual Western States Forum which starts today and goes through Wednesday (June 16, 17, and 18). Since this is the 20th Forum, Leann went through a brief history of the event over the years. This year, Washington State DOT, Caltrans, and the AHMCT Research Center at UC Davis will jointly present a WSRTC project on the Fotokite tethered drones. Andre and Tony Leingang gave a quick overview of how the project came to be and how the research has progressed. WSDOT will also have a presentation on using drones for graffiti removal and other possible applications which Tony briefly discussed. Montana Department of Transportation will be presenting for the first time as they discuss building their statewide TMC. Wyoming DOT will be presenting on their roadside network and backhaul upgrade. Jake Grivette gave a quick overview of the Nevada DOT presentation on integrating ITS into the statewide ITS and ATM master plan. Through connections Jeremiah Pearce made at another event, the National Center for Atmospheric Research based in Colorado will be presenting their Pikalert system. Jeremiah explained his connection and gave us a brief description of the project.

The audience will be diverse like the speaker line up – nine states representing seven DOTs, including all five Consortium member states, three universities, the Southwest Research Institute and the National Center for Atmospheric Research. While the Schedule of Events is similar, the Forum will be held Monday, Tuesday, and Wednesday (vs. Tuesday, Wednesday, Thursday). Registration starts later this afternoon, followed by a reception and dinner. The technical program will be full tomorrow, and the day ends with dinner and networking at a local park. Technical presentations continue Wednesday morning, and the event will conclude with recognition and appreciation, final remarks and lunch. Tuesday's

agenda will include a Founders Panel and birthday cake. The panel will include Forum Founders Ian Turnbull and Sean Campbell and will be moderated by steering committee member Doug Galarus who has attended every Forum.

WSRTC Pooled Fund Updates and Discussions

Jeremiah Pearce, Doug Spencer, and Doug Galarus spoke about the history of the WSRTC and how it evolved from its beginnings with the COATS project (California Oregon Advanced Transportation Systems) which was a very productive partnership active from 1998 until 2023. Through attendance at the Forum, the WSRTC partnership was established in 2010 with California, Oregon, Washington, and Nevada; Utah joined in 2018. Phase 1 of the WSRTC concluded in 2023 and Phase 2 runs through March of 2027. Doug Spencer added to the history noting that Oregon and California worked on several projects together in the early COATS phases including conducting training classes more focused on engineering. He commented that Sean Campbell and Ian Turnbull were at various conferences and recognized a need for more in-depth information sharing with an engineering focus and more details. The concept for the Forum arose from these early experiences and conversations.

The Charter document for the WSRTC was updated this year with revised language and signatures/signature lines. Phase 2 of the WSRTC, TPF-5(494) (end date March 31, 2027), is open with six active task orders:

- Evaluation of the Fotokite Tethered Unmanned Aerial System for DOT Operations in Network-Deprived Areas (AHMCT, UC Davis)
- Chain-Up Delay Tracking and Estimation (Montana Tech)
- WSRTC Meeting Coordination, Western States Forum, Website Maintenance (WTI)
- WeatherShare Maintenance (Montana Tech)
- CV Highway Grip Factor Reporting for Snowplows, Phase 1 (WTI)
- Vehicle Detection on Rural Roads Using Optical Fiber Sensing Technology (AHMCT, UC Davis)

Andres Chavez reviewed the status of the Pooled Fund and several associated projects. There is a balance of \$135,000 with Nevada's obligated contribution being finalized. Upcoming task orders will proceed as projected. The current coordination and Forum task order will end June 30th; there is a balance of about \$47,000 as of April 30th, but Andre and Leann confirmed that the bulk of the Forum expenses will hit in this quarter and they do not anticipate a remaining balance at the end of the Task Order. The next Task Order for this work has just been executed and will ensure seamless support for Forum and WSRTC operations. The research work for the Fotokite tethered UAS project is complete, and the final report is being reviewed. The chain on delay project (possible No Cost Time Extension needed), CV grip factor reporting, and fiber detection (construction issues) projects are proceeding. Other projects discussed include using Starlink for ITS communications, development and testing of an unmanned aerial system cellular WiFi repeater, WeatherShare Maintenance (possible No Cost Time Extension), and PSPS fuel cell Phase 2 (identifying alternative fuel sources, possible vendors, situational awareness for current deployments).

Andre broached the topic of a third phase of the WSRTC pooled fund noting that it would be best to start planning now. There is the option of doing a no cost time extension for Phase 2 which may be easier for the time being than to close out and start a new phase. That being said, Phase 3 could be opened and overlap until ready to close out Phase 2. WSDOT is happy to remain the lead state. The group asked about and discussed the process of encouraging other states to "buy in" and participate in

the Pooled Fund with projects. Suggestions and ideas for encouraging other state participation were more correspondence and communication about projects, a message board on the website, and direct contacts with colleagues in other states.

WSRTC Projects

Leann Koon briefly reviewed the two WTI meeting coordination task orders. These task orders support the Western States Forum, travel to rural ITS events like NRITS and ITE, and maintenance of the WSRTC website.

Doug Galarus from Montana Tech reviewed several projects he is working on through the Consortium. While not currently contracted, support for the One-Stop-Shop project continues at Montana Tech as services were paid for ahead of time from the prior contract. One of his students completed a project and exhibited a poster related to OSS and handling MDT RWIS data; the poster was a second place winner at the Montana Tech Techxpo Student Research Conference.

Doug gave an overview of the Chain-Up Delay Tracking and Estimation including some images demonstrating the need for the project. Like what was envisioned with the travel times incubator project, the intent of this project is to use data from Caltrans-deployed Bluetooth loggers that will log time and MAC address, and to use the readings from these loggers in conjunction with chain control status and other data to develop an algorithm to estimate travel time/delay through the affected area. He showed some of the data collected and analyzed. Several posters and presentations have been and will be on conference agendas. Due to a relatively mild winter in 2023-2024, a request for a no cost time extension needs to be discussed.

The WeatherShare Maintenance task runs through January of 2027. The project's objective is to maintain WeatherShare as the central repository for Caltrans RWIS data and weather information. Doug reviewed some of WeatherShare's features and showed the poster developed and presented by his students.

The AHMCT Research Center at UC Davis is working on a project in partnership with WSDOT and Caltrans to evaluate Fotokite tethered UASs for DOT operations in network-deprived areas. The team tested five kites, three in California and two in Washington, as a tool for incident management. This project will be presented at the Forum tomorrow along with a demonstration of the drone and its software.

The grip factor project is being conducted by WTI at Montana State University with a subcontract to former COATS PI David Veneziano who is now at Iowa State University. The project idea came from Caltrans District 2's maintenance staff who have struggled to get accurate and reliable road condition data for winter maintenance operations. The purpose of the overall project is to deploy and evaluate Advanced Safety Warning System Controllers collecting and sending data to a snowplow or other maintenance vehicle as it passes an RWIS station to provide the driver with real-time surface condition data, ultimately enhancing and improving efficiency of highway winter operations. Leann reviewed the project's goals, objectives, and deliverables for the WTI project.

AHMCT at UC Davis is conducting a fiber sensing project. This project idea came about after a Forum presentation by Nevada DOT on the topic. The goal is to procure, install, operate and evaluate an alternative detection system using existing infrastructure and few construction resources. The detection system could be used for rural travel time messages, queue warning messages, and vehicle count

statistics to see if it is an effective alternative for detection in rural areas. The system will be deployed along I-5 between Redding and Anderson.

The How-to Handbook/Manual for the Western States Forum was updated after the 2024 Forum and will be updated again after this year's event. The Handbook is a practical, user-friendly guide for planning and executing the Western States Forum. It is intended to document the Forum in such a way that the event and its standard of excellence can be easily continued even as staffing and other inevitable changes occur.

Websites

Leann Koon briefly described the WSRTC Website (<http://www.westernstates.org/>) and the Western States Forum website (<http://www.westernstatesforum.org/>).

Upcoming Meetings

- NRITS Conference, ITE Annual Meeting, Orlando, Florida, August 10-13, 2025.
 - Travel support information has been provided to attendees. There will be four participants attending with support from the WSRTC.
 - Registration will be completed and lodging reservations made.

Roundtable of Recent ITS Activities

Tony Leingang, Washington State DOT

- A private company is partnering with WSDOT for a CCTV extension with drones similar to some of the usage by Alaska DOT. Long range, not line of sight, over traffic, drone patterns out to see more things on routines, enabling usage beyond fiber stops, anticipate being particularly useful in more rural areas. Deployment dependent on FAA rules and guidelines that are still being developed.
- The Virtual Coordination Center (VCC) is expanding with continued joint investment of resources and now has 12 employees, although more people are still needed. The VCC is working on plans for the 2026 World Cup Soccer tournament.
 - Including drone operating groups.
 - Sharing feeds; PIO's sharing messages.
 - Expanding statewide – getting people together, developing data sharing agreements and a plug in tool.
- Work Zone Data Exchange, fully implemented fleet – WSDOT turned off their 511 system. All highway construction projects are required to have connected equipment.
- Incident management – making purchases to fully outfit lane clearing vehicles in each region. Have seen good results and increased safety.
- Speed *safety* cameras being deployed in areas other than work zones. Tickets are issued to a vehicle's registered owner. Turnkey system developed by Elevate (vendor). Continue adding units until 2030 if system works as planned. Had to get legislative approval to deploy. Similar to systems deployed in Europe, this system calculates average speed between point A and point B so not taking pictures of individual vehicles. Speed cameras are a potential source of revenue; Tony is focused on safety.

Doug Spencer, Oregon DOT

- Waiting on state budget decisions to see what the funding package will look like.
- Changing out the current ATM software system for a new custom system developed by the Southwest Research Institute that will include lane control and variable speed limit applications based on congestion *and* weather.
- IT department is updating data exchange standard. Conducted a pilot project deploying smart arrow boards which went well. Now, the ITS department is working with the Traffic Headquarters group to include arrow boards and portable VMS with work zone data exchange compliant feeds. Construction contractors will have to provide those feeds.
- Recently completed a contract to integrate automated incident detection cameras and thermal imaging cameras into ODOT's video management software in preparation for the Interstate bridge replacement and work along the Rose Corridor in Portland.
- ATC MTD grant is being completed with several project reports. It was extremely challenging to manage but produced a large amount of useful data and solid review efforts for how projects actually worked or not, e.g., one project installed ATM and added an auxiliary lane along a corridor and crashes were reduced by 55%; several traffic signal projects with retiming and AI cameras, resources saved, unexpected results, etc. If future funding is available, ODOT will evaluate every other ATM corridor.
- Broadband Program – challenges with utilities along the Interstate, working out ownership issues, innovative financing and public private partnerships, developing a one-time proposal.
- Developing an OAR to implement a House Bill that requires ODOT to allow Telco companies to come into any new conduit trenches.
- A few years ago, ODOT developed a public-private partnership with Meta for installing fiber along 16 miles of US 97. The fiber install work was recently completed.
- Manufactured products are no longer exempt from BABA Act requirements as of October 1, 2025. ODOT ITS is working to navigate funding sources for equipment to comply with the requirements.
- Searching for a vendor for fiber management software.
- ATC – 95% of traffic signals replaced with new ATC with signal performance measures and more advanced detection. Purchased 250 ATC prior to contract expiration to supply a project or maintenance activities until a new price agreement contract can be executed.
- Last year, upgraded the traffic signal software to a cloud-based system. They are currently working through system compatibility challenges because of vendor platform changes.
- Truck parking management project – was a joint grant with the Interstate 5 states of Washington, Oregon, and California.
- RUC = Road Use Charging project – installing equipment in hybrid and electric vehicles; Oregon legislature just passed a law to require hybrid and electric vehicles to be part of this program so they contribute fairly to road taxes/fees. ODOT ITS partnered with the RUC group to develop a Connected Vehicle Ecosystem and leverage data collection for operations.
- The ITS group is also responsible for the engineering and maintenance for ODOT's motor carrier group. They have updated 28 weigh stations in the last two years.
- Currently looking into updating the dispatch software as the system in place was built approximately 17 years ago by students at Oregon State University and it will no longer be supported.
- The asset management software and ITS tracking system is at end of life so they are selecting another vendor.

Jake Grivette, Nevada DOT

- AVLTS = Automated Vehicle Location and Tracking System – fully deployed, pilot project rolled out with different types of vehicles to stress the system before full activation. There were some initial public records concerns with the data collected.
- 511 system is working great.
- Wrong Way Driver systems are all online. There is a delay between the event and reporting, which is the industry standard.
- Middle Mile projects will complete rural Broadband deployment; US93, I-80 corridors. Vendor selected for providing long haul capability. Validated all space availability and all existing re-translocations. Identifying new construction.
- Connected Vehicle corridor (“Moon Shot Project”) – Illinois to the coast plus Texas with a single seamless integrated data exchange system; work being done with a SMART grant for the Data Exchange effort.
- Starlink – purchased three more units because of the positive results with the initial systems. Also purchased three backpack units for technician crew testing throughout the state on their daily work routines to see if “Starlink on the Go” can be established and useful. Integrated Starlink into emergency radio trailers for technical testing. Looking at domes, mounts, etc. developed for maritime applications to use for radio backhaul, etc.
- Lit new radio system for the southern half of the state. Will expand to the rest of the state.

Jeremiah Pearce, Caltrans District 2

- CV Grip Factor Reporting for Snowplows
- Alternative Fuel/Power During Public Safety Power Shutoffs, Phase 2
- Chain-on Travel Delay
- Several capital projects are nearing the end of construction phase. Systems are being turned up this summer and fall.
- Rest Area Truck Parking

Andres Chavez, Caltrans DRISI

- Though it took two years to go through procurement, the project using UAS to inspect communications towers is underway. Pixel resolution can be adjusted according to needs. The goal of the project is to reduce/eliminate the need for a person to climb and inspect the towers.
- COW – CAV on Wheels, portable standalone RSU; could potentially borrow across state lines. Possible future Forum presentation.

Doug Spencer asked what other states were doing regarding 4.9 Ghz relicensing. Caltrans District 2 is working to license the links they have forecast for the next two years. ODOT had to do approximately 600 links but the documentation required was different from the original application. They are going to use 5.8 Ghz going forward.

Announcements

The 20th annual Forum has an excellent agenda. Forum presentations will be posted after the event.

With thanks all around, the meeting was adjourned.

Action Items

<u>Item</u>	<u>Deadline</u>
1. Participation and travel for NRITS / ITE Annual Meeting	Before June 27 th
2. Explore options for communicating projects and opportunities to the group.	Winter quarter
3. Research possibility of Pooled Fund extension and/or next phase.	Fall quarter
4. Research and discuss funding options for WeatherShare and OSS server hosting.	Fall and winter quarters

Meeting Participants

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