ASWSC Phase 3

Migration of the Automated Safety Warning System Controller to the Caltrans Advanced Transportation Controller Platform

Current Status (Part 6 of 6)

Jeremiah Pearce, Caltrans District 2

Jeff Worthington, Caltrans District 2

Doug Galarus, Montana Tech

Current Status

(Part 6 of 6)

Maintenance

July 2021 – March 31, 2023

Montana Technological University

ASWSC / OSS / WeatherShare Maintenance

The three projects to be maintained within this scope of work represent a diverse yet overlapping set of challenges and solutions faced in the rural environment.

- The ASWSC was developed to provide automated safety warnings in remote, rural spot locations where communication infrastructure is lacking, and where special conditions brought about by terrain and weather have a significant, spot impact on drivers.
- OSS presents a unified view of road conditions across the entire western United States, where travelers must be aware of and plan for the impact of weather, incidents, and traffic, as they travel the vast rural roadways that connect major population centers.
- WeatherShare aggregates data from RWIS sensors so that maintenance and operations personnel can respond to and mitigate conditions on these same rural roadways.

ASWSC / OSS / WeatherShare Maintenance

Task 1: Project Management

Task 2: Lab Setup

Task 3: Review Prior Results

Task 4: Ongoing System Maintenance and Monitoring

Lab Setup

Receive and Install ASWSC Hardware

Caltrans provided and configured replacement modems to ensure compatibility with existing Caltrans policies and preferences, replaced failed equipment in the ASWSC lab, and configured the system to use new phone lines, etc. at its new location at Montana Tech.

The project team worked with Caltrans to install the modems in the ASWSC lab for subsequent development and testing.

There was an issue with the analog lines. See next slide for resolution …

Analog Lines - Revisited

Excelltel PABX Telephone System Mini PBX MS series

http://www.excelltel.com/Excelltel-PABX-Telephone-System-Mini-PBX-MS-series-pd6407113.html

Lab Setup

ASWSC Lab Enhancement

The development and testing lab for the Controller project, developed in Phases 1, 2, and 3 may be enhanced to include additional device types and configurations.

The project team will work with Caltrans to enhance the lab.

Additional equipment may be purchased via this project or loaned to the project by Caltrans, as has been done with much of the current lab equipment.

The project manager or project champion will make at least one related trip to Montana Tech for lab enhancement. (This happened, but there were associated challenges. These challenges impact the potential for subsequent travel.)


M
beaver

D2 Current Status

Acknowledgements

Caltrans District 2:

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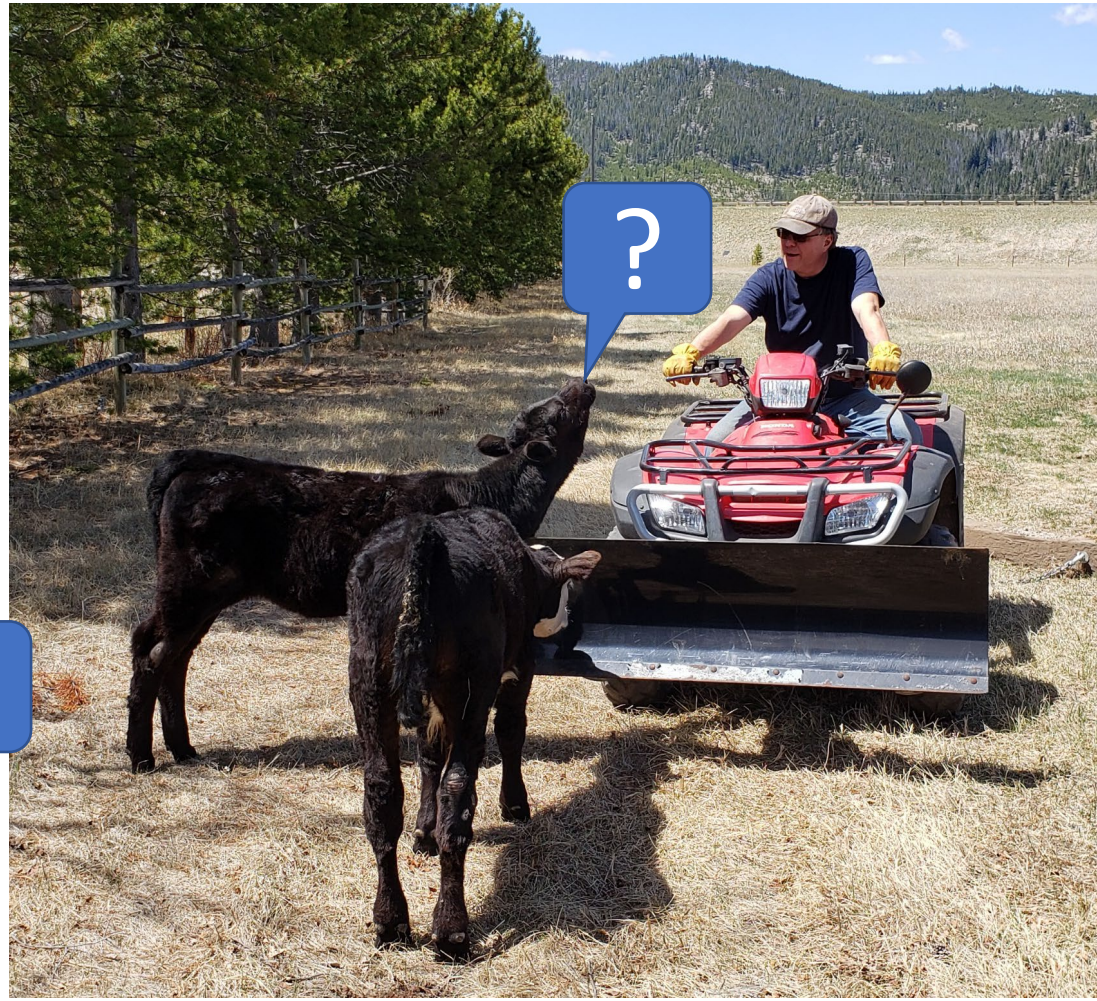
USU Students:

Andrew Mortensen, Brad Hoffman, Brock Francom, Max Susman, Michael Harrop

Montana Tech Students:

Tucker Kane, Ethan Schlepp

Questions?



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More information and future updates can be found at:

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