

State Planning & Research Program

Oregon Department of Transportation Progress Report

PROJECT TITLE: Animal-Vehicle Crash Mitigation Using Advanced Technologies		
PROJECT MANAGER: Kevin Haas Oregon Department of Transportation (ODOT) Research Unit 200 Hawthorne SE, Suite B-240 Salem, OR 97301-5192 Phone: (503) 986-2700	SPR PROJECT NO. SPR-0003(076)	PROJECT IS: <input type="checkbox"/> Planning <input checked="" type="checkbox"/> Research & Development
ANNUAL BUDGET Budget for FY2003 Cost to Date for FY2003 Through December 31, 2003	MULTI-YEAR PROJECT Total Budget for Project \$915,000.00 Total Cost to Date for Project \$744,587.17	
DESCRIPTION OF WORK PERFORMED TO DATE:		
Task 1: Identify potential advanced technology systems This task is complete		100%
Task 2: Locate potential study sites Task complete		100%
Task 3: Document existing site conditions No progress on this task		60%
Task 4: Implement and test systems Yellowstone		70%
<ol style="list-style-type: none"> 1. WTI visited the site on 28-29-30 Dec and did the following: Attempted to fix the radio of station 21. However, the problem was not due to a loose connection. After consulting with STS, removed the circuit board and send it back to STS. STS later reported that they forgot to activate a module when they left the site late Nov. WTI tried to trigger the system at 20 m intervals between the sensors. Results available in separate attachment upon request. WTI erased all snow tracks on 28 Dec (late afternoon), and checked for new animal tracks on 29 Dec (morning). WTI then erased them again and checked for tracks on 30 Dec (morning) as well. WTI compared these tracking data to the detection log of the system. There were only 5 total crossings on these two nights. WTI will continue to collect data throughout site visits, but the preliminary conclusion is that the system does seem to properly detect animal crossings. 2. After analyzing the data, WTI found that section A was producing too many detections to be credible. Other sections did not show this problem, apart from section 6, which WTI was slightly suspicious of. After consulting with STS, WTI asked Scott Lee (WTI-MSU student) to remove the circuit boards from station 6 and 10, and the boards from the sensor tubs from station 6, 10 and 21. These boards were sent to STS on 12 January. 3. STS modified the boards in the following way: they added variable controls to adjust the voltage, made adjustments so that the sensors remained equally sensitive over a wider temperature range, and they lowered the noise floor. This should make section 6, A, D and 8 less sensitive to false positives. These modifications could be made to the sensors of the other sections as well, but this is only necessary if those sections give a problem. 4. WTI received all circuit boards back from STS on 26 January. STS sent WTI the instructions for installation. WTI hopes to install the boards ASAP, i.e. within a couple of days. Then WTI will test the system again and report the findings to MDT. Hopefully all sections will function then. 5. MDT said they would order new signs. They will replace the sign "when flashing" with a sign that says "use extra caution when flashing". WTI hopes the signs will be ready shortly. 		
Pennsylvania		

1. WTI visited the site in PA on 8 and 9 January. The foundations were poured that week and the vegetation was trimmed. The signs had arrived at the maintenance yard and the flashing warning signs should be there as well. One long pole still had to be ordered, but that could be done locally and on short term.
2. The installation has been delayed by snow and mud. However, the system can be installed very soon now that the foundations are in. Once the weather improves PENNDOT can pull people from plowing snow to help Oh Deer with the installation of the equipment. Oh Deer said they are ready.
3. WTI wrote a draft brochure with basic information on the system in PA. However, PENNDOT does not want to release any information about the system until the system is functional.

Task 5: Collect post-implementation site data 12%
 No progress on this task during the reporting period.

Task 6: Evaluate system effectiveness, acceptance and performance 2%
 No progress on this task during the reporting period.

Task 7: Produce final report 0%
 No progress on this task during the reporting period.

Additional Work / Issues

1. Principal Investigator presented an overview of experiences with operation and maintenance issues of animal detection systems across North America and Europe at the Transportation Research Board conference in Washington DC on 14 January. I included the latest results regarding the system in Yellowstone NP. Principal Investigator received over 10 reactions over the last week asking me for the 2 papers we wrote thus far. It is good to know that the project and the findings are of great interest to people that work on transportation-wildlife issues.
2. The actual co-ordination between all the organizations and people involved for the Yellowstone site as well as the Pennsylvania site continues to be much more labor intensive than anticipated.

DESCRIPTION OF WORK EXPECTED TO BE PERFORMED DURING NEXT QUARTER:

- Continue to monitor operation and reliability of Yellowstone site
- Installation of Pennsylvania system

STATUS AND COMPLETION DATE

Percentage of work completed to date for total project
 Project is:

_____ on schedule X behind schedule, explain:

Significant delays have resulted from setbacks in designing and installing the first Animal-Vehicle system in Yellowstone National Park in Montana. The timeline for the entire project was pushed back 24 months. An amendment to the Intergovernmental Agreement (IGA) between ODOT, acting on the behalf of the pooled fund states as lead agency, and WTI was executed on May 30, 2003 extending the completion date for the project to December 31, 2004 and increasing the authorized budget to \$915,000. The increased budget recognizes additional contributions to the project from 3 additional states (Alaska, Kansas, Pennsylvania).

Expected Completion Date: December 31, 2004