

QUARTER 2 2006

ANIMAL VEHICLE CRASH MITIGATION USING ADVANCED TECHNOLOGY

PHASE II

SPR 3(076) & Misc. Contract & Agreement No. 17,363

for

Oregon Department of Transportation
Research Unit
200 Hawthorne SE, Suite B-240
Salem OR 97310

and

Federal Highway Administration
400 Seventh Street SW
Washington, DC 20590

and

Departments of Transportation of California, Kansas, Maryland, Montana, Nevada, New Hampshire, New York, North Dakota, Pennsylvania, and Wyoming

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Monthly report Animal-vehicle pooled fund study

April 2006

General

1. The final report for phase 1 of the animal detection system project has been fully integrated, including illustrations. Although all chapters have been commented on earlier, we posted the report on the WTI website for a final last review.

Task 1: Site survey 0%

1. We are waiting for more favorable weather conditions so that STS can conduct the survey.

Task 2: Modifications to system 0%

1. The results of the site survey have to be evaluated by the TAC. The modifications will only take place if the TAC decides to proceed based on the results of the site survey (incl budget).

Task 3: Confirmation of system modifications 0%

Task 4: System reliability 0%

Task 5: System effectiveness 0%

Task 6: System acceptance 0%

Task 7: Information to project partners 13% (month 4 out of 32)

Task 8: System removal 0%

Marcel Huijser

Monthly report Animal-vehicle pooled fund study

May 2006

General

2. Our animal detection system study was featured in Inside ITS 1 Feb 2006: Animal Warning System. Animal-vehicle collision warning study continues. Inside ITS 16(3): p. 1 and p. 10
3. Our project was mentioned in a Kansas City Star article about deer-vehicle collisions. The article ran on the front page Saturday, May 13th. The electronic article does not show it, but the newspaper had two drawings that showed the deer fence and detection system concepts.
<http://www.kansascity.com/mld/kansascity/news/front/14569102.htm>
4. The NRITS Conference will be held in Big Sky 13-16 Aug 2006. There will be a session on Wildlife and ITS, and WTI will give a presentation on the system along Hwy 191 in Yellowstone National Park on Tue 15 Aug. In addition, there will be an excursion to the site later that day.
5. The complete report for phase 1, fully formatted incl. pictures and graphs had one last review by the TAC.
6. The files of the final report for phase 1 were sent to ODOT on 31 May. A report number needs to be added and then the document can be published and distributed.

Task 1: Site survey 80%

1. STS site survey was conducted 5-11 May.
2. The preliminary results of the field survey were forwarded to the TAC (see attachment A).

Task 2: Modifications to system 0%

Task 3: Confirmation of system modifications 0%

Task 4: System reliability 0%

Task 5: System effectiveness 0%

Task 6: System acceptance 0%

Task 7: Information to project partners **16% (month 1 out of 32)**

Task 8: System removal **0%**

Marcel Huijser

ATTACHMENT A

From: Huijser, Marcel

Sent: Thursday, May 11, 2006 12:55 PM

Hello,

I spoke with Lloyd Salsman (STS) this morning. Here is a preliminary report on his findings for the survey for blind spots an

Blind spots were confirmed for:

1. zone 8: about 200 y (curves and slopes)
2. zone 3: about 2x30 y (either side of access road to Black Butte ranch)
3. zone B: about 10 y (depression in terrain)

Suggested fixes for blind spots

1. zone 8: relocate a station and remove another station (total is 1 station less).

We would be able to get the majority of the parts from the station that would be removed which would then also include the entrance to the parking area in the protected corridor. The new location would probably have to be a metal post with a concrete foundation as it will be located in the rocky slope on the west side of the road, just like the stations that have been installed in a similar location. Fixing the blind spots in zone 8 and including the parking area in the protected corridor would leave only about 70 y of blind spots, which translates into about 2% of the total length protected by the sensors (2x1,609 m). 2% is at the low side of the range that was agreed upon last autumn, so that puts us in an excellent position already.

2. zone 3 and B: perhaps install barriers of natural materials.

These blind spots are relatively short and the animals are likely to use less steep approaches to the road on either side of these blind spots. However, barriers of natural materials (e.g. rocks or logs) could further stimulate animals to not approach the road in these areas.

Note: a cost estimate for the fixes of the blind spots (especially zone 8) is expected mid next week. This is when the TAC would be able to make a final decision on the modifications to the system.

Other findings:

1. New software for the master board seems to have solved the occasional communication failures with station 3 and 6 at the south end of the section equipped with the system, but this needs to be evaluated over a longer period before we can be sure.
2. Corrosion on the master board (probably from from the fumes of batteries) caused a problem for beam 1. Some hardware will need to be replaced.
3. The frequency of zone 4 was no longer stable, this was fixed in the field.
4. 6 Batteries were found to be faulty and were removed. There is sufficient storage capacity left however, the batteries don't need to be replaced.
5. A solar panel was moved from station 15 to station 17. Station 17 was brought back online (it had its solar panel stolen in summer 2005). Station 15 and 17 still have sufficient power.
6. Some vegetation management is required, mostly because of regrowth since the last time vegetation management was conducted.
7. Testing for the satellite connection was not completely satisfactory due to a combination of downtime for the satellite and a non-optimal antenna. Additional testing will be done with a different antenna at a later time.

Conclusion: I think the survey was successful and it seems that we should be able to get the % blind spots down to the low end of the agreed upon range. I will be in touch again as soon as I have cost estimates (hopefully by mid next week), but perhaps the TAC members can think about the decision to proceed with the modifications already.

Best wishes, Marcel

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Monthly report Animal-vehicle pooled fund study

June 2006

General

1. The final report for phase 1 is at ODOT for publication and distribution.

Task 1: Site survey 80%

7. The results of the site survey are still being processed by STS. The review of the video images is time consuming.
8. WTI received the first draft of the field survey report from STS.
9. STS will provide a quote for the modifications to the system and enquire with Eagle Rock Timber for removing and relocating equipment as well.

Task 2: Modifications to system 0%

2. The results of the site survey have to be evaluated by the TAC. The modifications will only take place if the TAC decides to proceed based on the results of the site survey (incl budget).

Task 3: Confirmation of system modifications 0%

Task 4: System reliability 0%

Task 5: System effectiveness 0%

Task 6: System acceptance 0%

Task 7: Information to project partners 19% (month 6 out of 32)

Task 8: System removal 0%

Marcel Huijser