Research Quarterly Progress Report
Partners for Advanced Transit and Highways

California Program Plan: Intersection Decision Support - Task S (Conduct Supporting Research)

Steven Shladover

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1) MOU: 5601
2) Project Title: California Program Plan: Intersection Decision Support - Task S (Conduct Supporting Research)
3) Project Leader(s): Steven Shladover
4) Fiscal Year: 2003 / 2004, **Quarter:** 3, **Version:** 1

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5) Schedule

Task Number	Description	Initially proposed:		Current:	
		Start	End	Start	End
1	S1.0 Intersection Simulation Tool Requirements	11/01/2003	12/31/2004	11/01/2003	12/01/2004
2	S1.1 Develop Models and Simulation Infrastructure	07/01/2004	12/31/2004	07/01/2004	12/01/2004
3	S1.3 Develop Analysis Tool	07/01/2004	12/31/2004	07/01/2004	12/01/2004
4	S2. Evaluation of COTS and Emerging Technologies Components	11/01/2004	12/31/2004	11/01/2004	12/01/2004

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6) Describe what was accomplished in the last quarter.

We conducted work in two tracks, an intersection tool and surveying COTS data.

We have developed an initial software tool suite, to include visualization, and are in the process of using it to design, simulate, analyze, and visualize intersection warning algorithms. The software development has incorporated intitial models developed within the IDS program. Our initial tool will have two uses: first, as a support tool for the explicit research objectives and virtual testing of the IDS program, and, later, as the foundation for a future tool that will enable practitioners to design IDS systems for their particular applications and make visual presentations of proposed designs.

We have also surveyed Commercial off-the-shelf (COTS) and emerging technologies for eventual deployment at intersections and analyze their performance specifications with respect to our design requirements and then compare and evaluate different alternatives. We have contacted chosen vendors and encouraged them to loan their samples to our research team. Our efforts have been concentrated on finding the most suitable products to be deployed at intersections based on the findings of our research project. These products include discrete and continuous sensors, software interfaces for signal controllers, advanced signage technologies, communication devices, and portable computers. We have also begun to find emerging technologies that are not COTS yet hold promise for the future IDS use. An example was is the Sensys systems "bots dots" configurable MeMS magentometers as a cheap, low latency loop replacment, which has a distinctly IDS safety application.

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7) Explain any differences between actual accomplishments in the last quarter and what was proposed.

No differences.

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8) Please list all papers, reports, or other products completed during this quarter under this project (provide complete reference and status).

No papers.

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9) Briefly describe the work planned for the next quarter relative to the project schedule (see 10 if changes are required).

We expect to install and conduct COTS tests at our RFS test intersection.

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10) Change in Plan: If you need to make changes in your work plan (changes in dates, tasks, or deliverables), please describe them here. Changes to task schedule do not require PATH approval (but should be justified). Changes in task content, deliverables, and deliverable completion dates require PATH approval.

No change.

Signatures:

	Person who submitted	PATH Manager/Engineer
Signature:	James Misener (username: jmisener / userid: 317)	Approved by: James Misener (username: jmisener / userid: 317)
Date:	2004-05-03 19:23:14	2004-05-03 19:37:32