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	#	Project Name	Project Description	DRI Project Manager	Customer Contact	Status Report
KS	1	Sealzall, formerly called Transfer Tank Longitudinal Sealer (TTLS)	The Sealzall system consists of 2 separate independent machines (seal application truck and sealant supply transfer trailer) that are only connected briefly to transfer sealant. Sealzall allows an operator to seal longitudinal cracks within a moving lane closure inside the truck cab without being exposed to highway traffic and hot sealant. Development of the Sealzall Machine is an upgrade to the TTLS, which includes a wand applicator and a more efficient kettle.	Arvern Lofton	Joel Allen, Maintenance	TTLS project is complete. Maintenance also expressed an interest in a crack blower on the front and a wand on the back to cover transverse cracks. The Sealzall prototype has a wand-applicator to fill transverse and longitudinal roadside cracks and has a more efficient kettle. Valley Slurry Seal Company has been approached to produce more of these products, but discussions fell through. AHMCT is building a new prototype in-house for Maintenance and will be field-tested in Summer 2008. AHMCT was asked about developing a training manual and a training team when deploying the product to the end users. There will be an automated touch screen pad to aid users thru the system. Once field-testing is established, will create a marketing event where private vendors are invited to attend for potential commercialization.
KS	2	Telerobotic Roadway Debris Vacuum System (ARDVAC)	The ARDVAC unit is a vacuum truck with an articulating nozzle attached to a boom arm. An operator can maneuver the nozzle to vacuum up debris in difficult to reach places while remaining inside the vehicle cab and not exposed to highway traffic.	Arvern Lofton	Joel Allen, Maintenance	Maintenance has expressed a strong interest in having the units. Districts 4 and 7 have received the final units for implementation from the vendor. Vendor completed a full 1-day training for D4 and D7 maintenance: included manuals, checklists, etc. D4 was ready to use the units, but then another crew was assigned to the unit, not being used yet. D7 has issues with air quality issues. Awaiting a permit from the Air Resources Board before unit can be used. Maintenance believes that D10 may use the units without any air quality issues.
KS	3	Bridge Height Measurement System	A vehicle mounted, measuring device utilizes a laser scanner to provide a 3-D model of a scanned bridge infrastructure while the vehicle is moving. The product allows Structure	Arvern Lofton	Rick Jorgensen, Structures Maintenance	This project is part of the Maintenance & Operations Deputy Director Innovation Agreement with Caltrans Director. The unit was Field-Operational Testing (FOT) in July 2007 by Structures Maintenance. Data was inconsistent, no repeatability. Only 2 units will be purchased, one prototype will go to the

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			Maintenance workers to collect minimum vertical and horizontal measurements of bridge infrastructures while remaining inside the vehicle and off the highway.			Northern California region and the second will go to the Southern California region. Mandli, an outside vendor has been in contact with Structures Maintenance. Mandli has an impressive unit, but very expensive ($250,000). Structures Maintenance needs to decide if they want to contract out services with AHMCT prototype or buy units from Mandli. Business case data is being gathered. A training manual and a training team is being organized. AHMCT may be helping with importing bridge clearance data into Permits database.
KS	4	Balsi Beam	A portable work zone protection device that helps protect maintenance and geotechnical crews while working within a work zone.	Kamal Sah	Joel Allen, Maintenance	A BCP has been routed to the Department of Finance (DOF) and has been approved, awaiting final state budget approval. DOF agreed to fund 3 Balsi Beams and 3 Barrier Systems' ArmorGuard barriers. A draft Request for Proposal (RFP) is being drafted to select the most qualified vendors to manufacture Balsi Beams. Maintenance has agreed to fund 3 Balsi Beams if funds are not included in state budget to continue the RFP process. DRI is in the process of organizing a team with AHMCT to help evaluate the current Balsi Beam as well as the ArmorGuard barriers for an evaluation report due to DOF in March 2009.
KS	5	Construction Analysis for Pavement Rehabilitation Strategies (CA4PRS)	Pavement construction operation analysis, which establishes the least delays and most economical roadway closure scenario.	Michael Samadian	Mary Beth Herritt, Design	Project is in deployment phase and has been deployed on several projects in California. An FSR was completed and handed over to IT in April 2008. FHWA is in the process of arranging free group license for other state DOTs and locals. Future construction project in District 4, I-280 project will be using the software. DRI is developing a draft-marketing plan.
HI	6	Efficient Development of Advanced Public	Low cost IT'S for small transit agencies. Uses performance for cost trade-off	Bruce Chapman	Gail Ogawa, Mass Transportation	1) The project team developed and advertised EDAPTS RFP for the Cal Poly Pomona test deployment.

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		Transportation Systems (EDAPTS) Smart Transit System	and capitalizes on unused infrastructure.			2) The team posted an online survey of potential EDAPTS adopter's familiarity and needs with APTS technology. Over 30 agencies responded. The survey was followed by an informational teleconference to garner support for deployment goals and identify prime EDAPTS implementation candidates. 3) Research on candidate transit agencies is being conducted to collect information on their characteristics and an analysis on their need for EDAPTS will be included in the EDAPTS Market Assessment memo. 4) List of vendors that can provide EDAPTS equipment have been collected and is being finalized. 5) The CCIT EDAPTS team visited SLO Transit system to get a better understanding of the EDAPTS deployment at SLO. The sub-contract to Cal Poly SLO has been signed by CCIT/UCB and sent to Cal Poly SLO. 6) The Cal Poly Pomona research team selected a vendor and is installing the Bronco Express EDAPTS Demo system.
AB	7	ITS Decision, Gateway to Understanding and Applying ITS.	Provide up-to-date overview and evaluation of the deployment of ITS products and services at local, state, national, and international locations where they have been deployed. Through ITS Decision Website, users will	Mohamed AlKadri	Reza Navai, Planning	Most work in the summer 2007 has focused on developing the Ramp Metering Module which can be accessed at http://www.path.berkeley.edu/itsdecisiontools/rmtool/rmlook.asp, Advanced Traveler Information Systems (ATIS) Module can be accessed at http://www.path.berkeley.edu/itsdecisiontools/at

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			learn about costs and benefits, risks and roadblocks, and deployment lessons learned. Provide ITS decision making tool box of an Expert System (ES) tool, Case-based Reasoning (CBR) tool, and Cal-ITS-BC Model as one integrated planning suite of models for Caltrans (and its partners) planners and engineers. Give guidance on ITS Architecture and Architecture conformity for those 27 ITS technologies.			istool/atislook.asp, and Electronic Toll Collection (ETC) Module can be accessed at http://www.path.berkeley.edu/itsdecisiontools/etctool/etc_nicelook.asp During the 2nd quarter 2007-2008, the team will be revising the above three modules and two more modules are in progress as follows: Corridor Signal Coordination and Automatic Weigh Stations/Weigh-In-Motion (W-I-M).
HI	8	Development of Business Cases for Deployment of AHMCT Projects	This project develops business cases to support the deployment of advanced technologies into the Caltrans work place. Specifically, the business cases will be developed for machines originating from the AHMCT Research Center and from Caltrans. Business case analysis can facilitate the deployment of new technology. This project aims to develop approximately four per year starting with the most promising projects at the highest stages of deployment.	Bob Meline	TTLS: Courtney Morrison, Maintenance ArdVAC: Sheree Edwards Nate Cradle, Maintenance	The director of AHMCT Steve Velinsky told us that AHMCT could not find a researcher to continue with the Development of Business Case Studies during the project period from January 1st, 2007 to September 30th, 2007 and the project ended without spending any money on it. AHMCT is hoping that CCIT will start working on the Development of Business Case Studies in near future. Waiting for accounting documents to close Task Order.
AB	9	WeatherShare, Phase II	WeatherShare is a web site that provides relevant road weather information that is easily accessible by incident responders and the traveling	Mandy Chu	Ian Turnbull, D-2 Operations	Modifying display routines to increase the efficiency and speed of displayed information. Modified the various Icons used to display conditions (temperature, precipitation, etc.) to assure accuracy of information and visual

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			public. WeatherShare streamlines and integrates road weather data from various sources such as RWIS, CDEC, and MADIS into one single source. . Phase 2 of the project will prepare the system for full deployment.			appeal and consistency. Verified and corrected map locations for city, station and roads. Adding a "Stations" tab to display the reporting status of stations from different data sources (RWIS, MADIS, MESOWEST). Incorporating National Weather Service 24 Hour precipitation data into the current conditions display. Adding the ability to save a link to the current page configuration. Adding an error reporting feature. Modification of detail display popup bubbles to assure accurate and clear display of information. Continuing to evaluate and modify the database structure and access routines for increased efficiency. WTI presented a pilot version of WeatherShare to Caltrans personnel (DRI and District 2) for evaluation. We continued to write and update user documentation to reflect the changes made to the system. Started the implementation and testing of Alert functionality. Business case development for Feasibility Study Report (FSR) supporting documentation is currently underway. WTI has developed an internal draft that will be reviewed in upcoming weeks. Continue to work on the implementation of alert functionality. Work on modification of the user interface to allow for a larger map display. Continue to evaluate system performance with a view toward a larger number of users. Evaluate and incorporate user suggestions received from the pilot testing. We will continue business case development.
AB	10	Responder Study Phase II	The Responder System uses a Tablet PC for collecting, tracking and sharing incident information between at-scene	Mandy Chu	Jeff Kiser, D-2 Maintenance	The Responder unit was delivered by WTI. A new modem with more recent firmware was installed in the communications case; the PRL (preferred Roaming List) was updated, and the

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			responders, the Redding Traffic Operations Center (TOC) and secondary incident responders, facilitating management of the incident scene and improving the effectiveness of response activities. Phase 2 of the project will prepare the system for full corporate deployment.			unit is working as designed. This completes initial deployment of four pilot units for Caltrans. Jo Marie Green and Dan Richter, two new hires, have evaluated and documented the user comments and bug reports received from Caltrans and have started making modifications and enhancements to the Responder Incident Reporting software. These modifications and enhancements are scheduled for deployment this summer, when the four pilot units are brought back from Caltrans for updates. Business case development for Feasibility Study Report (FSR) supporting documentation is currently underway. WTI has developed an internal draft that will be reviewed in upcoming weeks. We will continue to implement and test the modifications to the Responder Incident reporting software. We will continue work on the User documentation to reflect the changes made to the software. In June, WTI personnel will pick up all Responder units and bring them back to WTI to retrofit the new software changes, update firmware, and check general operation of units. We will continue to create a knowledgebase for maintenance and support. We will initiate a plan for delivering the units back to Caltrans in the first quarter of FY 2009 for pilot testing. We will initiate plans for long-term maintenance and support.
HI	11	Adaptive Transit Signal Priority (ATSP)	An ATSP that reduces bus travel time through traffic signals while limiting the impact on the rest of traffic and maintaining pedestrian safety.	Z. Sonja Sun	Gail Ogawa, Mass Transportation	1) Completed installation of GPS/Cell phone communications system on 15 SamTrans in-service buses. The server computer in Parson's T2Lab has been continuously collecting data from the nine in-service buses with our data acquisition system. Collected and reviewed over 600 bus trips along the SamTrans bus line 390/391, and conducted a preliminarily analysis

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						on the bus stop pattern at signalized intersections. 2) Performed sensitivity analysis for multiple-intersection algorithm using field data and a comparison of the multiple-intersection algorithm with the original single-intersection algorithm. 3) Modified and tested the Caltrans TRFM (Traffic Responsive Field Master) software to enable it to collect traffic data from multiple field masters.
HI	12	Smart Parking	Smart Parking uses advanced technology to provide real-time transit parking information to direct highway drivers to available parking spaces at a transit station. It also enables drivers to make advance reservations for parking at transit stations thus reducing the frustration of trying to find an available space.	Christine Azevedo	Gail Ogawa, Mass Transportation	1) ParkingCarma's Smart Parking Technology has been installed at 6 of the project locations. 2) Researchers conducted extensive COASTER station tours with an NCTD official, researchers identified subcontractors and drafted instruments for observational analyses and focus groups, researchers completed a draft review of available data and literature describing the travel and parking demands in and around the COASTER stations as well as the quality of accessibility by walk, bike and transit modes. 3) Researchers worked with SANDAG, CCIT, and ParkingCarma, Inc. to integrate the PATH project with the VPP (Value Pricing Program) Smart Parking Project. 4) The RFID system has been developed and tested by SoftLogistics. PATH and its partners have met with BART and have decided the RFID installation location.
AB	13	Google Earth ITS Field Elements Project	Using rudimentary software scripting tools, this project maps California ITS data spatially on Google Earth and updates this data every three minutes.	Sean Campbell	Traffic Operations	Currently, only CMS data from north Oregon, south Washington and Districts 1, 3, 4, 5, 6, 7, 8, 9, 10 and 12 are being mapped. Still looking for the data sets for Districts 2 and 11. The data link for use in the Google Earth browser is located at: http://www.dot.ca.gov/research/its/kml/CMS.kml

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						Data from Nevada and north Washington will be added soon
KS	14	Shakecast	ShakeCast, a post-earthquake response system that will automate the analysis of real-time earthquake ground shaking data against Caltrans bridge design data to deliver bridge inspection priority lists by pager and e-mail to key response personnel. Having this information within minutes following an earthquake will improve the Department's emergency response by more effectively focusing inspection resources in the critical hour after an event.	Loren Turner	Maintenance & Operations	The United States Geological Survey (USGS) has completed the non-Caltrans specific work. The second version has been finalized by checking that it meets the functional requirements. The beta-version no longer exists. Caltrans is in the process of developing a contract with USGS for the test deployment phase, which will add functionality to the deployment package, make recommendations in a deployment web application, get the server out of Caltrans IT and into USGS, and make suggestions for future enhancements.
HI	15	Travel Time on CMS-Control Software	This project will deploy and expand the Travel Time on CMS system throughout Caltrans District 4 and District 3. The primary objective is to deploy a system that Caltrans' Transportation Management Centers (TMC) can use to configure, manage, and display travel times on CMS.	Asfand Siddiqui	David Lively	1) Prepared final paper and presentation at 14th ITS World Congress on processing of the FasTrak data. 2) The team concluded that Microsim is not going to be used for evaluating the impacts of CMS travel time information since the project focuses on CMS impacts under normal conditions. For normal conditions, CMS impact may not be seen in Microsim. Therefore, an analytical network optimization model will be developed. 3) Conducted literature review on network modeling techniques, particularly how drivers make route choices under uncertainty and how CMS travel time information impacts the choice. 4) A survey summary report has been generated. Statistical analysis is being conducted on how

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						various factors contribute to driver's perception of the accuracy and usefulness of CMS.
AB	16	Homeland Security - Keep Abreast with the latest technologies and best practices	Develop a methodology for Caltrans to keep abreast of the latest technologies and best practices in homeland/transportation security.	Azzeddine Benouar		1. Continued to research the technologies and best practices to improve transportation security.2. Researched technologies and best practices for public safety. 3. Evaluated technologies and services for broadcasting how to use Homeland security server effectively.4. Recruited CCIT senior development engineer Osama Elhamshary to refine the webinar presentation.5. Sent invitation messages to SCOTS member on upcoming webinar of using Homeland Security server.6. Signed up a pay-per-use webinar account. To set a date and conduct webinar on how to utilize Homeland Security server effectively. 2. To refine presentation slides and to get Osama familiarized with the webinar tool. 3. To dry run the webinar and refine presentation. 4. To update the research report on transportation security technologies and best practices. 5. To evaluate the result of webinar and explore the multi-agency partnership to own the HS server. 6. To refine draft server transition plan.
AB	17	Support for Business Case Development for the GPS-Automated Travel Diary (GPS-ATD) in Preparation for the 2010 Statewide Travel Behavior Survey	The GPS-ATD is an important enabling technology for the 2010 Statewide Travel Behavior Survey. In support of needed additional research and subsequent deployment, this project will develop quantified Business Case inputs for the FSR and BCP processes.	Azzeddine Benouar	Ayalew Adamu	In January, Information Technology (IT) had said to us that we do not need to submit the Feasibility Study Report (FSR), but in mid May they changed course and asked us to develop the FSR. Since we are running out of time and because the FSR has to be approved before the Budget Change Proposal (BCP) is submitted, we may change the budget amount in the BCP. Transportation System Information (TSI) draft BCP was reviewed by DRI and AHMCT and was submitted to TSI for approval.