

Utah Department of Transportation Traffic Operations Center

December 2006 &
January 2007
Monthly Report



2060 South 2760 West Salt Lake City, Utah 84104 801-887-3710 www.CommuterLink.Utah.Gov

TOC Mission

- To Support UDOT and the Department of Public Safety in Improving Highway Safety.
- To Help Provide Reliable and Efficient Travel.
- To Provide Useful and Timely Real-time Traffic Information.
- To Work Together with Other Government Agencies to Serve the Public.
- To Provide Excellent Customer Service.

Employee of the Month

Congratulations to **Kuang-Po Lee** December and **Ralph Patterson** for January



Field Devices Summary

Freeway Cameras	223
Surface Street Cameras	161
Dial-up Cameras	27
Total Cameras	399
Freeway VMS	50
Surface VMS	21
Portable VMS	10
Total VMS	81
HAR (6 permanent/5 portable)	11
TMS	258
RWIS	48
Traffic Signals Connected	873
Connected Ramp Meters	28

TOC Activities

Delegation from South Africa



Operations Summary

VMS Messages Displayed (incl. Travel Time)	3,677
Signal Timing Calls	41
Signal Maintenance Calls	70
New Work Orders	355
Incident Responses	872
Website Visitor Sessions (estimated)	224,035
511 Calls	57,511
Weather Desk Calls	1280
CommuterLink Questions	39

Administration Highlights

Administration – Liz Olschewski

Please congratulate Kuang-Po Lee as the Employee of the Month for December 2006. Kuang-Po works as a IT Analyst at the Traffic Operations Center. He is considered the "go-to" man for Datronics signs and dial up cameras.

Please congratulate Ralph Patterson as the Employee of the Month for January 2007 .Ralph was nominated for his willingness to go the extra mile and assist other departments in addition to his regular work duties. When a new weather system is installed in the field, Ralph takes the time to assist in setting up the computer and training the employees on how to operate the new system.

Please congratulate Kuang and Ralph for a "Job Well Done!"

A delegation from South Africa came to visit the Traffic Operations Center in January; South Africa will be hosting the World Cup soccer tournament in 2010 . The Delegation was greeted by John Njord and heard presentation on Utah's Olympic operations.

Operations Highlights

Control Room Operations – Chris Siavrakas

The Control Room Operations staff have continued to stay ahead of our winter storms with the coordination with our Weather Operations Section. January saw only a handful of problematic weather events. This was good luck with the control room being short staffed. Karen Wilding and Troy Hyer (Supervisors) have been busy filling the staffing gaps while we work to recruit and train new operators. Rikki Diepeveen has been instrumental in flushing out inconsistencies of the 511 and CommuterLink Website. Her efforts have revealed what fixes need to be addressed to provide a more reliable traveler information service.

Signal Systems – Mark Taylor

New signal timing plans have been installed and are currently being fine-tuned for Bangerter Hwy from California Ave to 9000 S. for all peak periods. A smaller cycle length plan of 75-seconds is being developed and will run coordination all night long, instead of turning coordination off at late-night like we have previously done.

New coordination plans are being polished up along 3500 S. and 5400 S. near Bangerter Hwy to help improve coordination in all 4-directions with the new Bangerter Hwy coordination plans.

Training was organized for dilemma zone radar and was well attended by signal technicians and engineers in all four regions.

Several training classes have been taught on inductance loop detector and street lighting splicing by Robert Gibby of the Signal Systems Team.

Weather Desk – Ralph Patterson

The Weather Operations section had record phone calls for the month of December; 703.

Please welcome Steve Kozak who has joined the Forecasting team. Steve comes from Environment Canada out of British Columbia. He brings to the group a wealth of skills and knowledge.

The Weather Operations section hosted the quarterly meeting with the Aurora Group at Snow Bird. During this time they had various Vendor demonstrations. Individuals attending shared progress of their research projects which are part of the Pool Study Fund.

Ralph attended the AMS conference in San Antonio, Texas. Ralph attended the meeting for AMS/ ITSA joint committee on Surface Transportation, of which he is a member of the board.

ITS Deployment Highlights

State Wide – Richard Manser, Dian Williams, Lynne Yocom

Performance Measurement graphics were developed to depict ITS Deployment performance in several key areas. These charts will be used at the staff level, Commission/Legislative level and the general public.

Staff traveled to Richfield to meet with Region Four District Engineers, and Project Management leadership to discuss the new ITS Strategic Plan and the proposed 5-yr ITS program.

Richard Manser and Dave Kinnecom met with the Department of Public Safety at the Highway Patrol Captains' meeting to discuss how to move forward on integrating Public Safety incident data and UDOT traffic data.

Richard Manser, Dave Kinnecom, and Bryan Chamberlain met with Region Two and a consultant to discuss light rail in downtown Salt Lake City and the operational concerns/trade-offs of proposed alignments.

Diane Silcox presented research finding on technical approaches and business factors of placing streaming video on the web.

Erik Brondum was hired to replace Troy Peterson who left the ITS Section in November. Erik has responsibility for ITS Technology and Standards. Two ITS project managers, Mark Parry and Deryl Mayhew accepted positions in Region Two and have left the ITS Deployment Section. Advertisements for these positions were prepared and recruitment will take place in January 2007.

Bryan Chamberlain has moved over from management of Traffic Operations to head up the ITS Deployment Section of the TMD. The vacancy at the ITS Deployment Section was created by the move of Richard Manser to Region 2 to coordinate projects with UTA.

Tam Southwick, Region 2 Traffic Engineer, has accepted the position of Region 2 ITS Project Manager. Mark Parry vacated this position. Tam will start her new position in February.

Region 3 – Brad Cameron

Began the design for "in-house" installation of up to six new CCTV/TMS sites on I-15 from Point-of-the-Mountain to University Parkway Interchange.

Generated new fiber path connection to Orem City Public Works new facility located next to UDOT Region 3 Headquarters. The City is scheduled to relocate at the end of January 2007.

Worked with Procurement, Planning and Traffic & Safety to establish a new Non-Intrusive Detector (NID) purchase contract. The contract will give UDOT the ability to purchase three products from Wavetronics for TMS.

Region 4 – Dave Lochtefeld

Completed installation and integration of CCTV camera on US-191 south of Monticello at Devil's Canyon. The UDOT Monticello Shed has video access and camera control via cell phone service.

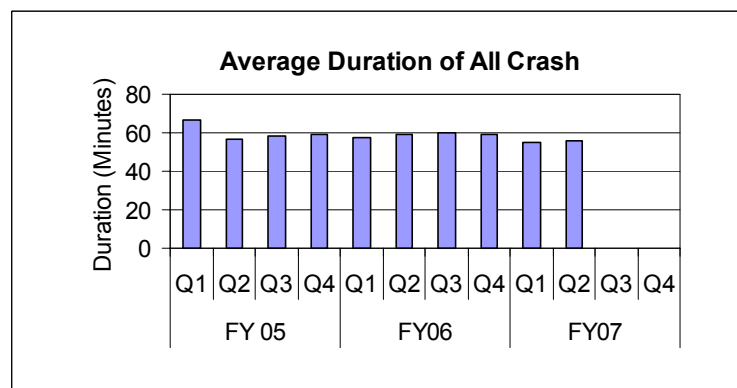
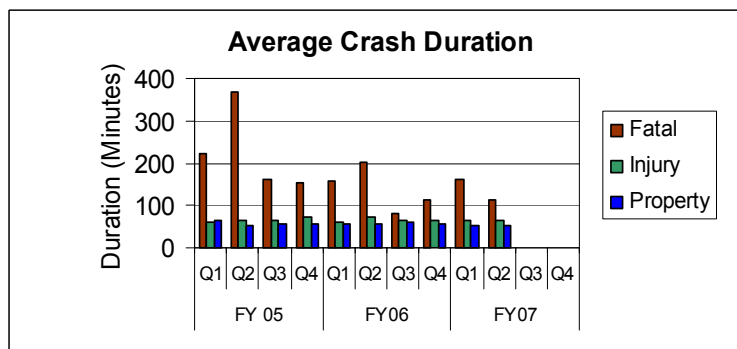
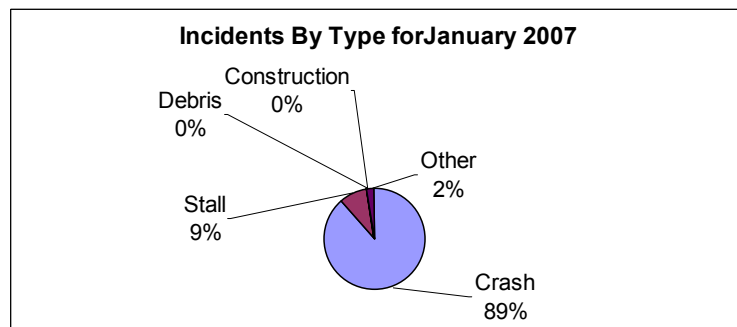
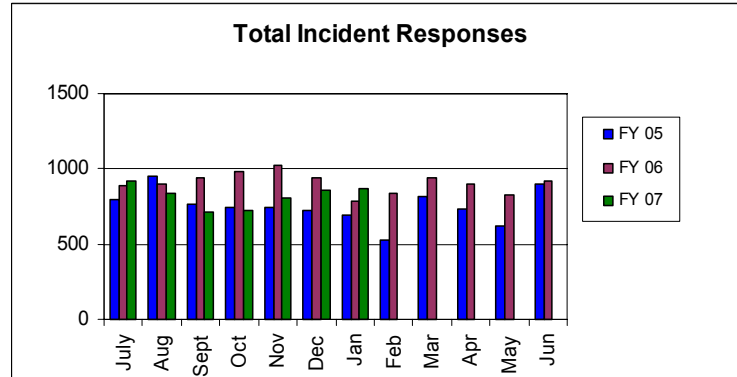
Held ITS Technical Sub-committee Meeting in St. George. The meeting was attended by UDOT staff from the TMD and Region 4 as well as St. George City employees. Topics included operational issues and ITS projects in the Dixie area.

Held PS&E review in Cedar City for the Cedar City Signal Interconnect Project. This project will connect 14 traffic signals via fiber-optic cable and provide signal monitoring and control as well as CCTV camera feed to Region 4 Headquarters and the TOC.

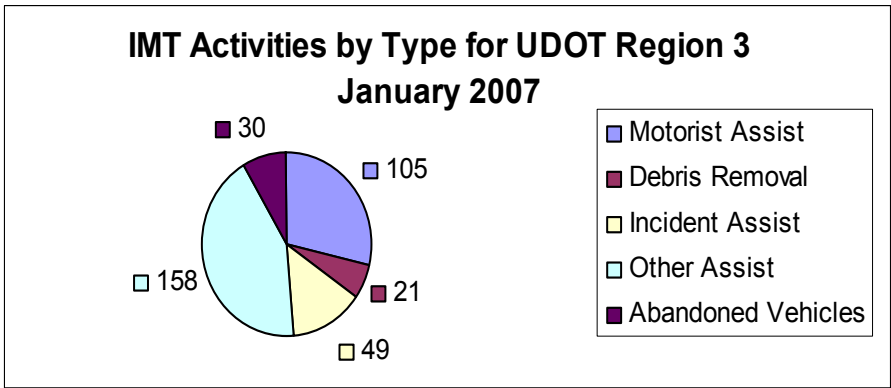
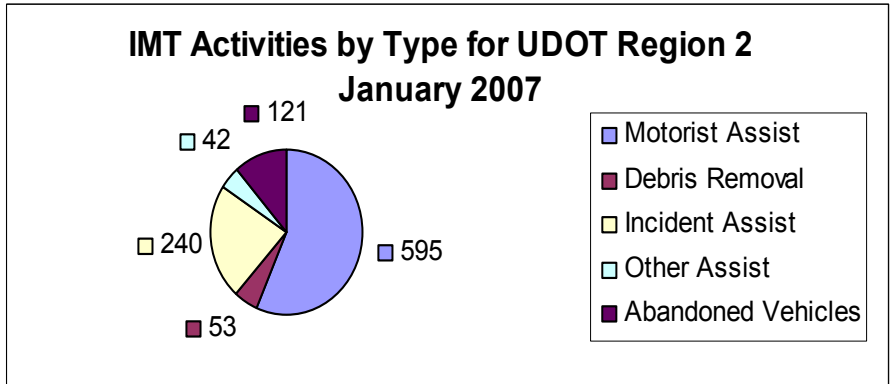
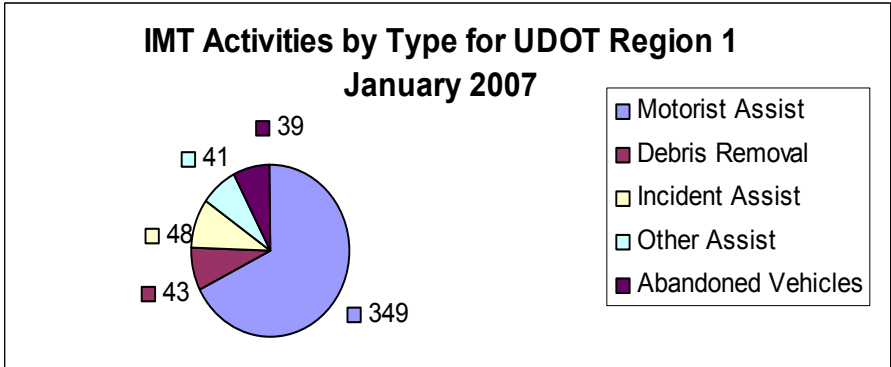
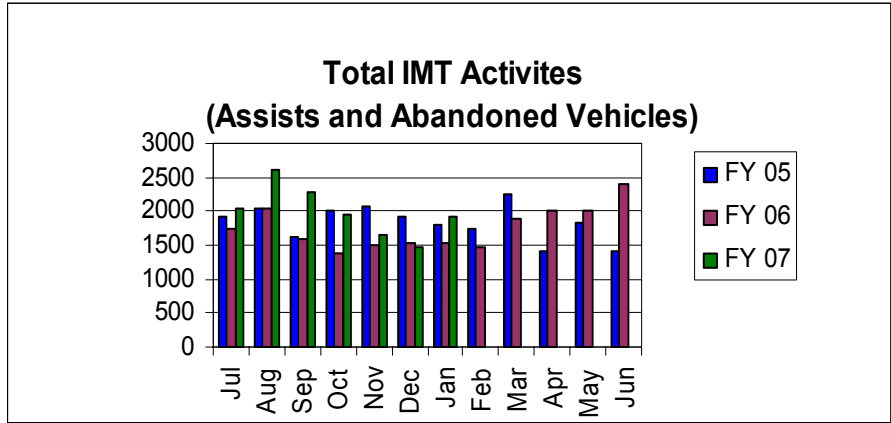
Acronyms

CCTV Closed Circuit Television	I2TMS Integrated Interagency Traffic Management System
RWIS Road-Weather Information System	TOC Traffic Operations Center
DPS Department of Public Safety	VMS Variable Message Sign
TMS Traffic Monitoring Station	ITS Intelligent Transportation System
HAR Highway Advisory Radio	TMD Traffic Management Division

An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts. An incident remains active until it has been completely cleared from the roadway.



Incident Management Team (IMT) Activities



Freeway Traffic Level of Service

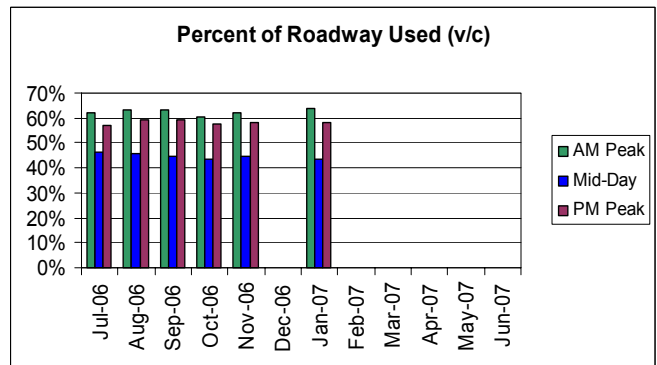
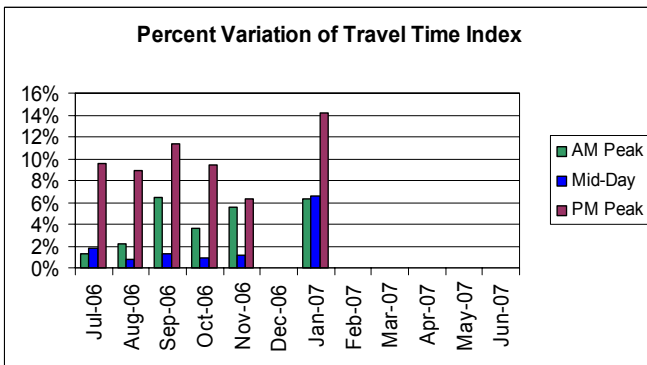
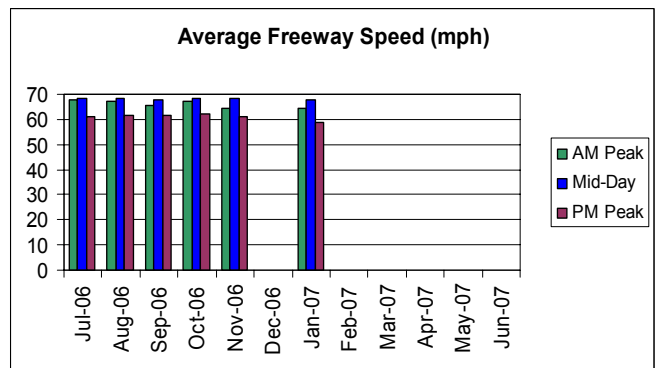
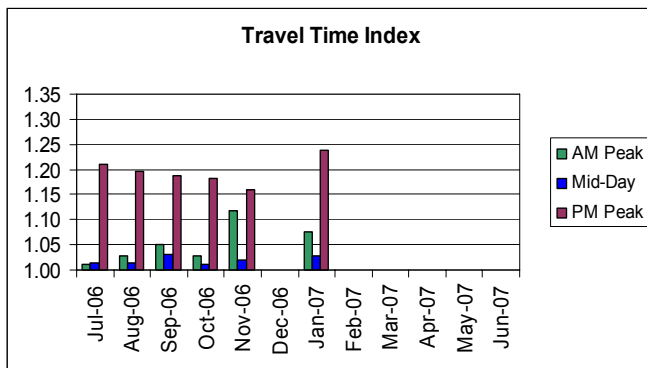
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

Average Freeway Speed: The freeway speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).



Segment	Period	TTI
I-15 NB from 600 N to I-215 W	PM Peak	2.83
I-15 NB from Point-of-the-Mountain to 10600 S	AM Peak	2.71
I-15 SB from 600 N to 600 S	Late Off Peak	2.19
SR-201 WB from I-215 W to 7000 W	PM Peak	2.09
I-15 SB from 4500 S to I-215 S	PM Peak	2.08

Surface Street Traffic Level of Service

The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right hand corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

The following charts illustrate data gathered during semi-annual timing runs up to Spring of 2006. The following months will show data gathered for each of the four UDOT Regions.

