

UTAH DEPARTMENT OF TRANSPORTATION TRAFFIC OPERATIONS CENTER MONTHLY REPORT **JANUARY 2003**

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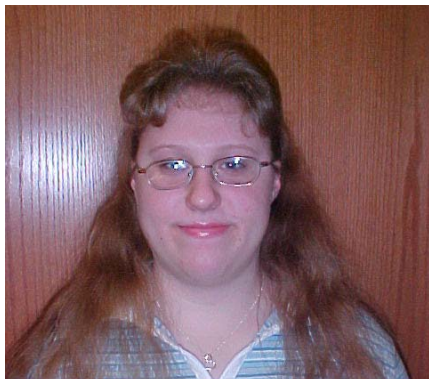
Field Devices Summary

Freeway Closed Circuit Television (CCTV)	163
Surface Street CCTV	33
Dial-up CCTV	39
Total CCTV	234
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	61
HAR (5 deployed, 5 portable units)	10
TMS	231
RWIS	50
Connected Traffic Signals	616
Connected Ramp Meters	23

Operations Summary

VMS Messages Displayed	202
Signal Timing Calls	41
Signal Maintenance Calls	250
New Work Orders	369
Incident Responses	395
Website Visitor Sessions	68,707
511 Calls	20,508
Email Alerts Sent	461
CommuterLink Questions	14

TOC Employee of the Month



Esther Olsen
Office Technician III
UDOT - Traffic Operations Center



The Traffic Operations Center was host to a delegation from Beijing, China.

KUDOS!

From an Incident Management Team "Comment Card" received during January:

"Thanks, service was great. Happy to see my tax \$ used so well."

Service Recipient

TOC Mission

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

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. The Rachael Alert was deployed in Utah for the second time in history. However, it was the first time that the TOC aided in this alert. The VMS, HAR, and 511 were used to notify the public of the abduction, and inform them where to acquire further information. UDOT decided the ATMS would be a great medium for disseminating Rachael Alert information last summer, after the California Department of Transportation used their VMS for the Rachael Alert to aid in the recovery of two abductions. All the VMS and HAR throughout the state gave information concerning the abduction. The TOC receives information on when to deploy the Rachael Alert through DPS.
2. Two Traffic Signal Timing / Signal Coordination Training sessions were held during January. The courses provided the attendees with a better understanding of system operations and consistency regarding general timing and signal coordination parameters. These consistency parameters will help the engineers and technicians provide better service to the citizens of Utah, as well as provide better stability of the system. Mark Parry and Mark Taylor of the Statewide Traffic Signal Systems Group conducted the trainings. In attendance were individuals from all UDOT Regions, as well as from every group.
3. Five Transportation Officials, as well as two Professors from Beijing, China toured the TOC on Saturday January 18. Dave Kinnecom hosted the tour, which lasted about four hours. Brian Chamberlain from the UDOT ITS Division presented the Advanced Traveler Information Systems. Tim Harpst, the Salt Lake City Transportation Director, talked about the 2002 Winter Olympic Transportation Operations. In addition to these speakers, Diane Silcox from the UDOT ISS Division discussed the ATMS Communications, and gave her presentation in Mandarin, which was really appreciated by our guests. The tour was a great success, which is greatly due to the efforts put forth by these individuals.
4. Clint Hutchings of TransCore and Joe Borgione of AGRC gave a Training Session on Geographic Information Systems (GIS) on January 10.
5. Shannon Reynolds has been hired as the Evening Peak Information Specialist. Shannon is a Civil Engineering student at the University of Utah. She is extremely excited to be working in such a great engineering environment, and having the opportunity to help in letting the public "Know Before They Go."
6. Clint Hutchings of TransCore with Joe Borgione of AGRC trained several of the TOC staff on potential applications of Geographic Information Systems (GIS) to the TOC on January 10.



Phase 1 of the Rachael Alert
(EB I-80 Mouth Of Parleys)



Phase 2 of the Rachael Alert
(EB I-80 Mouth Of Parleys)

ATMS Improvement and Expansion Activities

1. A new CCTV camera has been installed in Utah County on the south side of the Point of the Mountain. This camera will provide the TOC with its first full motion video of Utah County, and the pole will serve as a critical communication link between the ATMS fiber termini and Region 3 headquarters. A fiber connection between this camera and the existing fiber termini on the SL Point of the Mountain is currently underway.
2. The designs for interconnecting UDOT headquarters in Regions 1 and 3 to the ATMS have been completed. This interconnection, when complete, will expand the full capabilities of the TOC into these facilities for monitoring and device access.
3. A new ATMS communications architecture report, recommending the use of IP over Ethernet, was submitted for comments in January. A final report and implementation plan is expected for delivery in March.
4. UDOT has been awarded a competitive Federal grant to integrate the ATMS software with two proprietary Computer Aided Dispatch (CAD) systems. The goal of the project is to develop a standard interface to share relevant incident information between the CAD systems (police dispatchers) and the ATMS software (TOC operators). The project will also fund a redundant server in Richfield, and equipping a mobile command center with CAD access.
5. UDOT Station 235 is now provided with video from the ATMS network. This was accomplished through a wireless extension from the Summit County Justice Center (including police dispatch). The Justice Center itself is connected to the fiber network along US-40, which was installed as part of the Olympic improvements. Station personnel will use the connection to monitor travel and weather condition in Parley's Canyon.



UDOT Station 235 (Park City area) was recently added to the ATMS system through a wireless extension to the existing network.

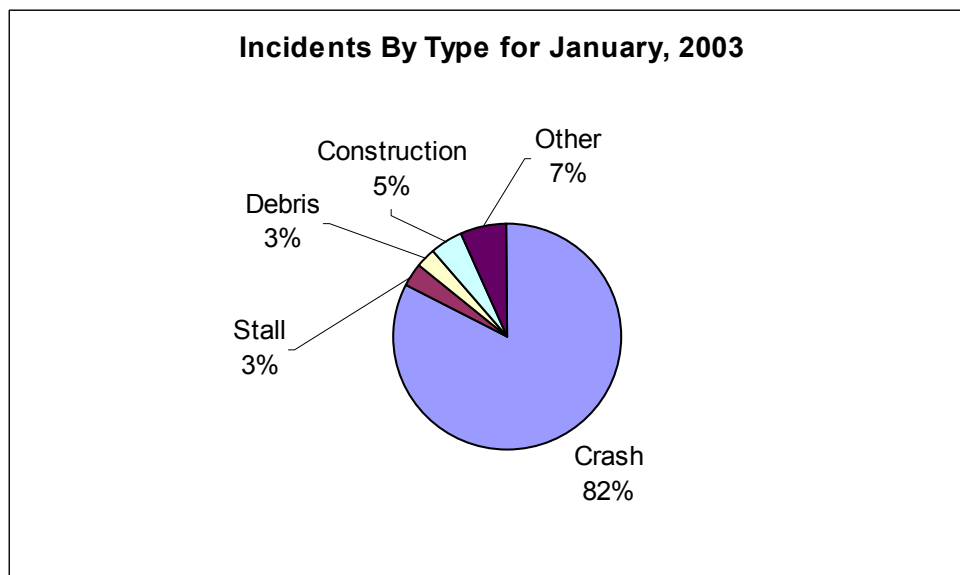
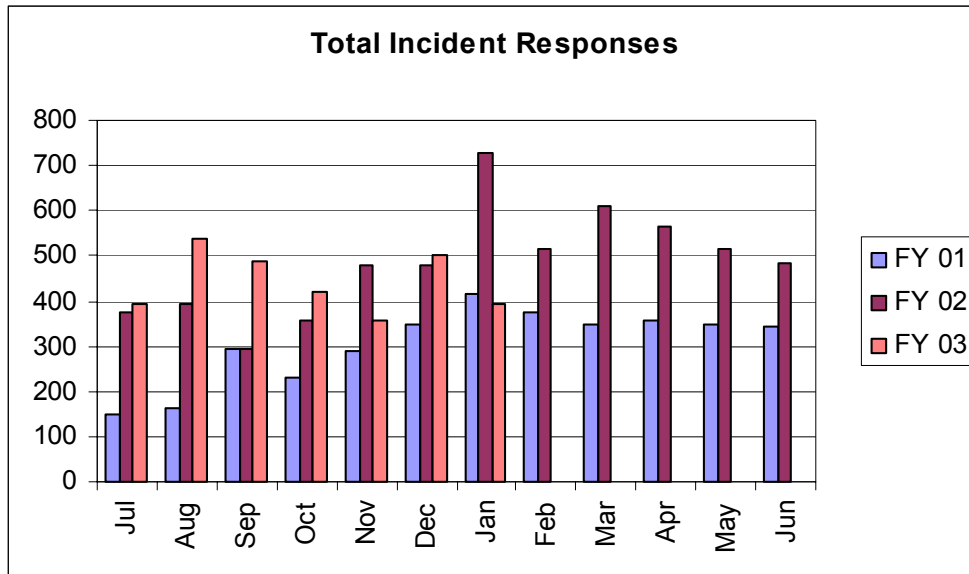
6. The firmware and PC based interface for the first National Transportation Communications for ITS Protocol (NTCIP) ramp meter system in the country was delivered in early January. System testing is on going, with final acceptance and deployment at one site planned at the end of February. A user group is currently being organized to provide input for the final graphical user interface (GUI) design.

Acronyms

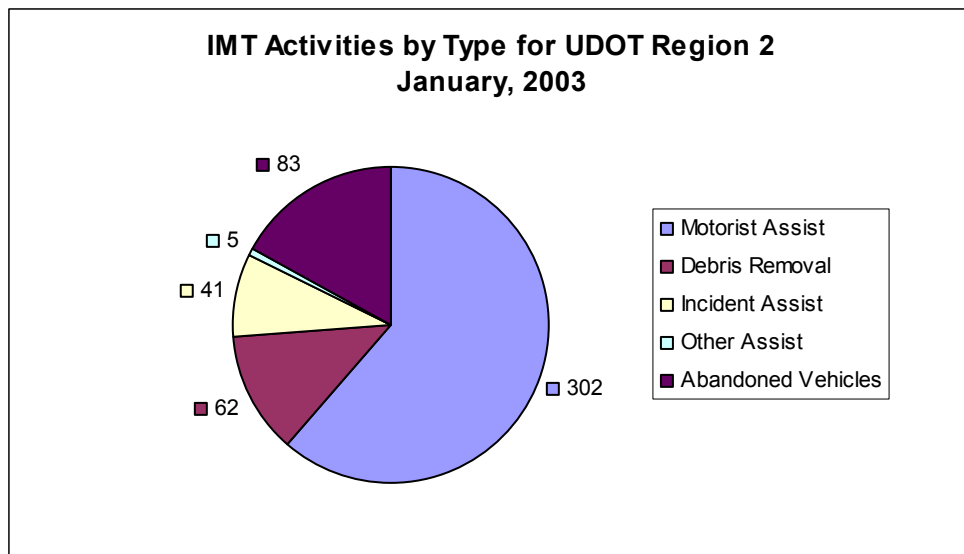
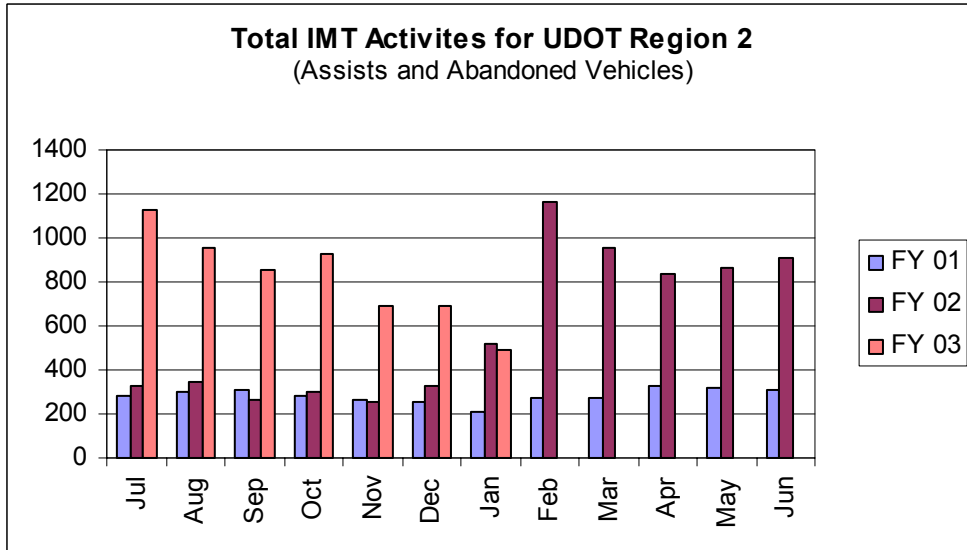
ATMS	Advanced Traffic Management System	NTCIP	National Transportation Communications for ITS Protocol
CCTV	Closed Circuit Television	TMS	Traffic Monitoring Station (count station)
DPS	Department of Public Safety	TOC	Traffic Operations Center
HAR	Highway Advisory Radio	TTI	Travel Time Index
RWIS	Road-Weather Information System	VMS	Variable Message Sign

Safety

An incident response is an incident recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Each time an incident is created information is sent to the 511 system, the website, and email alerts are generated.



Region 2 Incident Management Team (IMT) Activities



Freeway Flow

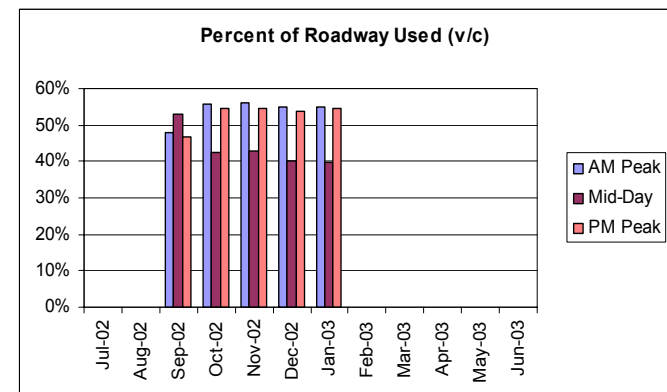
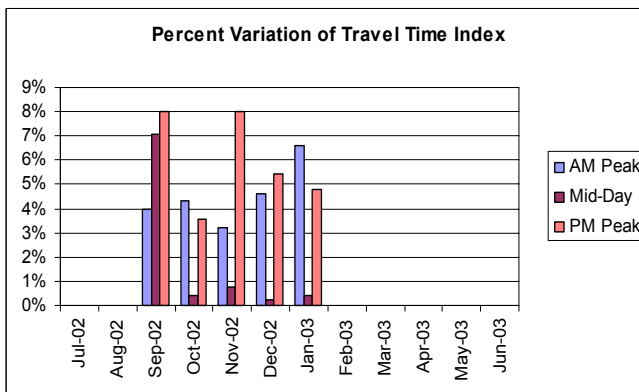
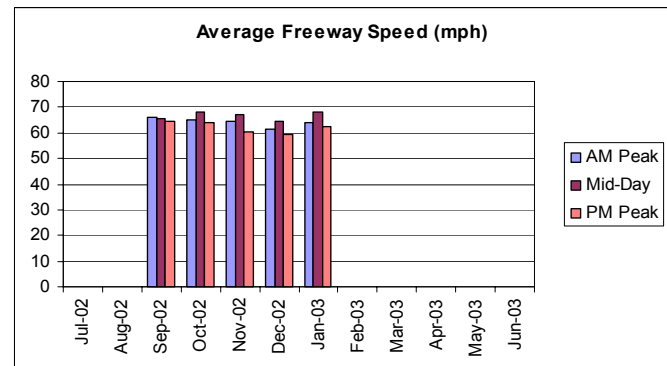
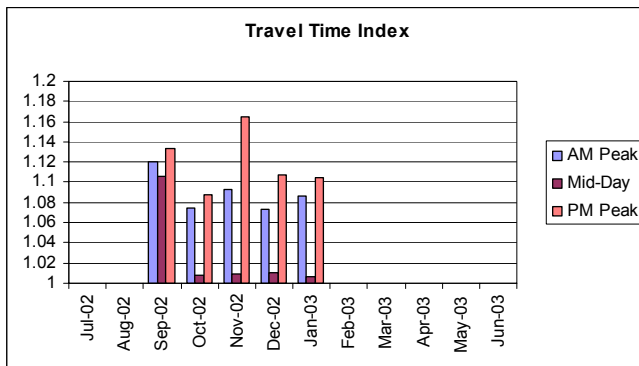
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

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 one (1) 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).



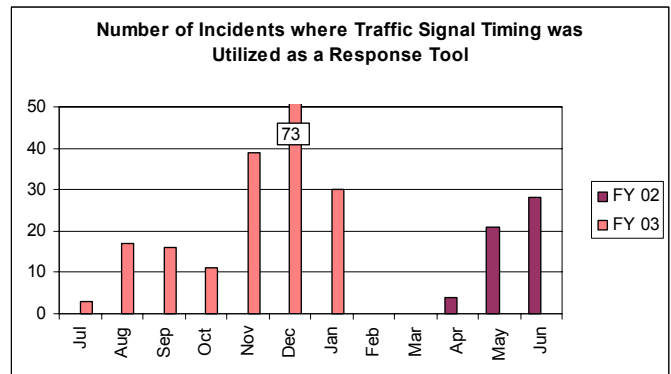
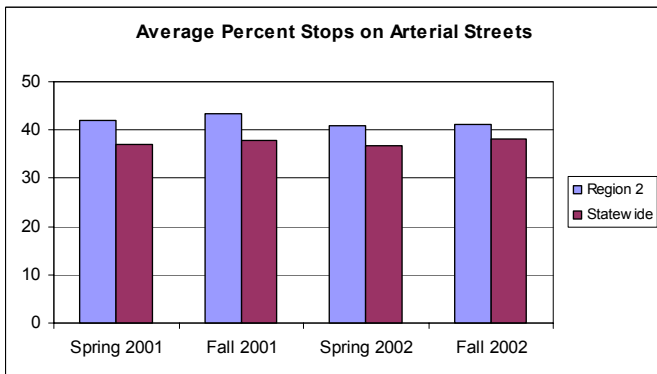
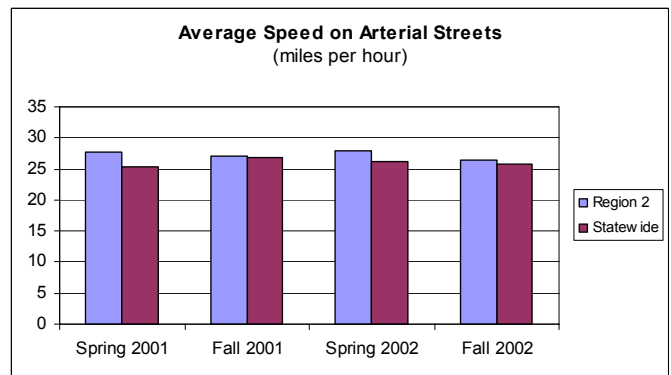
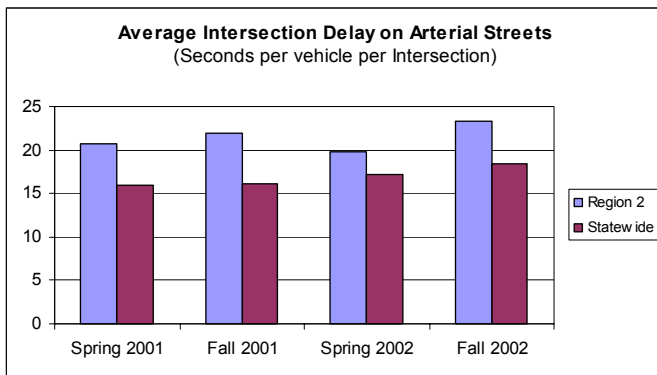
The 5 links with the highest average Travel Time Index for the month are:

Segment	Period	AvgOfTTI
I-15 NB from Point-of-the-Mountain to 10600 S	2 AM Peak	1.82
I-15 NB from 600 N to I-215 W	4 PM Peak	1.43
SR-201 WB from I-215 W to 7000 W	2 AM Peak	1.33
SR-201 WB from I-215 W to 7000 W	4 PM Peak	1.31
I-215 S WB from Knudsen's Corner to I-15	2 AM Peak	1.28

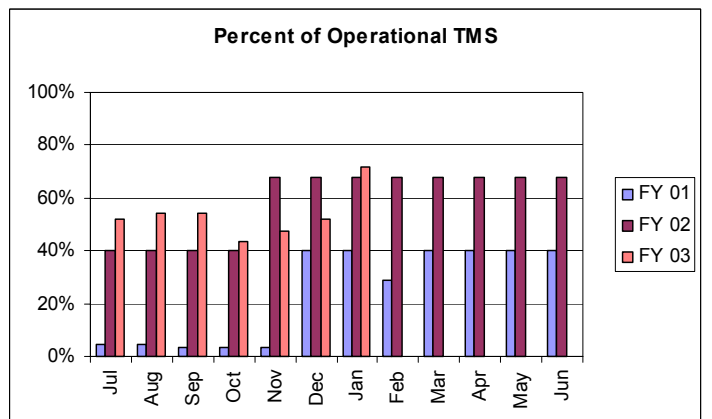
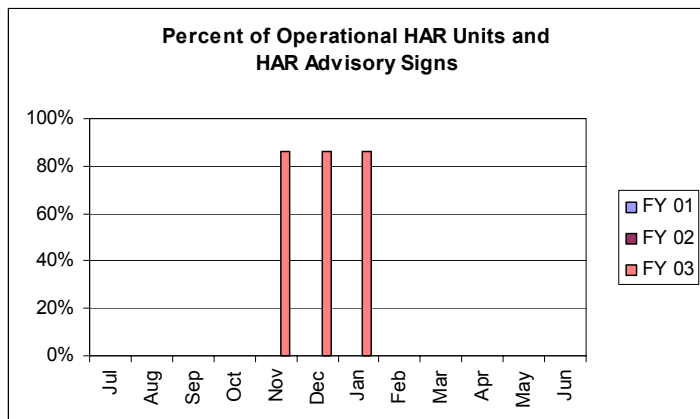
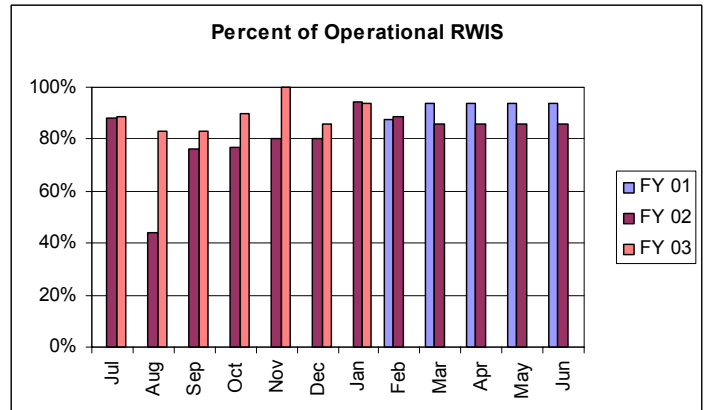
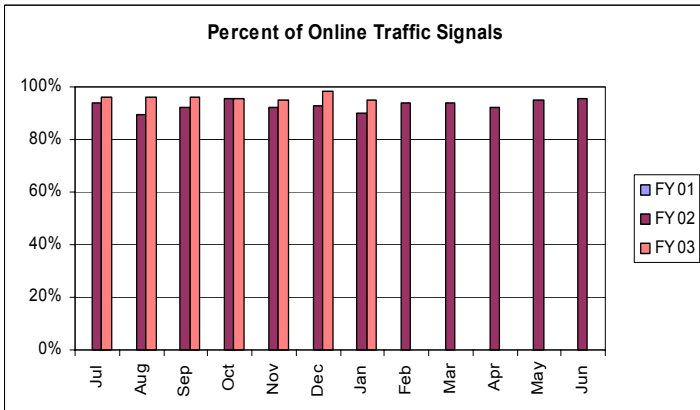
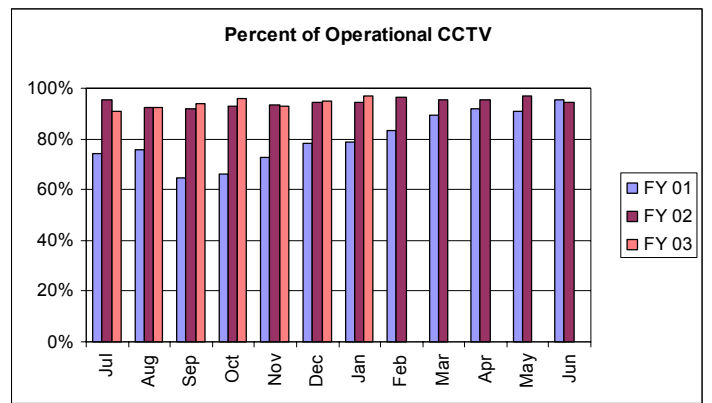
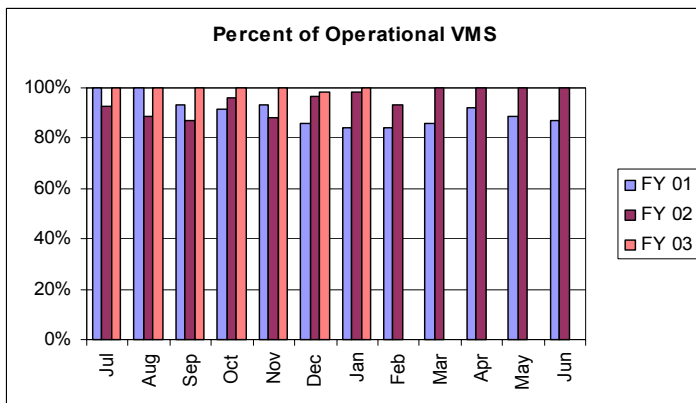
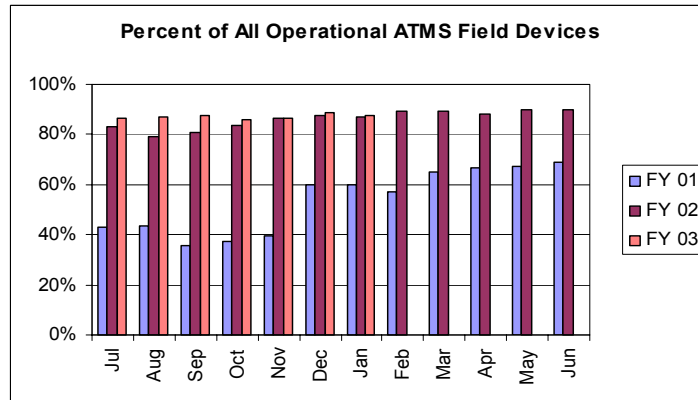
Surface Street Flow

The surface street statistics are generated through a series of Travel Time measurements. Much can be learned through several runs along a corridor, including 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 Statewide Timing group gathers these measurements from Regions 1-4 twice each year. The chart in the lower right corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help flush out excessive congestion.

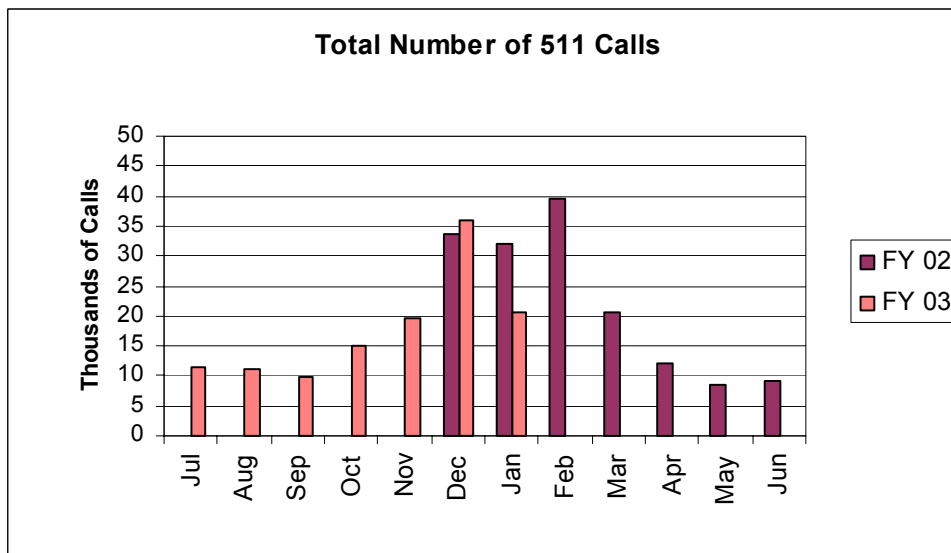
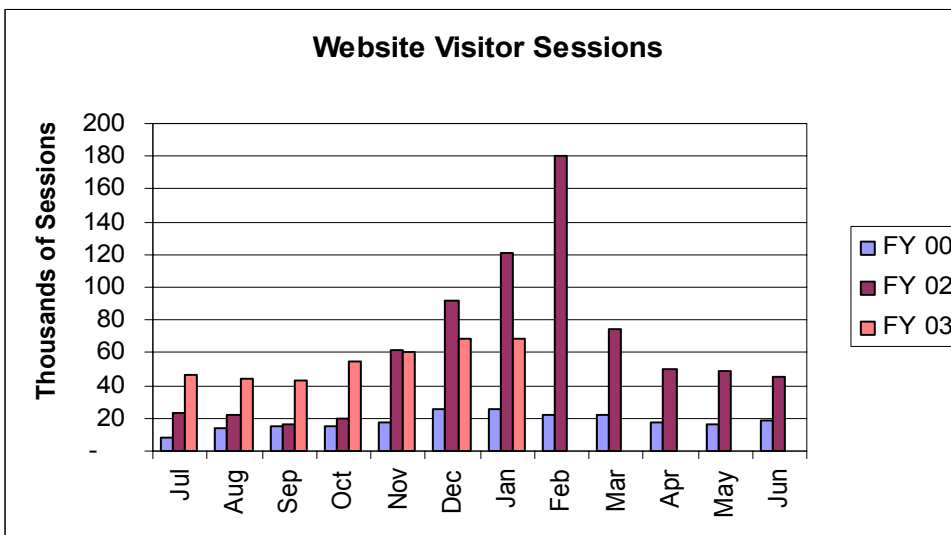
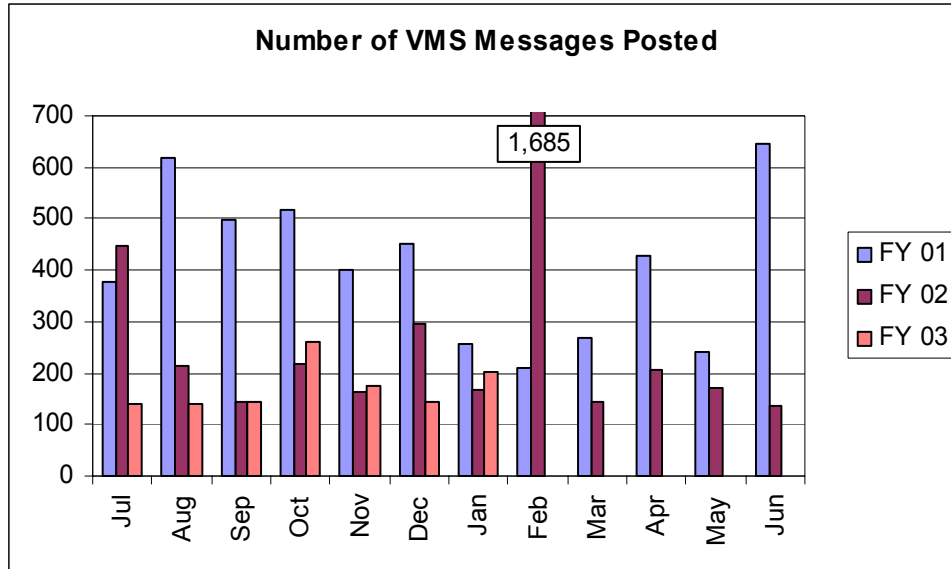
Since the data is gathered semi-annually, this monthly report will provide charts for one region each month compared to the statewide average. The charts below represent Region 2 compared to the Statewide Average.



Maintenance



Traveler Information



Customer Service

