Utah Department of Transportation
Traffic Operations Center
January 2009
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.

Field Devices Summary

Freeway Cameras	269
Surface Street Cameras	300
Dial-up Cameras	4
Total Cameras	573
Freeway VMS	71
Surface VMS	37
Portable VMS	16
Total VMS	124
HAR (6 permanent/11 portable)	17
TMS	260
RWIS	54
Traffic Signals Connected	1338
Connected Ramp Meters	28

Operations Summary

VMS Messages Displayed (incl. Travel Time)	12,051
Signal Timing Calls	37
Signal Maintenance Calls	90
New Work Orders	262
Incident Responses	959
Website Visitor Sessions (estimated)	279,871
511 Calls	66,066
Weather Desk Calls	31
CommuterLink Questions	151

Employee of the Month

Congratulations to Leon Hadley our Employee of the Month for January

TOC Activities

Administration Highlights

Administration – Liz Olschewski

Please congratulate Leon Hadley from TOC for the January 2009 Employee of the Month award! Leon was nominated for his unassuming nature and willingness to help out in any situation . Leon has played a vital role UDOT/UTA joint projects, including the fiber re-route of Hub 5 for UTA expansion and other projects in Ogden and Morgan. Leon works closely with contractors and UDOT personnel to repair and complete projects per Department standards. Congratulation Leon!

January marks the 10 year service award for JT Dzatlik. Congratulations JT.

Utah Radio & Scanner group came to the TOC to gain information and knowledge.

Operations Highlights

Control Room Operations – Chris Siavrakas

January was very interesting with weather making a big impact...but not all of it was snow! Our unique winter weather anomalies triggered two very significant air inversions making air quality poor in most of the urban areas of northern Utah. UDOT supported the Utah Department of Environmental Quality, Division of Air Quality by running the freeway message signs alert travelers to our air quality status and to advise to limit driving. Also, our Utah CommuterLink provides an alert feature that links to the DEQ website to read about the air quality status. Although we do not have an easy way to measure the actual impact this makes, we do know that it only takes one out of five drivers to make a change in their driving mode (bus, carpool) to reduce commute congestion. Reducing regular driving at this time helps, but minimizing congested periods makes the biggest impact.

Signal Systems – Mark Taylor

New signal coordination plans have been developed and implemented for the off-peak and afternoon commute for the following corridors:

* State St. from 6790 South to 11800 S.
* 7200 S. from State St. to 700 W.
* 9000 S. from State St. to 700 W.
* 10600 S. from State St. to Redwood Rd.

Weather Desk – Ralph Patterson:

Weather:
7 Storms affected the state
RWIS
New installations:
Powder Mountain sr 158
Study site at the TOC
RWIS Upgrades:
Chaulk Hill
Portable Site (Strawberry Reservoir)
95% RWIS on line for the month of Jan...

ITS Deployment Section Monthly Report Highlights January 2009

The Dixie ITS Sub-Committee Meeting was held January 28, 2009. Agenda items for discussion were ITS project updates, regional communications plan, future planning for the Southern Parkway and other Region 4 projects. Prior to the meeting regional partners participated in a tour of current ITS projects.

Standards and Specifications:

Structures – The Task Work Order to complete the comments and correspondence on the Span Type VMS support in the BDM was advanced to Bryan's desk for signature.

Meeting was held with HNTB to develop the task order scope of work for the ITS Standards and Specifications review work.

Procurement: Existing Contract requests: Work on the security fencing for Bill Butterfield continued with contractors visiting the site during the first of December. The RFP for the CCTV-CLS was let to bid near the end of the month. Fiber Fusion Splicer – Bids were received and it was determined they would be re-bid. The reason is to change the specification and require that service and repair of the fusion splicer take place within the USA. Requested the 2004 VMS RFP components from Procurement to begin the new RFP. Development meeting was held between Ralph and Mike to discuss strategies for the upcoming weather services RFP. The vendor proposals for the CCTV-CLS were received and reviewed. The vendors submitted proposals that were lacking the 2008 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals computations. They had submitted calculations based on the 2001 AASHTO Standards specifications.

Fiber Fusion Splicer – Re-Bid meeting was held at the end of the month. Received the 2004 VMS RFP components from Procurement. Started on a Sole Source Form for Adaptive Micro Systems to obtain special designed proprietary parts, firmware and, software.

Special Training Sessions:

Fiber Optics Training for IMSA certification – non certificate course – attended 3 days of the training

Manager's Retreat – Team Work Seminar – attended the full day session

ITE Annual Meeting – attended the 1 day session.

Other Activities:

Work began on conceptual design reports for the Heber City and I 84 and US 89 signal interconnects

Mike created a spreadsheet helping the Fiber Management team develop project/budget estimates using the Contractor's bid unit costs and anticipated quantities. Research was done to find break-a-way helical anchors for NID poles. These would be added to projects if the project did not include the NID foundations. Work continued - ATMS Item Order Form – web based system Mike updated Contract Tracking spreadsheet as revisions became available to post. Oregon DOT ITS requested information on the maximum loading for the structure types I had sent. I responded with the loadings taken from Chapter 14 of the BDM. Work continued - ATMS Item Order Form – web based system Mike updated Contract Tracking spreadsheet as revisions became available to post

Region 3

Springville City is officially our newest CommuterLink partner. Along with connection to the ATMS network, we have communication to a fully operational signal interconnect from 400 South to 1400 North on SR-89 (Main St,) Provo Canyon ITS Full Build-out about 50% complete with two new VMS operating on DSL at the US-189/SR-113 Jct. near Heber. Through the Signal sub-committee we are actively working with the various cities on system interoperability to address the I-15 CORE project MOT needs.

Region 4

I-15 Arizona State Line to Exit 10: Filice Electric has completed conduit and junction box installation between MP 0 10. The project is nearing completion. Filice Electric has begun pulling fiber and is working with TransCore on integration issues. There was a tour of the project on Jan. 28th where many St. George City and UDOT people were in attendance and commented on the great work the contractor has done on this project.

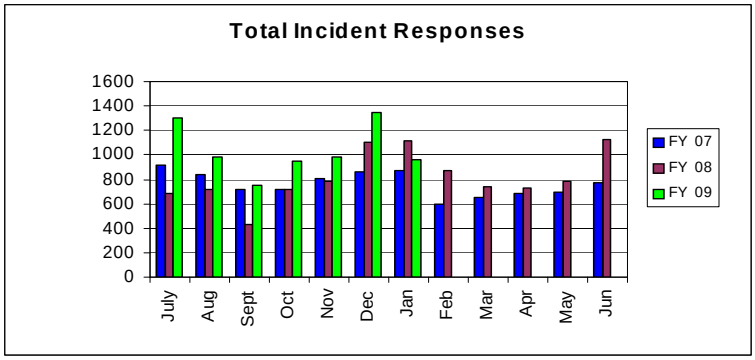
Bluff Street from St. George Blvd. to Convention Center Drive: This project has been advertised and will open in Feb. I-15 MP 10 to 16 (SR-9 VMS): This project has also advertised and will open in February. St. George: The fiber connection to the TOC has been established. Should be on the Commuterlink website Feb.

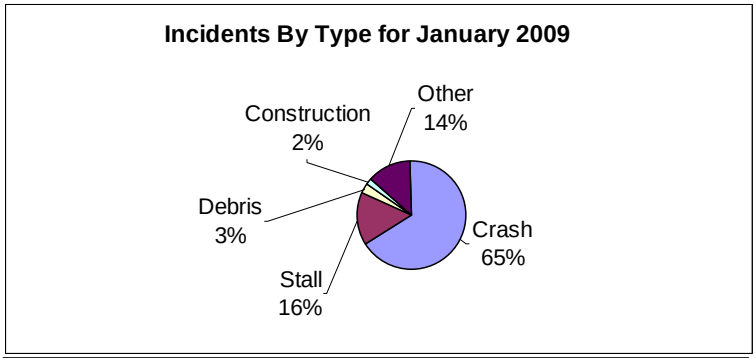
VMS at I-70 & I-15: A contract to have PEC begin phase II has been established. (pictures on front page)

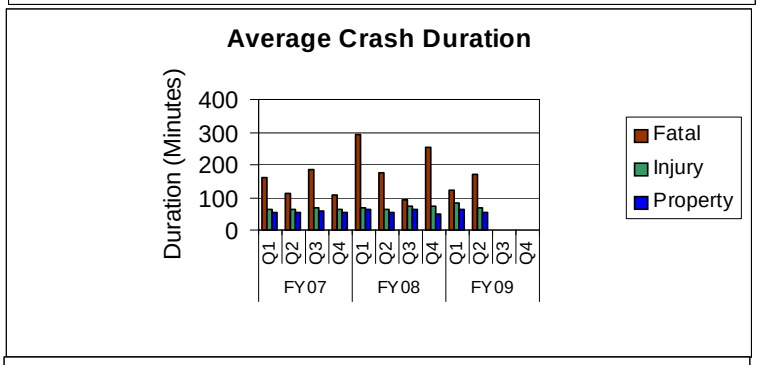
Acronyms

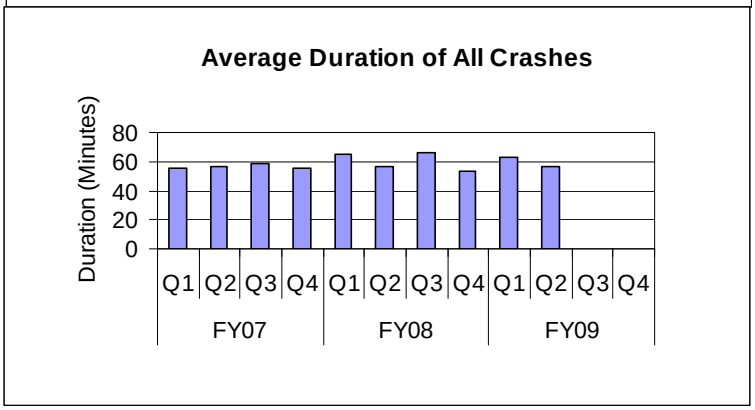
CCTV	Closed Circuit Television	I2TMS	Integrated Interagency Traffic Management System
RWIS	Road-Weather Information System	TOC	Traffic Operations Center
DPS	Department of Public Safety	VMS	Variable Message Sign
TMS	Traffic Monitoring Station	ITS	Intelligent Transportation System
HAR	Highway Advisory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

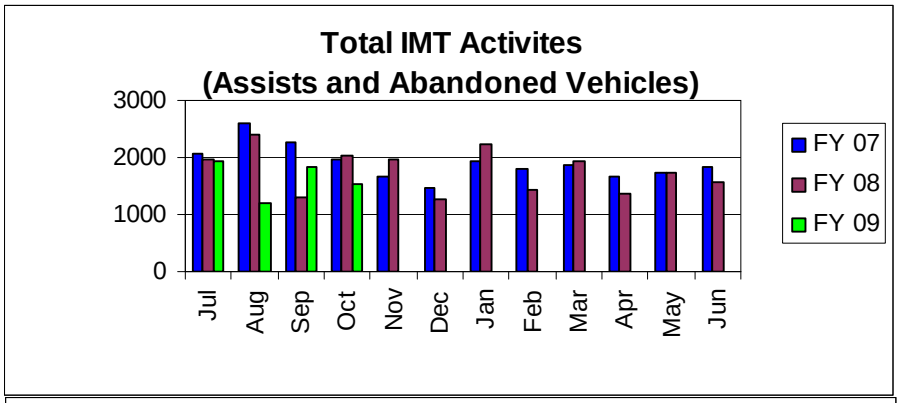
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, 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.










Total IMT Activites
(Assists and Abandoned Vehicles)
3000
2000
1000
0
Jul
Aug
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Oct
Nov
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Mar
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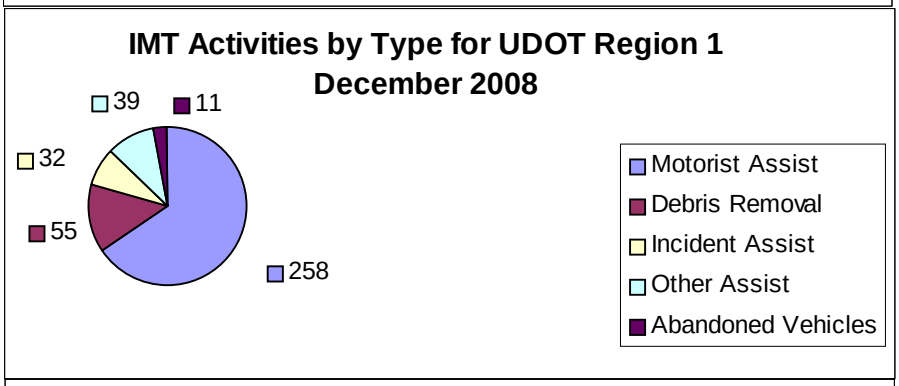
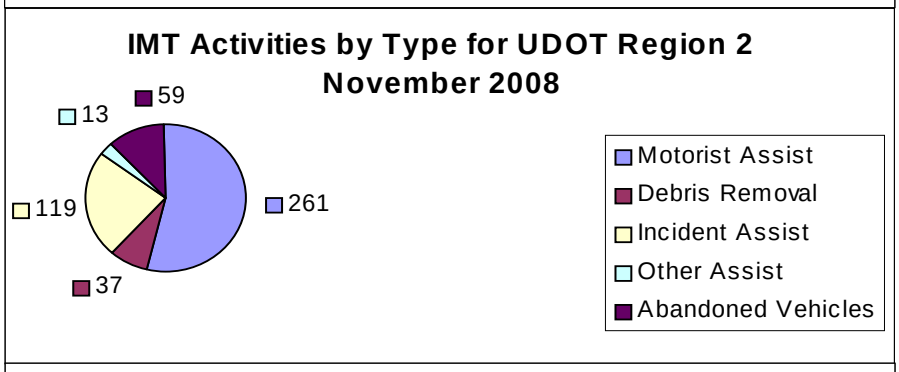
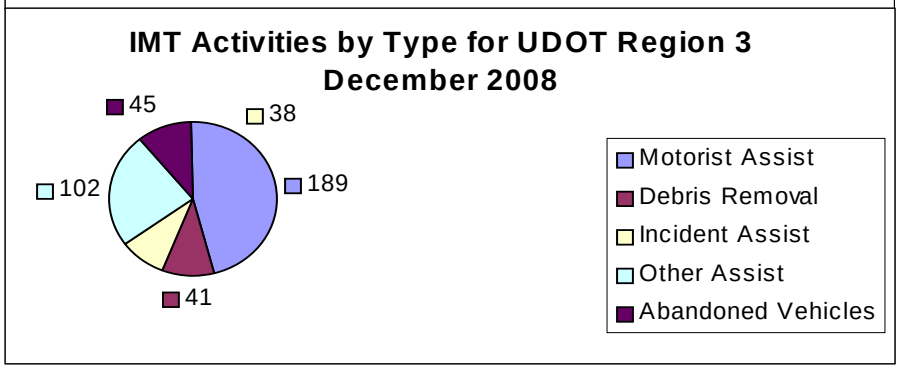
May
Jun
FY 07
FY 08
FY 09


IMT Activities by Type for UDOT Region 1
December 2008
39
11
32
55
258
Motorist Assist
Debris Removal
Incident Assist
Other Assist
Abandoned Vehicles


IMT Activities by Type for UDOT Region 2
November 2008
59
13
119
261
37
Motorist Assist
Debris Removal
Incident Assist
Other Assist
Abandoned Vehicles


IMT Activities by Type for UDOT Region 3
December 2008
45
38
102
189
41
Motorist Assist
Debris Removal
Incident Assist
Other Assist
Abandoned Vehicles

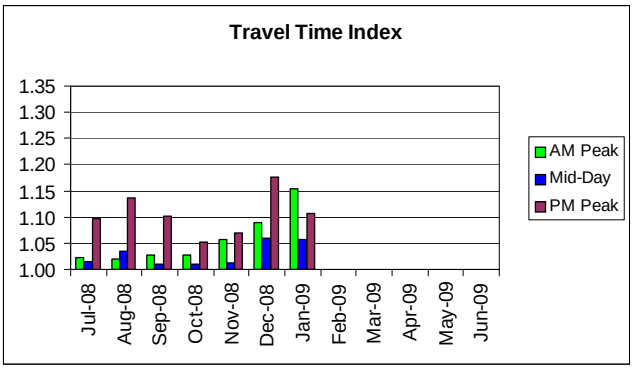
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

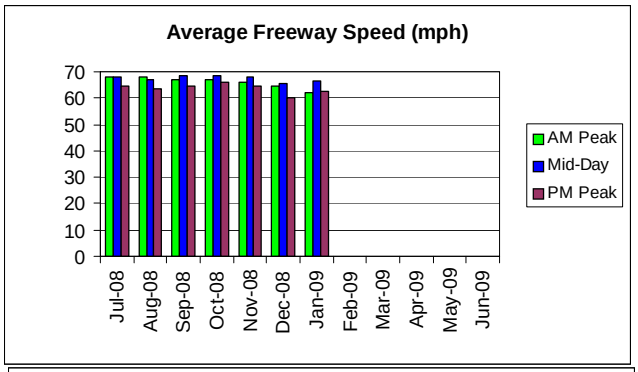
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

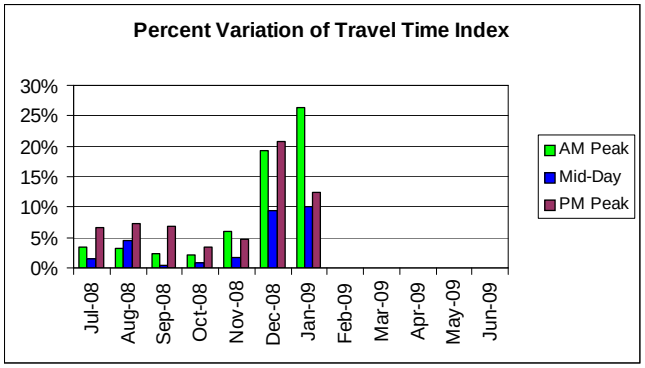
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

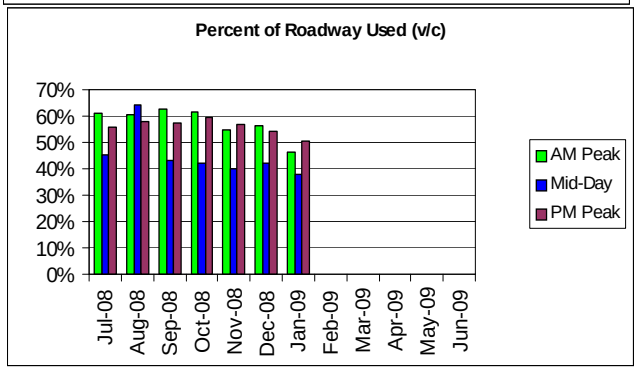
Average Freeway Speed: The freeway speed is weighted by volume.

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).







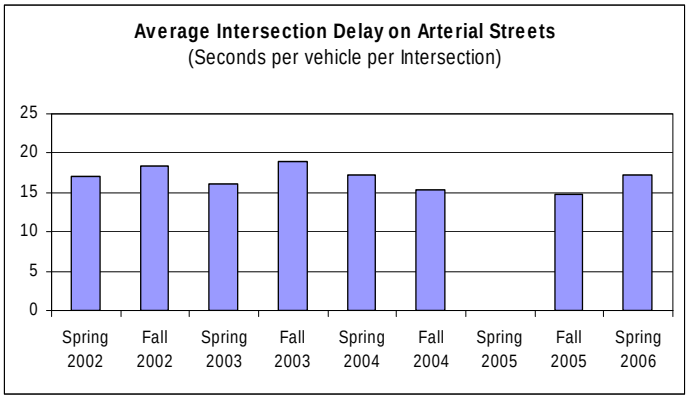


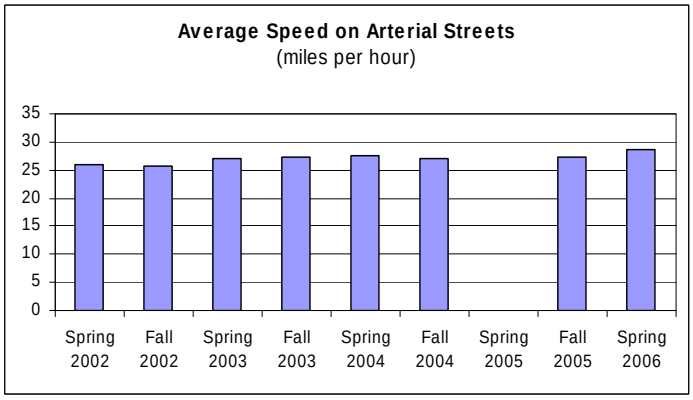
Segment	Period	TTI
I-15 SB from I-215 W to 600 N	AM Peak	2.73
I-15 NB from I-215 S to 4500 S	AM Peak	2.56
I-15 SB from 4500 S to I-215 S	AM Peak	2.4
I-215 S WB from Knudsen's Corner to I-15	AM Peak	2.31
I-15 NB from 4500 S to 2100 S	AM Peak	2.29

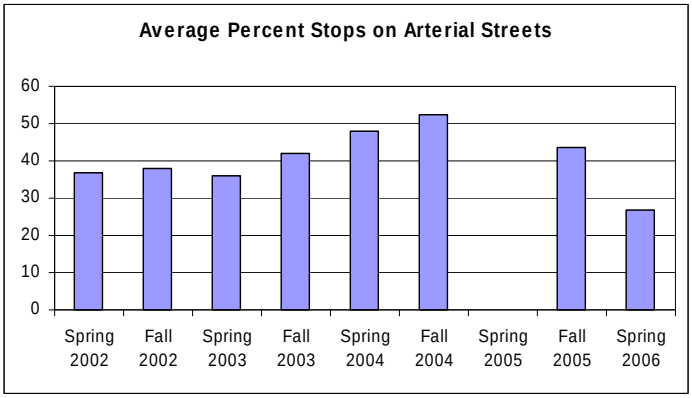
Surface Street Traffic Level of Service

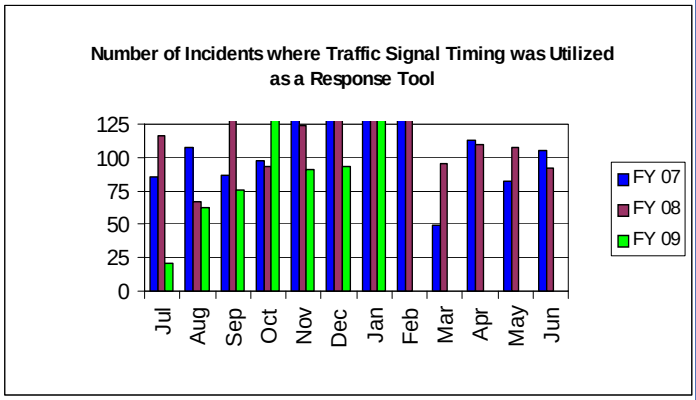
The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, 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.

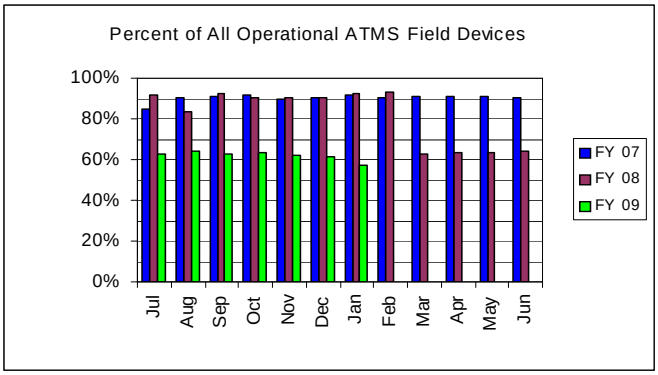
The following charts illustrate data gathered during semi-annual timing runs up to Spring of 2006. The following months will show data gathered for each of the four UDOT Regions.










Percent of All Operational ATMS Field Devices
100%
80%
60%
40%
20%
0%
Jul
Aug
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FY 07
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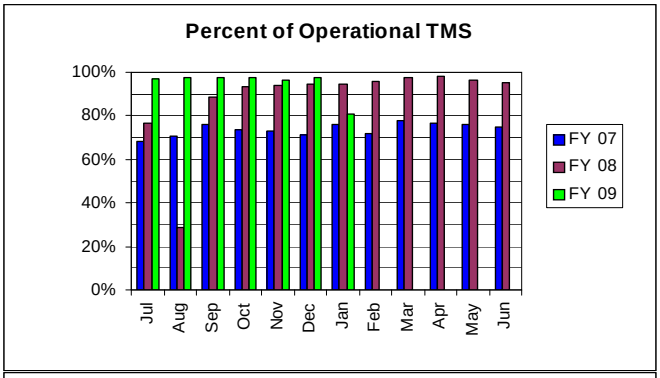
Percent of Operational TMS
100%
80%
60%
40%
20%
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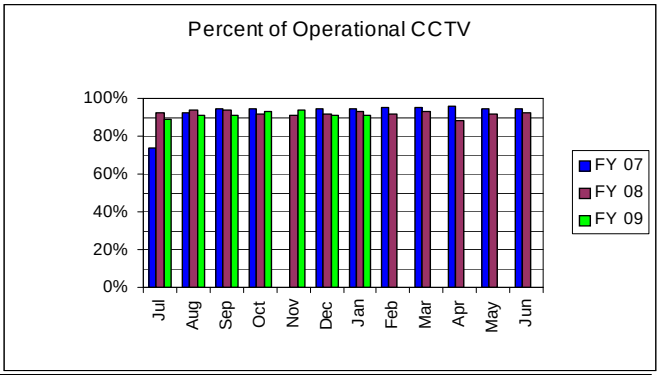
Percent of Operational CCTV
100%
80%
60%
40%
20%
0%
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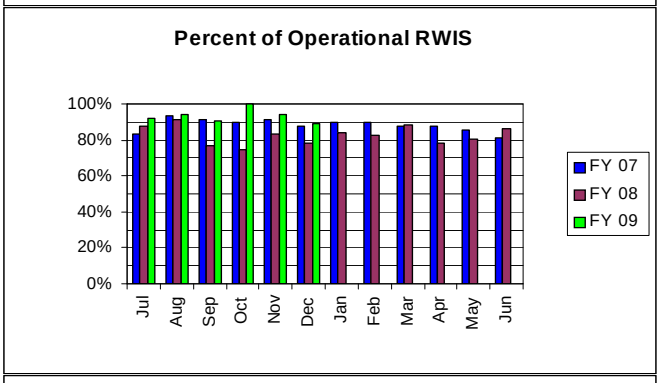
Percent of Operational RWIS
100%
80%
60%
40%
20%
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FY 07
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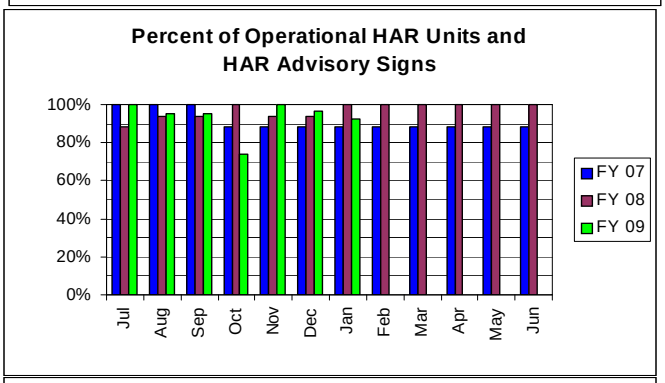
FY 09


Percent of Operational HAR Units and HAR Advisory Signs
100%
80%
60%
40%
20%
0%
Jul
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FY 07
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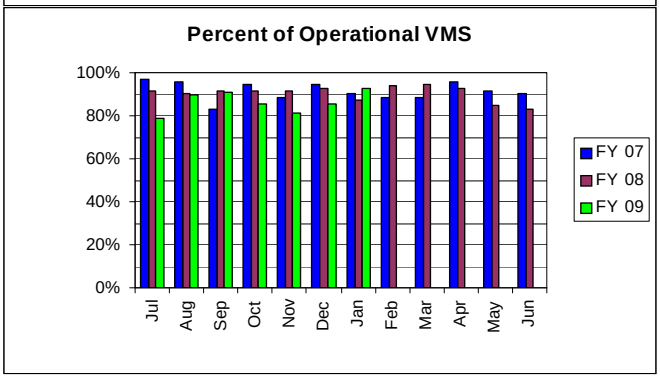
Percent of Operational VMS
100%
80%
60%
40%
20%
0%
Jul
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FY 07
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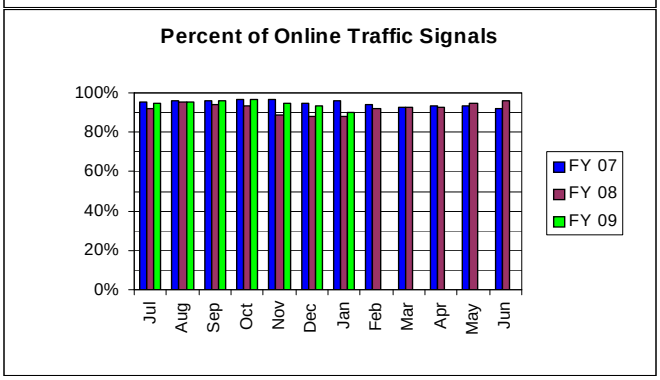
Percent of Online Traffic Signals
100%
80%
60%
40%
20%
0%
Jul
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FY 07
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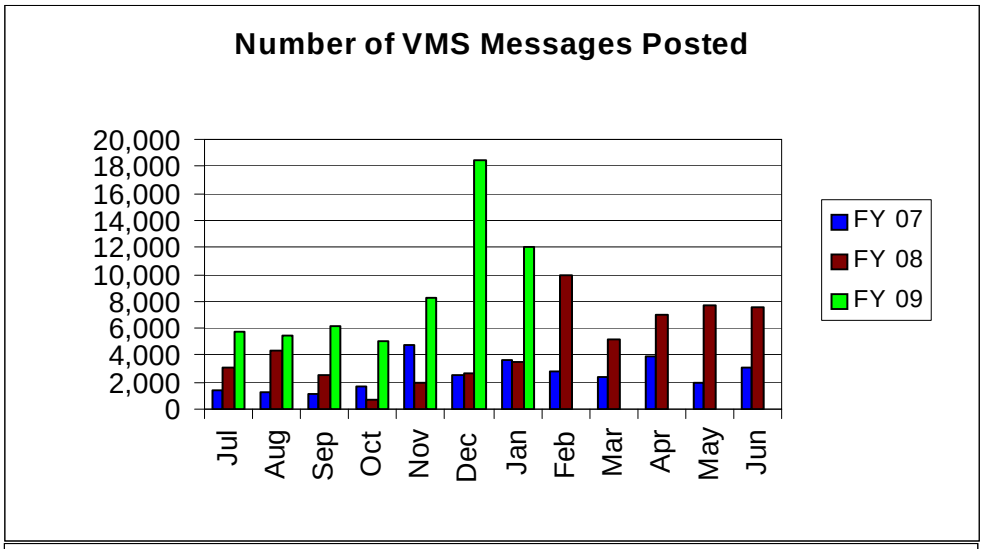
FY 09


Number of VMS Messages Posted
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Jul
Aug
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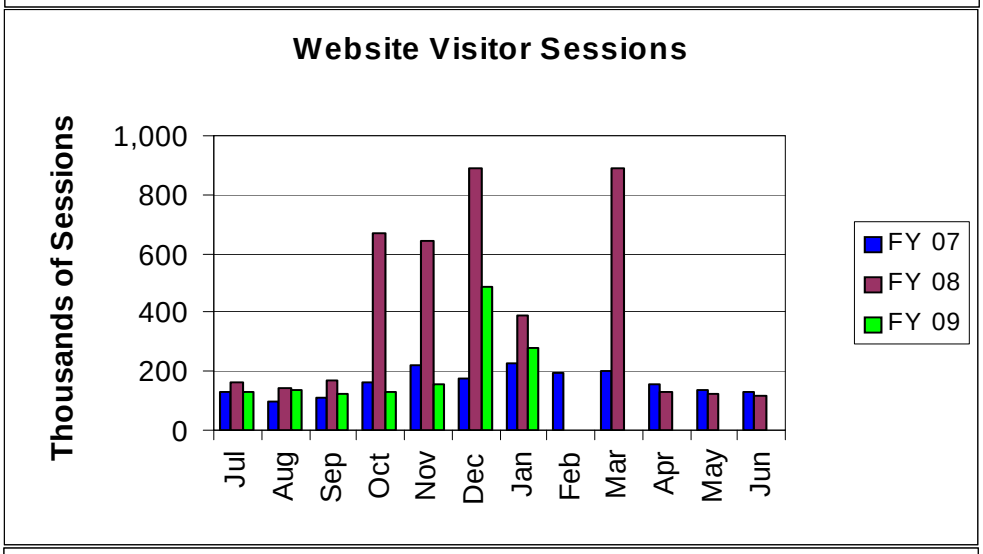
FY 07
FY 08
FY 09


Website Visitor Sessions
Thousands of Sessions
1,000
800
600
400
200
0
Jul
Aug
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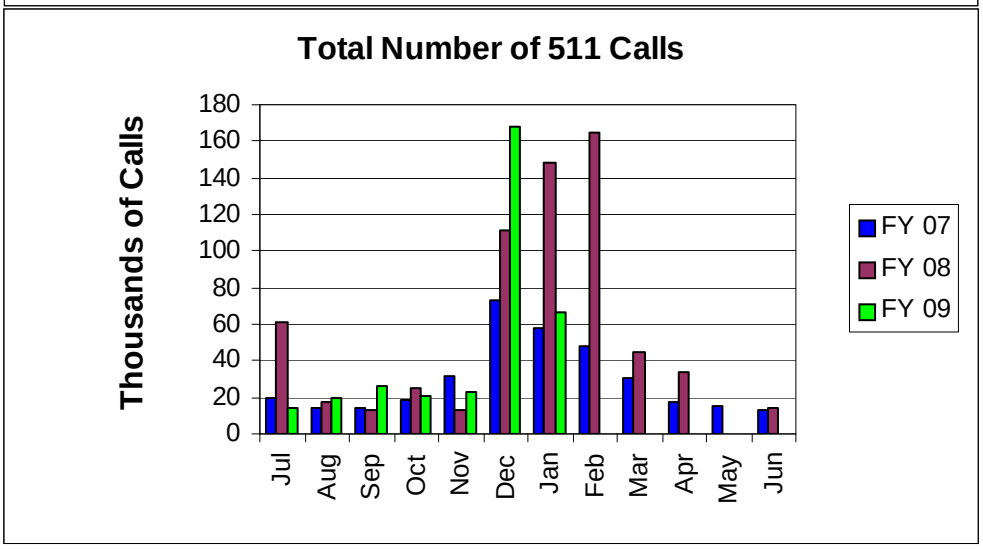
Apr
May
Jun
FY 07
FY 08
FY 09


Total Number of 511 Calls
Thousands of Calls
180
160
140
120
100
80
60
40
20
0
Jul
Aug
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Oct
Nov
Dec
Jan
Feb
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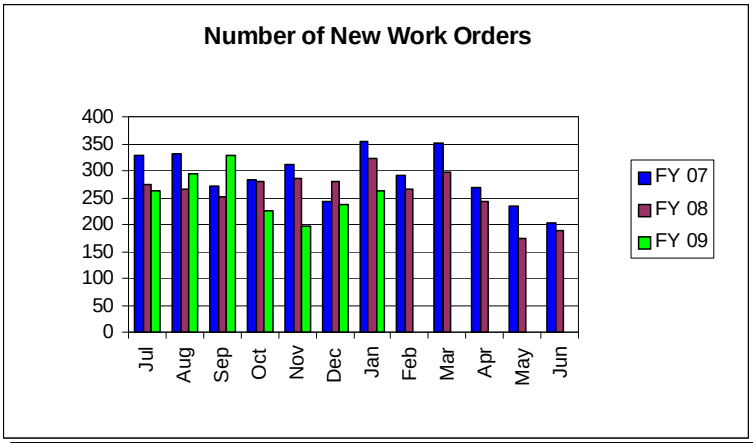
May
Jun
FY 07
FY 08
FY 09


Number of New Work Orders
400
350
300
250
200
150
100
50
0
Jul
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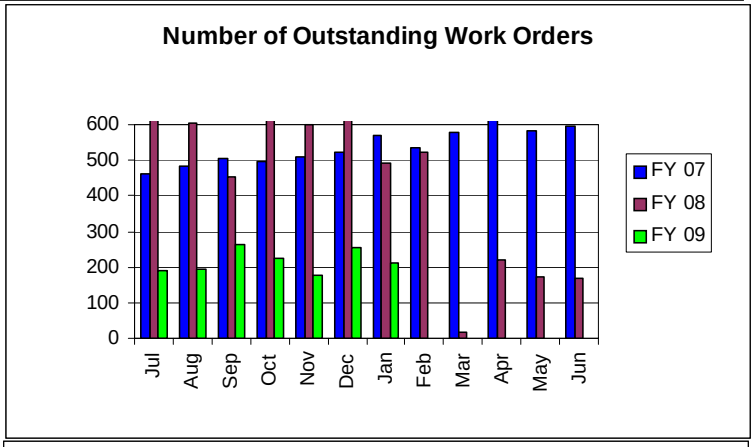
FY 07
FY 08
FY 09


Number of Outstanding Work Orders
600
500
400
300
200
100
0
Jul
Aug
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Dec
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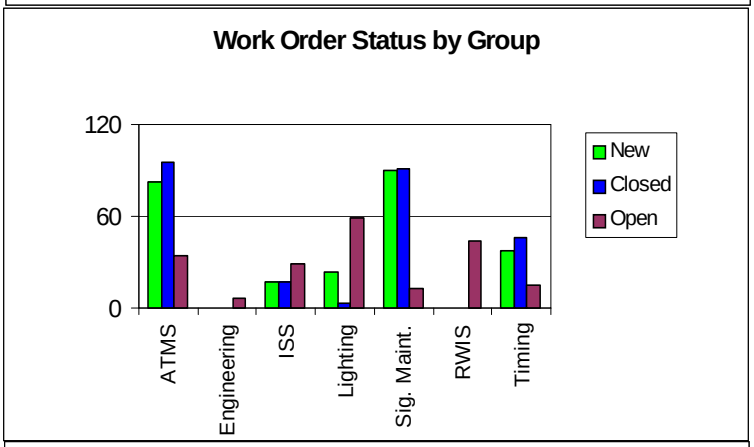
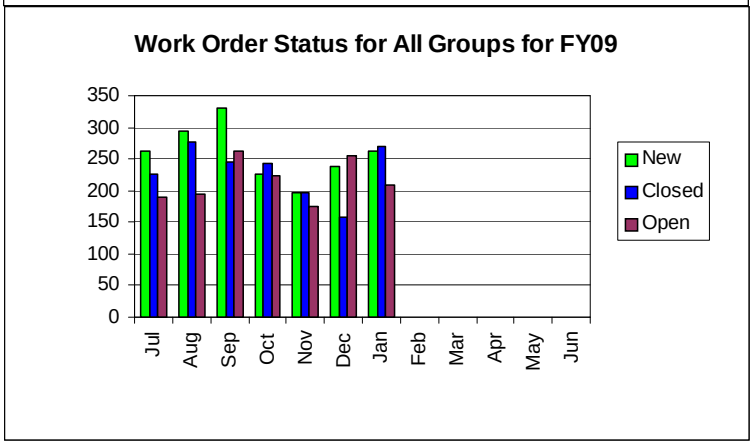
Apr
May
Jun
FY 07
FY 08
FY 09


Work Order Status by Group
120
60
0
ATMS
Engineering
ISS
Lighting
Sig. Maint.
RWIS
Timing
New
Closed
Open


Work Order Status for All Groups for FY09
350
300
250
200
150
100
50
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
New
Closed
Open