

# Utah Department of Transportation Traffic Operations Center

January 2010

## Monthly Report



2060 South 2760 West Salt Lake City, Utah 84104 801-887-3710 [www.CommuterLink.Utah.Gov](http://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	281
Surface Street Cameras	286
RWIS Cameras	72
Detection Cameras	109
<b>Total Cameras</b>	<b>748</b>
Freeway VMS	67
Surface VMS	32
Portable VMS	13
Legacy Trucks Prohibited VMS	21
<b>Total VMS</b>	<b>133</b>
HAR (22 permanent/5 portable)	27
TMS	345
RWIS	71
Traffic Signals Connected	1200
Connected Ramp Meters	48

### Operations Summary

VMS Messages Displayed (incl. Travel Time)	74,201
Signal Timing Work Orders	15
Signal Maintenance Work Orders	52
All New Work Orders	224
Incident Responses	1152
Website Visitor Sessions	822,789
511 Calls	57,193
Weather Desk Calls	780
Ask CommuterLink Questions	54

### Employee of the Month

Congratulations to our Employee of the Month for January - Troy Hyer



### TOC Control Room



## Administration Highlights

### Administration – Richard Shelley

#### **Employee of the Month - Troy Hyer**

Troy has taken over preparing the monthly report these past several months. In doing so, he has eliminated the need to contract about 16 hours monthly in order to prepare this report. In his first month of preparing the report, he updated the CCTV count and found several cameras that were not being counted. He is also checking operation of each camera as part of the monthly report, which has improved the report's accuracy, as well as finding cameras that need repair.

Troy is updating the CCTV and TMS locations in Forte', which will allow more accurate work orders to be prepared as these changes are loaded into the database.

Troy is always cheerful and a pleasure to work with.

#### **TOC Tours**

Wayne Jager conducted a Cub Scout group, ages 10-11. Thanks Wayne for taking time for our youth.

Students of BYU Engineering School, ASCE Student Chapter. were given a tour of the TOC by Chris Siavrakas.

## Operations Highlights

### **January 2010**

#### **Traffic Signal Systems**

During the Month of January, the traffic signal systems team changed-out all of the intersections in Provo City to the central system used by all the Commuterlink partners. This worked involved physically swapping out the equipment, fixing cabinet issues and integrating the software on all of the intersections within Provo.

#### **Weather Desk – Ralph Patterson:**

##### **Weather Desk Events/Presentations**

Ralph along with Dave Kinnecom and Richard Clark, took place in the kick off meeting held in Reno, Nevada for the I-80 Coalition. The I-80 Coalition is a collaborative effort between Utah, California, Nevada and Wyoming with the goal to manage the I-80 Corridor in a seamless manner regardless of geo-political boundaries... more to come...

##### **Phone Calls**

The Weather Desk took in 780 phone calls

##### **Storm Events**

There were 10 storms during the month of January.

##### **RWIS**

The RWIS team deployed the portable RWIS-ESS, with a ptz camera, along US 40 at Pinion Ridge (Region 3).

**ITS Deployment Section  
Monthly Report Highlights  
January 2010**

**ITS Standards and Specifications:**

HNTB had most of the Marker Standard reviewed. The new Standards will consist of minor modifications to the Specifications and an additional drawing to show the required marker locations.

The kick-off meeting was held in order to complete the ITS portion of the Bridge Design Manual. HNTB was present and the design work started.

**Procurement:**

The CCTV field performance testing was reviewed by the committee and the final RFP scoring meeting was conducted. The RFP cost evaluation was initiated. This is the final phase of the CCTV vendor contract award.

A sole source PSO request was sent to purchase repair parts for the WiG Wag Chain Law Signs in the major local canyons.

The bids were received for the handheld OTDR. Codale Electric had the low bid and was approved by Rich Williams, the Fiber Supervisor. The UDOT procurement began to process the purchase order.

**Special; Training Sessions:**

Mike Adams attended the final Technical Writing Course at SLCC and the Procurement 101 class at the TOC.

**Other Activities:**

The Contract Tracking spreadsheet has been updated and continues as revisions become available.

The revised ATMS Order Form is still being tested. Debugging the new program glitches is underway.

International Fiber Systems Inc. visited Mike Adams to establish contact with UDOT. This vendor provides fiber optic switching components.

**Project Status:**

**Region 2**

ARRA Project: Bangerter Fiber Project:90th to SR 201

This project upgraded existing fiber optic cable to a larger capacity cable for future needs and expansion of ATMS. The project was completed end of January 2010.

Bangerter/I-15 Ramp Meters

We have started the design of the ramp meters for northbound and southbound onramps. This is a simple project where it only consists of restriping and installing ramp meter hardware. The northbound onramp will be a three lane ramp meter. The southbound onramp will be a two lane ramp meter. TOC Operations feels that this will help contribute to the management of traffic flow onto I-15.

VMS on SR 36 Tooele Jct.

An arterial VMS sign is in initial design concept for northbound SR 36 prior to the I-80 Jct. This is part of wind warning project for the I-80 west travelers. However, this is also needed for Tooele County residents and commuters using SR 36 to travel to I-80 and Salt Lake Area for advance notification of possible incidents or events.

**Region 3**

Emergency Dispatch Center project - 6 of the 8 locations are connected into the ATMS network and are receiving video images.

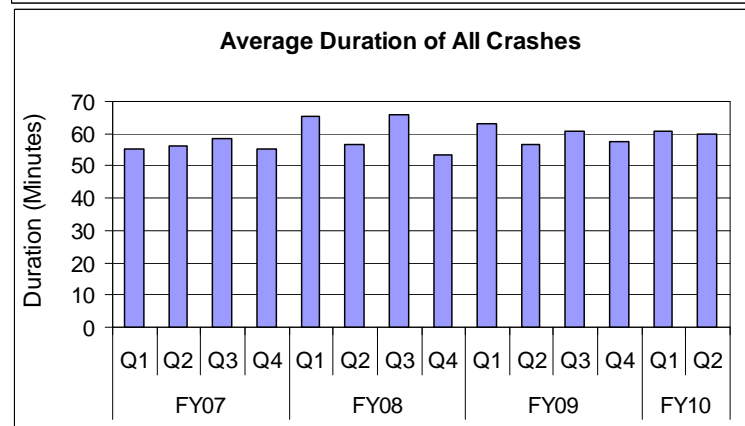
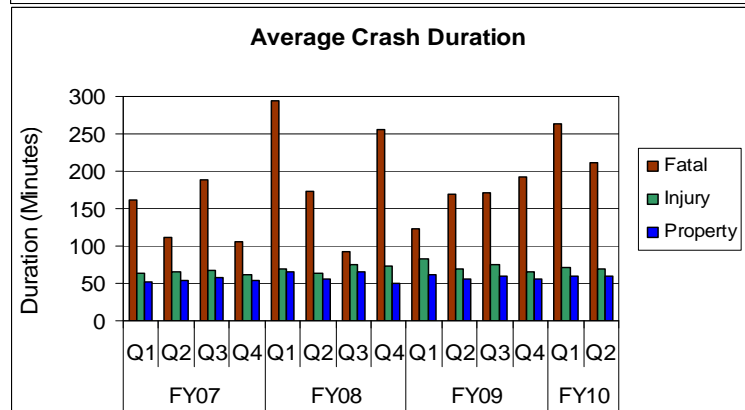
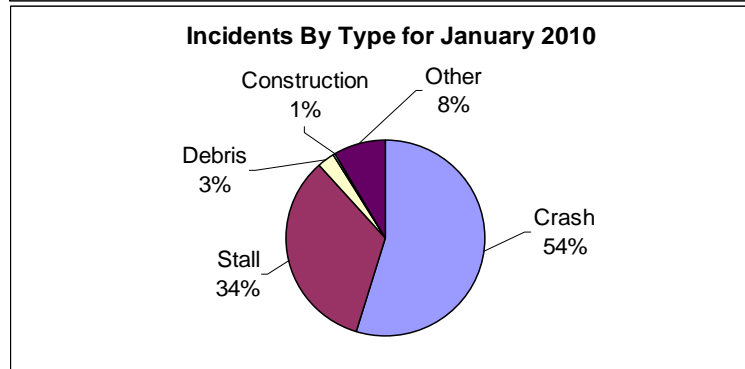
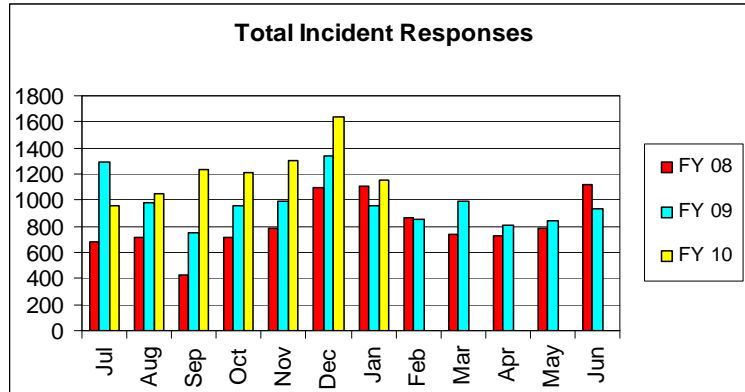
Establishing a scope for connectivity to at least 10 signals from Lehi to Pleasant Grove that are currently not connected to fiber. These connections will accommodate the CORE MOT.

Fiber switch has been ordered to upgrade one of the existing switches here in the TOC. This will in turn allow for a redeployment of our existing switches and create a new fiber Hub on our ATMS network. This Hub will be located inside the Provo Canyon maintenance shed.

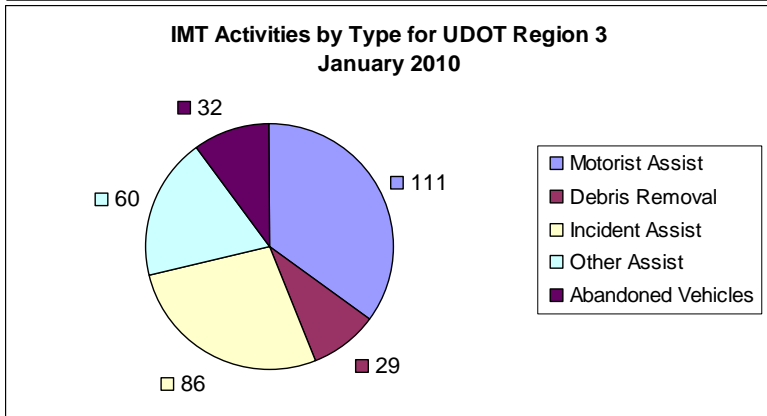
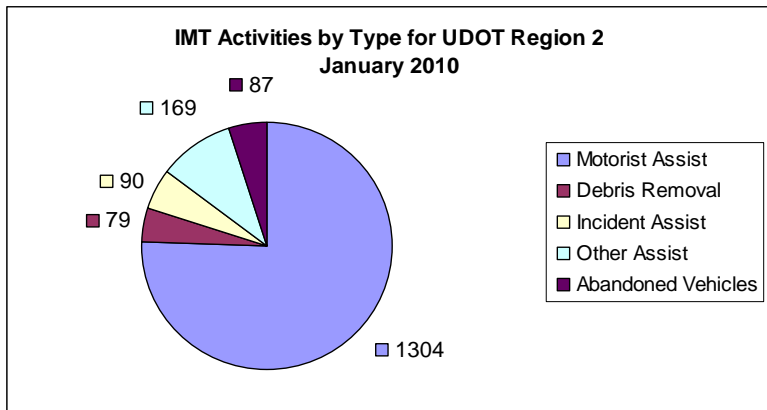
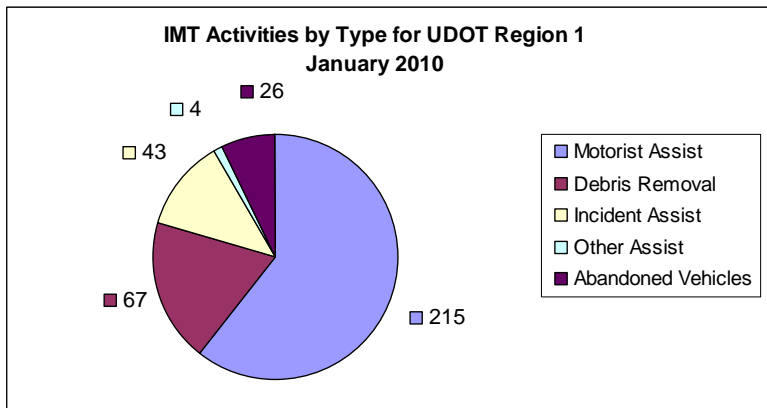
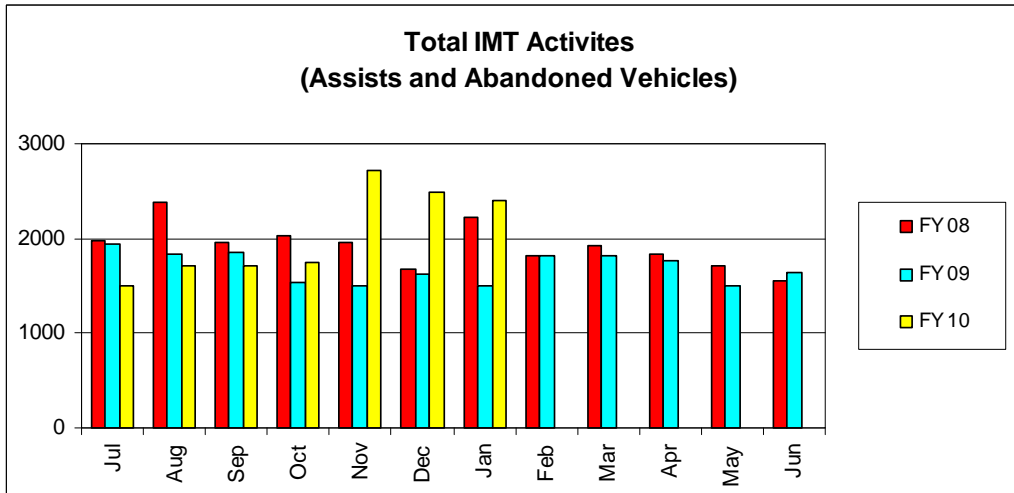
**Acronyms**

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

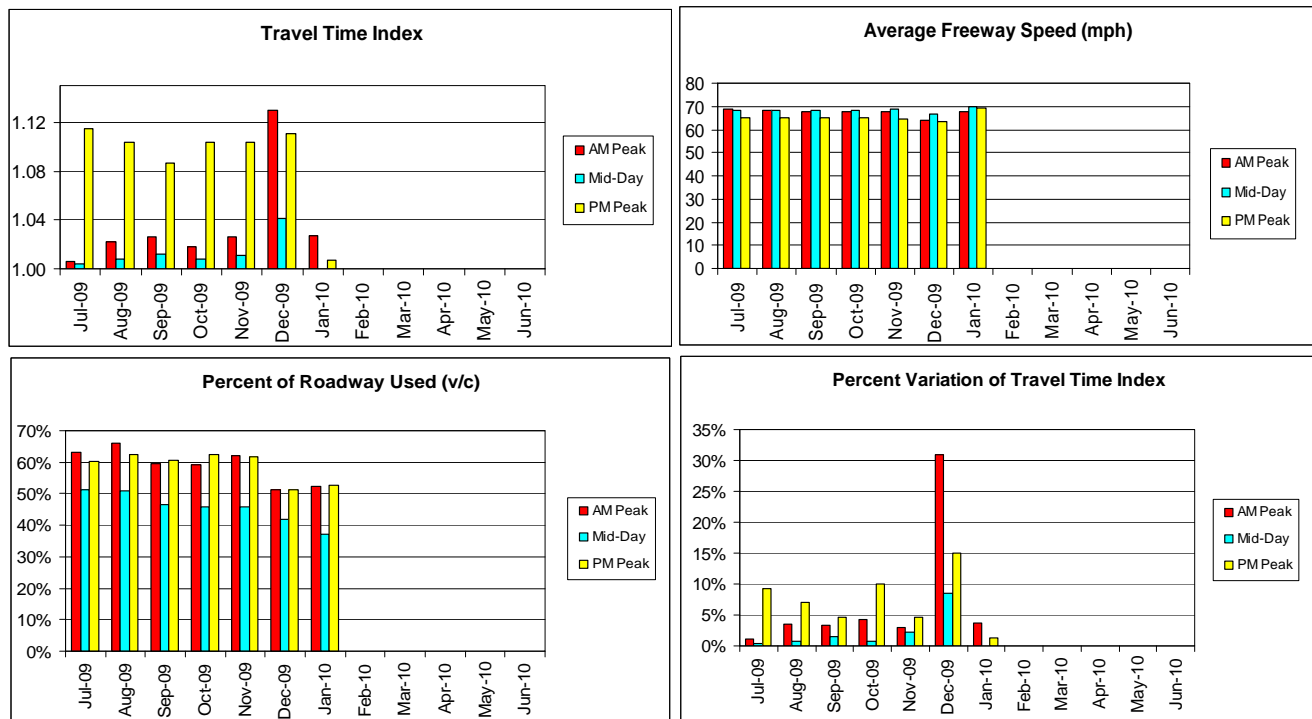
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

**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).

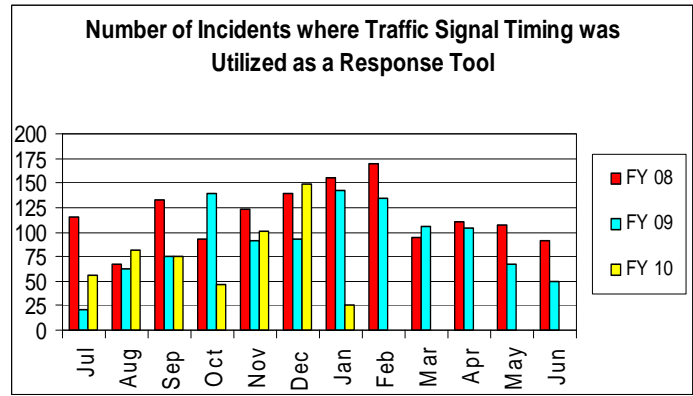
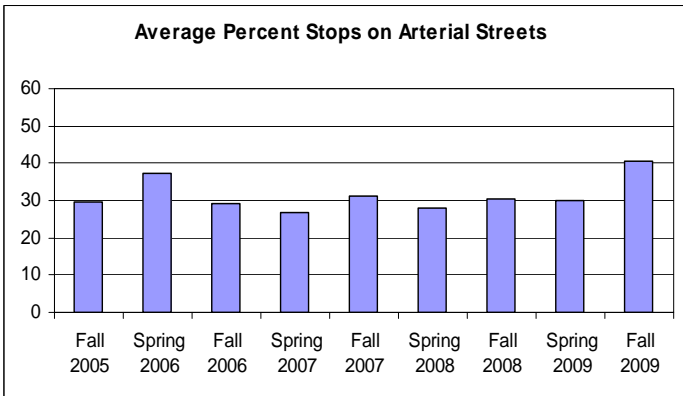
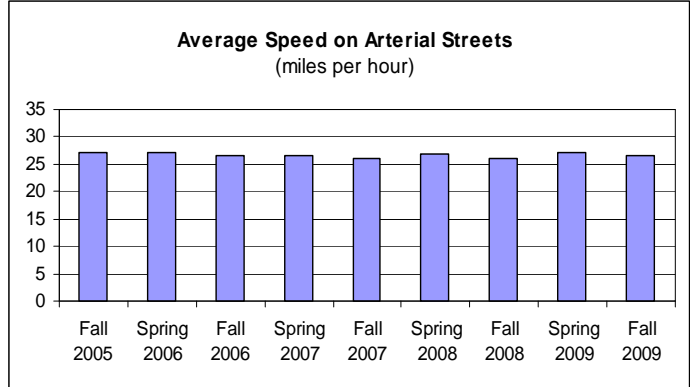
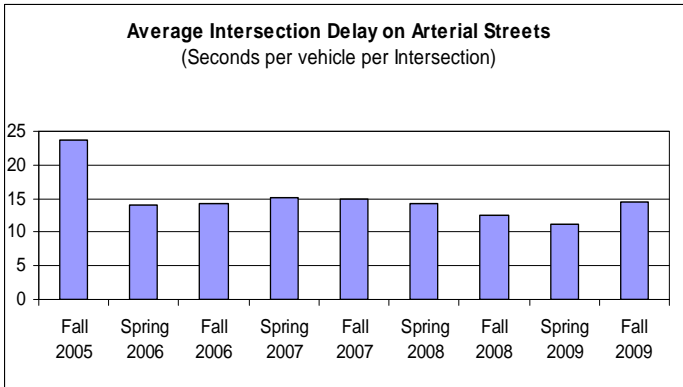


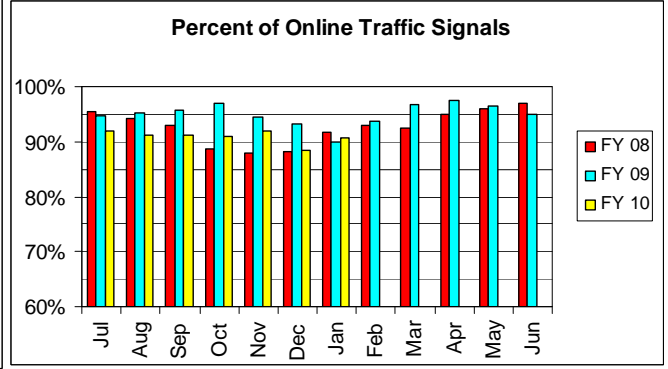
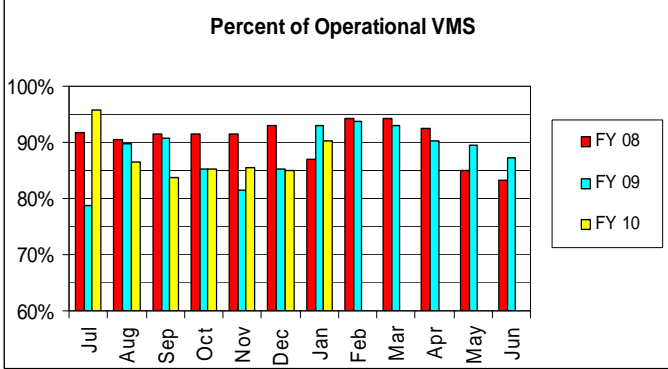
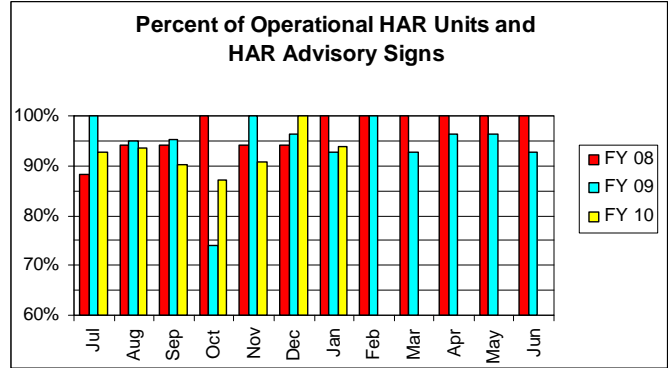
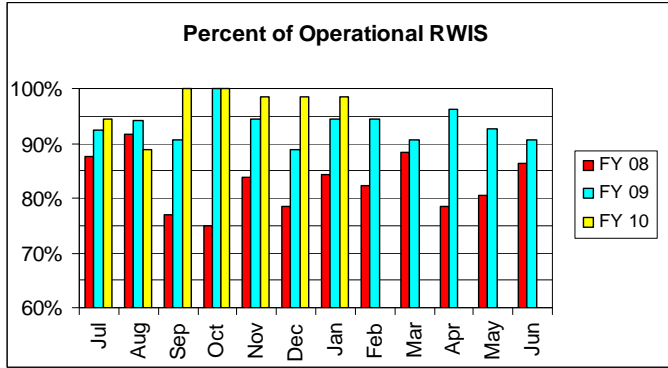
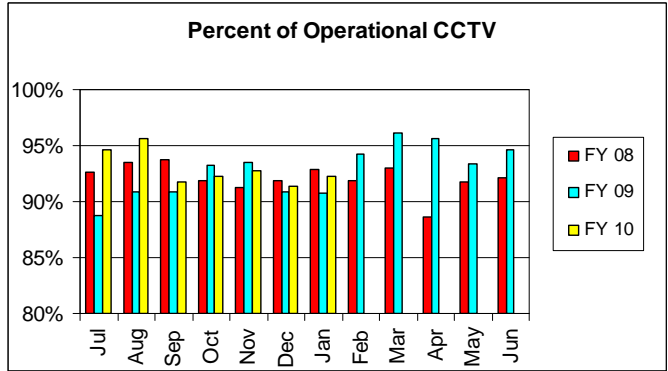
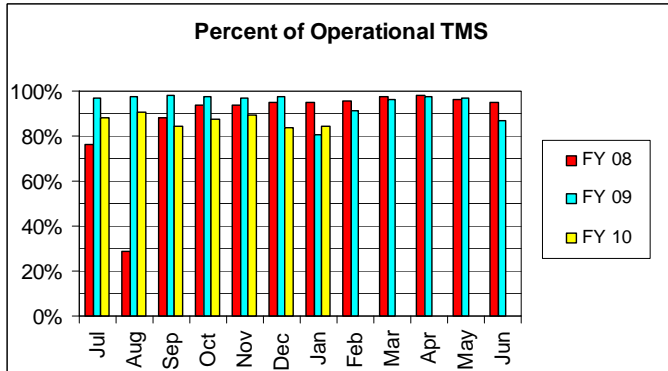
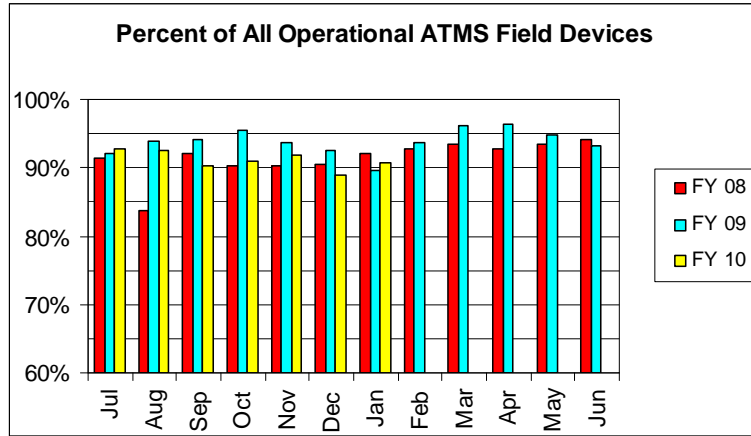
Segment	Period	TTI
I-215 W SB from I-15 to I-80 W	AM Peak	1.54
I-80 W WB from I-15 to 5600 W	PM Peak	1.32
I-215 S WB from Knudsen's Corner to I-15	AM Peak	1.26
I-80 W EB from 5600 W to I-15	Early Off Peak	1.21
I-215 S WB from Knudsen's Corner to I-15	Early Off Peak	1.19

# Surface Street Traffic Level of Service

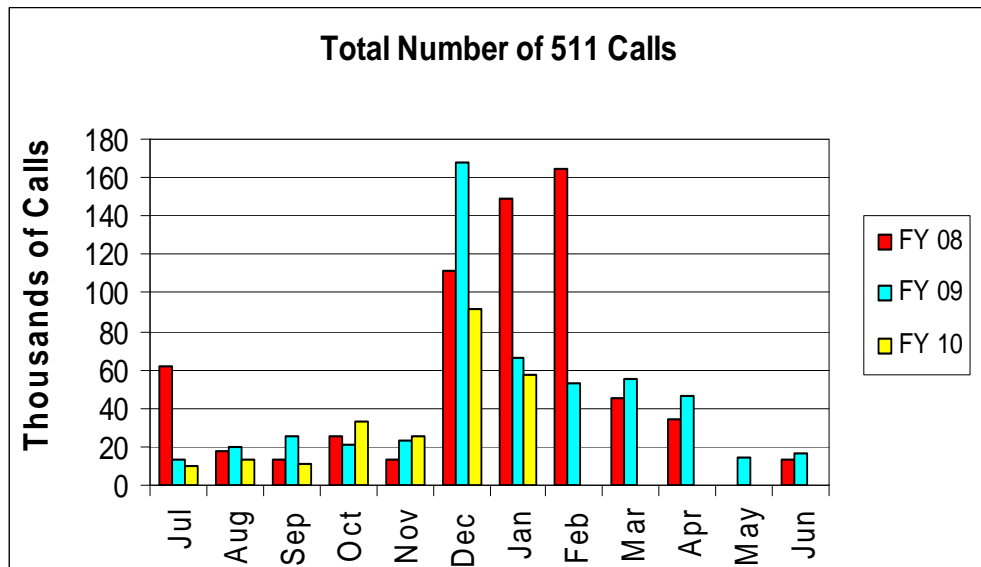
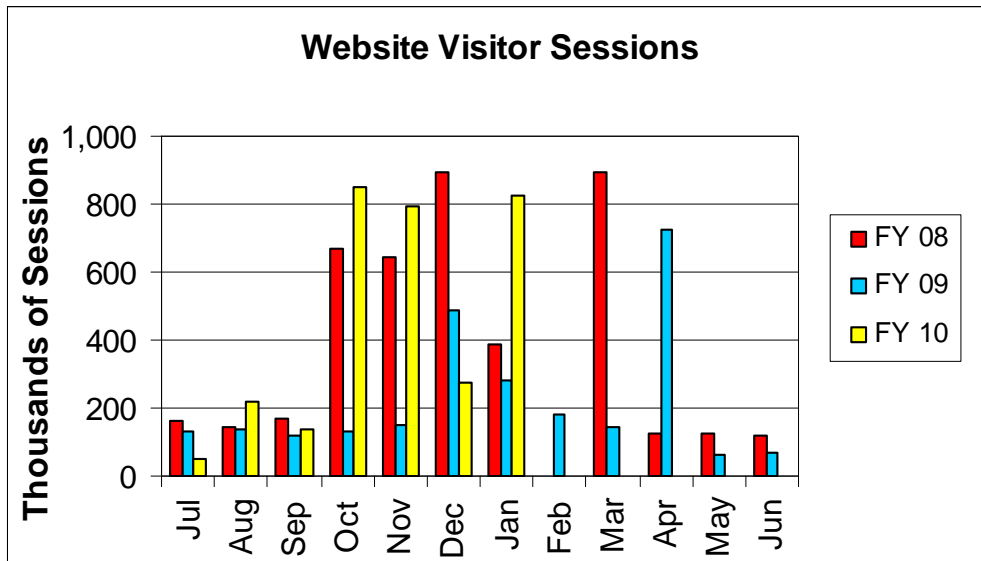
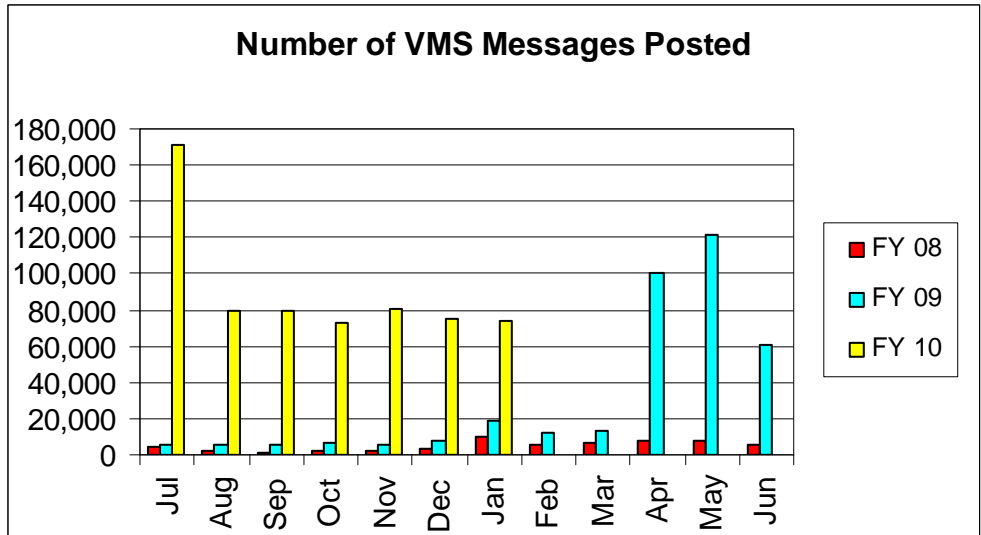
The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection,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

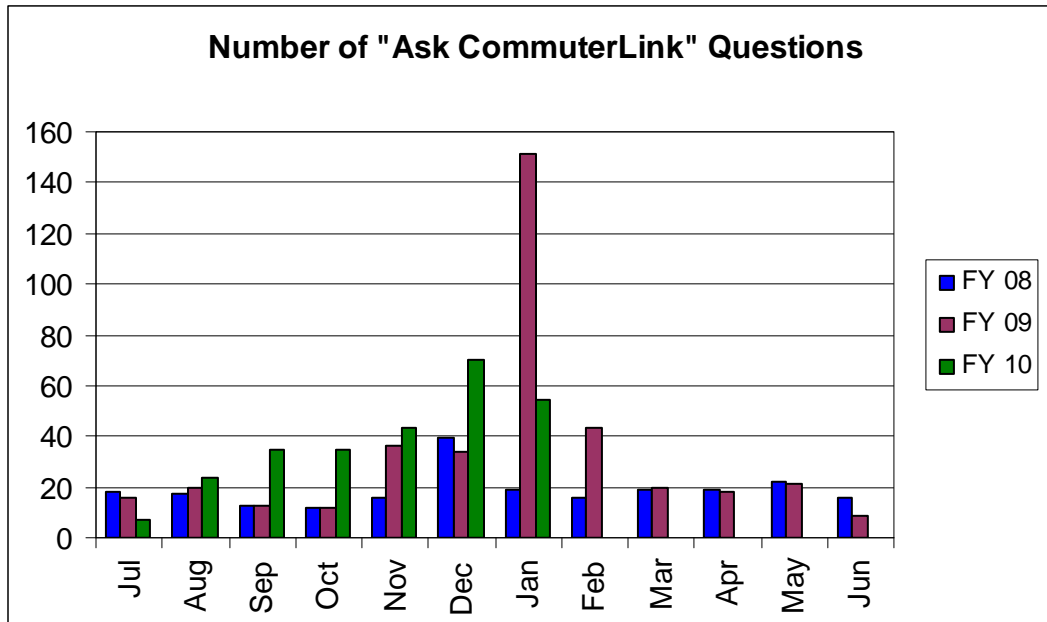
The following charts illustrate data gathered during semi-annual timing runs.











### Forte Monthly Work Order Statistics January 2010 Work Order Total = 224

