

# Michigan Intelligent Transportation Systems Center

Serving Motorists on Southeast Michigan Freeways

[www.michigan.gov/its](http://www.michigan.gov/its)  
[www.michigan.gov/drive](http://www.michigan.gov/drive)



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## In the Spotlight



MDOT ITS Centers



The MITS Center only plays a part in the overall Intelligent Transportation Systems (ITS) network for the state of Michigan. There exists three additional Transportation Operations Centers (TOC) across the state, located in Grand Rapids (West Michigan TOC), Port Huron (Blue Water Bridge TOC), and Lansing (Statewide TOC, which will open in 2011). These TOCs are structured similar to the MITS Center with Closed-circuit Television (CCTV) cameras and dynamic message signs (DMS) on their respective freeways.

MITS Center staff has coordinated with the West Michigan TOC staff on various topics such as performance measures, AMBER Alerts, safety messages, and ITS device naming convention. Continued coordination will follow with all Michigan TOCs, creating a cohesive ITS network for Michigan.

Compiled by:



# Summary

## Data Key

Oct. 2010

### Call Card



#### Total Assists

Freeway Courtesy Patrol (FCP) drivers fill out information on data cards for each stop (abandoned vehicles), assist (occupied vehicles, debris, accidents, etc.), and tow.

4,300

### Call Tracking



#### Total Calls

Operators manually enter all incoming and outgoing control room calls, including two-way communications, select Michigan State Police (MSP) Computer-Aided Dispatch entries, and high-impact incident notifications.

6,035

### Mi Drive Web Site



#### Total Page Views

Operators inform media and general public about current incident information such as lane closures and road construction. Real-time camera images are also available.

139,659

### Advanced Traffic Management System



#### Total Incidents

Data is entered into the Advanced Traffic Management System in order to send messages to Dynamic Message Signs (DMS) and to post incidents on the Web site.

454

### Quality Assurance/Quality Control



#### All High-Impact Incidents

Comprehensive and systematic quality assurance/quality control audit of freeway operations including messaging and high-impact notifications (freeway closures, lane closures where only one lane is open, and freeway-to-freeway ramp closures).

100% Accurate

### MaintStar



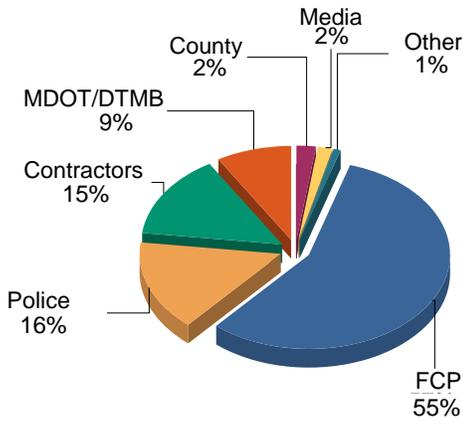
#### System Availability

MaintStar manages maintenance issues for all Intelligent Transportation System (ITS) equipment, including Dynamic Message Signs (DMS) and Closed-Circuit Television (CCTV) cameras, and tracks work orders and overall ITS performance.

DMS: 94%

CCTV: 95%

# Calls by Type



**Total Calls: 6,035**

Agency	No. of Calls
FCP	3,402
Contractors	880
City	9
County	140
Federal	0
Fire	1
Police	932
Border	6
<b>MDOT/DTMB</b>	<b>513</b>
Media	96
Special Events	3
Transit	2
State	0
Parking	2
Airport	1
Animals	0
OTHER	48
<b>Total</b>	<b>6,035</b>

MDOT/DTMB	Total
Taylor TSC	138
Macomb TSC	95
Oakland TSC	72
Detroit TSC	55
MITS Center	45
DTMB	43
Auburn Hills Garage	22
Detroit Maintenance Garage	21
Answering Service	10
Metro Region Office	6
Jackson TSC	5
Grand Rapids TMC	1
<b>Total</b>	<b>513</b>

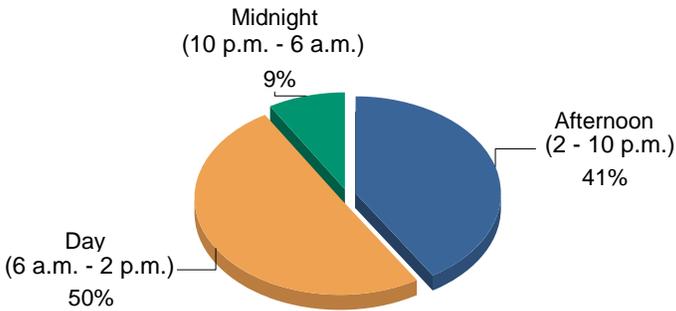


Control Room

# Calls by Weekday Shift



Monday - Friday

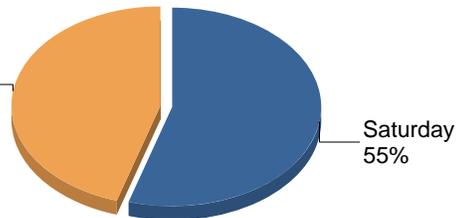


**Average Number of Calls per Weekday: 235**

# Calls by Weekend Day

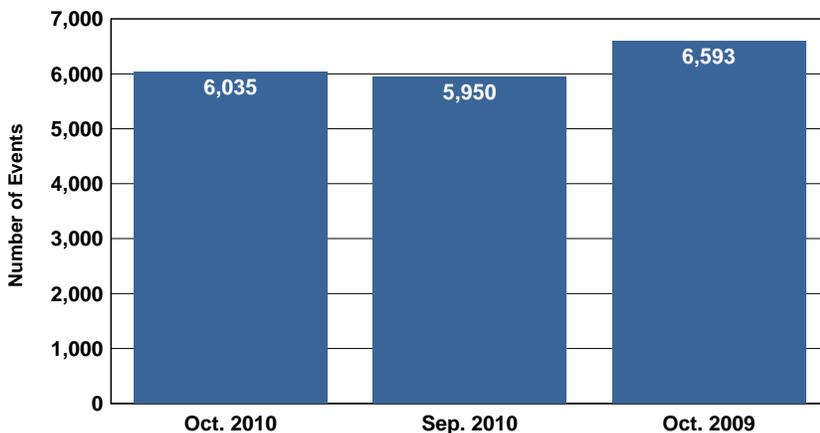


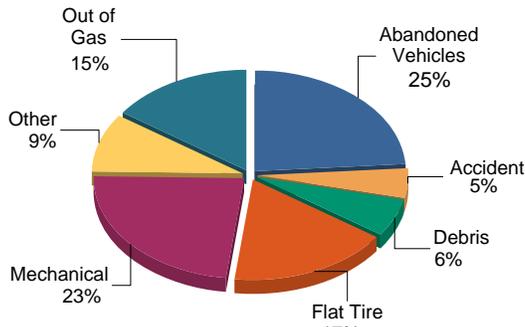
Sunday 45%



**Average Number of Calls per Weekend: 222**

# Monthly Event History

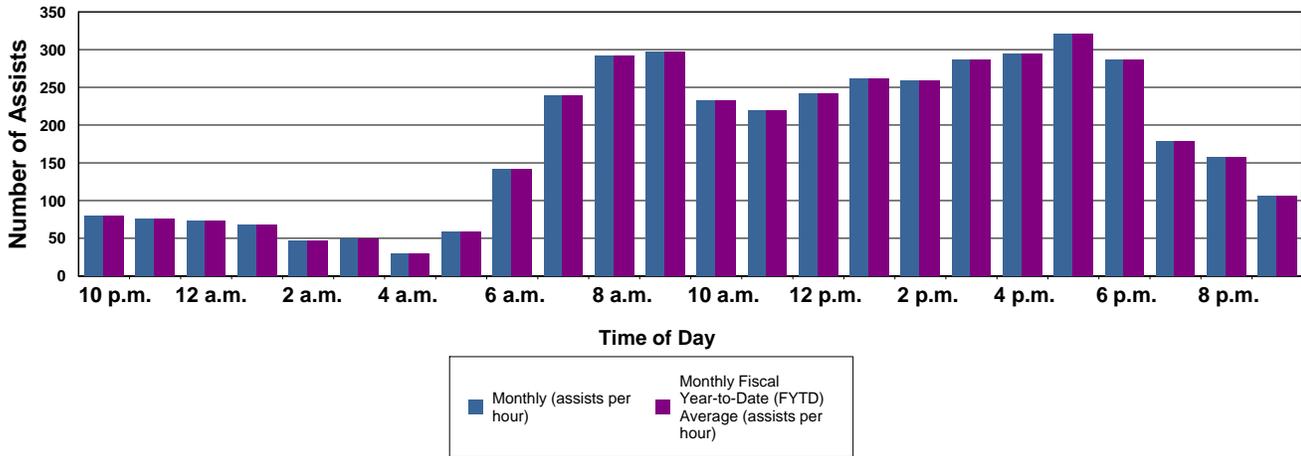




During the month of October, the I-94 freeway incurred the most assists, totaling 1,025. The I-375 freeway incurred the least number of assists with 8.

**October Total: 4,300**  
**3,203 Assists**  
**1,097 Abandoned Vehicle Stops**

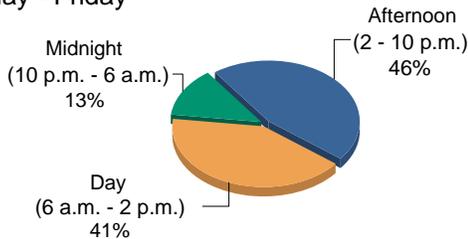
FCP Assists by Time of Day



FCP Dispatches by Weekday Shift

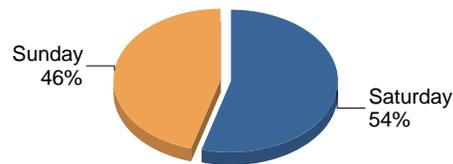


Monday - Friday



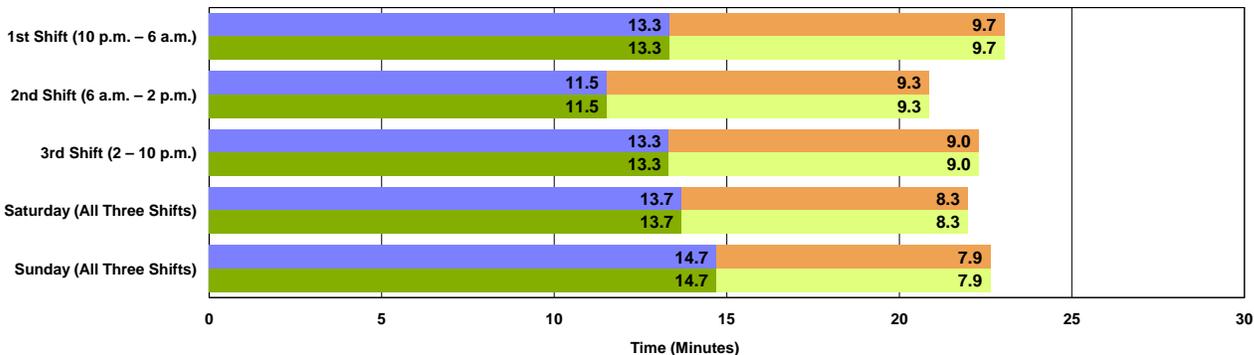
**Average Number of Dispatches per Weekday: 31**

FCP Dispatches by Weekend Day



**Average Number of Dispatches per Weekend: 44**

FCP Average Service Times



Legend: Current Month Average Response Times (Blue), Monthly FYTD Average Response Times (Green), Current Month Average Clear Times (Orange), Monthly FYTD Average Clear Times (Yellow)





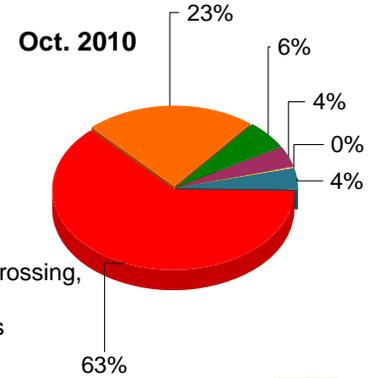
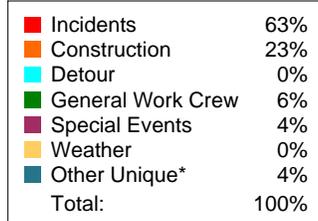
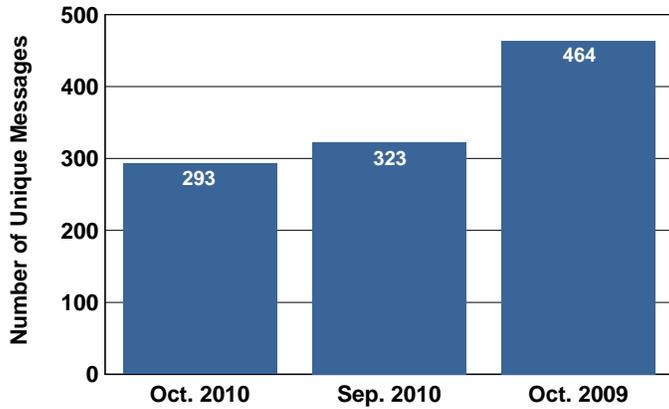
*"Thank you so very much for providing the courtesy patrol service. I was driving down the Southfield Freeway when I ran out of gas. Stuck in the left lane, I called my insurance company for roadside assistance; however it would take them some time to get to me. Stranded and panicking slightly as cars whizzed by me with inches to spare, I was very relieved when a courtesy patrol van pulled up behind me. The driver got out and asked me what I needed and he quickly got me on my way. To him and all those who drive the vans, thank you!"*

Courtesy Patrol



Freeway	Segment	TOTAL ASSISTS (miles)	ASSIST DENSITY		AVERAGE RESPONSE TIME (min)		AVERAGE CLEAR TIME (min)			
			Oct. 2010	FYTD Avg.	Oct. 2010	FYTD Avg.	Oct. 2010	FYTD Avg.		
I-75	Oakland County Line to I-696	37.0	404	404.0	10.9	10.9	16.1	16.1	9.1	9.1
	I-696 to I-94	8.0	256	256.0	32.0	32.0	10.6	10.6	8.9	8.9
	I-94 to I-96	5.6	85	85.0	15.2	15.2	12.6	12.6	8.7	8.7
	I-96 to I-275	37.0	263	263.0	7.1	7.1	12.0	12.0	8.5	8.5
		87.6	1,008	1,008.0	11.5	11.5	12.9	12.9	8.8	8.8
I-94	Washtenaw County Line to M-39	20.7	326	326.0	15.7	15.7	15.7	15.7	8.7	8.7
	M-39 to I-75	9.0	295	295.0	32.8	32.8	11.5	11.5	8.8	8.8
	I-75 to I-696	10.0	271	271.0	27.1	27.1	16.3	16.3	8.2	8.2
	I-696 to St. Clair County Line	21.0	133	133.0	6.3	6.3	21.2	21.2	6.4	6.4
		60.7	1,025	1,025.0	16.9	16.9	14.8	14.8	8.3	8.3
I-96	Livingston County Line to I-275/I-696	11.0	146	146.0	13.3	13.3	16.1	16.1	8.9	8.9
	I-275/M-14 to M-39	12.0	217	217.0	18.1	18.1	12.4	12.4	9.1	9.1
	M-39 to I-75	11.0	327	327.0	29.7	29.7	10.4	10.4	9.3	9.3
		34.0	690	690.0	20.3	20.3	12.0	12.0	9.2	9.2
I-275	I-96/I-696 to M-14/I-96	8.0	127	127.0	15.9	15.9	12.4	12.4	7.7	7.7
	M-14/I-96 to I-94	12.0	151	151.0	12.6	12.6	15.4	15.4	8.5	8.5
	I-94 to I-75	17.5	78	78.0	4.5	4.5	16.6	16.6	7.1	7.1
		37.5	356	356.0	9.5	9.5	14.6	14.6	7.9	7.9
I-696	I-96/I-275 to M-10	9.3	138	138.0	14.8	14.8	12.8	12.8	9.7	9.7
	M-10 to I-75	9.0	137	137.0	15.2	15.2	11.9	11.9	9.8	9.8
	I-75 to I-94	10.4	164	164.0	15.8	15.8	13.8	13.8	12.1	12.1
		28.7	439	439.0	15.3	15.3	12.8	12.8	10.6	10.6
M-59 (Veterans)		24.0	27	27.0	1.1	1.1	15.0	15.0	10.8	10.8
I-375		1.2	8	8.0	6.7	6.7	20.7	20.7	9.6	9.6
M-10 (Lodge)		17.9	341	341.0	19.1	19.1	10.7	10.7	9.4	9.4
M-14		6.4	74	74.0	11.6	11.6	15.1	15.1	7.1	7.1
M-39 (Southfield)		14.2	285	285.0	20.1	20.1	10.6	10.6	10.2	10.2
M-5 (Grand River)		10.3	32	32.0	3.1	3.1	13.8	13.8	9.8	9.8
M-8 (Davison)		2.2	15	15.0	6.8	6.8	9.0	9.0	10.7	10.7
<b>Total</b>		<b>324.7</b>	<b>4,300</b>	<b>4,300.0</b>						

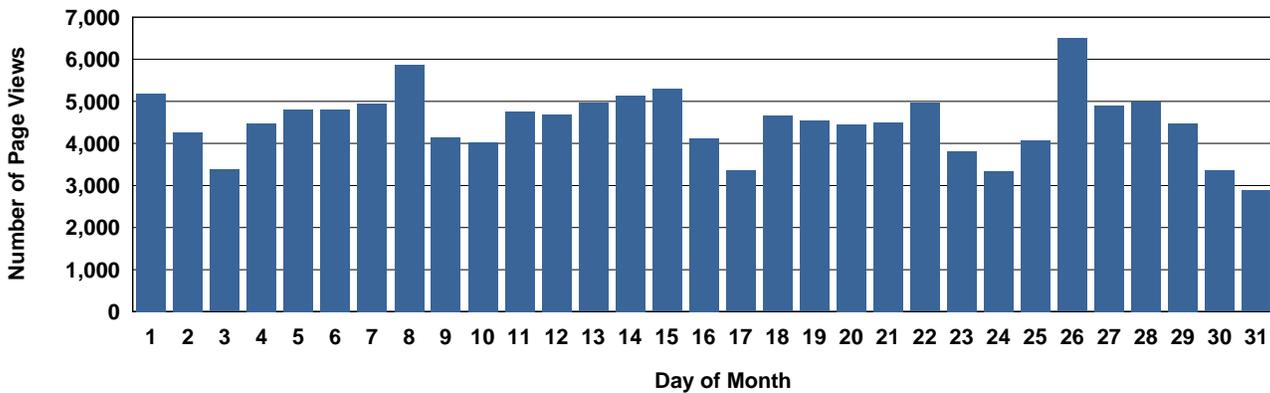
## Unique DMS Messages by Type



\* Airport, Amber Alert, Border Crossing, Location Specific, Safety, and Travel Time Unique Messages

\* Oct. 30 and 31 data not included due to system problem

## Mi Drive Web Site October Daily Page Views



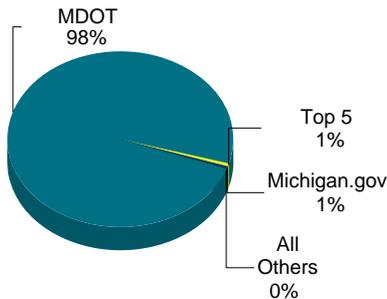
Traveler Information



## Referring Site Requests to Mi Drive Web Site in October



In **October**, the Mi Drive Web site experienced the most activity on **Fridays**.



### Top 5 Non-Michigan.gov Sites

- http://www.google.com/
- http://search.yahoo.com/
- http://www.clickondetroit.com/
- http://www.bing.com/
- http://wwwcf.fhwa.dot.gov/

On an average day in **October**, the Mi Drive Web site received the most activity between **4 and 5 p.m.**

## Incident Communication Accuracy



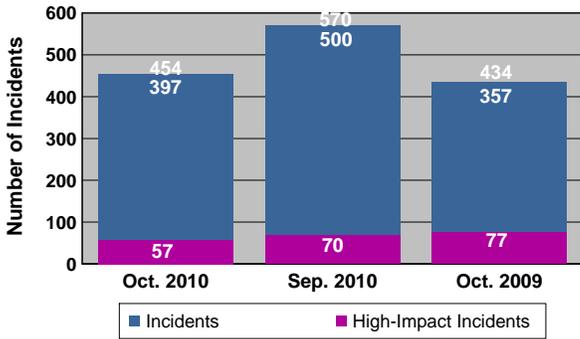
Weekend DMS Snapshot Review	Oct. 2010	Sep. 2010	Oct. 2009
All Incident Messages	100%	100%	100%
High-Impact DMS Messages	Oct. 2010	Sep. 2010	Oct. 2009
All High-Impact Messages	100%	100%	99%
Freeway Closure Messages	100%	100%	93%
Lane Closure Messages	100%	100%	100%
Ramp Closure Messages	100%	100%	100%
Other Communication	Oct. 2010	Sep. 2010	Oct. 2009
Advisory Text Messages	91%	94%	95%
Web Site Incident Postings	100%	95%	89%

## Most Utilized DMS



1. I-696 EB at Manistee
2. I-75 NB at Woodward Hgts.
3. I-94 WB at 10 Mile
4. I-696 WB at Ryan
5. I-696 EB at Bunert

## Total Number of Incidents



## High-Impact Incident Activity



	Oct. 2010	Sep. 2010	Oct. 2009
Freeway Closures All Lanes Closed	9	17	19
Lane Closures Only One Lane Open	44	47	45
Ramp Closures	4	6	13
Freeway-to-Freeway			
<b>Total</b>	<b>57</b>	<b>70</b>	<b>77</b>

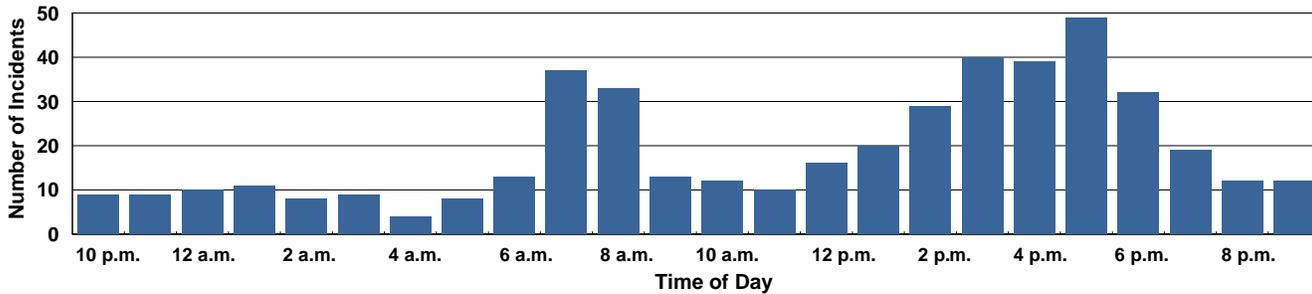
High-impact incidents account for **13%** of the total incidents in October.

## Total Incidents by Roadway

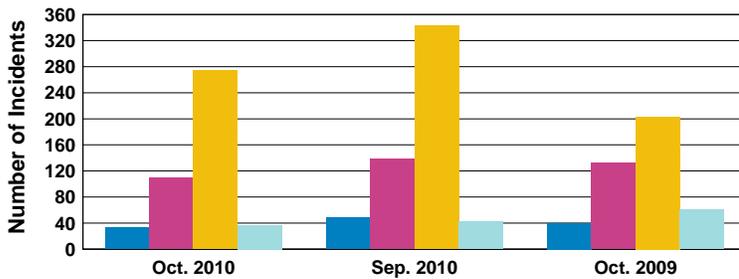


Freeway	Oct. 2010	Sep. 2010	Oct. 2009
I-75 (CHRYSLER/FISHER)	119	155	110
I-94 (FORD)	95	122	123
I-696 (REUTHER)	76	89	48
I-96 (JEFFRIES)	63	64	49
M-10 (LODGE)	36	42	33
M-39 (SOUTHFIELD)	30	54	36
I-275	32	40	35
I-375	1	4	0
M-59	2	0	0
<b>Total</b>	<b>454</b>	<b>570</b>	<b>434</b>

## Total Incidents per Hour

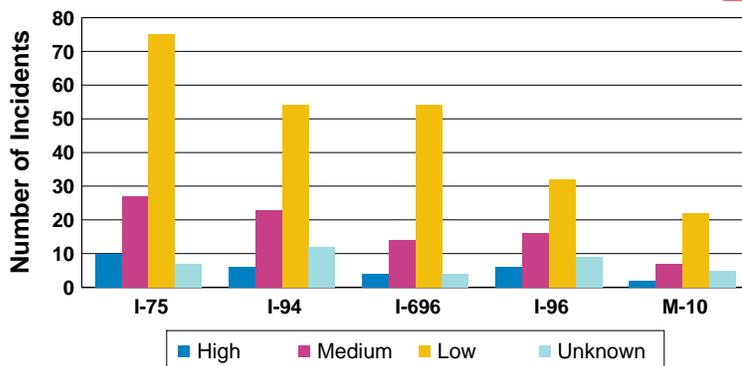


## Total Incident Severity/Duration by Month

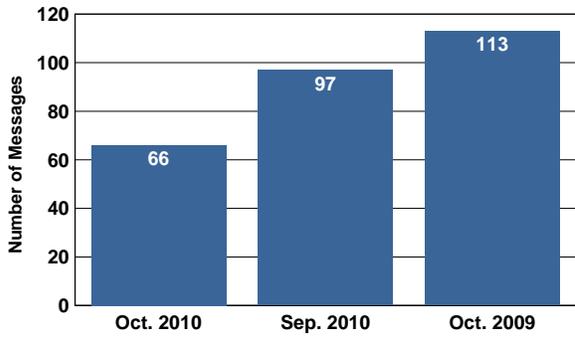


- Single-lane closures equal to 90+ minutes, partial closures (more than one lane, but not all) equal to 45+ minutes, or total closures (all lanes) 20+ minutes
- Shoulder closures equal to 90+ minutes, single-lane closures between 20 and 89 minutes, partial closures (more than one lane but not all) between 20 and 44 minutes, and total closures (all lanes) less than 20 minutes
- Shoulder closures less than 90 minutes, single-lane closures or partial closures (more than one lane, but not all) less than 20 minutes
- The duration and/or severity is unknown

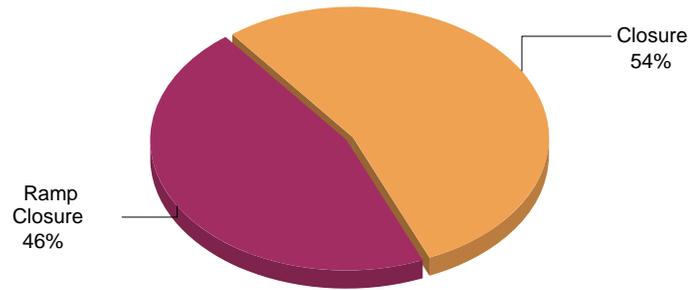
## Severity/Duration by Top 5 Freeways



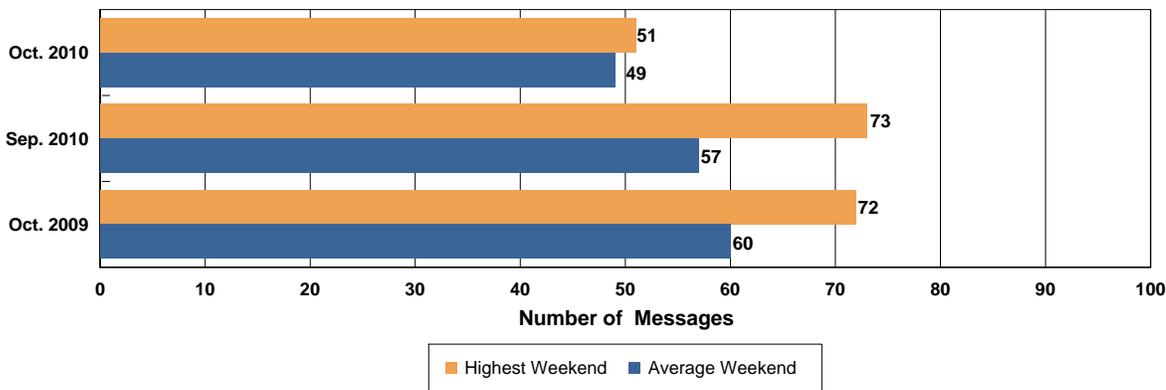
## Unique Construction Messages



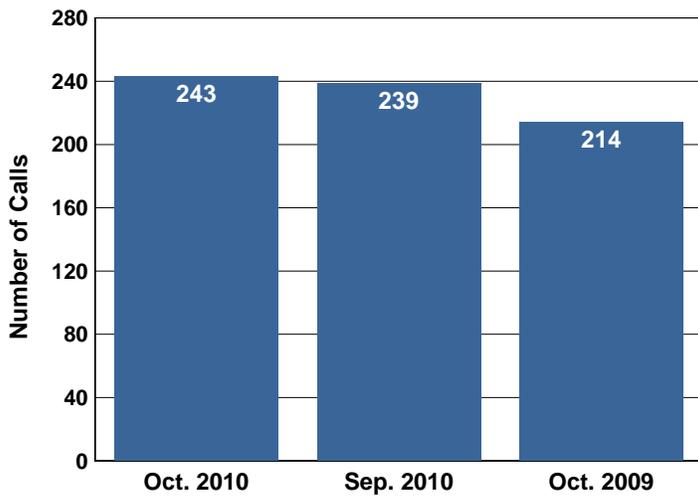
## Highest Weekend Unique Construction Messages



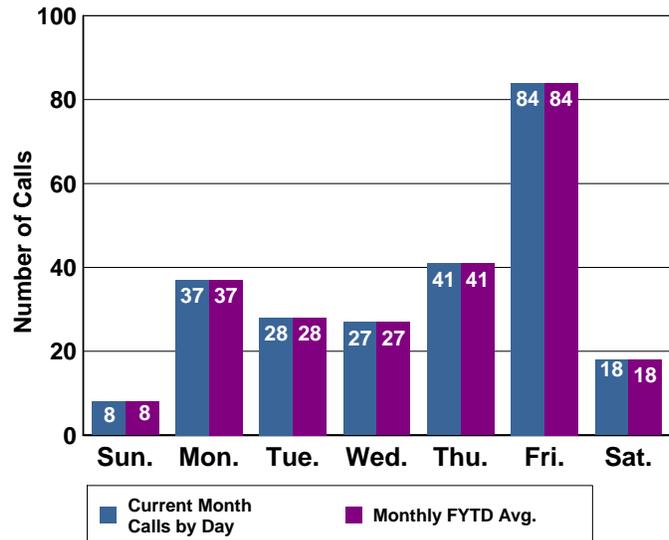
## Weekend Construction DMS Message Activity



## Total Construction Calls per Month



## Construction Calls by Day



Construction Activity



## DMS Availability

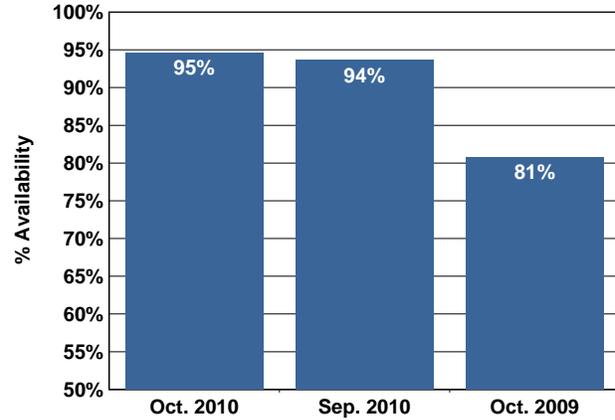
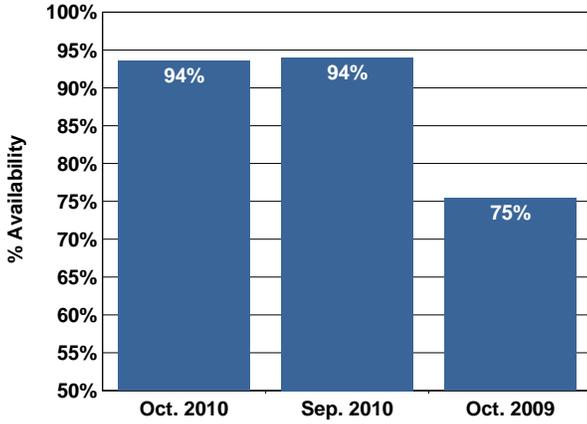


## CCTV Camera Availability



	Oct. 2010	Sep. 2010	Oct. 2009
Available	65	65	50
Not Available	4	4	16
<b>Total</b>	<b>69</b>	<b>69</b>	<b>66</b>

	Oct. 2010	Sep. 2010	Oct. 2009
Available	175	173	132
Not Available	10	12	32
<b>Total</b>	<b>185</b>	<b>185</b>	<b>164</b>

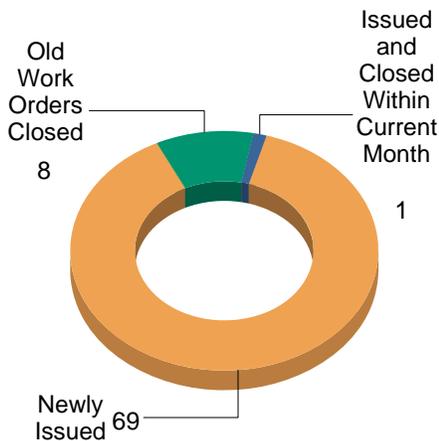


## Equipment Upgrades

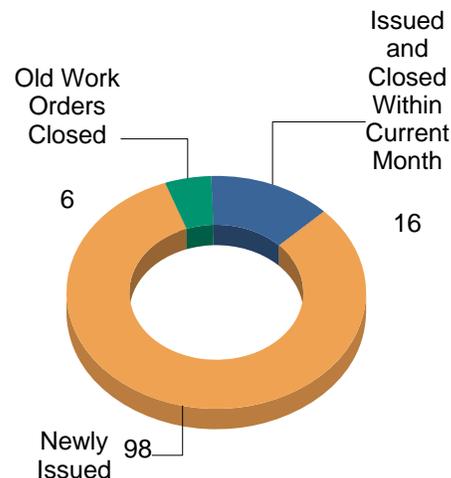


Equipment Type	Maintenance Activity
<b>CCTV</b>	
----	-
<b>TOTAL</b>	<b>0</b>
<b>DMS</b>	
Southbound I-75 at 13 Mile	Replaced hardware
<b>TOTAL</b>	<b>1</b>
<b>Hub/Node Tower</b>	
Node 8 Tower	Replaced electrical equipment
<b>TOTAL</b>	<b>1</b>

## Work Order Processing



Oct. 2010



Sep. 2010

