

Michigan Intelligent Transportation Systems Center

Serving Motorists on Southeast Michigan Freeways

www.michigan.gov/its
www.michigan.gov/drive

April 2011



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In the Spotlight



WATER OVER ROADWAY
I-96 WEST
AT M-39

REDUCE SPEED
ON
WET PAVEMENT

The MITS Center is the primary point of contact for dispatching aide onto Metro Detroit freeways. In April, a large amount of rainfall hit the area, not only causing slick road conditions but also flooding onto the freeways. The MITS Center assists the county maintenance crews in pinpointing problem locations through the use of Closed-Circuit Television Cameras (CCTV) and reports taken from the Michigan State Police (MSP). Water-over-road messages also are deployed on Dynamic Message Signs (DMS) alerting motorists of the problem area and providing them with information to potentially avoid the hazard, or to safely navigate through it. Also, during heavy rain, the MITS Center alters its safety messages to make motorists aware of safe driving practices in wet pavement conditions.

Compiled by:

URS

Summary

Data Key

April 2011

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.

3,888

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.

5,300

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.

119,856

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.

380

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



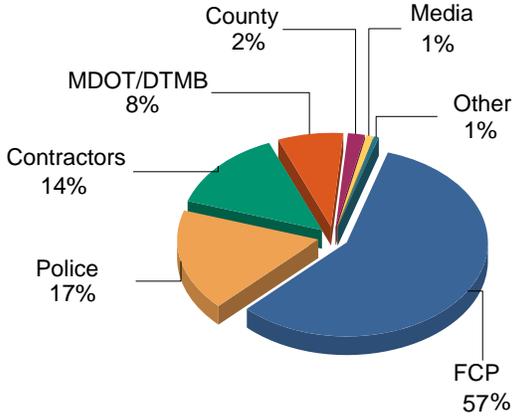
System Availability

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: 93%

CCTV: 91%

Calls by Type



Total Calls: 5,300

Agency	No. of Calls
FCP	3,052
Contractors	731
City	5
County	100
Federal	0
Fire	0
Police	919
Border	0
MDOT/DTMB	397
Media	45
Special Events	16
Transit	0
State	0
Parking	0
Airport	0
Animals	0
OTHER	35
Total	5,300

MDOT/DTMB	Total
Taylor TSC	139
Oakland TSC	58
MITS Center	39
Detroit Maintenance Garage	32
Detroit TSC	24
Macomb TSC	23
DTMB	21
Metro Region Office	13
Answering Service	12
Lansing	12
Auburn Hills Garage	9
Brighton TSC	8
Jackson TSC	3
Port Huron TSC	3
University Region	1
Total	397

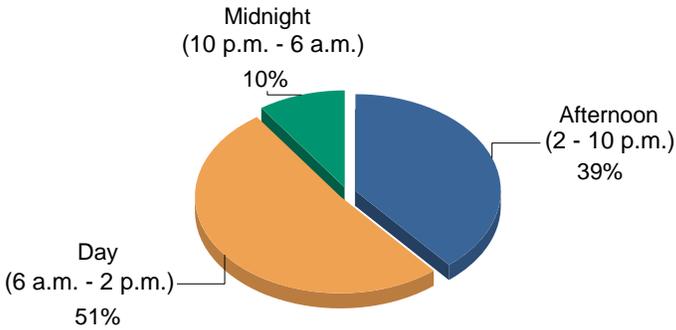


Control Room

Calls by Weekday Shift

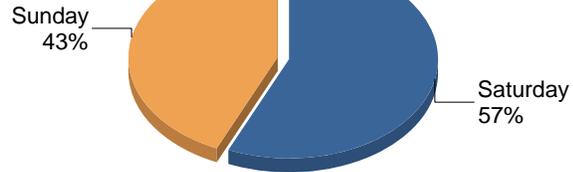


Monday - Friday



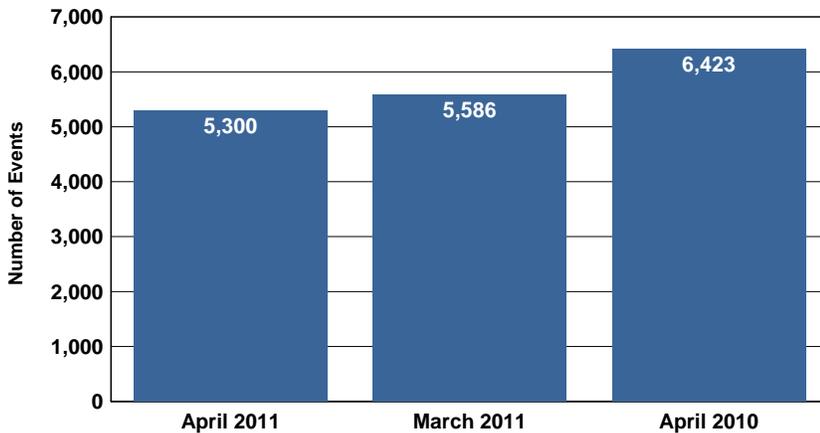
Average Number of Calls per Weekday: 209

Calls by Weekend Day



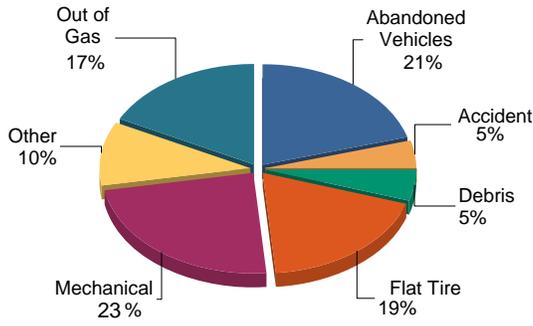
Average Number of Calls per Weekend: 206

Monthly Event History





In April, 440 motorists declined the services provided by the Freeway Courtesy Patrol when offered assistance.

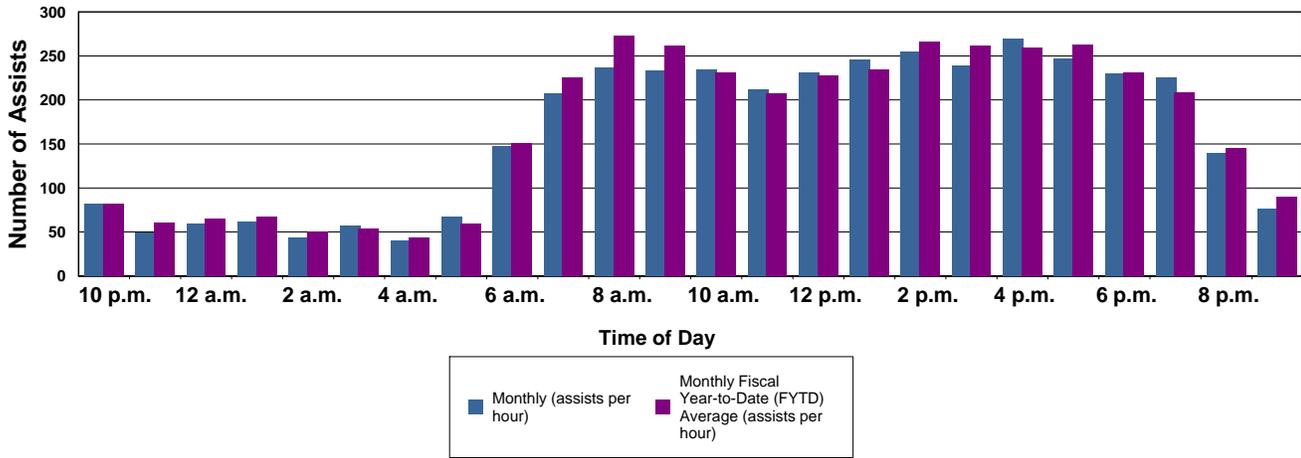


April Total: 3,888

3,026 Assists

862 Abandoned Vehicle Stops

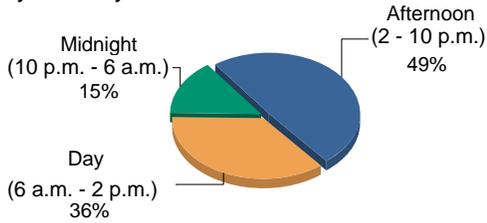
FCP Assists by Time of Day



FCP Dispatches by Weekday Shift



Monday - Friday



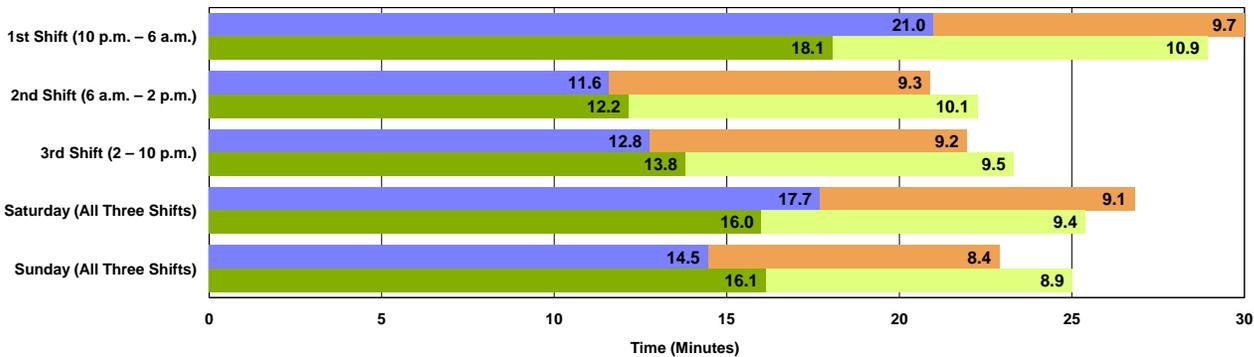
Average Number of Dispatches per Weekday: 30

FCP Dispatches by Weekend Day



Average Number of Dispatches per Weekend: 47

FCP Average Service Times



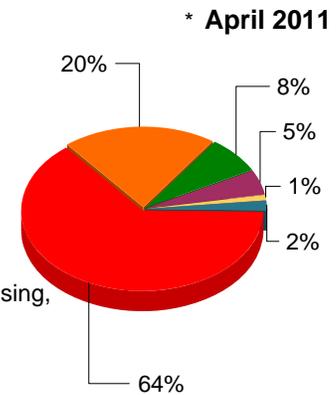
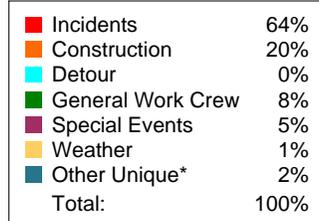
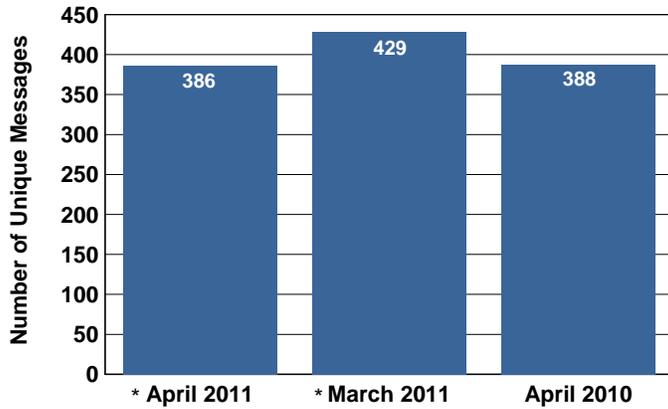


"I wanted to say thank you for the service provided by a Freeway Courtesy Patrol driver. He pulled up and offered a gallon of fuel and a jump, which made it able for me to make it home. I had already called for roadside service through my phone carrier and was informed it could take more than an hour. Within 20 minutes of being on the side of the road, a courtesy van arrived. He was very helpful and professional, thank you for such a great service."

Courtesy Patrol

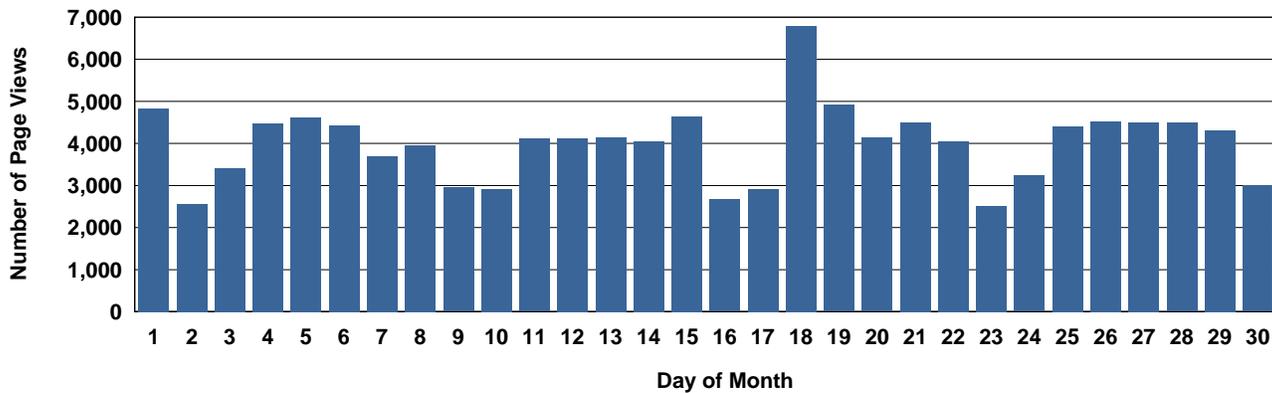
Freeway	Segment	TOTAL ASSISTS (miles)	ASSIST DENSITY		AVERAGE RESPONSE TIME (min)		AVERAGE CLEAR TIME (min)			
			April 2011	FYTD Avg.	April 2011	FYTD Avg.	April 2011	FYTD Avg.		
I-75	Oakland County Line to I-696	37.0	365	378.1	9.9	10.2	20.0	19.3	9.4	9.9
	I-696 to I-94	8.0	241	232.0	30.1	29.0	11.5	11.4	9.8	11.4
	I-94 to I-96	5.6	75	74.1	13.4	13.2	11.7	11.0	10.9	11.5
	I-96 to I-275	37.0	297	264.6	8.0	7.2	14.4	14.7	9.8	9.9
		87.6	978	948.9	11.2	75.8	15.1	14.8	9.7	10.4
I-94	Washtenaw County Line to M-39	20.7	271	291.3	13.1	14.1	14.9	16.1	7.8	9.1
	M-39 to I-75	9.0	239	273.0	26.6	30.3	12.3	11.8	9.2	9.9
	I-75 to I-696	10.0	283	274.4	28.3	27.4	12.5	14.1	9.4	10.3
	I-696 to St. Clair County Line	21.0	163	141.9	7.8	6.8	17.2	17.8	7.7	8.2
		60.7	956	980.6	15.7	113.1	13.4	14.1	8.6	9.5
I-96	Livingston County Line to I-275/I-696	11.0	126	124.7	11.5	11.3	16.8	18.5	9.1	9.0
	I-275/M-14 to M-39	12.0	177	194.9	14.8	16.2	21.6	15.6	9.3	9.3
	M-39 to I-75	11.0	276	291.7	25.1	26.5	12.4	12.2	9.2	9.6
		34.0	579	611.3	17.0	125.9	15.9	14.4	9.2	9.4
I-275	I-96/I-696 to M-14/I-96	8.0	111	107.1	13.9	13.4	19.1	17.0	7.8	8.4
	M-14/I-96 to I-94	12.0	129	132.7	10.8	11.1	12.7	15.2	9.8	8.9
	I-94 to I-75	17.5	67	59.7	3.8	3.4	15.7	16.7	6.8	7.8
		37.5	307	299.6	8.2	55.9	15.3	16.0	8.4	8.5
I-696	I-96/I-275 to M-10	9.3	119	145.7	12.8	15.7	16.9	16.9	8.3	9.0
	M-10 to I-75	9.0	110	123.4	12.2	13.7	14.4	13.5	10.4	10.5
	I-75 to I-94	10.4	212	182.4	20.4	17.5	10.3	13.1	9.2	10.1
		28.7	441	451.6	15.4	110.1	13.2	14.3	9.2	9.9
M-59 (Veterans)		24.0	31	38.0	1.3	1.6	27.5	24.1	8.6	8.6
I-375		1.2	5	4.7	4.2	3.9	11.0	14.9	11.2	7.2
M-10 (Lodge)		17.9	333	319.3	18.6	17.8	11.0	11.8	10.3	10.1
M-14		6.4	50	53.4	7.8	8.3	15.1	17.7	8.5	9.0
M-39 (Southfield)		14.2	162	252.1	11.4	17.8	20.9	12.6	9.0	10.8
M-5 (Grand River)		10.3	18	29.9	1.7	2.9		19.4	6.4	7.8
M-8 (Davison)		2.2	28	27.1	12.7	12.3	9.3	10.4	8.3	12.1
Total		324.7	3,888	4,016.4						

Unique DMS Messages by Type



* Airport, Amber Alert, Border Crossing, Location Specific, Safety, and Travel Time Unique Messages
* March 2011 data averaged from past years due to system outage

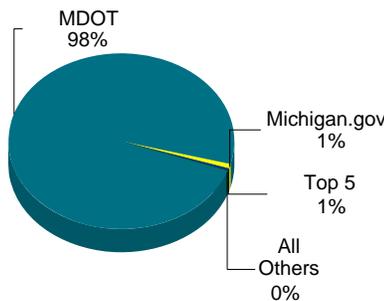
Mi Drive Web Site April Daily Page Views



Referring Site Requests to Mi Drive Web Site in April



In **April**, 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://www.tv20detroit.com/

On an average day in **April**, the Mi Drive Web site received the most activity between **3 and 4 p.m.**

Incident Communication Accuracy



Weekend DMS Snapshot Review	April 2011	March 2011	April 2010
All Incident Messages	100%	100%	100%
High-Impact DMS Messages	April 2011	March 2011	April 2010
All High-Impact Messages	100%	100%	100%
Freeway Closure Messages	100%	100%	100%
Lane Closure Messages	100%	100%	100%
Ramp Closure Messages	100%	100%	100%
Other Communication	April 2011	March 2011	April 2010
Advisory Text Messages	93%	90%	93%
Web Site Incident Postings	100%	97%	100%

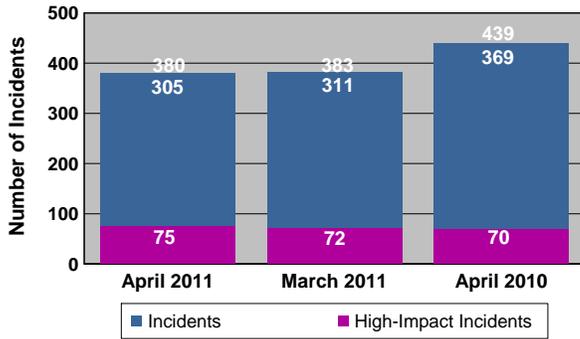
Most Utilized DMS



1. I-75 SB at State Fair
2. I-96 EB Local at Evergreen
3. M-39 NB at Puritan
4. I-75 NB at Clay
5. I-94 WB at 10 Mile



Total Number of Incidents



High-Impact Incident Activity



	April 2011	March 2011	April 2010
Freeway Closures All Lanes Closed	11	19	13
Lane Closures Only One Lane Open	57	39	49
Ramp Closures Freeway-to-Freeway	7	14	8
Total	75	72	70

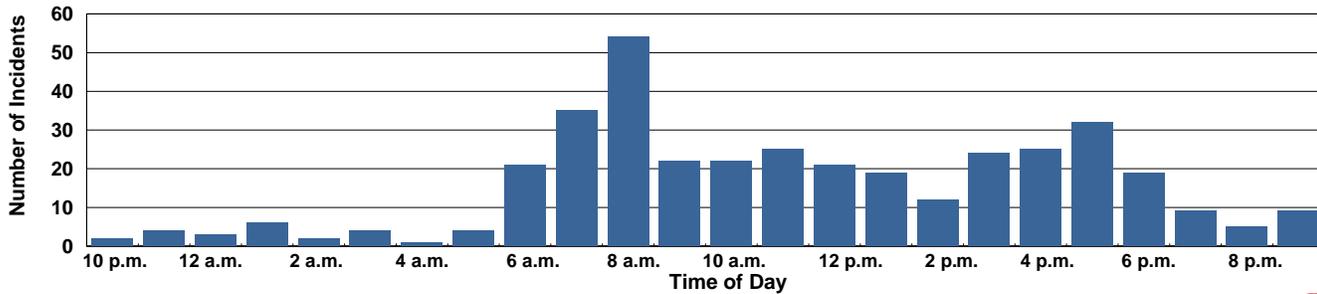
High-impact incidents account for **20%** of the total incidents in April.

Total Incidents by Roadway

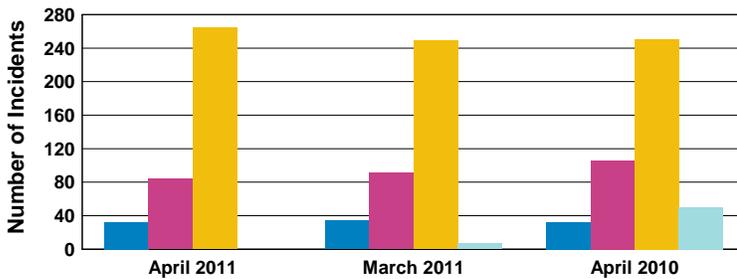


Freeway	April 2011	March 2011	April 2010
I-75 (CHRYSLER/FISHER)	107	84	106
I-94 (FORD)	70	74	105
I-696 (REUTHER)	72	74	70
I-96 (JEFFRIES)	59	65	52
M-10 (LODGE)	24	22	37
M-39 (SOUTHFIELD)	15	34	32
I-275	33	30	33
I-375	0	0	4
Total	380	383	439

Total Incidents per Hour

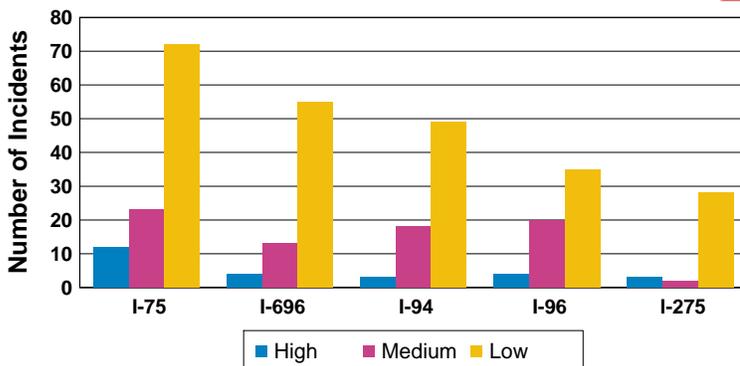


Total Incident Severity/Duration by Month

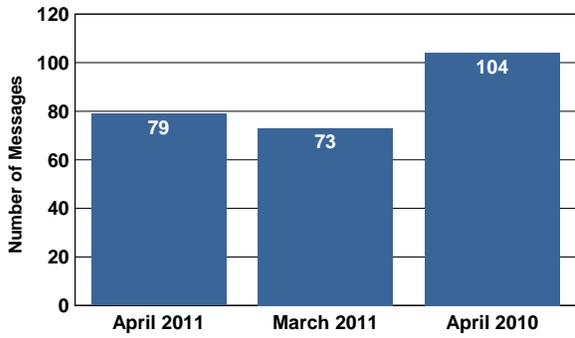


- Single-lane closures equal to 90+ minutes, partial closures (more than one lane, but not all) equal to 45+ minutes, or total closures (all lanes) 20+ minutes
- Shoulder closures equal to 90+ minutes, single-lane closures between 20 and 89 minutes, partial closures (more than one lane but not all) between 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

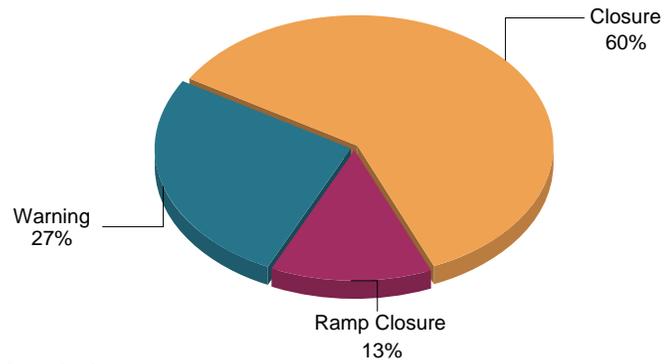
Severity/Duration by Top 5 Freeways



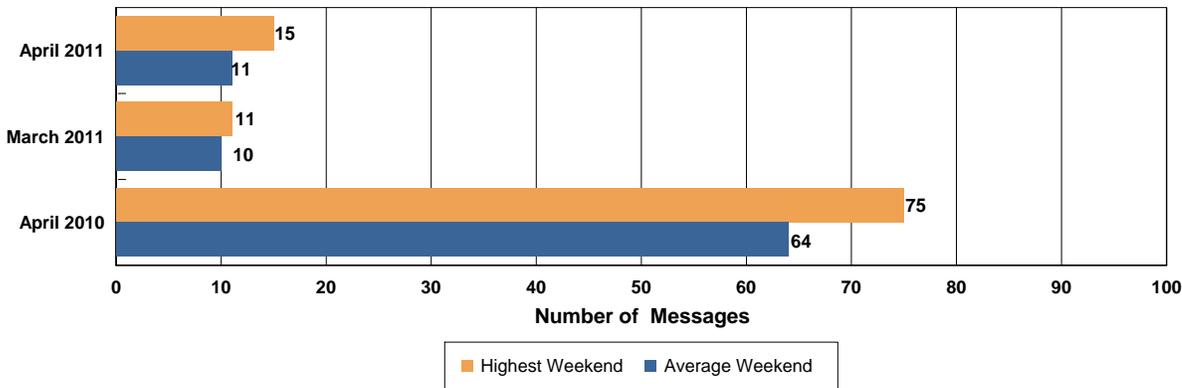
Unique Construction Messages



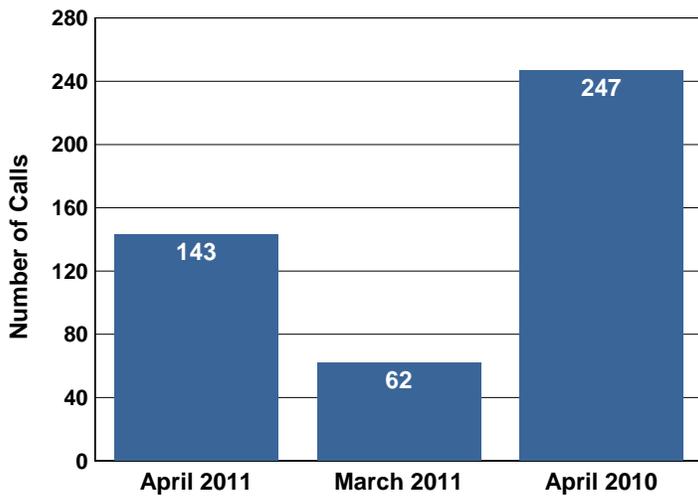
Highest Weekend Unique Construction Messages



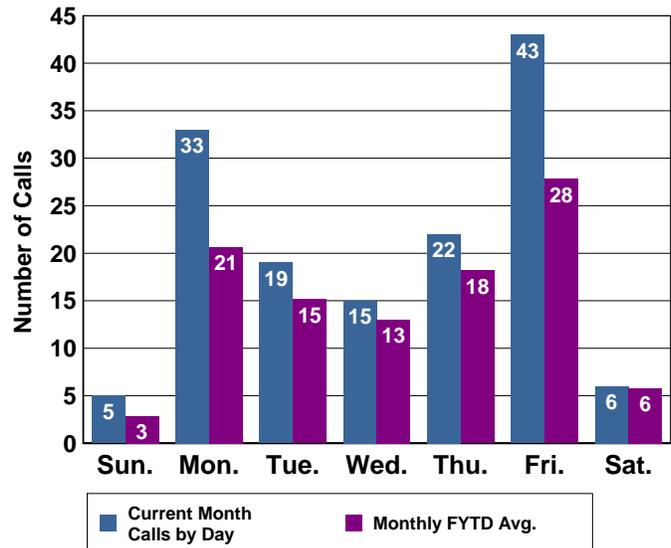
Weekend Construction DMS Message Activity



Total Construction Calls per Month



Construction Calls by Day



Construction Activity



DMS Availability

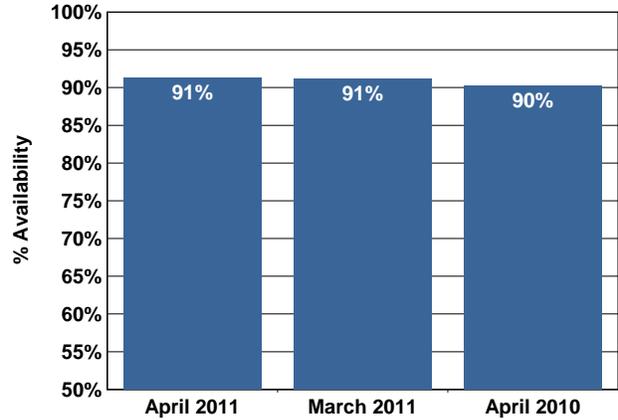
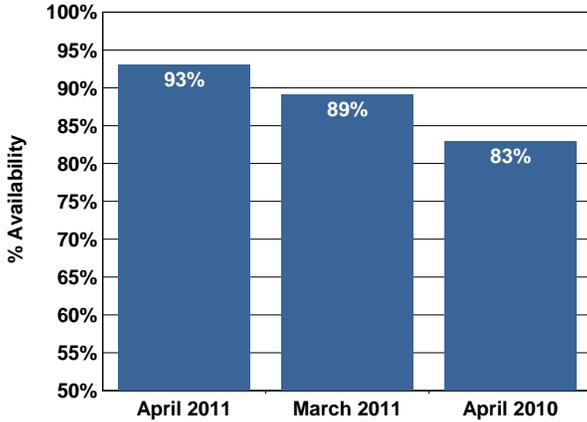


CCTV Camera Availability



	April 2011	March 2011	April 2010
Available	64	61	57
Not Available	5	8	12
Total	69	69	69

	April 2011	March 2011	April 2010
Available	155	155	167
Not Available	15	15	18
Total	170	170	185



Equipment Upgrades



Equipment Type	Maintenance Activity
CCTV	
---	-
TOTAL	0
DMS	
I-75 at 13 Mile	Traffic Control
I-696 at Farmington	Traffic Control
TOTAL	2
Hub/Node Tower	
Bay Region	Cell Modem Installation
TOTAL	1

Work Order Processing

