

Michigan Intelligent Transportation Systems Center

Serving Motorists on Southeast Michigan Freeways

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

January 2010



Matt Smith, P.E., P.T.O.E.
18101 W. Nine Mile Road
Southfield, MI 48075
SmithMatt@michigan.gov

Sandra Montes, P.E.
1050 6th Street
Detroit, MI 48226
MontesS@michigan.gov

In the Spotlight



Sample INCIDENT Message

**LEFT LANE BLOCKED
I-75 SOUTH
AT I-94**

Sample CONSTRUCTION Message

**LEFT LANE CLOSED
I-75 SOUTH
AT I-94**

Changeable Message Signs (CMS) are an integral part in informing motorists of incidents blocking or construction lane closures on the freeway. The Federal Highway Administration (FHWA) has established guidelines and regulations pertaining to the use of and information displayed on a CMS. The Michigan Department of Transportation has adopted these guidelines. The Michigan Intelligent Transportation Systems (MITS) Center utilizes CMS messages to communicate travel times, traffic advisories, emergency broadcasts, safety alerts, and AMBER Alerts. Messages are to be legible using only capital letters and a maximum of three lines per message with no more than two messages rotating at one time. Messages relating to lane closures should answer the following questions: What happened? Where? And, if applicable: What is advised?

Compiled by:

URS

Summary

Data Key

Jan. 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.

3,806

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.

4,953

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.

186,724

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.

512

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



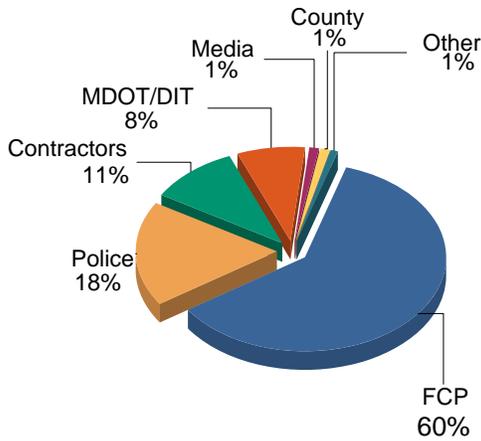
System Availability

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: 85%

CCTV: 92%

Calls by Type



Total Calls: 4,953

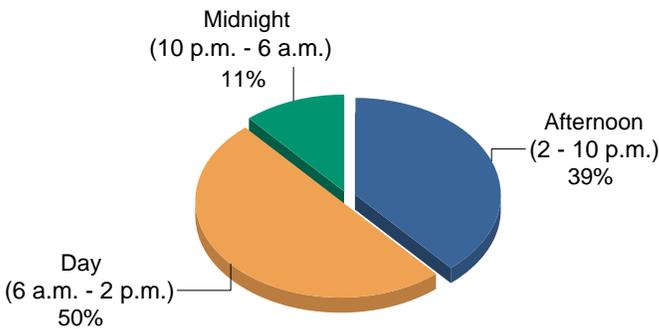
Agency	No. of Calls
FCP	2,996
Contractors	517
City	6
County	51
Federal	0
Fire	0
Police	875
Border	4
MDOT/DIT	375
Media	56
Special Events	27
Transit	1
State	0
Parking	1
Airport	0
Animals	0
OTHER	44
Total	4,953

MDOT/DIT	Total
Taylor TSC	168
Oakland TSC	47
MITS Center	39
Auburn Hills Garage	30
Detroit Maintenance Garage	26
Answering Service	17
Macomb TSC	13
Metro Region Office	12
DIT	11
Detroit TSC	7
Brighton TSC	3
Port Huron TSC	2
Total	375



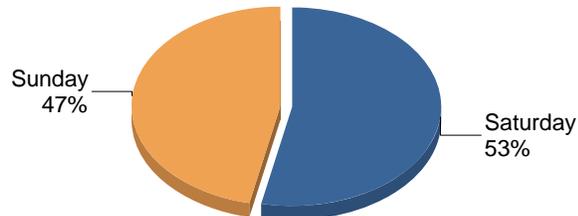
Control Room

Calls by Shift



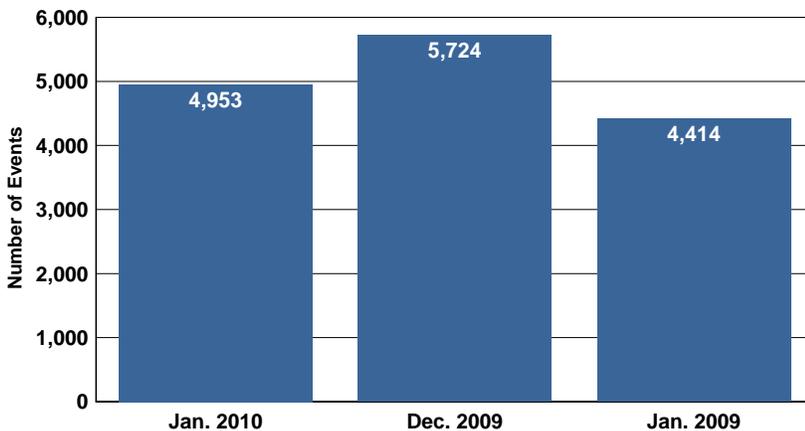
Average Number of Calls per Weekday: 184

Calls by Weekend Day



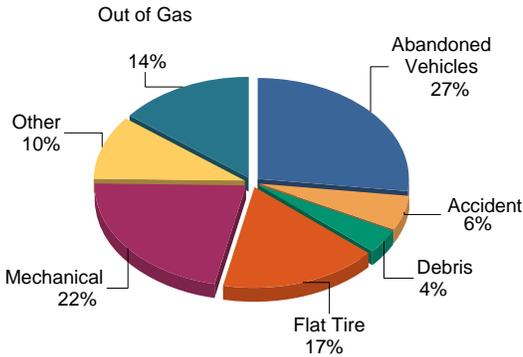
Average Number of Calls per Weekend: 221

Monthly Event History



FCP Assist Type

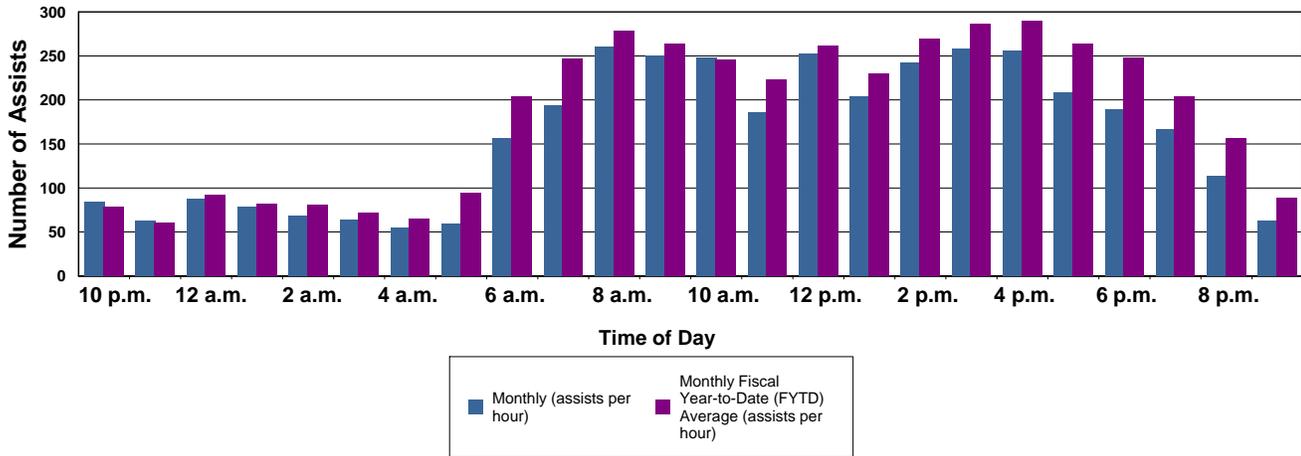
FCP Random Fact & Monthly Totals



FCP provided cellular assistance 30 times during January 2010, up from 24 times in January 2009. On average, allowing motorists an opportunity to use a cell phone accounts for less than 1 percent of the total assists performed in a month.

January Total: 3,806
2,732 Assists
1,074 Abandoned Vehicle Stops

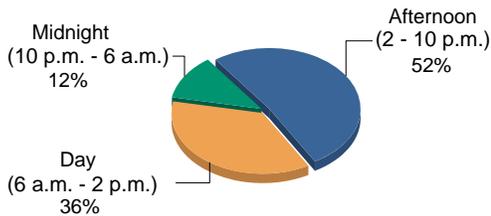
FCP Assists by Time of Day



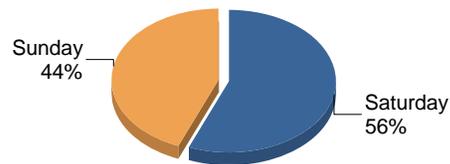
FCP Dispatches by Weekday Shift



FCP Dispatches by Weekend Day

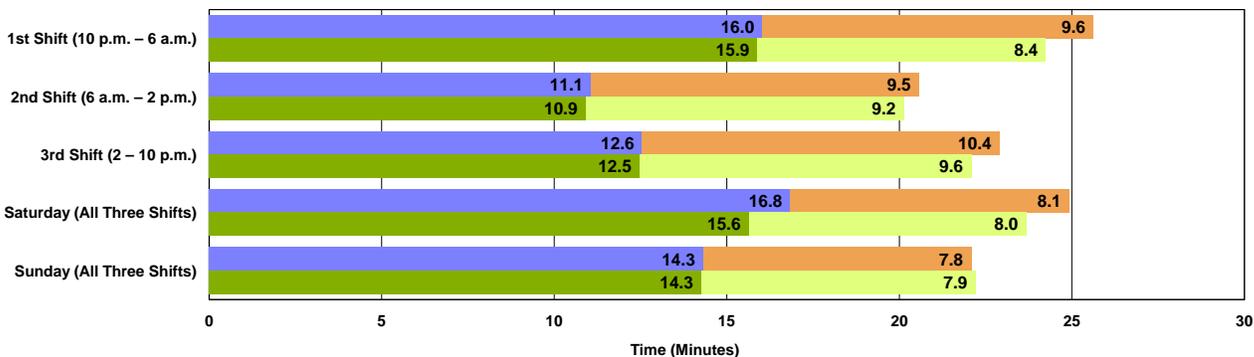


Average Number of Dispatches per Weekday: 27



Average Number of Dispatches per Weekend: 45

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 (Light Green)



FCP Service Area and Assists per Mile



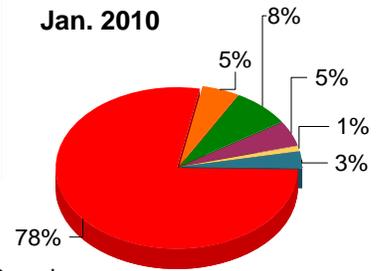
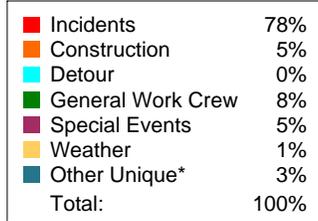
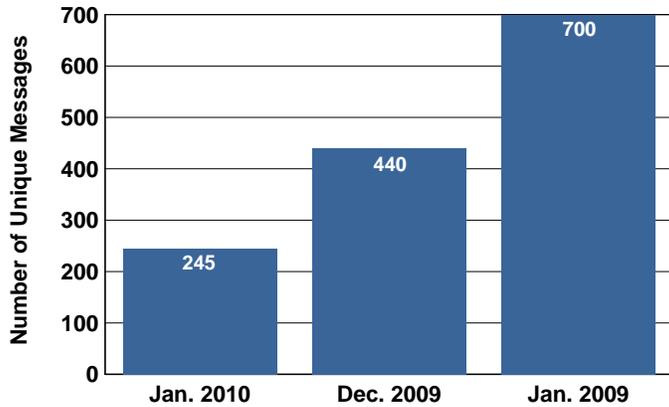
Motorist Quote of the Month:

"I just wanted to comment on the MDOT Courtesy Patrol and thank you for the service. Last night, Jan. 4 around 6 p.m., I had a flat tire along I-75. One of your drivers stopped, made sure a tow truck was on the way and waited a few minutes until the truck arrived. I want to compliment your service and the courteous driver that assisted me. I am only sorry that I did not catch his name so that I could let you know what a nice job that he did. Thank you again for the service and my compliments to your driver."

Courtesy Patrol

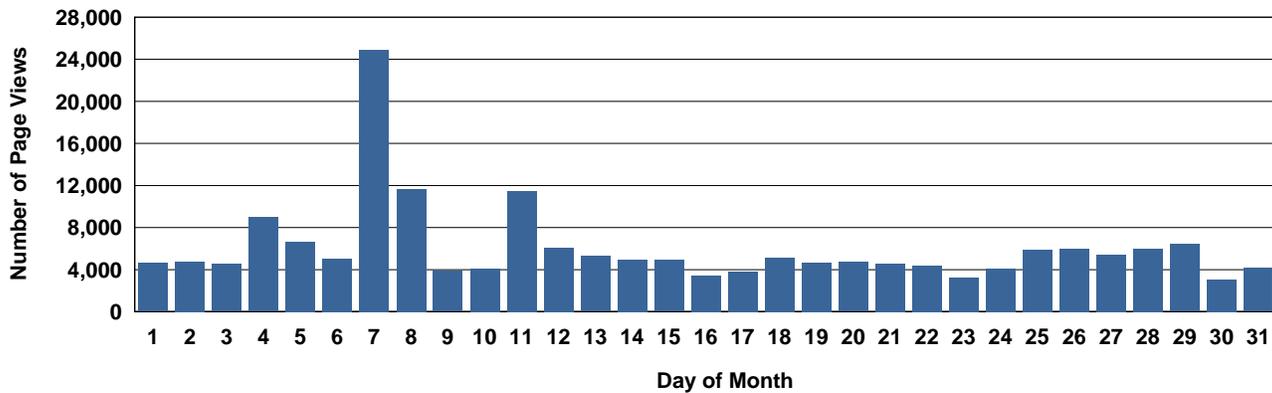
Freeway Segment	TOTAL ASSISTS (miles)	TOTAL ASSISTS		ASSIST DENSITY		AVERAGE RESPONSE TIME (min)		AVERAGE CLEAR TIME (min)	
		Jan. 2010	FYTD Avg.	Jan. 2010	FYTD Avg.	Jan. 2010	FYTD Avg.	Jan. 2010	FYTD Avg.
I-75									
Oakland County Line to I-696	37.0	341	330.8	9.2	8.9	15.9	16.8	11.2	10.4
I-696 to I-94	8.0	224	268.0	28.0	33.5	10.9	9.7	12.1	11.2
I-94 to I-96	5.6	65	74.5	11.6	13.3	15.0	11.3	8.3	11.5
I-96 to I-275	37.0	221	258.8	6.0	7.0	14.6	13.9	8.4	8.6
Total I-75	87.6	851	932.0	9.7	42.6	14.0	13.0	10.5	10.2
I-94									
Washtenaw County Line to M-39	20.7	269	309.3	13.0	14.9	14.3	12.7	9.0	8.7
M-39 to I-75	9.0	240	270.3	26.7	30.0	11.0	10.4	8.5	9.2
I-75 to I-696	10.0	240	301.8	24.0	30.2	13.6	12.7	9.7	9.4
I-696 to St. Clair County Line	21.0	203	226.0	9.7	10.8	15.7	12.7	10.2	8.2
Total I-94	60.7	952	1,107.3	15.7	73.0	13.3	12.0	9.3	8.9
I-96									
Livingston County Line to I-275/I-696	11.0	80	111.0	7.3	10.1	15.6	19.2	9.0	8.0
I-275/M-14 to M-39	12.0	213	246.0	17.8	20.5	13.2	12.6	8.8	8.6
M-39 to I-75	11.0	257	323.8	23.4	29.4	10.7	11.3	8.8	7.9
Total I-96	34.0	550	680.8	16.2	80.1	12.7	13.7	8.8	8.2
I-275									
I-96/I-696 to M-14/I-96	8.0	100	98.8	12.5	12.3	16.8	16.9	8.6	9.5
M-14/I-96 to I-94	12.0	139	152.3	11.6	12.7	15.4	14.2	8.4	7.9
I-94 to I-75	17.5	83	78.0	4.7	4.5	12.9	14.8	9.3	8.0
Total I-275	37.5	322	329.0	8.6	35.1	15.5	15.2	8.7	8.4
I-696									
I-96/I-275 to M-10	9.3	117	140.8	12.6	15.1	14.6	15.0	8.9	7.9
M-10 to I-75	9.0	131	151.8	14.6	16.9	14.0	13.2	9.4	9.0
I-75 to I-94	10.4	200	205.0	19.2	19.7	11.8	11.7	7.6	7.9
Total I-696	28.7	448	497.5	15.6	69.3	13.3	13.0	8.5	8.2
M-59 (Veterans)	24.0	19	26.3	0.8	1.1	7.0	7.0	7.9	10.8
I-375	1.2	5	8.0	4.2	6.7	10.7	10.3	9.2	10.5
M-10 (Lodge)	17.9	282	380.0	15.8	21.2	10.5	11.3	9.2	9.5
M-14	6.4	56	64.8	8.8	10.1	15.6	15.3	9.2	8.4
M-39 (Southfield)	14.2	242	267.5	17.0	18.8	14.1	12.6	10.5	9.7
M-5 (Grand River)	10.3	35	36.3	3.4	3.5	15.2	14.9	8.2	6.7
M-8 (Davison)	2.2	44	53.0	20.0	24.1	5.6	6.8	9.8	8.9
Total	324.7	3,806	4,382.3						

Unique DMS Messages by Type



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

Mi Drive Web Site January Daily Page Views



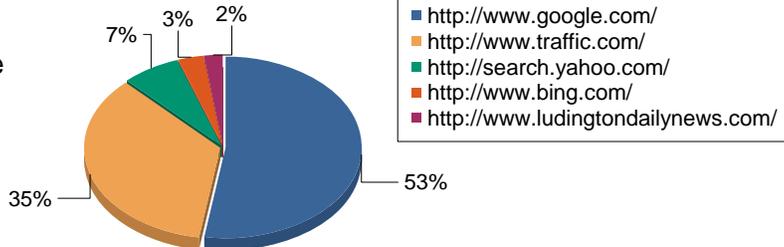
Traveler Information



Top 5 Non-Michigan.gov Site Requests to Mi Drive Web Site in January



In **January**, the Mi Drive Web site experienced the most activity on **Thursdays**.



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

Michigan.gov requests are #1 overall with 454,828 hits.

Incident Communication Accuracy



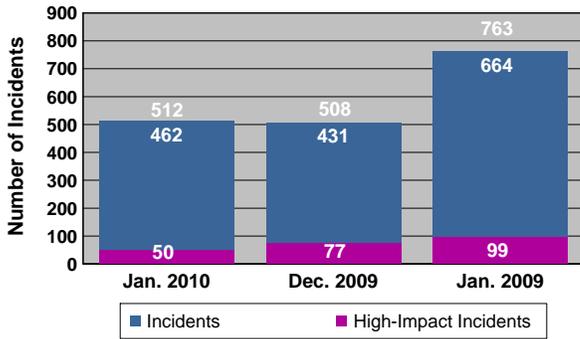
Weekend DMS Snapshot Review	Jan. 2010	Dec. 2009	Jan. 2009
All Incident Messages	100%	100%	100%
High-Impact DMS Messages	Jan. 2010	Dec. 2009	Jan. 2009
All High-Impact Messages	100%	100%	100%
Freeway Closure Messages	100%	100%	100%
Lane Closure Messages	100%	100%	100%
Ramp Closure Messages	100%	100%	100%
Other Communication	Jan. 2010	Dec. 2009	Jan. 2009
Advisory Text Messages	94%	95%	94%
Web Site Incident Postings	96%	96%	94%

Most Utilized DMS



1. I-94 EB at Second
2. M-10 NB at Porter
3. M-10 NB at M. L. King
4. I-94 WB at Beaubien
5. I-696 WB at Ryan

Total Number of Incidents



High-Impact Incident Activity



	Jan. 2010	Dec. 2009	Jan. 2009
Freeway Closures All Lanes Closed	11	19	39
Lane Closures Only One Lane Open	36	51	46
Ramp Closures Freeway-to-Freeway	3	7	14
Total	50	77	99

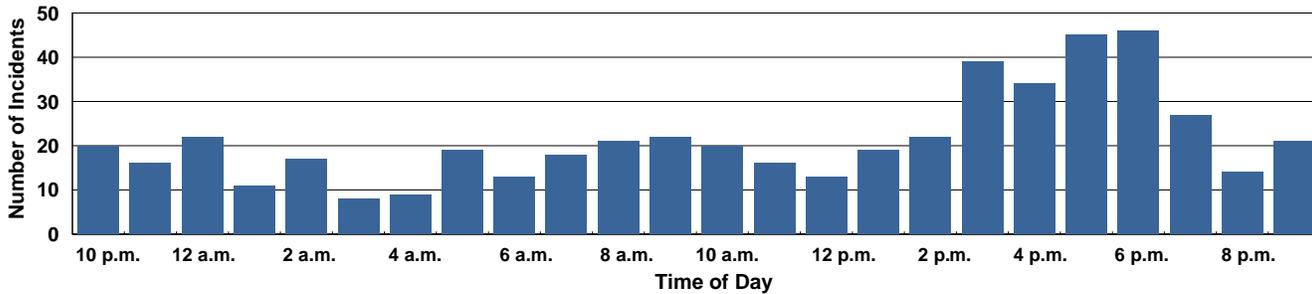
High-impact incidents account for **10%** of the total incidents in January.

Total Incidents by Roadway

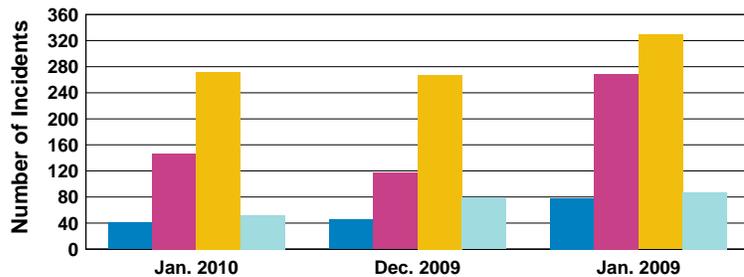


Freeway	Jan. 2010	Dec. 2009	Jan. 2009
I-75 (CHRYSLER/FISHER)	142	150	177
I-94 (FORD)	118	126	163
I-696 (REUTHER)	70	64	144
I-96 (JEFFRIES)	59	53	70
M-10 (LODGE)	35	34	49
M-39 (SOUTHFIELD)	49	31	86
I-275	38	48	74
I-375	1	1	0
M-59	0	1	0
Total	512	508	763

Total Incidents per Hour

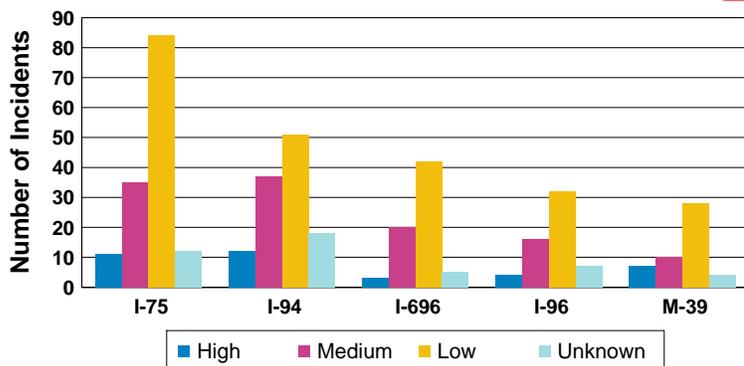


Total Incident Severity/Duration by Month

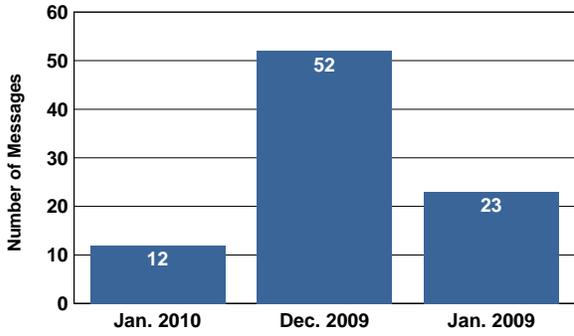


- Single-lane closures equal to 90+ minutes, partial closures (more than one lane, but not all) equal to 45+ minutes, or total closures (all lanes) 20+ minutes
- Shoulder closures equal to 90+ minutes, single-lane closures between 20 and 89 minutes, partial closures (more than one lane but not all) between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

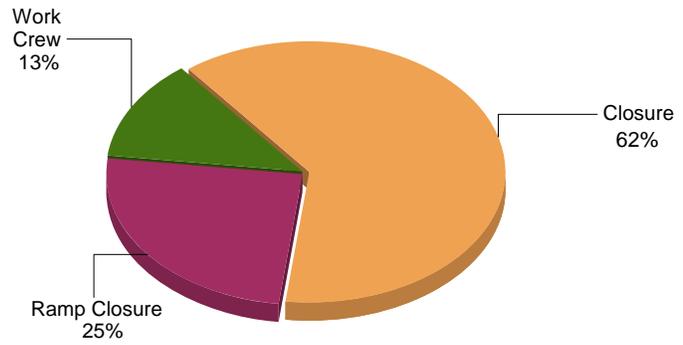
Severity/Duration by Top 5 Freeways



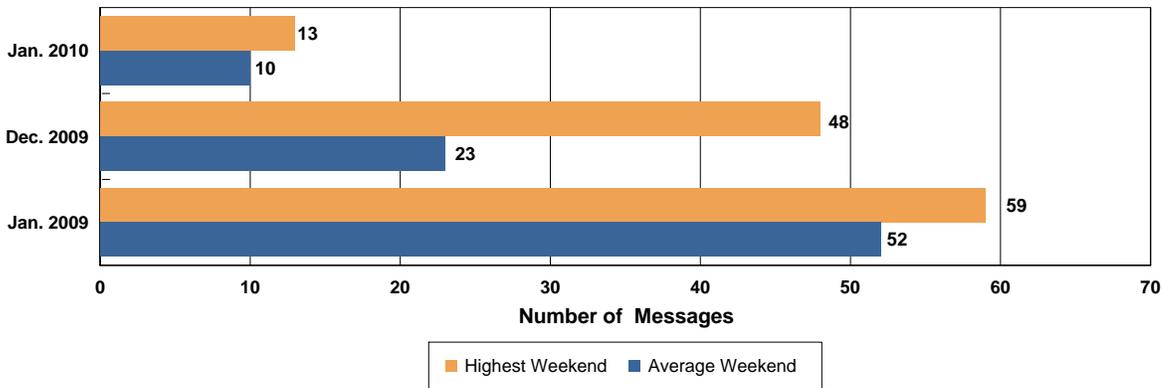
Unique Construction Messages



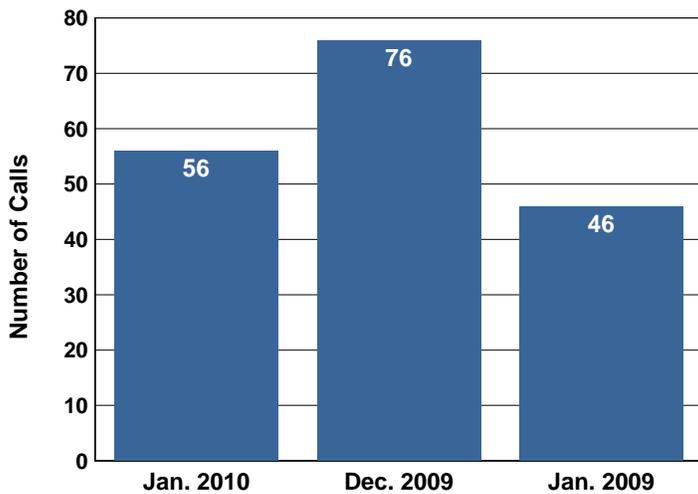
Highest Weekend Unique Construction Messages



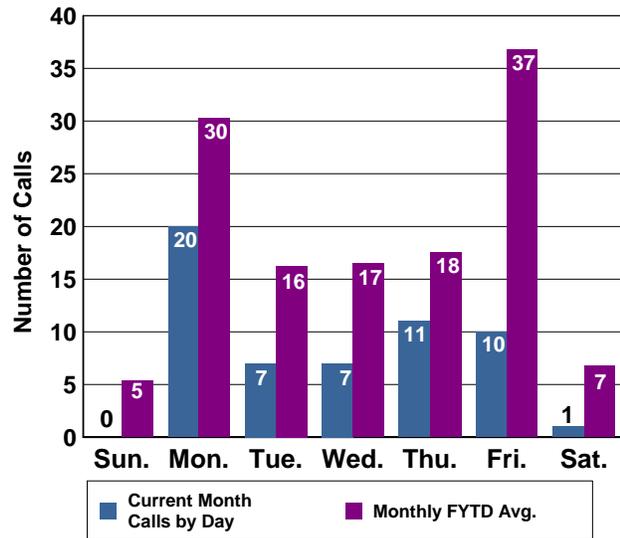
Weekend Construction DMS Message Activity



Total Construction Calls per Month



Construction Calls by Day



Construction Activity



DMS Availability

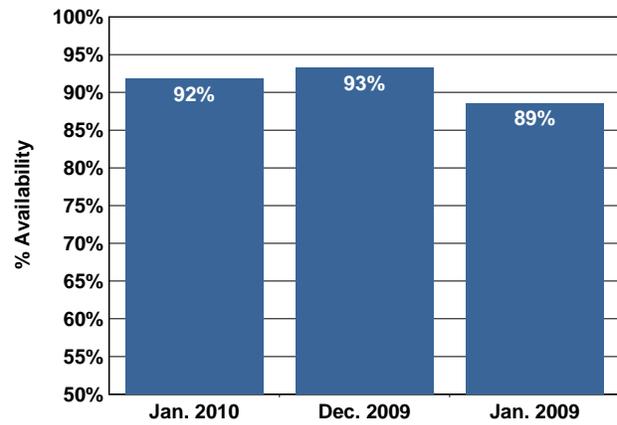
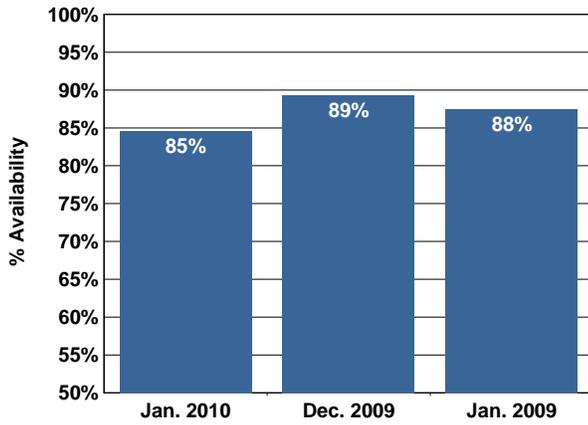


CCTV Camera Availability



	Jan. 2010	Dec. 2009	Jan. 2009
Available	56	59	63
Not Available	10	7	9
Total	66	66	72

	Jan. 2010	Dec. 2009	Jan. 2009
Available	151	152	147
Not Available	14	12	19
Total	164	164	166



Equipment Upgrades



Equipment Type	Maintenance Activity
CCTV	
-----	-
TOTAL	0
DMS	
-----	-
TOTAL	0

