

West Michigan Traffic Management Center

Serving Motorists on West Michigan Freeways

www.michigan.gov/its

www.michigan.gov/drive

August 2010



Suzette Peplinski, P.E.
1420 Front Avenue NW
Grand Rapids, MI 49504
PeplinskiS@michigan.gov

West Michigan TMC Control Room
E-mail: MDOT-GR-TRAFFOPS@michigan.gov
Main: 616-451-8329
Cell: 616-262-6066
Fax: 616-774-9101

In the Spotlight



Operators in the WMTMC began using a delay cost model to estimate the lost-time cost for high-impact crashes that occur in the WMTMC coverage area. The model analyzes the capacity of the freeway both with and without the incident, and calculates the vehicle-hours of delay and costs based on the difference between demand and the reduced capacity of the freeway. The model requires very little information and provides a simple way of comparing the impact of one incident against another.

To illustrate the delay cost model results, three crashes were evaluated. On Aug. 19, a three-car crash closed westbound I-96 east of US-131 for approximately 30 minutes and the left lane remained closed for an additional 50 minutes. The estimated lost-time cost of this crash was approximately \$27,000. On Aug. 30, a boat fell off a trailer and blocked two of the three lanes of southbound US-131 for approximately 45 minutes, resulting in an estimated lost-time cost of approximately \$20,000. And on Aug. 31, the second trailer of a gravel hauler lost its load on northbound US-131 just north of the I-96 split, blocking one of the two lanes for approximately three hours. The estimated lost-time cost was approximately \$155,000.

In other news, the new video wall in the WMTMC became operational during August and provides control room operators with approximately 150 square feet of additional viewing space for monitoring the freeways in Grand Rapids and Grand Haven. The video wall is supplemented by four flat-panel television monitors.

Compiled by:
URS

Control Room Hours of Operation

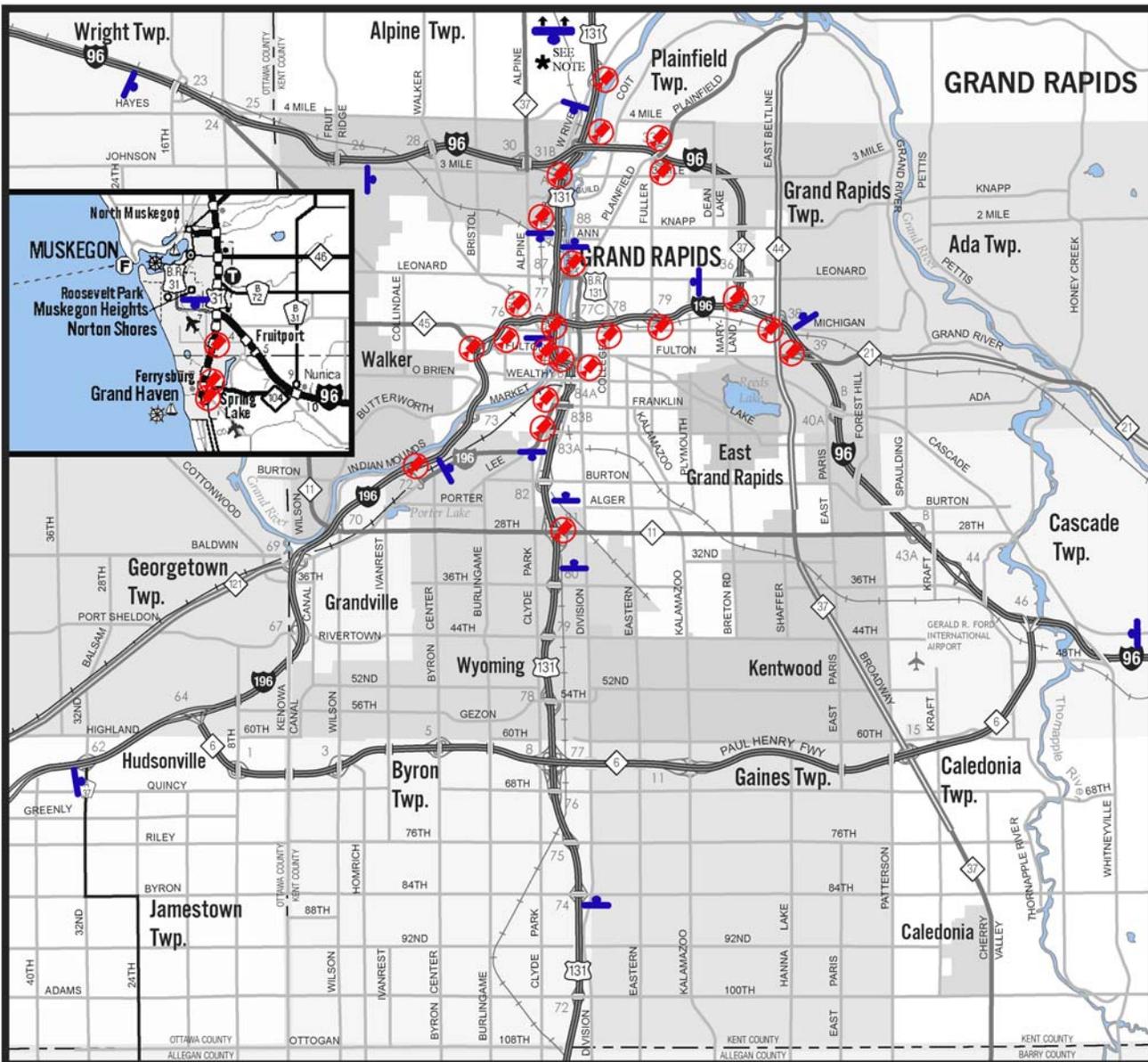
Time Period	Days	Hours
October - April	Monday - Friday	6 a.m. - 8 p.m.
	Saturday - Sunday	As needed
May - September	Monday - Thursday	6 a.m. - 8 p.m.
	Friday	6 a.m. - 9 p.m.
	Saturday	Noon - 6 p.m.
	Sunday	4 - 8 p.m.
Special Events	All	As needed
Holidays and Holiday Weekends	New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas	As needed

Control Room Contact Information

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PLEASE NOTE:
 The following report is limited to data collected within the ITS device coverage area, during the hours of operation for the control room.

ITS Device Locations and Coverage Area



* DMS on South US-131 at Rockford Rest Area

Key:		Closed-circuit Television Camera
		Dynamic Message Sign

Summary

Data Key

August 2010

Communications Activity



Operators log all incoming and outgoing control room communications, engaging various incident responders and stakeholders.

Total Communication

Calls: 217
E-mails: 127

Quality Assurance/Quality Control



Quality assurance and quality control audit of format and content for incident notification communication and media traffic reporting.

Incident Notification

Format Correct 100.0%
Content Correct 94.1%

Unplanned Incidents



Operators log information about each unplanned incident including date/time, location, traffic impact, duration, and associated traveler information.

Total Incidents

90

Construction Activity



Operators maintain a list of ongoing construction projects and contacts for these projects. This activity also includes maintenance operations.

Incidents Occurring in Construction Zones

1

Daily Shift Report



Operators track maintenance issues for all Intelligent Transportation Systems (ITS) equipment, including Closed-circuit Television (CCTV) cameras, Dynamic Message Signs (DMS), Variable Speed Signs (VSS), and Microwave Vehicle Detector Systems (MVDS).

System Availability

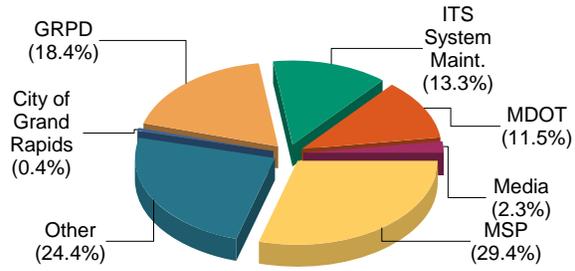
CCTV: 79%
DMS: 95%
VSS: 98%
MVDS: 80%

Calls and E-mails by Type



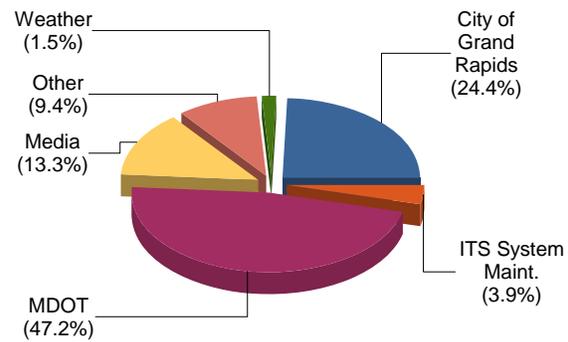
Agency	Calls			E-mails		
	In	Out	Total	In	Out	Total
City of Grand Rapids	1	0	1	31	0	31
City of Wyoming	0	0	0	0	0	0
Grand Rapids Police Department	0	40	40	0	0	0
ITS System Maintenance	20	9	29	4	1	5
Kent County Road Commission	1	2	3	0	0	0
Kent County Sheriff	0	0	0	0	0	0
MDOT, Construction	11	6	17	33	0	33
MDOT, Maintenance	2	2	4	21	0	21
MDOT, Other	2	0	2	0	0	0
MDOT, Traffic/ITS	1	1	2	6	0	6
Media	3	2	5	17	0	17
Michigan State Police	6	58	64	0	0	0
Other	30	20	50	9	3	12
Weather	0	0	0	2	0	2
Month Total	77	140	217	123	4	127

Calls by Type



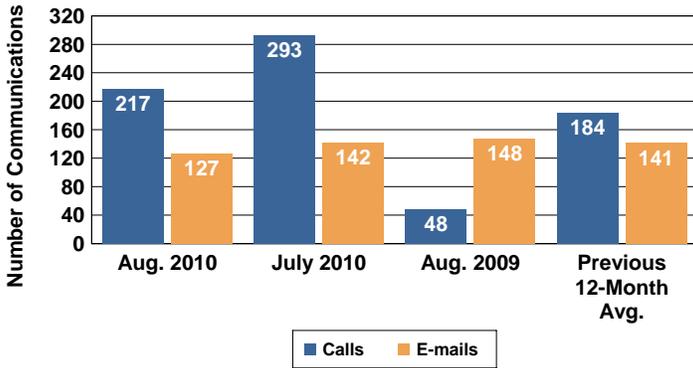
Total Calls: 217

E-mails by Type

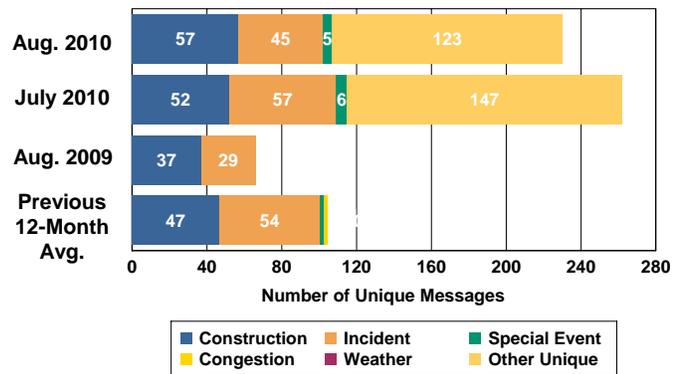


Total E-mails: 127

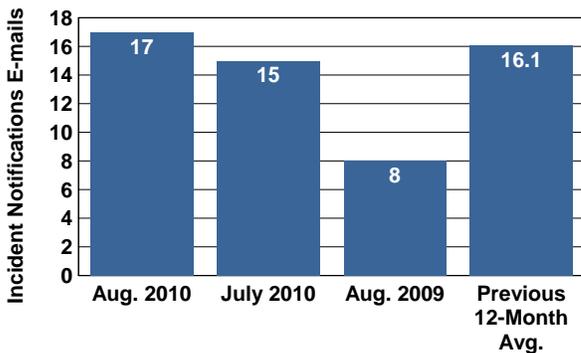
Communication History



DMS and VSS Messages by Type



Incident Notification* History



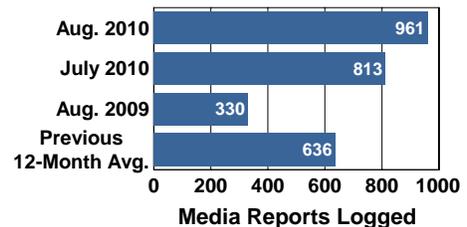
Incident Notification* Communication Accuracy



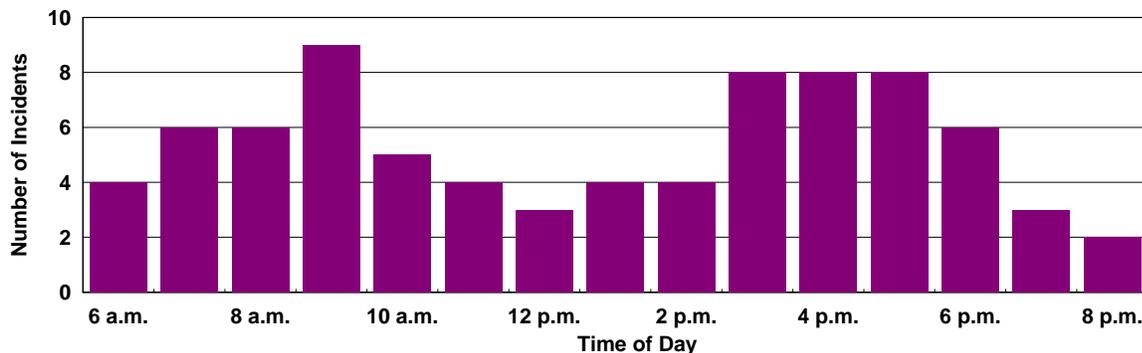
	Aug. 2010	July 2010	Aug. 2009	Previous 12 Months
Format Correct	100.0%	100.0%	100.0%	96.4%
Content Correct	94.1%	100.0%	100.0%	93.8%

* Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or greater. To subscribe to this list, please send an e-mail to MDOT-GR-TRAFFOPS@michigan.gov.

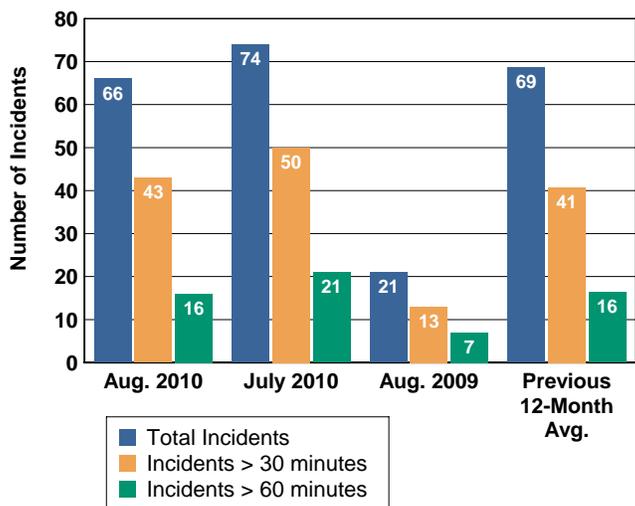
Media Audits



Total of Unplanned Incidents per Weekday Hour

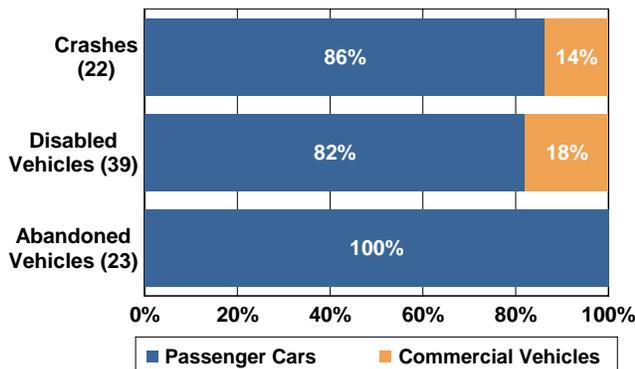


Incident Duration History*



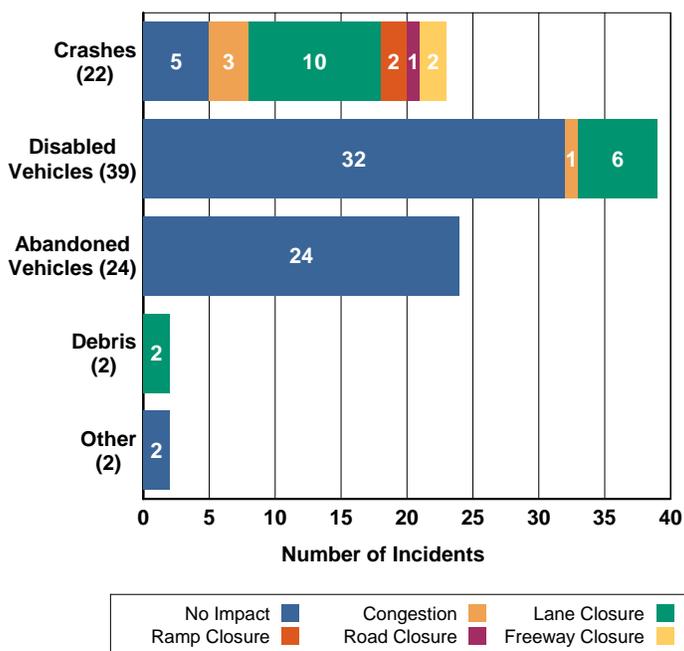
*Incident Duration History excludes abandoned vehicles.

Vehicle Composition of Incidents*

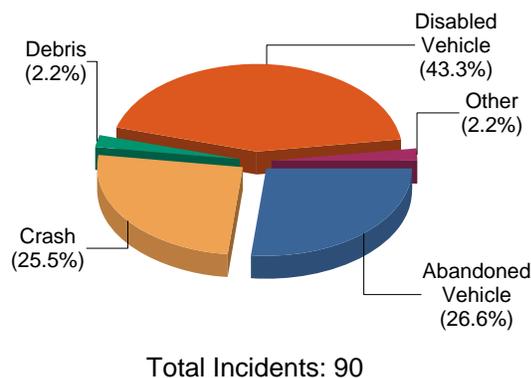


*Vehicle Composition of Incidents excludes incidents where vehicle types were not identified.

Traffic Impacts by Type



Incident Managed by Type



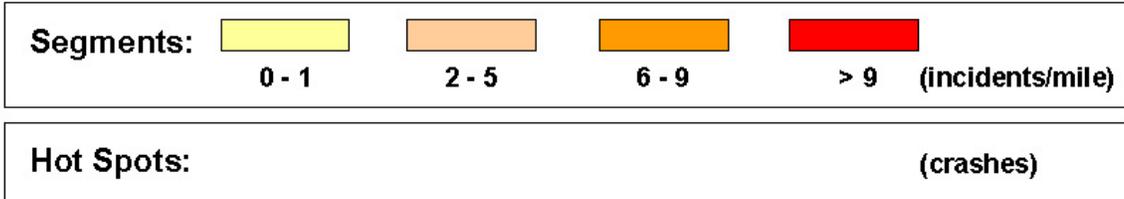
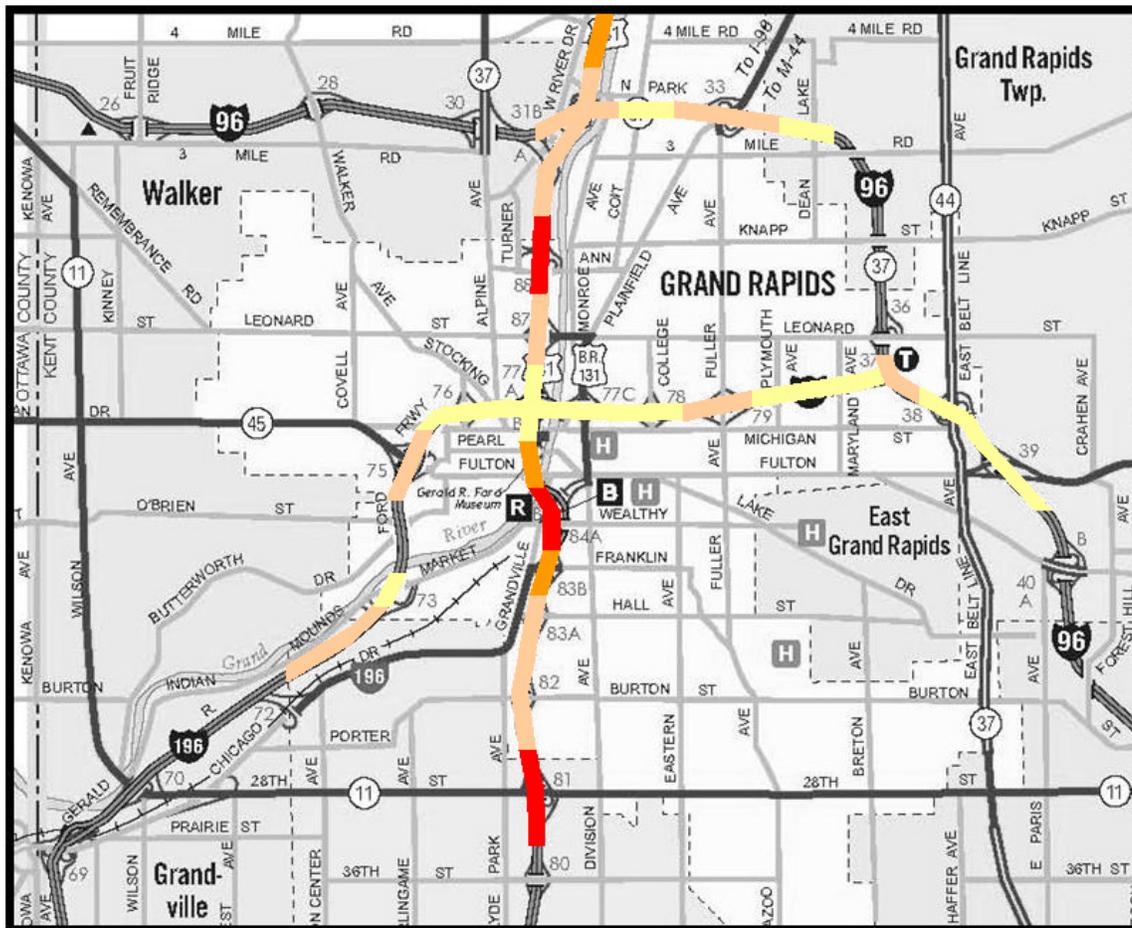
Most Utilized DMS



1. US-131 NB @ 28th St. (35)
2. US-131 NB @ Leonard St. (25)
3. US-131 NB @ 36th St. (20)



Incident Density and Hot Spots Map



Incident Management



High-impact Unplanned Incident Activity*



Incident Impact	Aug. 2010	July 2010	Aug. 2009	Previous 12-Month Avg.
Lane Closure	18	23	10	20.5
Ramp Closure	2	2	1	2.3
Road Closure	1	-	-	0
Freeway Closure	2	1	-	1.5

*High-impact Unplanned Incident Activity includes unplanned incidents resulting in closures.

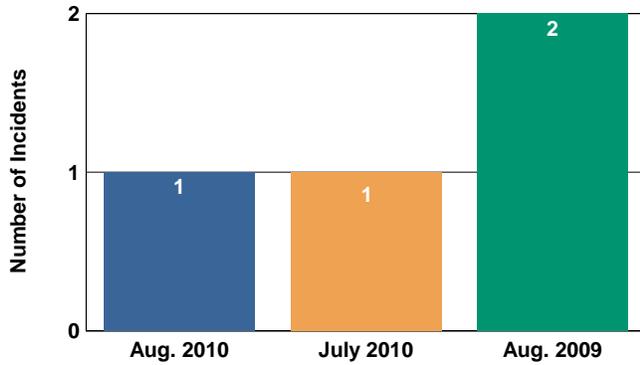
Unplanned Incidents by Roadway



Freeway	Aug. 2010		July 2010		Aug. 2009		Previous 12-Month Avg.	
	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (4.5 mi.)*	9	2.0	15	3.3	1	0.2	5.8	1.3
I-196 (8.5 mi.)*	10	1.2	10	1.2	7	0.8	16.8	2.0
US-131 (11 mi.)*	64	5.8	70	6.4	10	0.9	48.6	4.4
Month Total	83	3.5	95	4.0	18	0.8	71.2	3.0

* Reflects roadway mileage within the current WMTMC camera coverage area.

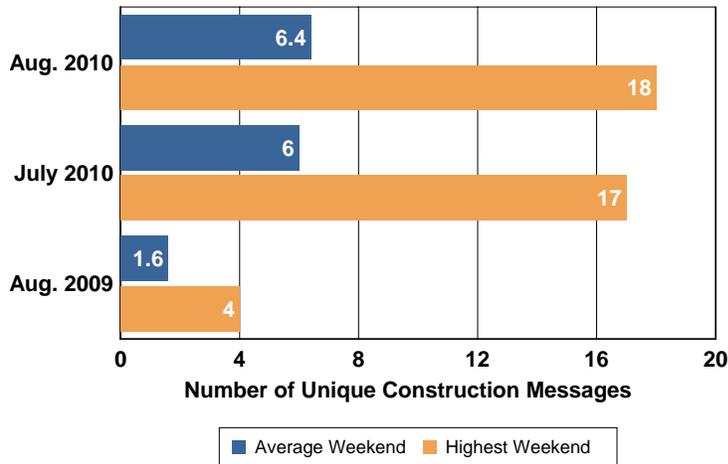
Incidents Occurring in Construction Zones



Construction Zone Incident Details:

During the month of August, there was one crash that was identified by operators within "The Fix on I-196" work zone. On Aug. 2, a three-vehicle crash occurred on eastbound I-196 at Fuller Avenue, resulting in a 25-minute right-lane closure, followed by a 35-minute right-shoulder closure.

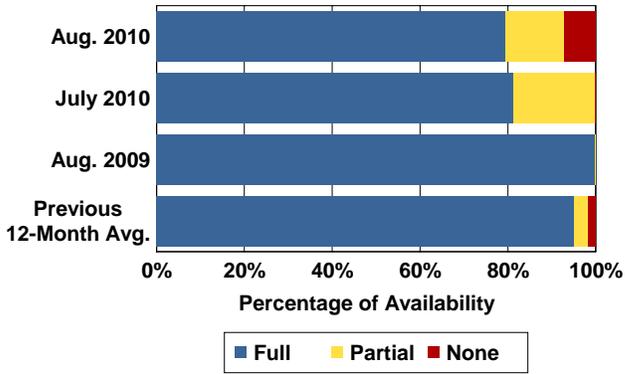
Weekend* Construction DMS Message Activity



* Friday, Saturday and Sunday.



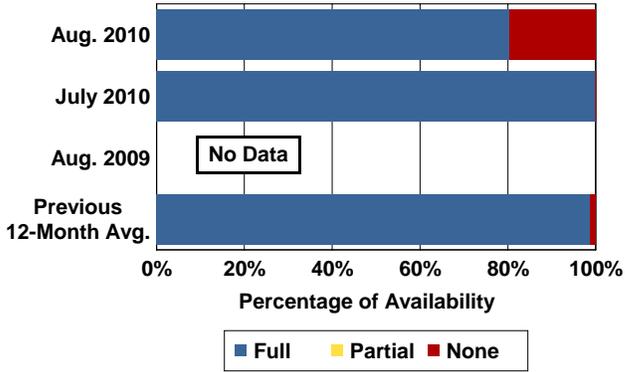
Overall CCTV Camera Availability



Individual CCTV Camera Availability

CCTV Cameras Below 95% Availability			
Location	Full	Partial	None
1. I-196 @ Chicago Dr.	10%	89%	1%
2. I-196 @ Lake Michigan Dr.	10%	89%	1%
3. I-196 @ Lane Ave.	10%	89%	1%
4. I-96 @ M-21 (Fulton St.)	34%	-	66%
5. I-96 Conn. to US-131	35%	34%	31%
6. I-96 EB @ Plainfield Ave.	82%	-	18%
7. I-96 WB @ Plainfield Ave.	82%	-	18%

Overall Detector Availability

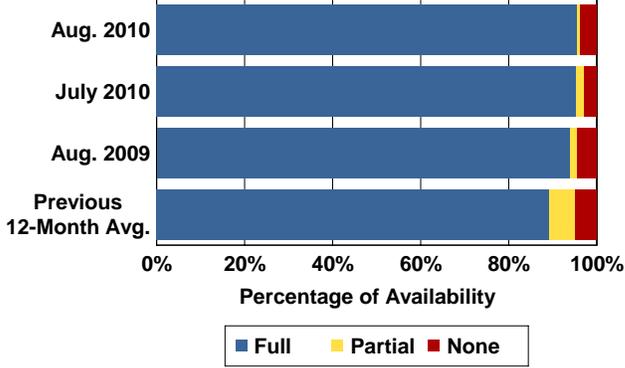


Individual Detector Availability

Vehicle Detectors Below 95% Availability			
Location	Full	Partial	None
1. DS 114N	-	-	100%
2. DS 114S	-	-	100%
3. DS 115	-	-	100%*
4. DS 116	-	-	100%*
5. DS 119	-	-	100%*
6. DS 125	-	-	100%
7. DS 126	-	-	100%
8. DS 105	78%	-	22%
9. DS 120	78%	-	22%
10. DS 123	78%	-	22%
11. DS 124	78%	-	22%

* Detector Sites 115, 116 and 119 were unavailable during August due to construction on I-196.

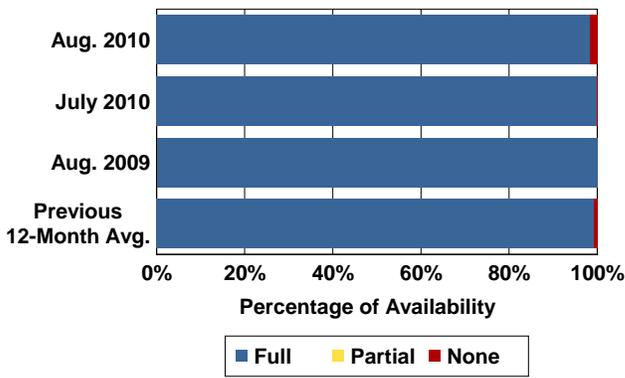
Overall DMS Availability



Individual DMS Availability

DMS Below 95% Availability			
Location	Full	Partial	None
1. I-196 EB @ 32nd Ave.	74%	-	26%
2. I-196 EB @ Chicago Dr.	76%	8%	16%
3. US-131 NB @ 36th St.	88%	2%	10%

Overall VSS Availability



Individual VSS Availability

VSS Below 95% Availability			
Location	Full	Partial	None
None.			

Equipment Maintenance

