

Kansas City
SCOUT MoDOT + KDOT

Annual Report

getting you there



2015



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“Diminished funding for transportation is driving the need to utilize performance-based measurements to deliver optimal results from existing ITS infrastructure and ensure that future expenditures are based on moving Scout forward in an age of rapid technological change.”

A handwritten signature in black ink that reads "Randy Johnson". The signature is fluid and cursive, with the first name "Randy" and last name "Johnson" clearly distinguishable.

Randy Johnson, TMC Manager



When incidents happen in the Metro, motorists can count on Scout to be there.

Serving the Metro

Scout focuses on getting Metro Kansas City drivers where they want to go smoothly and safely.

Launched in 2004, the Missouri and Kansas Departments of Transportation jointly run the program and partner with fire and police departments, local media—and you—to keep our roads safe and drivers on the move.

Scout is responsible for managing more than 300 miles of highway in the Kansas City Metro. We do it with sensors and video cameras from our Lee's Summit Transportation Management Center (TMC).

When slowdowns, incidents, and severe weather occurs, our operators send alerts, contact Emergency Response Operators, and call emergency partners if needed. We also use our freeway message signs to describe the trouble on the highway.

Together, we strive to manage traffic in a way that:

- Improves emergency response to traffic situations.
- Lessens traffic jams by improving rush-hour speeds.
- Increases safety by decreasing the number of rush-hour incidents.

Scout Operations “At a Glance” (2015)

Number of benefits received for every dollar spent on Scout (8:1 Benefit/Cost ratio)	8 – pg. 32
Number of incidents managed by Scout	30,764 – pg. 2
Number of incidents managed by Scout with lane blockage	6,803 – pg. 5
Number of minutes on average that it takes to clear all lanes of traffic following incidents	36 – pg. 6
Number of incidents cleared in less than 30 minutes	3,850 – pg. 6
Number of incidents detected by Scout TMC Operators and Emergency Response	16,558 – pg. 8
Number of responses by Emergency Response (Missouri) and Motorist Assist (Kansas)	35,439 – pg. 22
Number of subscribers to “My KC SCOUT” personalized web alerts	6,912 – pg. 31
Number of visits to www.kcscout.net from new unique web visitors	389, 245 – pg. 31

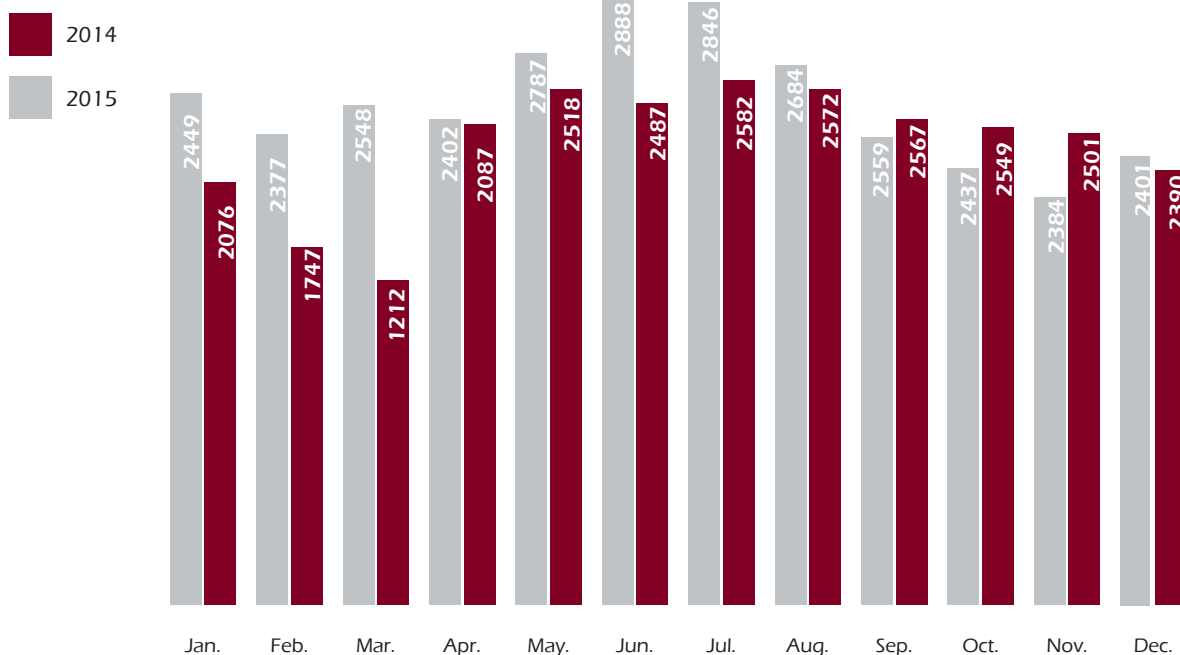
Our **2015 Annual Report** summarizes the congestion and incident information that we have collected over the course of the year, along with data about the type of assistance provided to motorists, how our tools functioned, and the benefits of investing in the Scout program.

Incident Summary

Scout monitors the Metro's freeways for traffic incidents as part of our Traffic Incident Management Program.

We define an incident as any event on the roadway which affects or can affect normal traffic flow. Examples include vehicle collisions, stalled vehicles on shoulders, debris in the roadway, and roadwork projects.

Total Incidents by Month (2015 vs 2014)



Secondary Incident

The total number of secondary incidents increased 66.6% in 2015.

Number of Secondary Incidents (2015 vs 2014)

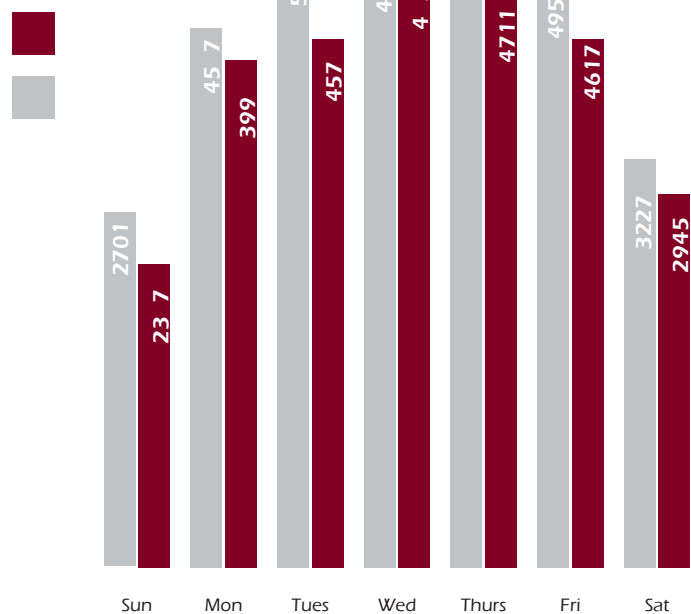
2014	30
2015	50

Secondary incidents occur because of a previous and on-going incident on the roadway. They happen within the initial incident scene or within the back-up of the initial incident, even if it is in the opposite roadway direction. Scout's efficient Traffic Incident Management Program with Emergency Response Operators helps improve safety, provides better traffic control, and reduces the time needed to clear secondary, lane-blocking incidents.

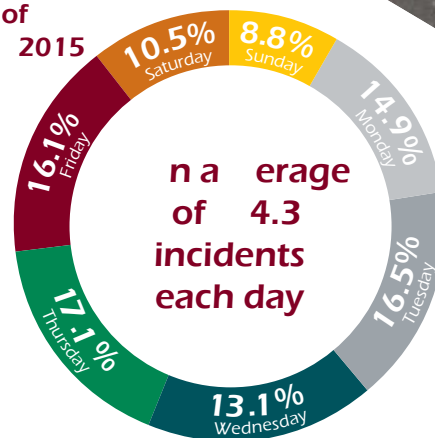
The total number of incidents on our highways increased by 9.5% in 2015 to 30,764.

In 2015 there were 30,764 incidents, which is a 9.5% increase when compared to the 28,088 that happened in 2014. The highest number of incidents in 2015 took place in June. An average of 84.3 incidents happened each day. Most of them occurred during the work week (Monday through Friday).

Total incidents by day of week 2015 vs 2014



Percent of Total incidents by day of week 2015

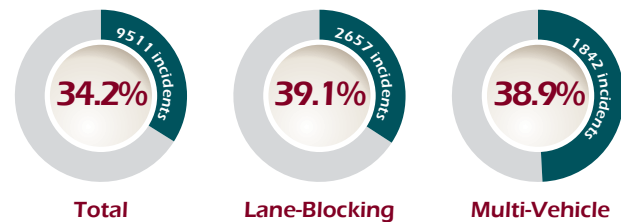


Rush-Hour Incidents

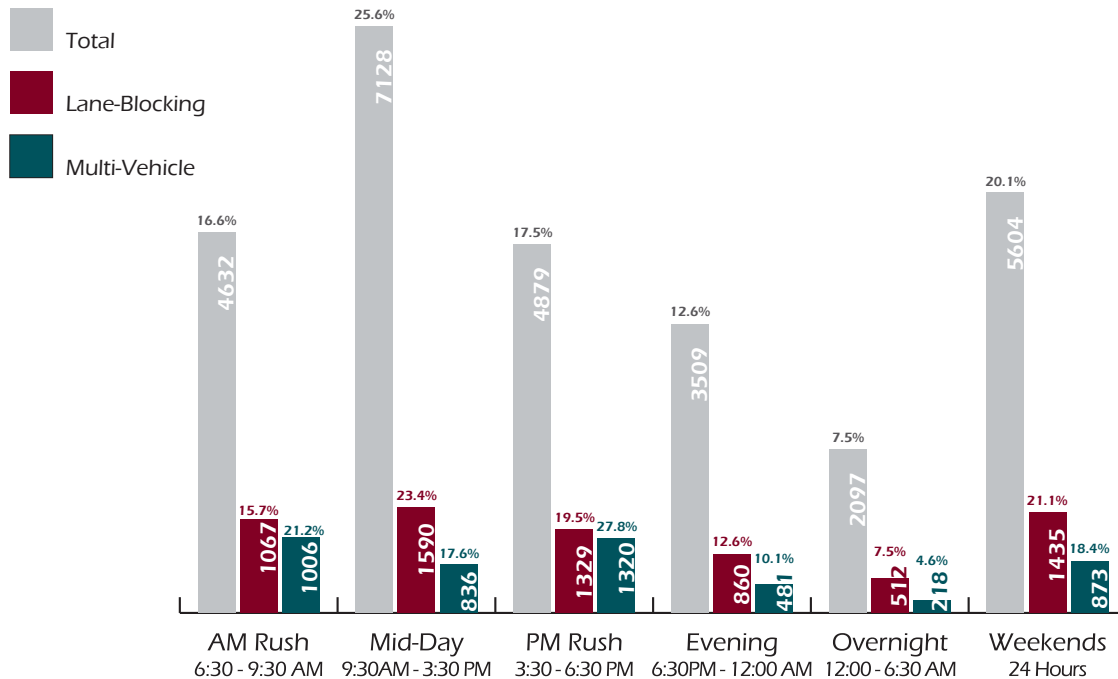
34.2% of all incidents occurred during the morning and afternoon rush hours.

There were a total of 9,511 rush-hour incidents in 2015, which is less than a 1% increase when compared to the 9,503 that occurred during the previous year. In 2015 lane-blocking incidents accounted for 39.1% of rush-hour incidents; 38.9% involved multiple vehicles.

Percentage of Rush-Hour Incidents by Type (2015)



Rush-Hour Incident Summary (2015)

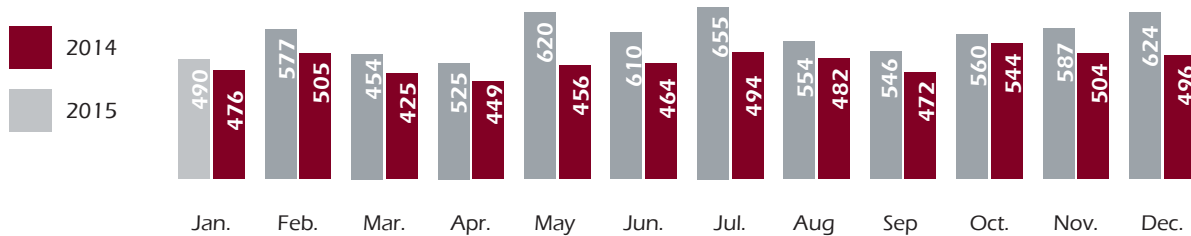


Lane-Blocking Incidents

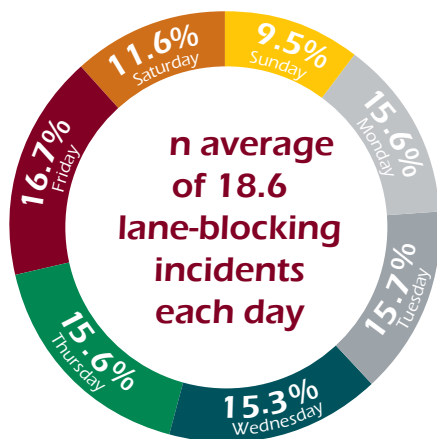
There were a total of 6,803 lane-blocking incidents in 2015.

The total number of lane-blocking incidents in 2015, excluding those of less than 3 minutes, showed an increase of 18.0% over the 5,767 recorded in 2014. The highest number of lane-blocking incidents in 2015 happened in July. An average of 18.6 lane-blocking incidents happened each day. Most occurred during the work week (Monday through Friday).

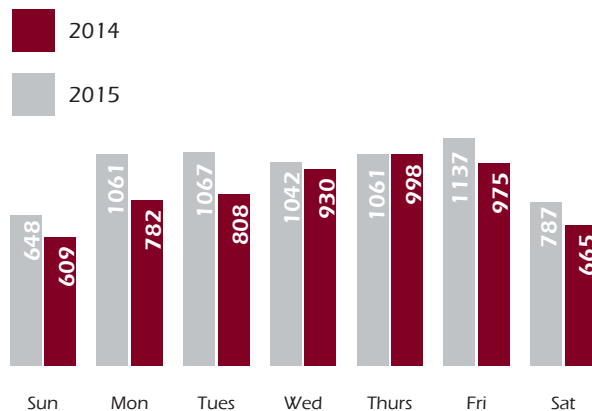
Lane-Blocking Incidents by Month (2015 vs 2014)



Percentage of Lane-Blocking Incidents by Day of Week (2015)



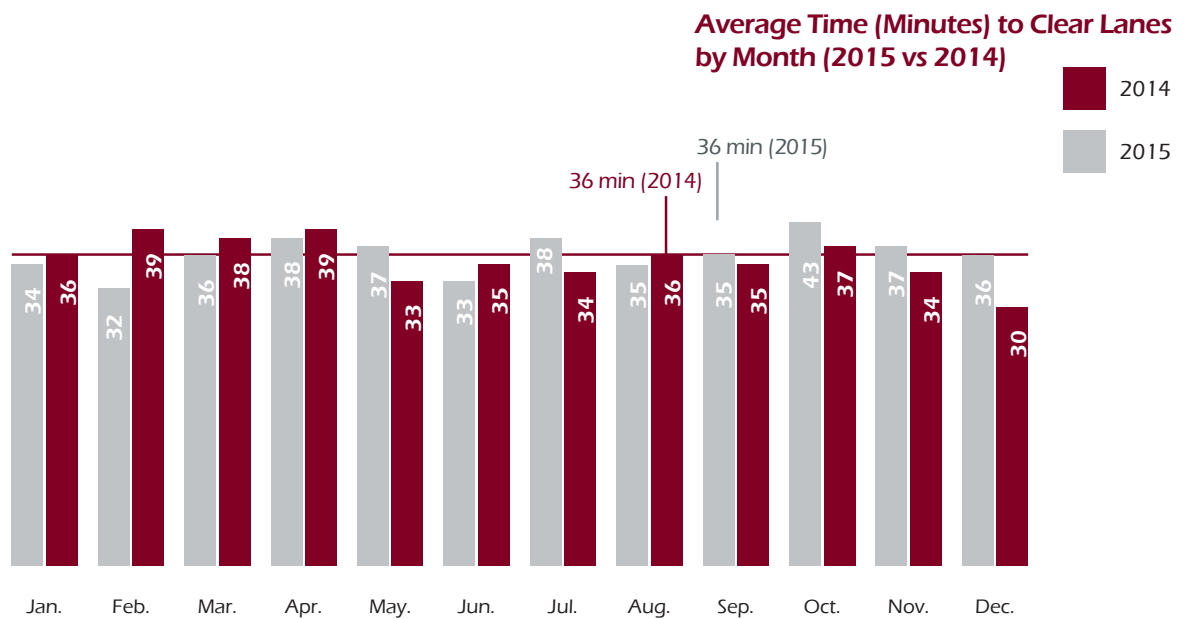
Lane-Blocking Incidents by Day of Week (2015 vs 2014)



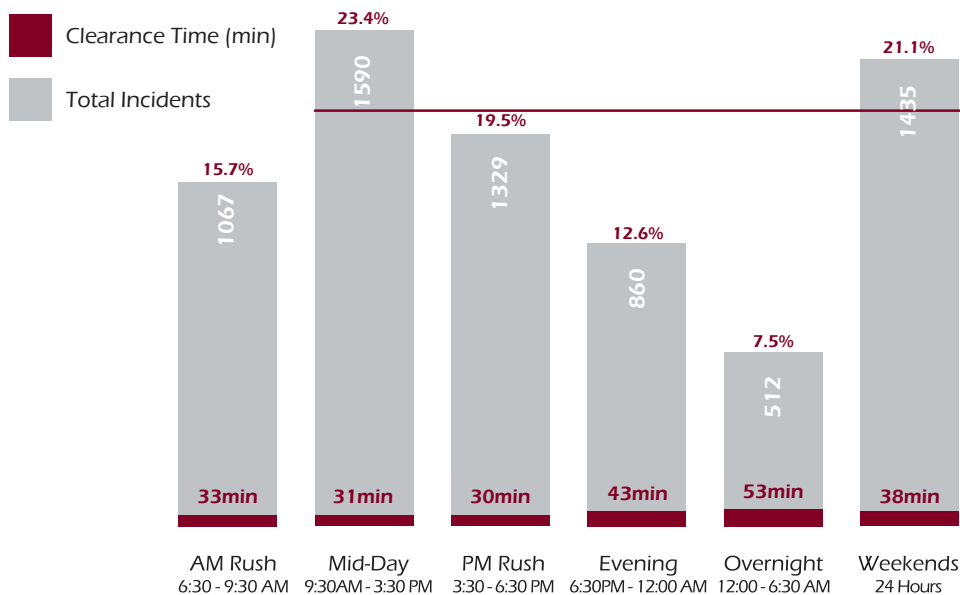
Average Clearance

The average time to clear lanes for all lane-blocking incidents in 2015 was **36 minutes**.

The average time for all lanes to be cleared from an incident, excluding those of less than 3 minutes, is calculated from the incident start time until all lanes are reopened. The calculation is done the same way when sorting incident clearance by time of day.



Number of Incidents and Average Time to Clear Lanes by Time of Day (2015)



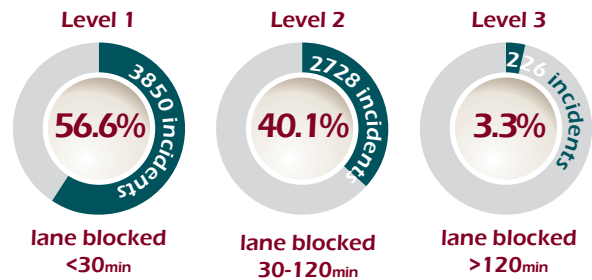
Mid-day (9:30 AM to 3:30 PM) experiences the highest percentage of lane-blocking incidents at 23.4% but also sees one of the quickest clearance times at 31 minutes.

Scout strives to clear incidents in less than 30 minutes.

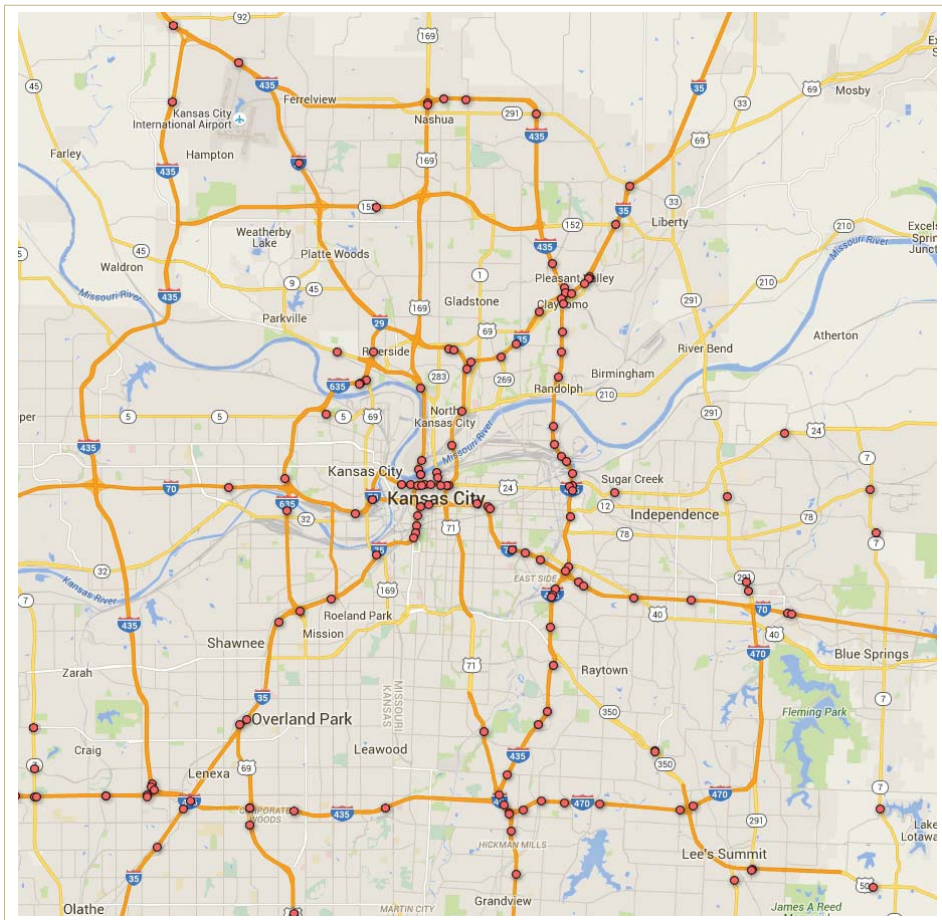
Incident Severity

Only 3.3% of incidents are categorized as Level 3, which means that the lane was blocked for more than 120 minutes.

Scout sorts lane-blocking incidents by severity level based on lane blockage and duration. Incidents that lasted less than 3 minutes and construction are excluded.



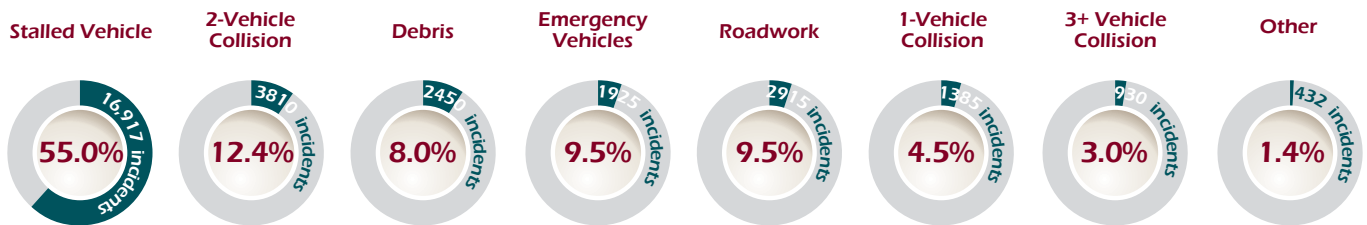
Level 3 Incident Locations (2015)



Types of Incidents

55.0% of the incidents in 2015 were related to stalled vehicles.

There are various types of incidents that involved stalled vehicles, collisions, debris, construction, or something else.

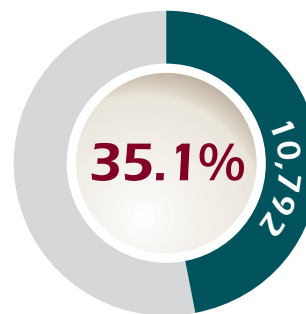


Detection Methods

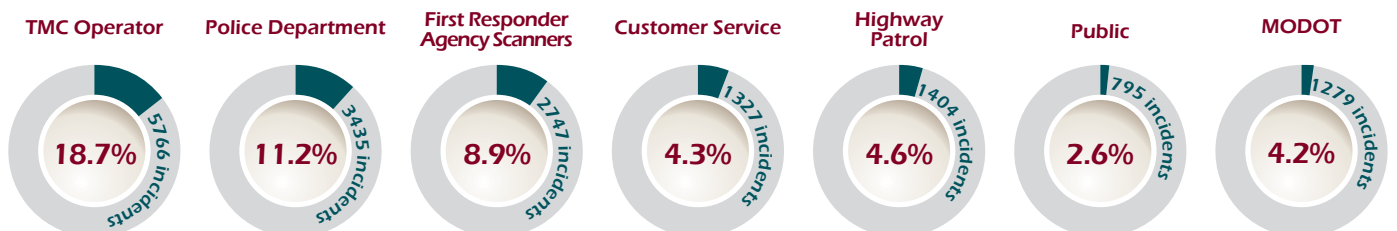
Emergency Response operators detected 35.1% of the Missouri incidents that happened during 2015 and reported them to the Scout TMC.

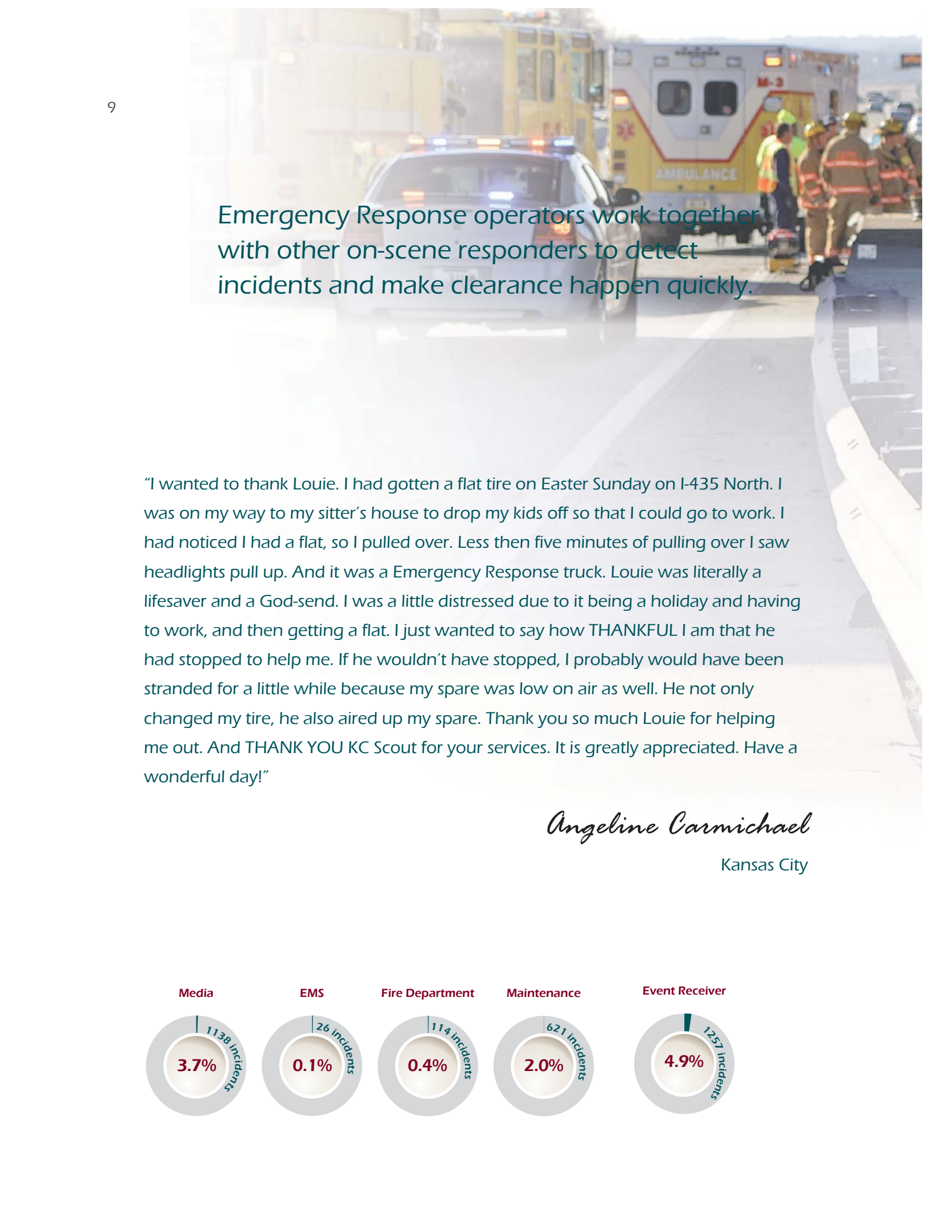
With the help of a variety of tools, personnel and partnerships, Scout is able to detect incidents happening on the highway.

Emergency Response Operators



Incident Detection is Key



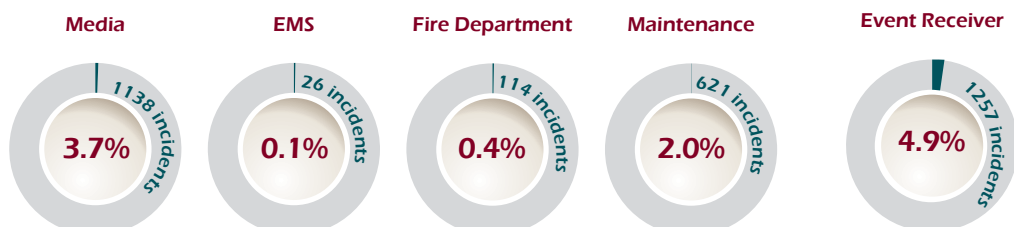


Emergency Response operators work together with other on-scene responders to detect incidents and make clearance happen quickly.

"I wanted to thank Louie. I had gotten a flat tire on Easter Sunday on I-435 North. I was on my way to my sitter's house to drop my kids off so that I could go to work. I had noticed I had a flat, so I pulled over. Less than five minutes of pulling over I saw headlights pull up. And it was a Emergency Response truck. Louie was literally a lifesaver and a God-send. I was a little distressed due to it being a holiday and having to work, and then getting a flat. I just wanted to say how THANKFUL I am that he had stopped to help me. If he wouldn't have stopped, I probably would have been stranded for a little while because my spare was low on air as well. He not only changed my tire, he also aired up my spare. Thank you so much Louie for helping me out. And THANK YOU KC Scout for your services. It is greatly appreciated. Have a wonderful day!"

Angeline Carmichael

Kansas City

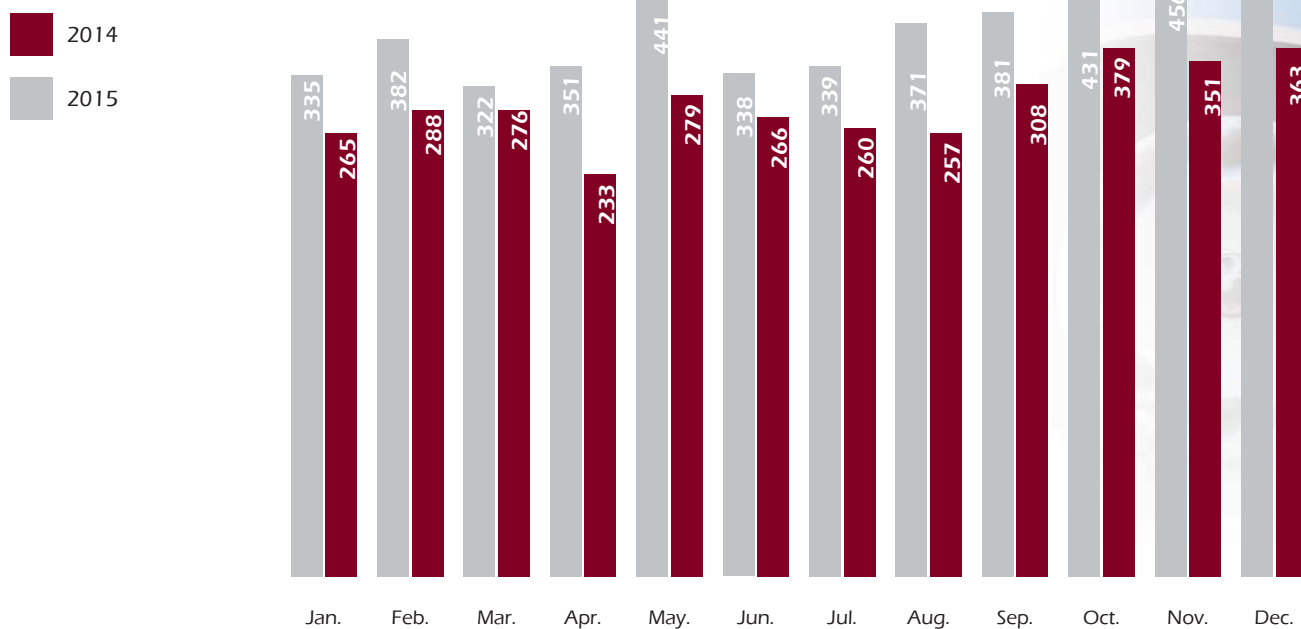


Multi-Vehicle Incidents

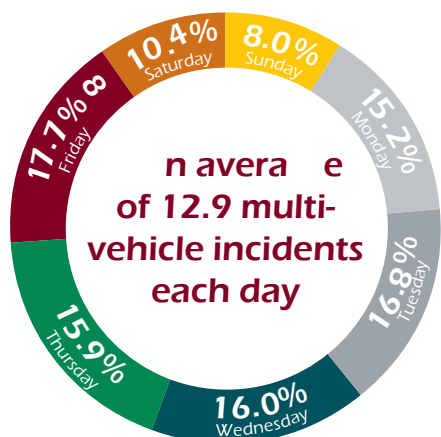
There were a total of **4,740** multi-vehicle incidents recorded in 2015.

The total number of multi-vehicle incidents in 2015 showed an increase of 34.5% when compared to the 3,525 that happened in 2014. Most happened in December.

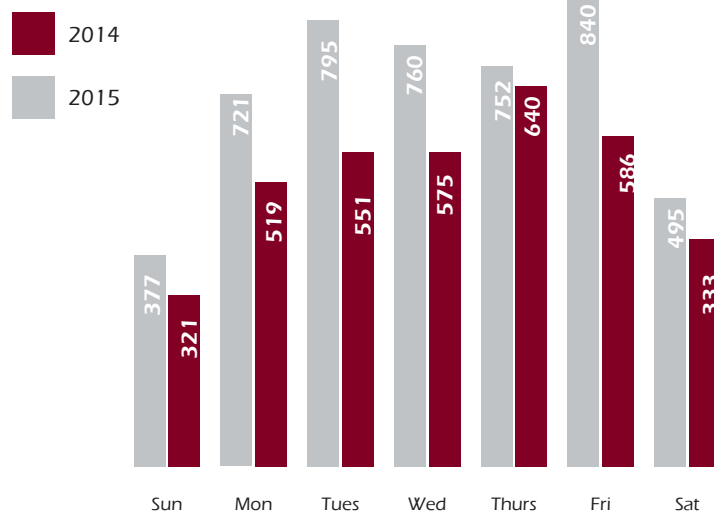
Multi-Vehicle Incidents by Month
(2015 vs 2014)

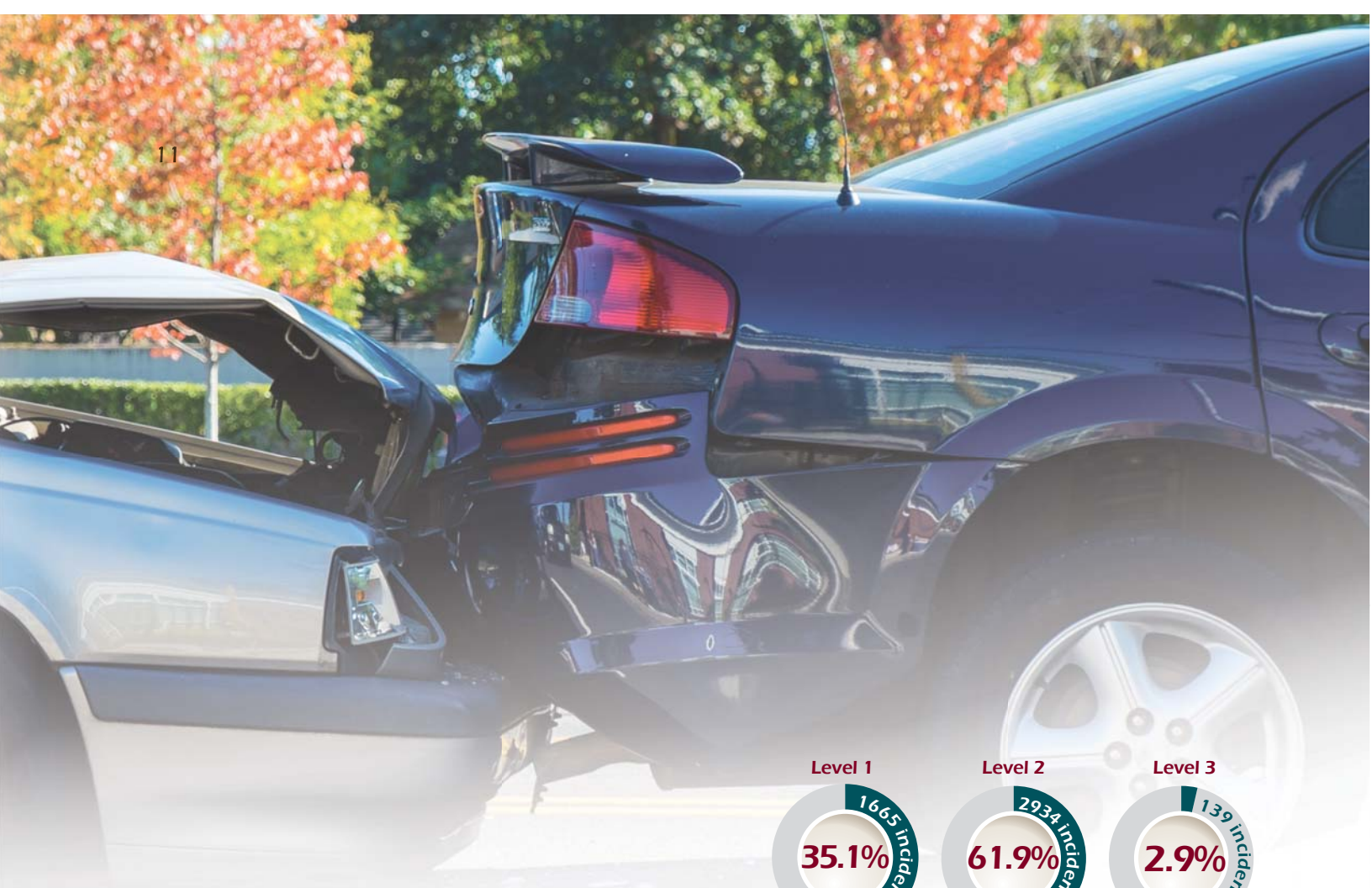


Percent of Multi-Vehicle Incidents by Day of Week (2015)



Total Multi-Vehicle Incidents by Day of Week (2014 vs 2015)

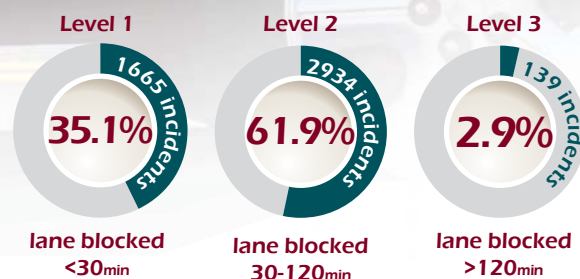




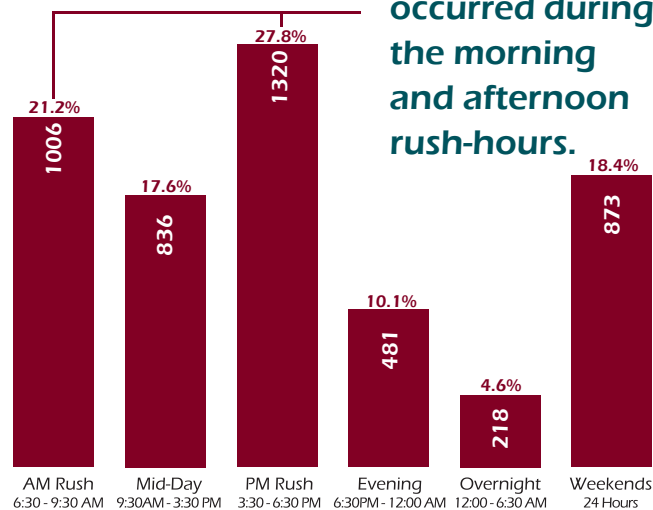
Multi-Vehicle Incident Severity

35.1% of multi-vehicle incidents can be categorized as Level 1, which means that the lane was blocked for less than 30 minutes.

Scout also sorts multi-vehicle incidents by severity level based on lane blockage and duration. Incidents that last less than 3 minutes and construction are excluded. On average, 59.2% of multi-vehicle incidents result in lane blockages while 19.6% of incidents involve 3 or more vehicles.



Rush-Hour Incident Summary (2015)



49.1% of multi-vehicle incidents occurred during the morning and afternoon rush-hours.

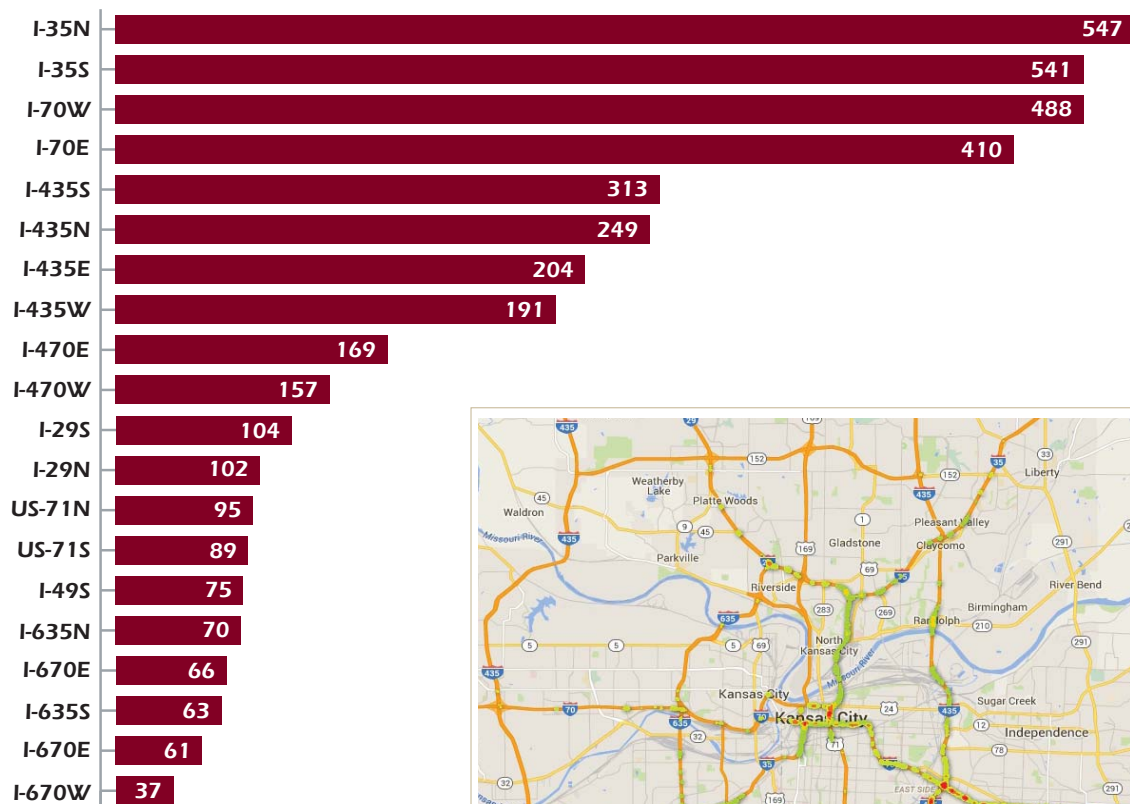
Multi-Vehicle Incident Locations

Incidents can happen along routes and at cross-streets.

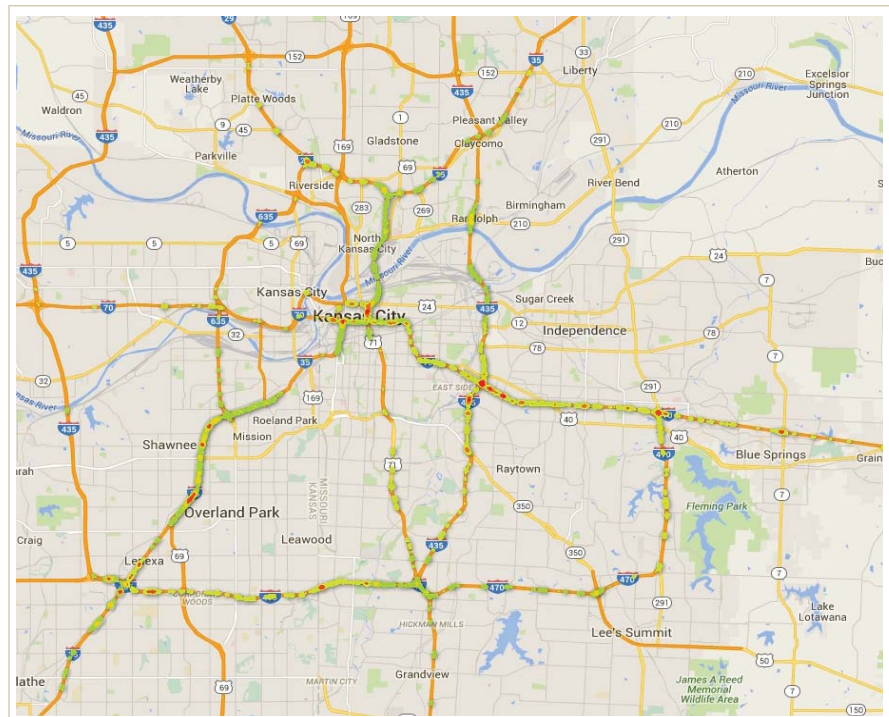
To improve safety, Scout and partners manage multi-vehicle incidents on eight interstate routes: I-435, I-35, I-49, I-70, I-470, I-635, I-29, and I-670. Information about the incidents that happened along these routes during 2015 is organized by number of incidents and direction.

The heat map shows the locations of multi-vehicle incidents in 2015 through a color progression that depicts the variances in the number of incidents per location. The color progression goes from green to red with green depicting the lowest number of incidents and red showing the highest rate of incidents for a given location.

Top Multi-Vehicle Incident Locations by Route (2015)

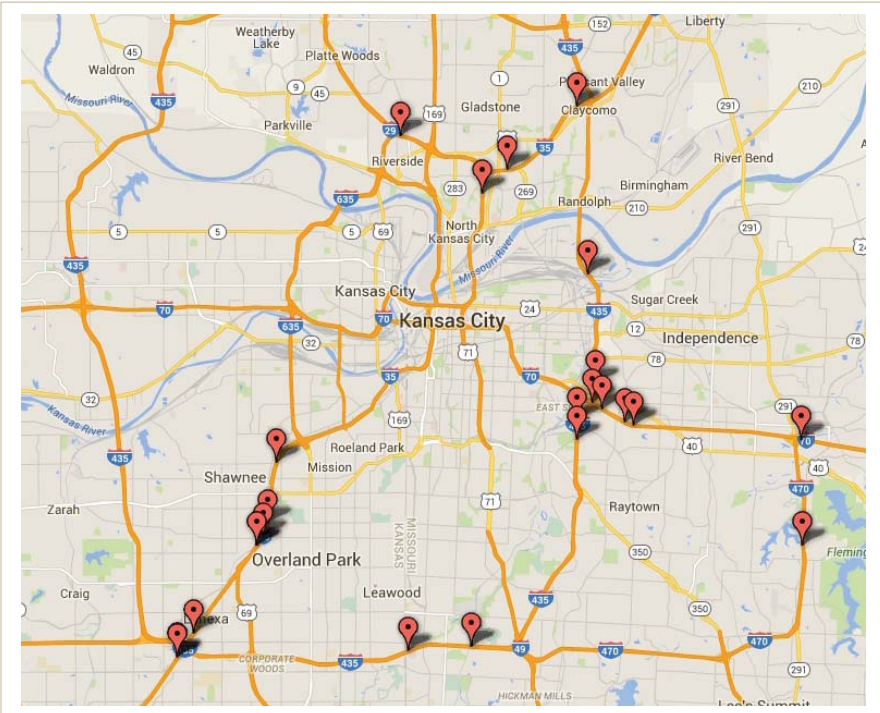


Rate of Incidents (2015)



Top 25 Cross-Street Locations for Multi-Vehicle Incidents (2014)

I-35 N	Past 87th St.	49
I-35 N	Past I-435	33
I-35 S	Past 67th St.	23
I-435 S	Past I-70	29
I-35 N	Past Antioch Road	24
I-35 S	At 75th Street	22
I-35 N	Before I-435	21
I-435 S	Before I-70	20
I-35 N	Past 119th Street	20
I-70 W	At I-435	20
I-70 W	Before Blue Ridge Cutoff	19
I-435 N	At Stadium Dr.	17
I-35 S	Past I-435	17
I-35 S	Past 75th Street	17
I-35 N	Past Johnson Dr.	17
I-70 W	At I-470	17
I-435 E	Before I-49/I-470	16
I-70 E	Past I-435	16
I-70 E	Past Blue Ridge Cutoff	16
I-470 E	Past Wood's Chapel	16
I-29 S	Past Gateway Ave.	16
I-435 E	At State Line Rd.	15
I-435 N	Before Front St	15
I-435 W	Before I-03rd Street	15
I-35 N	Before Parvin Road	15



Top Multi-Vehicle Incident Routes



I-35 had the highest number of multi-vehicle incidents with a total of **1054 in 2015**

Southbound Incidents

519

Northbound Incidents

535

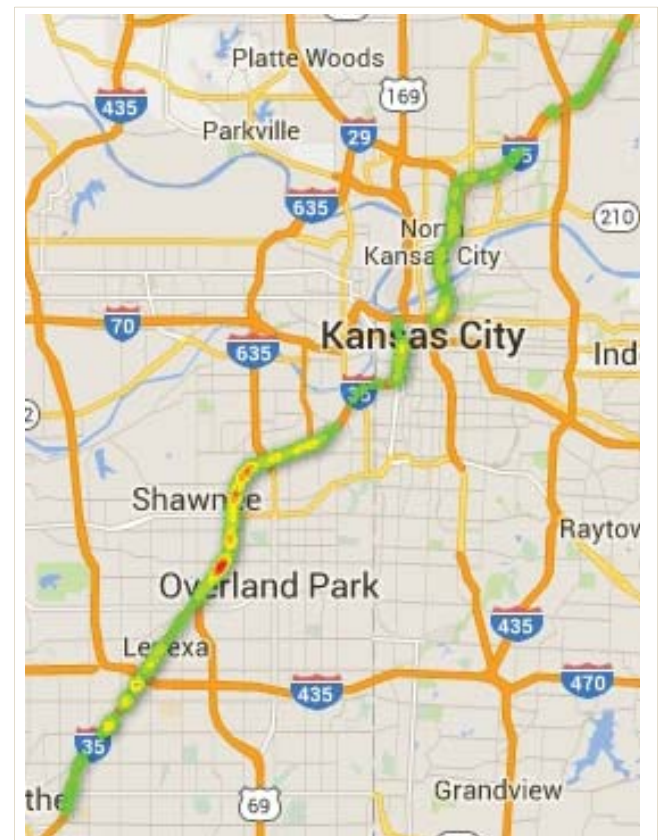
Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-35 South

Past 67th St.	32
At 75th Street	22
Past I-435	17
Past 75th Street	17
At Johnson Dr.	14
Past Armour/210	12
At 69 Hwy	12
To I19th Street	12
Past Lamar	11
Before I-70	11
Before I19th St	10
Past Front St	10
Past I52 Hwy	10

I-35 North

Past 87th St.	49
Past I-435	33
Past Antioch Rd	24
Before I-435	21
Past I19th St	20
Past Johnson Dr	17
Past Parvin Road	15
At I-635	12
Before I-635	11
Before Front St	11



Rate of Incidents





I-435 had the second highest number of multi-vehicle incidents with a total of **916 in 2015**

Westbound Incidents
187

Eastbound Incidents
190

Southbound Incidents
296

Northbound Incidents
243

Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-435 West

Before 103rd Street	15
Past Quivira	14
At I-35	10
Before Metcalf Ave	9
Before Holmes Rd	9
Past 103rd Street	8
At 69 Hwy	8
Past Stateline Rd	8

I-435 East

Before I-49/I-470	16
At State Line Rd	15
Before State Line	12
Past K-10	11
Past Nail Ave.	9
Past Lackman Rd	8
At Wornall Rd	7

I-435 South

Past I-70	29
Before I-70	20
Past 23rd St	13
Past Front St	12
Past 210 Hwy	12
At I-70	11
At 210 Hwy	11
Past 350 Hwy	11
Before 210 Hwy	11

I-435 North

Before Stadium Dr.	17
Before Front St	15
At 350 Highway	11
Past Stadium Dr.	10
Past 87th St	7
Past 350 Hwy	7
Past 24 Hwy	7
Past Front St	8



Rate of Incidents

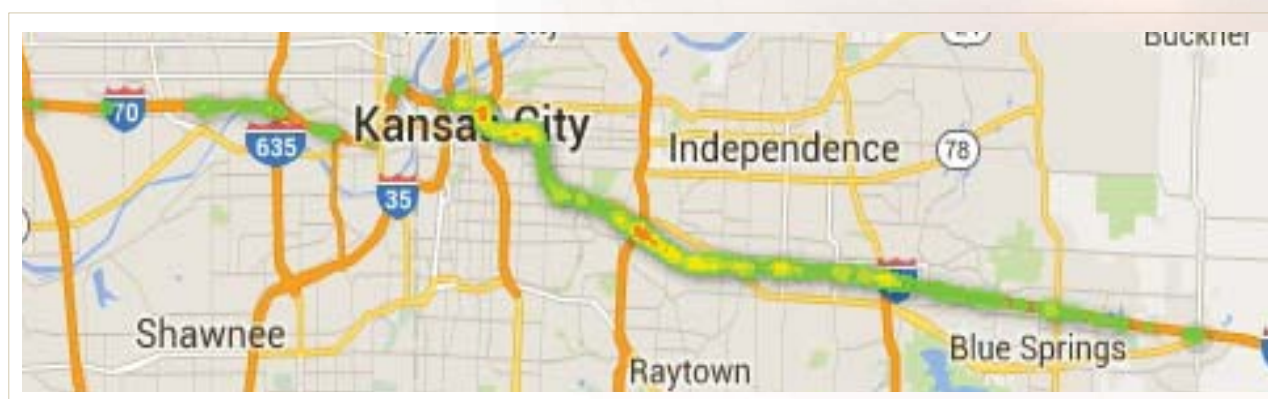




I-70 had a total of 843 multi-vehicle incidents in 2015.

Westbound Incidents
451

Eastbound Incidents
392



Rate of Incidents



Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-70 West

At I-435	20
Before Blue Ridge Cutoff	19
At I-470	17
Past I-470	14
Past Lee's Summit Rd	14
To I-435 SB	12
Before 40/Blue Ridge Cutoff	11
Past 7 Hwy	11
Before Little Blue Parkway	10
At Blue Ridge Cutoff	10

I-70 East

Past I-435	16
Past Blue Ridge Cutoff	16
Past Lee's Summit Rd	15
Past 31st St	15
At I-435	13
Past 27th Street	12
Past I-470	9
Past 40 Hwy	9
To Blue Ridge	9
Past Prospect Ave	9



I-470 had a total of 317 multi-vehicle incidents in 2015.

Westbound Incidents

153

Eastbound Incidents

164

Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-470 West

At 50 Hwy	10
7	At I-49
7	Past Blue Ridge
6	Past Lakewood Blvd
6	Past Douglas
6	Past 50 Hwy
6	Past 40 Hwy
6	Before Raytown Rd

I-470 East

At View High	9
7	Past Strother Rd
6	At I-70
6	Past Lakewood Blvd
5	Past I-49
5	Past Woods Chapel

Rate of Incidents



I-49 had a total of 137 multi-vehicle incidents in 2015.

Rate of Incidents



Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-49 North

Before I-435 NB	7
6	At Main St.
5	At I-470
4	Before Blue Ridge Blvd
4	To I-435 NB

I-49 South

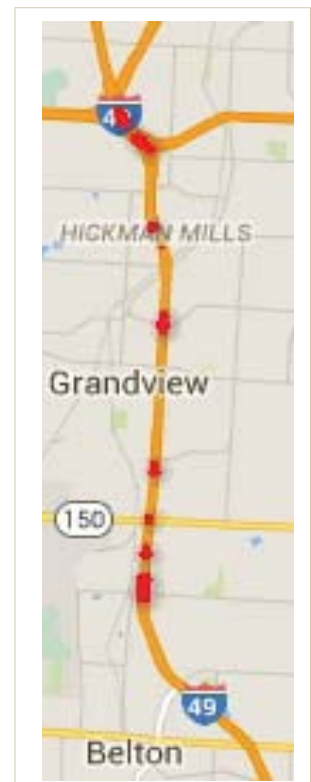
Past Blue Ridge Blvd	7
7	At 155th Street
7	Past 155th St.
5	Before 155th St.
5	Past I-435

Southbound Incidents

73

Northbound Incidents

64





I-635 had a total of 130 multi-vehicle incidents in 2015.

Southbound Incidents
60

Northbound Incidents
70

Rate of Incidents



I-29 had a total of 196 multi-vehicle incidents in 2015.

Southbound Incidents
97

Northbound Incidents
99



Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-635 South

Past Horizons Parkway 8

- 5 At Shawnee Dr.
- 4 To Metcalf Ave
- 4 Past Shawnee Dr.
- 4 Past I-29

I-635 North

To I-29 6

- 6 To I-29 NB
- 6 Past Shawnee Dr.
- 5 Past Metro Ave
- 5 Before I-70

I-29 South

Past Gateway Ave 16

- 7 At I-635
- 6 To Davidson Rd
- 6 At N. Oak Trfwy
- 5 Past N. Oak Trfwy
- 5 At Davidson Road
- 5 At 169 Highway

I-29 North

At Davidson Road 9

- 7 Past Davidson Road
- 7 At NW 64th St
- 5 Past NW 56th Street
- 5 At Cookingham Dr.



I-670 had a total of 97 multi-vehicle incidents in 2015.

Westbound Incidents

37

Eastbound Incidents

60



Cross-Street Locations with the Top Number of Multi-Vehicle Incidents

I-670 West

Past 71 Hwy 12

4 Past Broadway

I-670 East

At Genessee St 13

7 Before I-35

5 Past Broadway Blvd

4 Past 7th St.

Rate of Incidents



"I was helped today by Virak, and wanted to express how much I appreciated his help with my blown out tire on 435 South. My roadside assistance service that I had for 20 years told me they couldn't help me after 30 minutes on hold. So Virak showing up was about the same as winning the lottery - THANK YOU VERY MUCH!"

Dan Laughlin

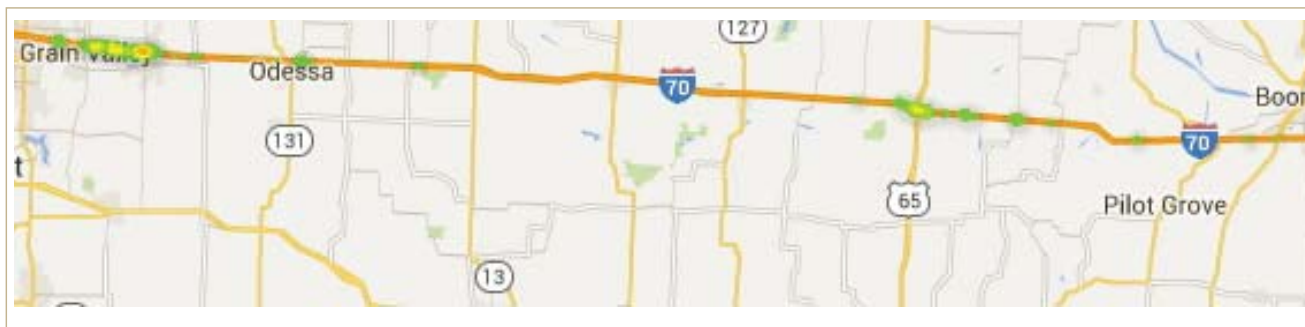
Kansas City

Scout is Both Rural and U

Along with the KC Metro Area, Scout manages incidents that happen on Missouri's I-70, I-29 and I-35 rural corridors, as well as the Kansas I-70 corridor to the Colorado border. The map and data is shown for Missouri's I-70 Rural Corridor.

Metrics similar to those presented here are not calculated for the other rural corridors due to a smaller set of data.

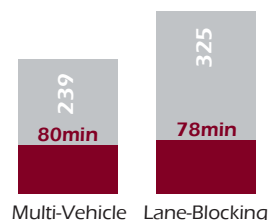
Lane-Blocking Incident Locations Along the I-70 Missouri Rural Corridor (2015)



There were a total of **325** lane-blocking incidents in the Missouri I-70 rural corridor during 2015 and the average clearance time was **78 minutes**.

There were **140** multi-vehicle incidents in the Missouri I-70 rural corridor during 2015 and the average clearance time was **80 minutes**.

Incidents along the I-70 Missouri Rural Corridor and Average Clearance Time (2015)



	Number of Lane Blocking Incidents	Average Time to Clear Lanes
Jan	8	123 min
Feb	24	85 min
Mar	16	63 min
Apr	23	78 min
May	36	47 min
Jun	40	58 min
Jul	47	88 min
Aug	28	64 min
Sept	27	89 min
Oct	32	112 min
Nov	24	57 min
Dec	23	68 min
	325	78 min

Urban

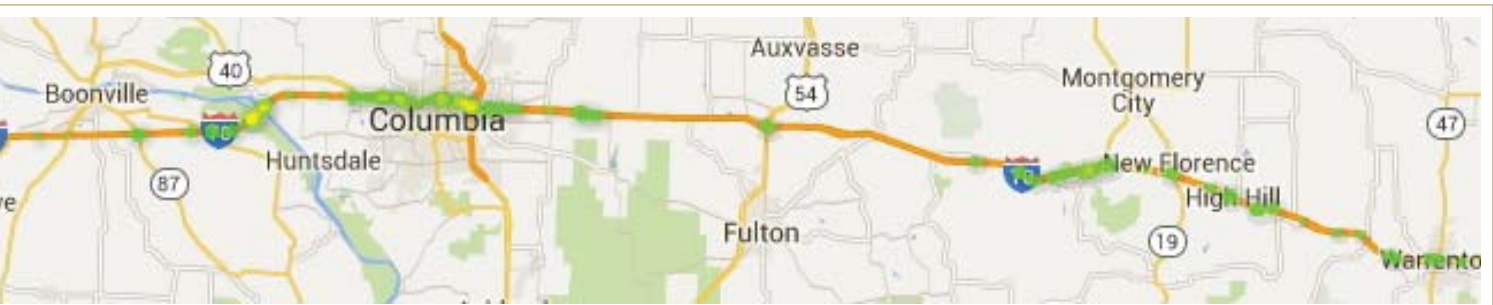


I-70 Missouri Rural Corridor

There were a total of **325 incidents** in the corridor during 2015.

186 miles

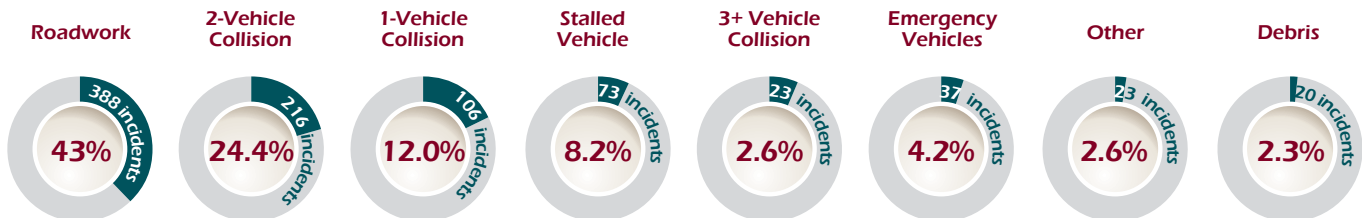
The Missouri I-70 rural corridor consists of a 186-mile stretch of I-70, spanning from Grain Valley (MM 24) to Wentzville (MM 210).



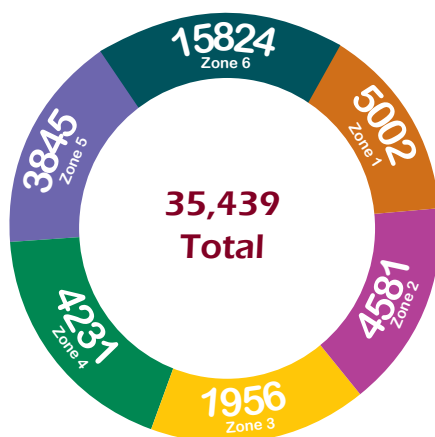
Types of Incidents

43% of the incidents along the Missouri I-70 rural corridor in 2015 were related to roadwork.

There are various types of incidents that involved stalled vehicles, collisions, debris, construction, or something else.



The total number of responses increased by 5% from 33,74+ assists in 2014 to **35,439** in 2015.



Total Number of Responses by Zone (2015)

Emergency Response and Motorist Assist operators proactively patrol the Metro in search of a wide variety of potential traffic disruptions. On the Missouri side, the Missouri Department of Transportation administers the ER program. In Kansas, the Kansas Highway Patrol, in conjunction with the Kansas Department of Transportation, administers the MA program. These operators also support law enforcement, emergency responders and other emergency agencies by providing traffic control and backup for incidents.

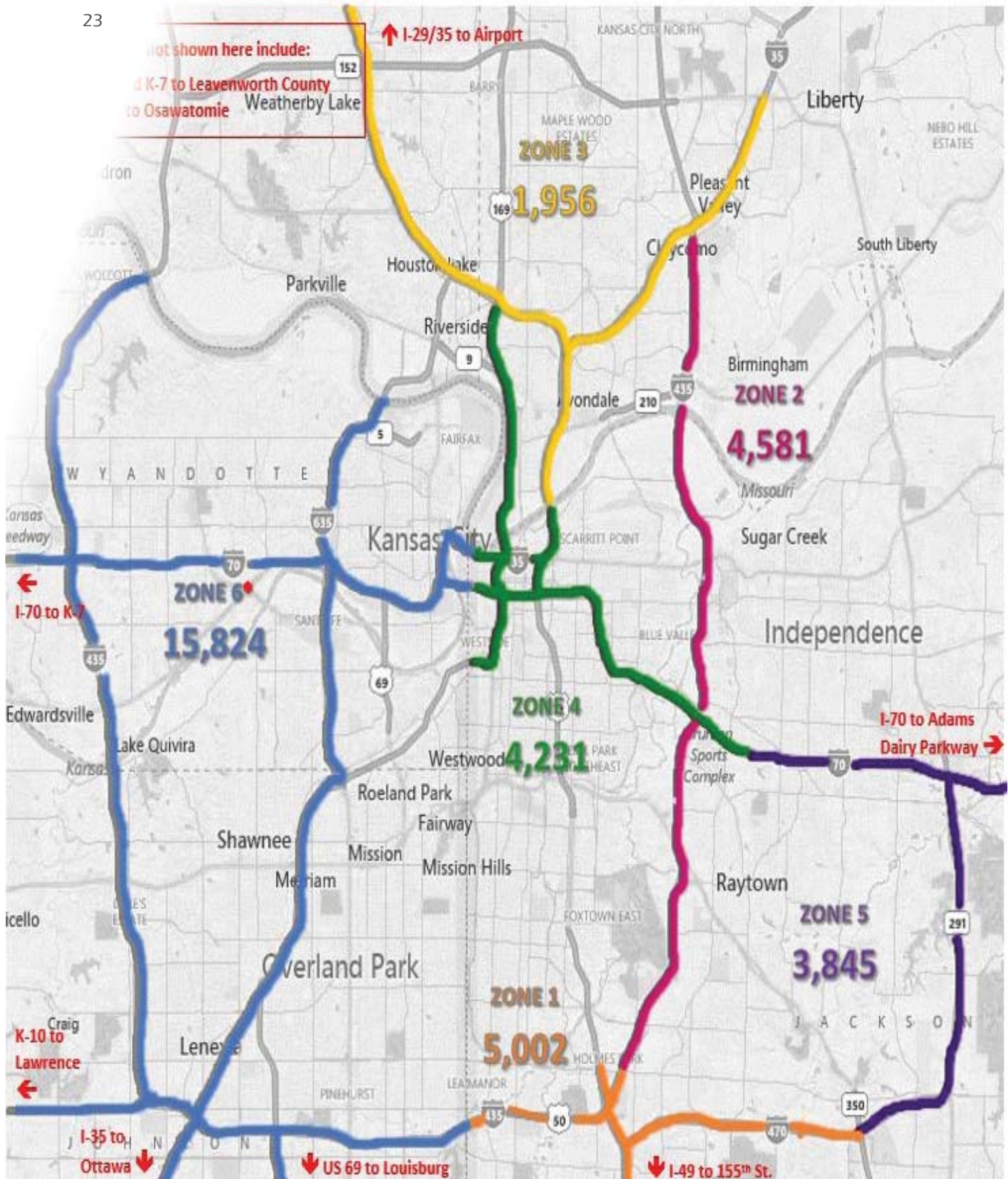
Their goals are to:

- Minimize major disruptions of traffic flow.
- Focus on the factors that create disruptions in the flow and remove them.
- Relieve congestion and maintain consistent traffic flow during an incident.
- Reduce clearance times for incidents.

Number of Responses by Zone and Month (2015)

1 2 3 4 5 6

							Total
1	2	3	4	5	6		
400	305	135	273	356	1226	2697	
489	454	246	435	388	1271	3283	
470	403	156	393	335	1175	2932	
416	369	164	335	294	1527	3105	
476	410	226	395	376	1475	3346	
464	435	184	392	345	1668	3447	
423	362	141	327	326	1585	3134	
450	421	145	364	352	1346	3078	
421	394	144	343	288	1346	2936	
345	379	153	351	275	1032	2535	
377	313	146	309	239	1091	2475	
352	336	116	314	271	1082	2471	
Total	5,002	4,581	1,956	4,231	3,845	15,824	35,439



How Emergency Response and Motorist Assist Helps

Types of Services

Operators provided traffic control for **26%** of responses in 2015.

In addition to the total number of responses, we have collected data on the type and duration of responses that operators have performed.

Number of Responses by Type and Month (2015)

	Transport Motorist	Check Motorist	Tire Assist	Fuel Dispensed	Mechanical	Push Procedure	Traffic Control	Debris Removed	Total
Jan	25	513	244	161	338	16	550	259	2106
Feb	32	589	297	202	446	26	875	254	2721
Mar	29	516	279	180	369	28	661	270	2332
Apr	32	565	296	164	390	22	557	443	2469
May	27	591	353	193	449	29	662	447	2751
Jun	34	639	360	189	465	30	639	522	2878
Jul	35	559	392	184	383	36	635	471	2695
Aug	39	499	384	213	350	29	583	362	2459
Sept	36	490	316	171	377	27	551	437	2405
Oct	14	465	281	193	248	23	583	299	2106
Nov	7	416	226	158	281	26	527	336	1977
Dec	21	398	261	150	268	24	631	234	1987
	331	6240	3689	2158	4364	316	7454	4334	28886

"I would like to thank Craig and Robbie for going above and beyond to help us. We were stranded on the side of the highway with a flat. We were on our way to a field trip at the Kansas City Zoo. These wonderful men helped us get to a tire shop, and we were able to make it to the zoo to be with our children. If not for them we would have missed it completely. Thank you Craig and Robbie, you saved the day for us!"

Stephanie
Kansas

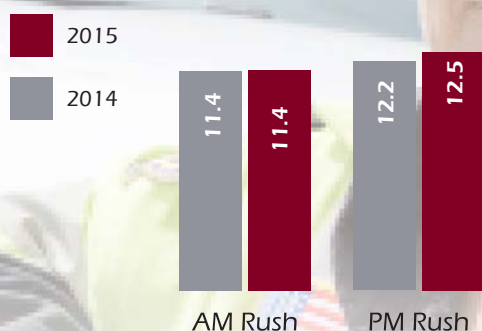
Mobility in the Metro

As the Metro grows, more and more vehicles use the freeway. Mobility, or the average time to travel a 10-mile segment of our freeway system, is an increasingly important factor.

Scout collects data on mobility for rush-hour peaks (7 A.M. and 5 P.M.). The measure uses the average travel time index values (Travel Index = Average Speed/Free Flow Speed) to calculate the 10-mile travel times during the peaks on various freeway sections.

The travel time index is directly related to the average speed and represents the level of congestion by taking into consideration, not only the average speed, but also traffic volumes. The desired trend is to travel 10 miles per 10 minutes on a 60 mph freeway.

**Average 10-Mile Travel Time (Minutes)
During Rush-Hours on Selected Freeway Sections**



Kansas City's Top Ten Most Traveled Segments (2015)

Morning Rush Hour (AM) volume in millions

#1	WB I-470 from MO 291 to US 71	20.56
#2	NB I-35 from US 69 to I-635	16.24
#3	WB I-435 From Stateline Road to I-35	16.6
#4	SB I-35 from I-635 to 69 Hwy	14.93
#5	EB I-435 from I-35 to Stateline Rd	14.42
#6	WB I-70 from I-470 to I-435	13.9
#7	NB I-35 from I-635 to MO/KS Stateline	12.17
#8	SB I-470 from I-70 to MO 291	11.97
#9	NB I-435 from I-70 to MO River	11.72
#10	WB I-435 from US 71 to Stateline Rd	11.34

Evening Rush Hour (PM) volume in millions

#1	EB I-470 from US 71 to MO 291	20.86
#2	WB I-435 from Stateline Road to I-35	16.18
#3	SB I-35 from I-635 to US 69	15.92
#4	NB I-35 from US 69 to I-635	15.11
#5	EB I-435 from I-35 to Stateline Road	14.40
#6	NB I-470 from MO 291 to I-70	13.93
#7	NB I-435 from I-70 to the MO River	13.76
#8	WB I-70 from I-435 to I-35	13.69
#9	WB I-470 from MO 291 to US 71	13.31
#10	SB I-435 from MO River to I-70	13.12

Congestion Management

Compared to 2014, the Metro's highways experienced an overall volume increase of 0% in 2015.

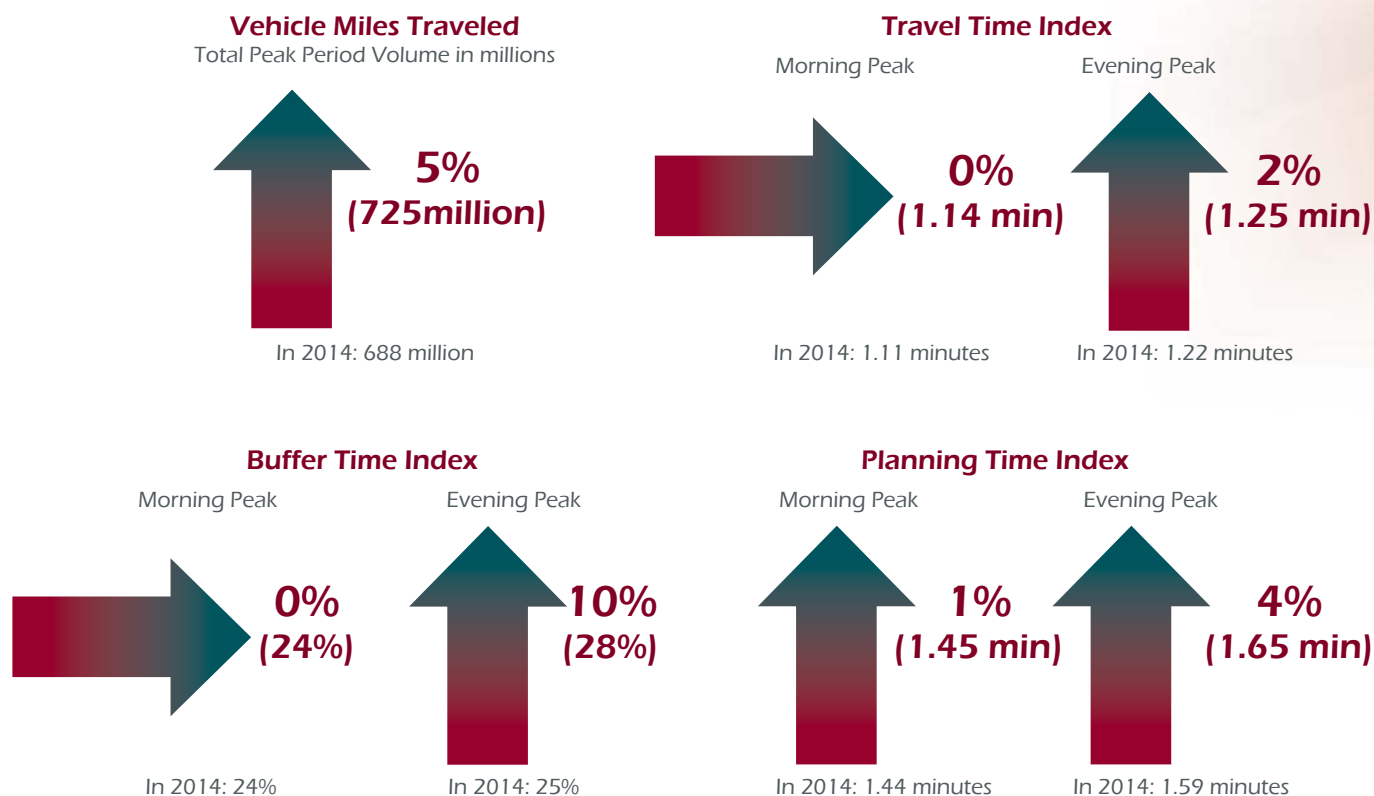
There was little to no change in all three congestion indices during the morning peak. During the evening peak, all three indices experience slight increases from 2014. In addition 12% of Kansas City highways experienced heavy congestion during the course of 2015, which is a 3% increase from 2014.

Travel Time Index (TTI) is the extra time spent in traffic during peak traffic times as compared to light or free flow traffic times.

Buffer Time Index (BTI) is the extra time a motorist must add to their average travel time to ensure on time arrival during peak periods. It is measured by percent.

Planning Time Index (PTI) is the total time a motorist needs to ensure on time arrival during peak periods.

Congestion Snapshot (2015)

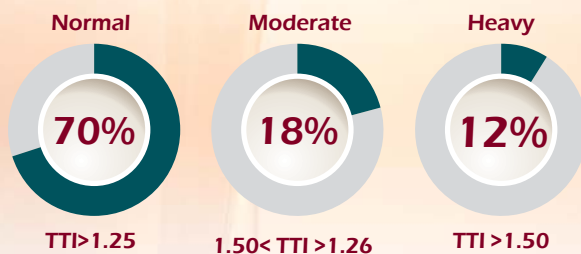


“On the way out of town I passed a work-zone and had a nail blow my tire. It was during rush hour and it was very scary, but I was able to get over to the side of the road. That was when Timothy from MoDOT stopped to help. I was barely off the road and he parked so that I was protected from the traffic. Timothy helped me in so many ways! It was New Years Eve at 5:00 and almost all tire places in town had closed. Timothy called around, helped me work with AAA, and helped me stay calm while trying to get home to Indiana on a very busy night. I would like to thank him and let you know what a wonderful man you have working on your team! I don’t know what I would have done without him stopping to help!”

Cari Cawthon

Indiana

Congestion on Kansas City's Highways in Minutes (2015)



Top Three Traveled Segments for Each Index (2015)

Morning Rush Hour (AM)

TTI	#1	WB I-670 from I-70 to I-35	1.80 min
	#2	WB I-435 from US 71 to Stateline Road	1.70 min
	#3	EB I-670 from I-35 to I-70	1.47 min
PTI	#1	WB I-435 from US 71 to Stateline Road	4.14 min
	#2	SB I-35 from I-635 to 69 Hwy	2.84 min
	#3	NB I-35 from I-435 to 69 Hwy	2.69 min
BTI	#1	NB I-35 from I-435 to 69 Hwy	143.6%
	#2	SB I-35 from I-635 to 69 Hwy	91.24%
	#3	NB I-35 from I-435 to US 69	85.56%

Evening Rush Hour (PM)

EB I-670 from I-35 to I-70	2.50 min
SB I-35 from I-70 to I-670	2.34 min
SB I-35 from US 69 to I-435	2.02 min
SB I-35 from I-70 to I-670	3.95 min
EB I-670 from I-35 to I-70	3.70 min
EB I-435 from I-35 to Stateline Rd	3.27 min
EB I-435 from I-35 to Stateline Rd	94.83%
NB I-35 from I-635 to MO/KS Stateline	84.95%
NB I-35 from I-70 to Parvin Road	75.63%

ITS Infrastructure

Scout manages the Metro's 300 mile highway system with technical equipment including cameras, message signs, and freeway detectors.

The percentage of equipment that is working properly in the field each month is known as "equipment uptime". Message signs, in particular, are essential to providing real-time travel and incident information. Motorists use them to make informed decisions about their travel routes.

Percent of Properly Working Equipment (2015)

	Cameras	Message Signs	Freeway Detectors
Jan	100%	100%	83%
Feb	99%	99%	86%
Mar	100%	100%	84%
Apr	99%	99%	83%
May	99%	100%	83%
Jun	99%	100%	83%
Jul	99%	100%	83%
Aug	99%	99%	81%
Sept	99%	99%	88%
Oct	99%	99%	89%
Nov	99%	99%	80%
Dec	990%	100%	72%
Average	99%	99%	83%

THANK YOU VERY MUCH!!! Sometimes we feel like we are living below an air traffic super-highway near 69 highway and I-435 with all the helicopters buzzing around overhead. Tonight's been another time of wondering what's going on and feeling clueless. We went to your web site and then Twitter account and feel fairly sure it had to do with an incident. We can stop wondering and quickly turn to your site first for a possible explanation in very current time. Thank you all for an exceptional resource for current information.

Richards Family
Kansas



Traffic Incident Management
provides quicker response and clearance times.



Message Signs
provide travel times, incident, safety and traffic information for drivers.





“Ramp meters really help people get on the highway. I’m from California and they are everywhere. I’m glad they are on 435 and continue to utilize them.”

John

Leawood

Scout’s ITS Tool Bench

The Kansas and Missouri Departments of Transportation jointly operate Scout, using a variety of key tools to accomplish the task. These tools include traffic incident management, ramp meters, cameras, message signs, and freeway detectors.

Detectors

detect vehicles that are moving, slowed, or stopped on the highway.



Closed-Circuit Cameras

monitor traffic, incidents and work zones.

Ramp Meters

located at on-ramps to maximize the flow of traffic on interstates.



1

Message Signs:

Freeway message signs describe trouble ahead, such as blocked lanes, work zones, incidents, and severe weather (floods, ice, snow, or tornadoes).

**Website and My KC Scout:**

Visit kcsout.net for a real-time traffic map, current travel speeds, and road closures. To receive alerts about traffic, weather, child abductions (AMBER Alerts), poor air quality, and/or homeland security via email, text message, or your company task bar, select "My KC Scout" to set your preferences.

2

3

Media:

Scout provides live video of the freeway to major news channels and to a local cable company. Media partners also display actual vehicle speeds during slowdowns.

Where to Find Scout Alerts

**Scout App and Social Media:**

Download the free Scout Kansas City Traffic app for Apple and Android. Follow Scout on Twitter at twitter.com/kansascityscout. And find us on Facebook at www.facebook.com/KansasCityScout



Scout Benefits

The Scout program offers a very high overall cost to benefit ratio: for every \$1 spent, it provides approximately \$8 in benefits.

Inadequate funding and, in some cases, inadequate room to widen roadways have made new construction and lane additions an increasingly difficult solution.

Providing a safe and efficient system for freeway travel is important, so the Kansas City Metro uses Scout's technology and traffic management system.

Traffic Incident Management is a major focus of the system and has resulted in reduced incident periods and overall increased coordination at the scene of the incident. Emergency Response also helps with achieving quicker clearance. The benefits equate to reduced travel times and congestion, lower crash rates, savings in fuel and other operation costs, and cleaner air from reduced carbon emissions.

Transportation Management Center

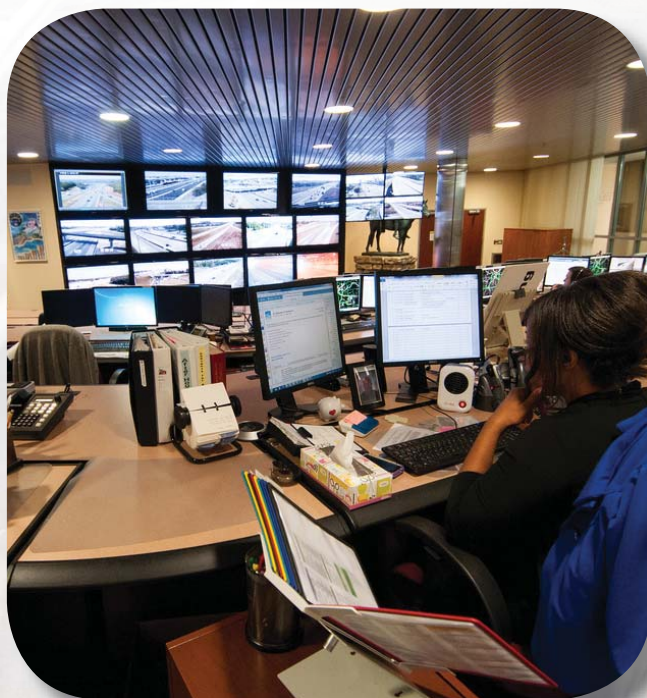
Scout provides you with real-time, up-to-the-minute, traffic and roadwork information.

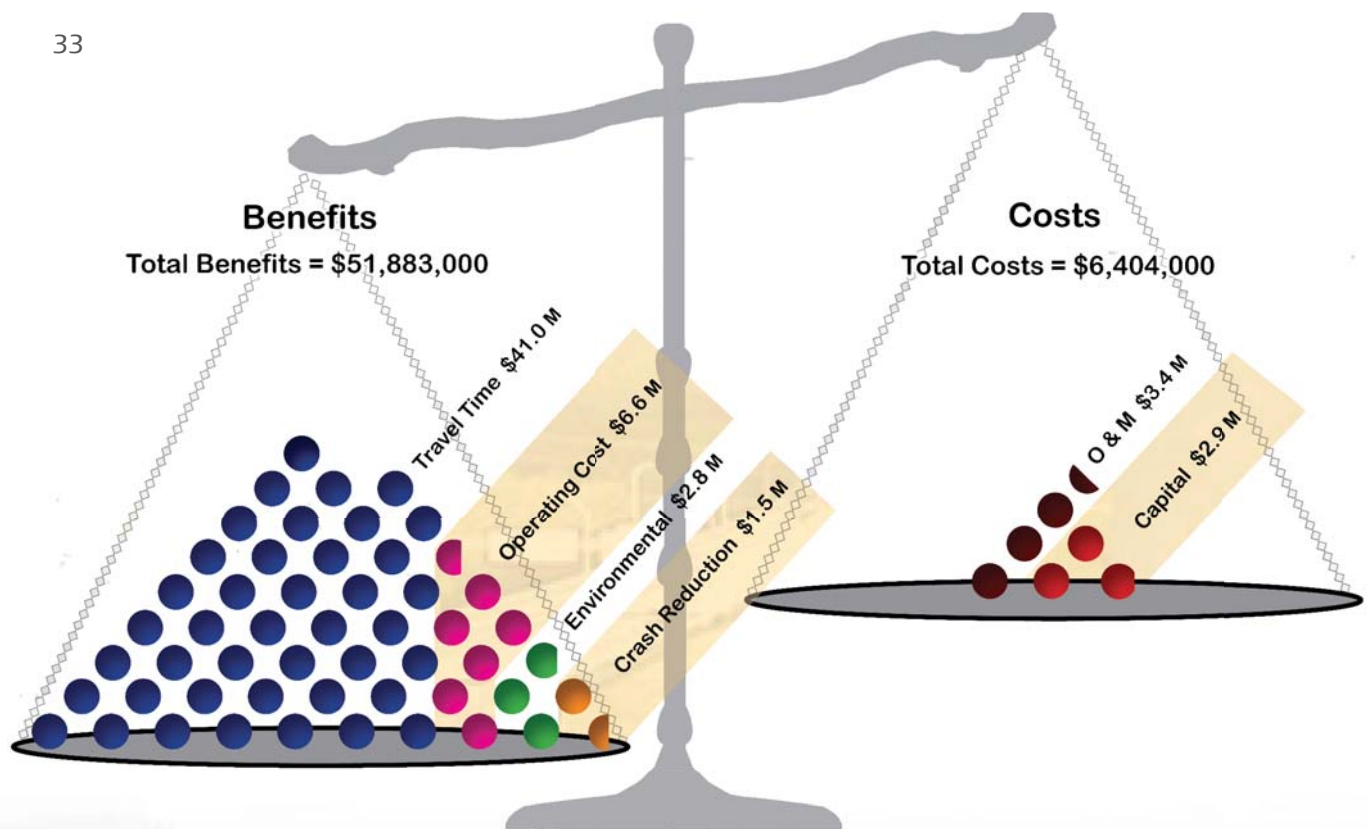
To request a tour of the Scout TMC (Transportation Management Center) go to kscout.net. Select "Scout Services", then "Schedule a Tour", and fill out the form.

"Thank you so much for the tour you gave the IEEE group a few months ago. You and your staff were awesome...it's so cool to see people who are so enthused and dedicated!"

Rob Stitt

Kansas City





KEY



Each circle represents \$1M in value.

Benefits**Travel Time**

Time saved by drivers due to reduced congestion

**Crash Reduction**

Elevated safety levels reduce secondary crashes

**Operating Cost**

Fuel savings

**Environmental**

Reductions in carbon emissions

Costs**Annual O & M**

Costs to operate and maintain

**Annualized Capital**

Includes initial capital investment and replacement costs

Investment in Scout technology, incident management, and Emergency Response translates to annual benefits that greatly outweigh the annual costs to build and maintain the program.

Kansas City MoDOT + KDOT
SCOUT



600 NE Colbern Rd, Lee's Summit, Missouri 64086
816-347-2200 office 816-622-6550 fax

