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# Uninterrupted Traffic Flow

*Tangible Result Driver – Don Hillis,  
Director of Operations*

Missouri drivers expect to get to their destinations in a timely, uninterrupted manner. Congestion, changes in weather, work zones and highway incidents can all impact their travels. MoDOT works to ensure that motorists travel as efficiently as possible on the state system by better managing work zones, snow removal and highway incidents, and by using the latest technology to inform motorists of possible delays and available options. Better traffic flow means fewer crashes.



# Uninterrupted Traffic Flow

## Average travel time on selected sections of roadways

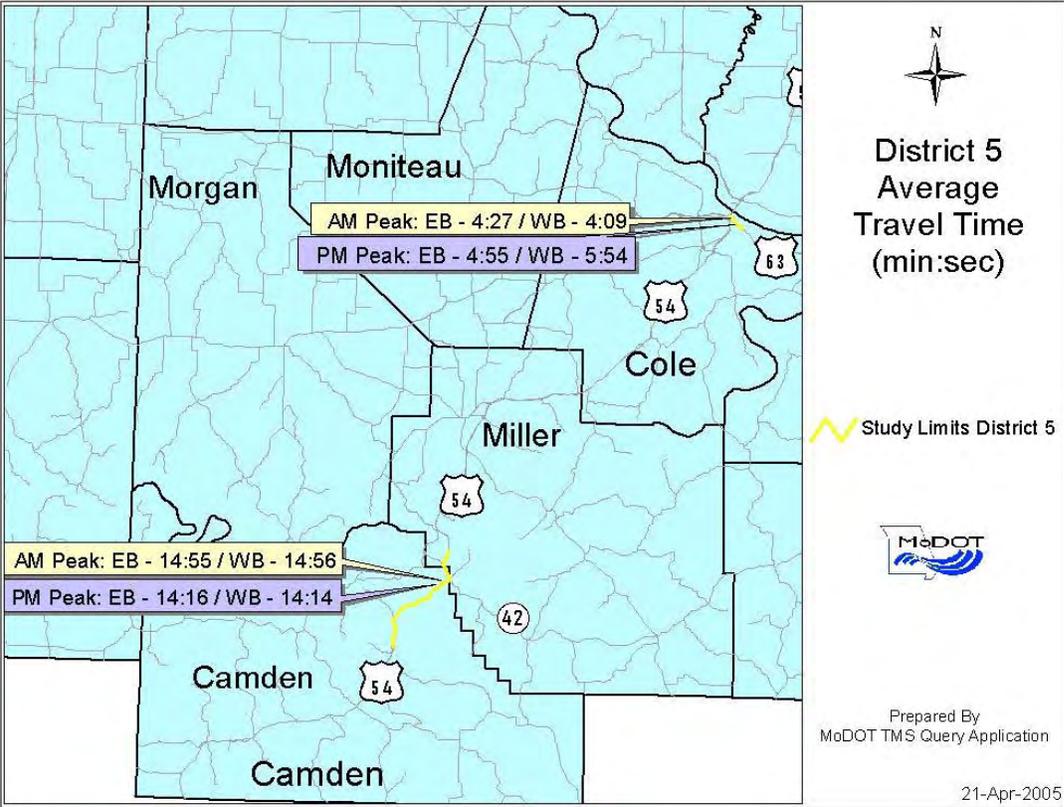
**Results Driver:** Don Hillis, Director of Operations  
**Measurement Driver:** Eileen Rackers, State Traffic Engineer

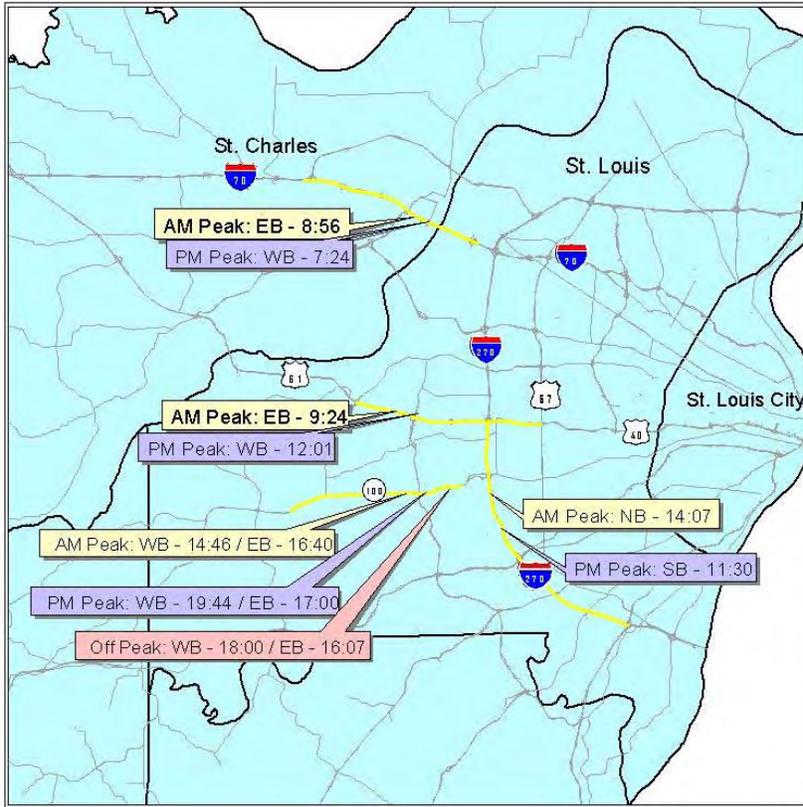
### Purpose of the Measure:

This measure helps determine whether travel times are increasing or decreasing on selected sections of roadways. Increasing travel times are an indication of congestion and poor performance of the system.

### Measurement and Data Collection:

Various methods of data collection are currently used, including vehicular installed travel time software, calculation based on average speed data provided at continuous Automatic Traffic Recorder sites, and a Statewide Evaluation of Intelligent Transportation Systems report by the University of Missouri-Columbia. Additional partnerships and technologies are also being investigated, such as collecting this data through our partnership with Mobility Technologies, Inc. in District 6, using cellular phones as anonymous traffic data probes, and collecting this data through our Advanced Traffic Management System software at the Traffic Management Centers in Districts 4, 6 and 8. Existing baseline travel times are provided on the limited number of segments with available data.





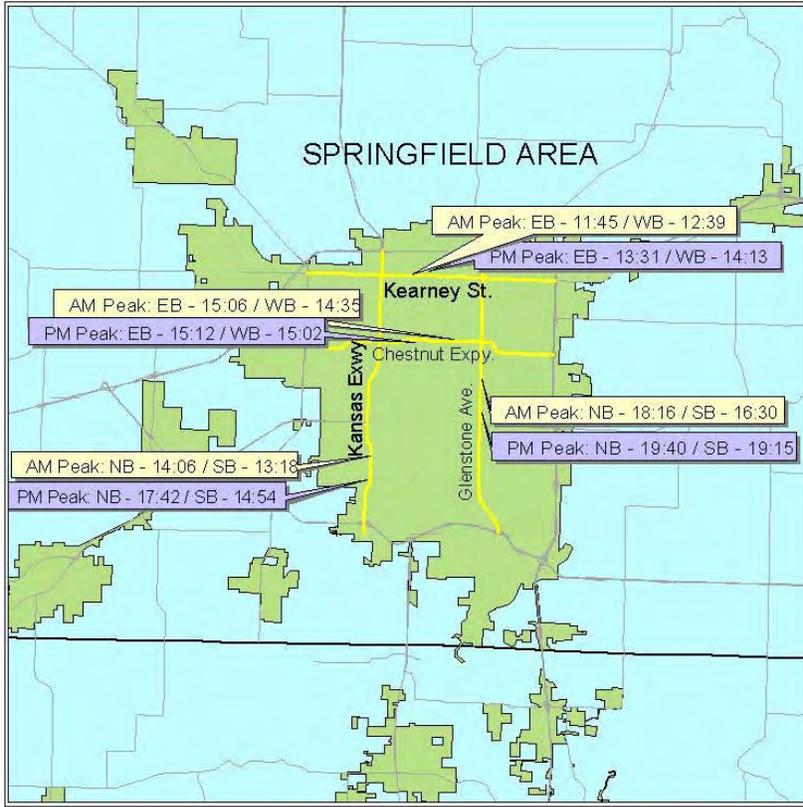
**St. Louis Area Average Travel Time (min:sec)**

Study Limits St. Louis



Prepared By MoDOT TMS Query Application

21-Apr-2005



**Springfield Area Average Travel Time (min:sec)**

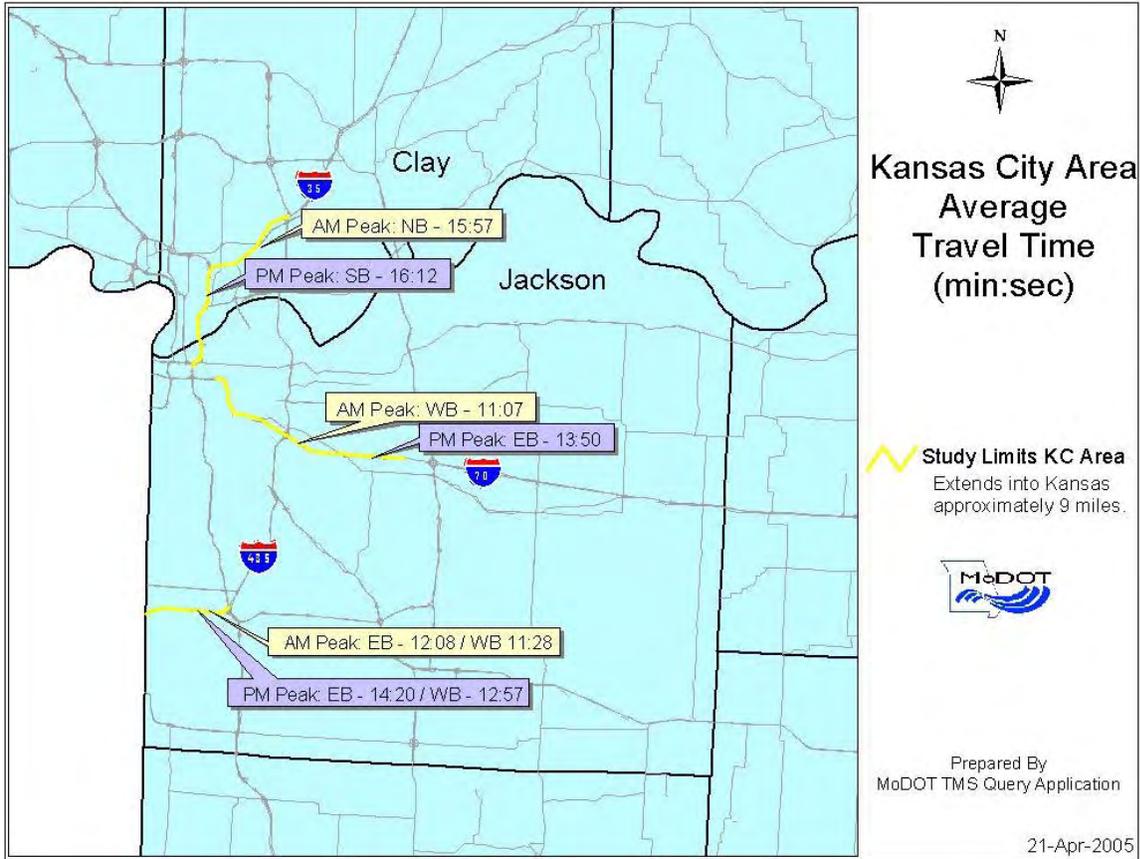
Study Limits Springfield

City Limits



Prepared By MoDOT TMS Query Application

21-Apr-2005



## Uninterrupted Traffic Flow

### *Average time to clear traffic incident*

**Results Driver:** Don Hillis, Director of Operations

**Measurement Driver:** Eileen Rackers, State Traffic Engineer

#### **Purpose of the Measure:**

This measure will be used to determine what deficiencies or efficiencies exist in the clearance of incidents on the state highway system. A traffic incident is an unplanned event that creates a temporary reduction in the number of vehicles that can travel on the road.

#### **Measurement and Data Collection:**

Collection of data began March 1, 2005. Arrival times and the times when the lanes are cleared are being recorded by Motorist Assist Operators and Traffic Management Center staff. Average time to clear traffic incident will be calculated from these recorded times. Data will be provided in the July 2005 Tracker.

**Measure is Under  
Development**

## Uninterrupted Traffic Flow

### *Average time to clear traffic backup from incident*

**Results Driver:** Don Hillis, Director of Operations

**Measurement Driver:** Mike Curtit, Assistant State Traffic Engineer

**Purpose of the Measure:**

This measure will track the amount of time it takes to return traffic flow back to normal after a traffic incident. A traffic incident is an unplanned event that creates a temporary reduction in the number of vehicles that can travel on the road.

**Measurement and Data Collection:**

Collection of data began March 1, 2005. Lanes cleared times and clear backup times are being recorded by Motorist Assist Operators and Traffic Management Center staff. Average time to clear traffic backup will be calculated from these recorded times. Data will be provided in the July 2005 Tracker.

**Measure is Under  
Development**

# Uninterrupted Traffic Flow

## *Number of retimed signals*

**Results Driver:** Don Hillis, Director of Operations

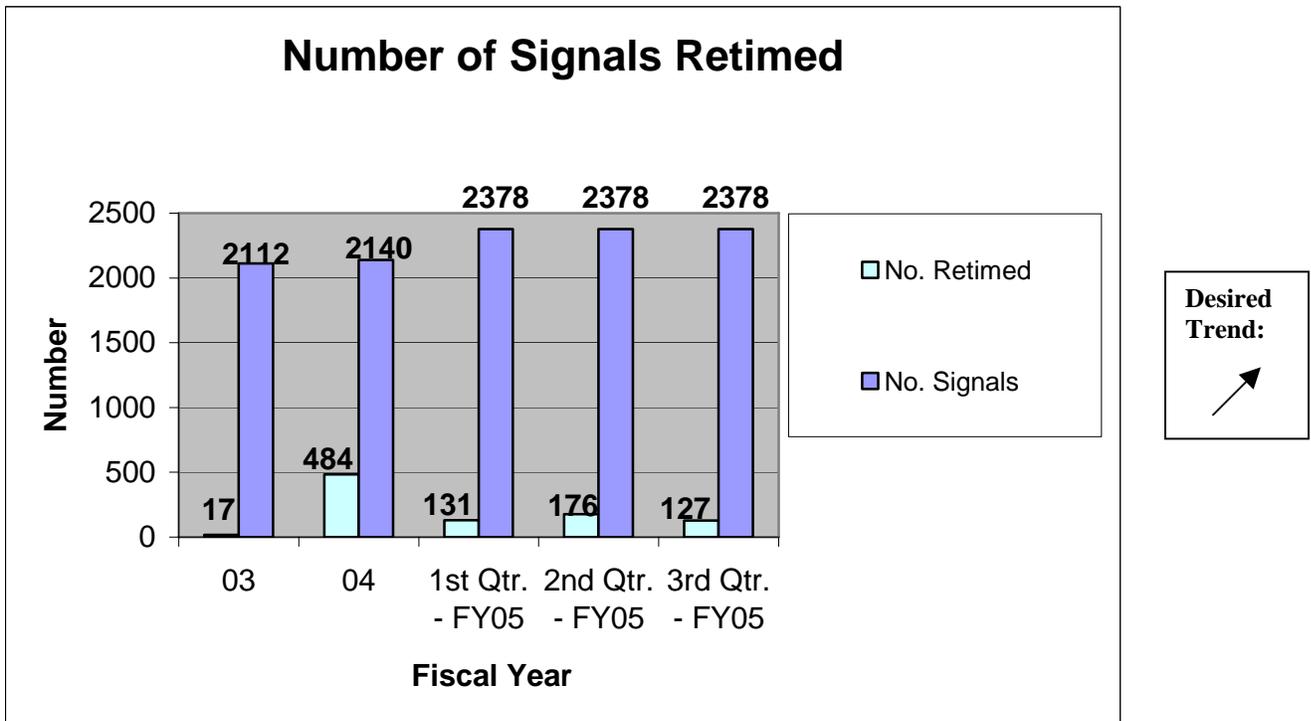
**Measurement Driver:** Julie Stotlemeyer, Signal and Lighting Engineer

**Purpose of the Measure:**

This measure tracks how well the department is adjusting the timing of the signal system to improve traffic flow. Traffic signals retimed every three to five years is generally considered to be a best practice. MoDOT has 2,378 total signals and to follow this best practice, the department should average approximately 198 signal timing adjustments each quarter.

**Measurement and Data Collection:**

Retimed signal data is documented on a timing sheet. The date of the retiming is recorded in the Transportation Management System database. Data is collected from the TMS database to generate the report.



# Uninterrupted Traffic Flow

## *Number of signals observed*

**Results Driver:** Don Hillis, Director of Operations

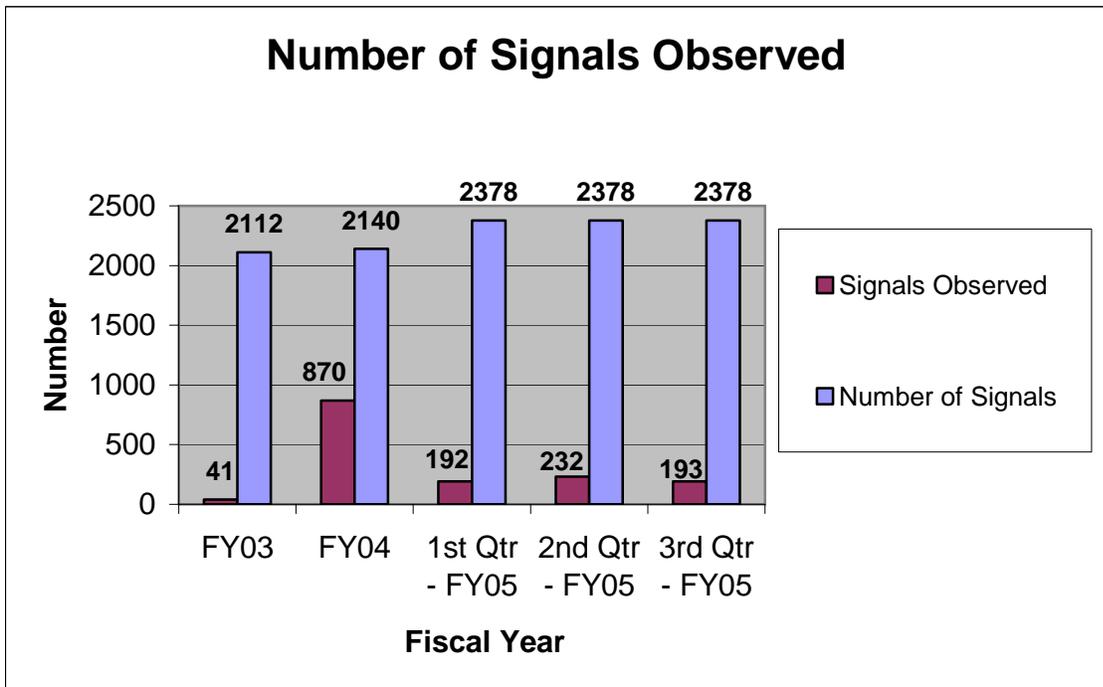
**Measurement Driver:** Julie Stotlemeyer, Signal and Lighting Engineer

**Purpose of the Measure:**

This measure tracks how well the department is monitoring the signal system to improve traffic flow. Traffic signals observed every three to five years is generally considered to be a best practice. MoDOT has 2,378 total signals and to follow this best practice, the department should average approximately 198 signal observations each quarter.

**Measurement and Data Collection:**

Observed signal data is documented on an observation sheet. The date of the signal observation will be recorded in the Transportation Management System database. Data is collected from the TMS database to generate the report.



**Desired Trend:**  
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# Uninterrupted Traffic Flow

## Number of customers assisted by the Motorist Assist program

**Results Driver:** Don Hillis, Director of Operations

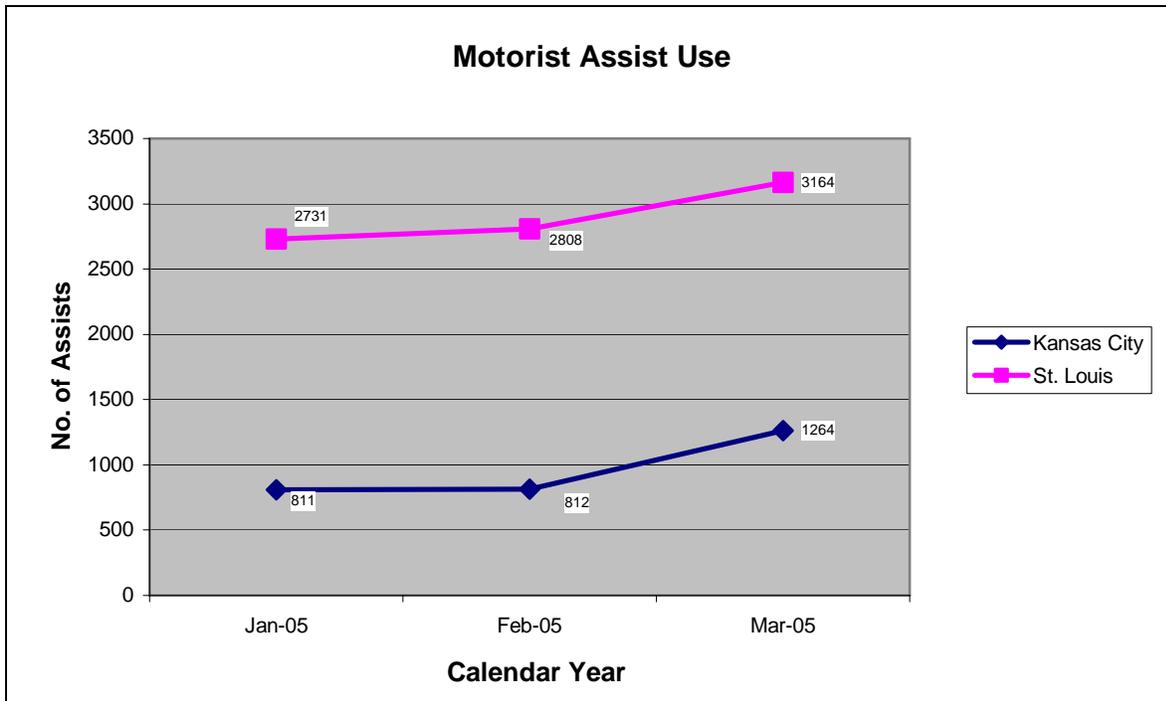
**Measurement Driver:** Mike Curtit, Assistant State Traffic Engineer

### Purpose of the Measure:

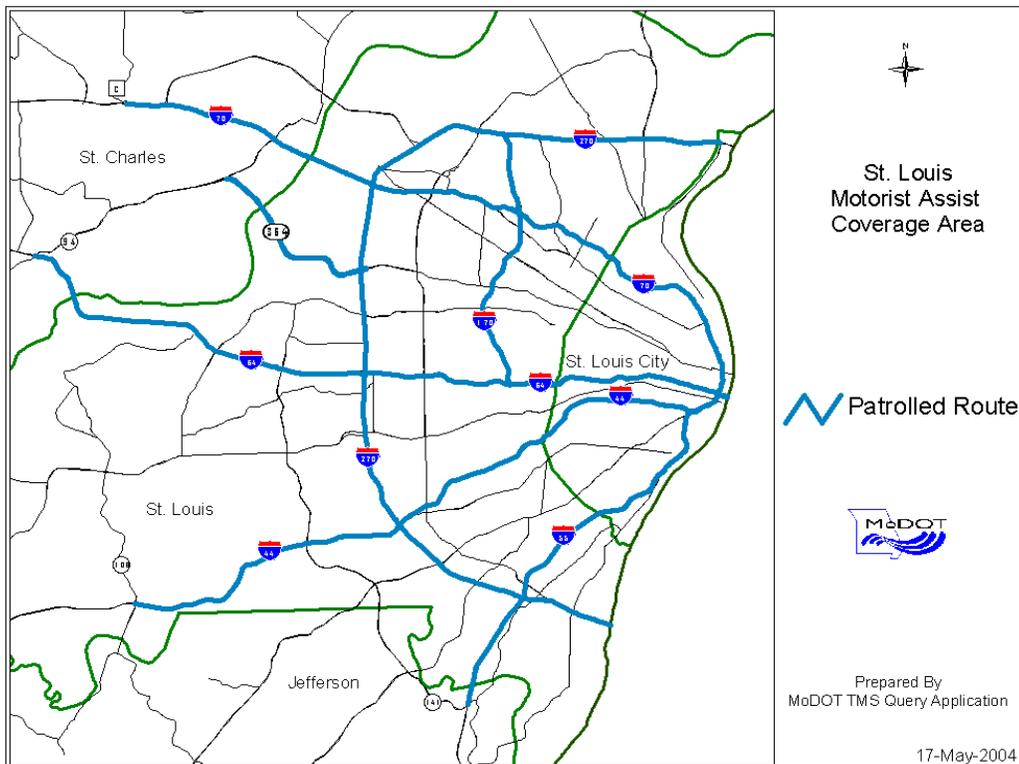
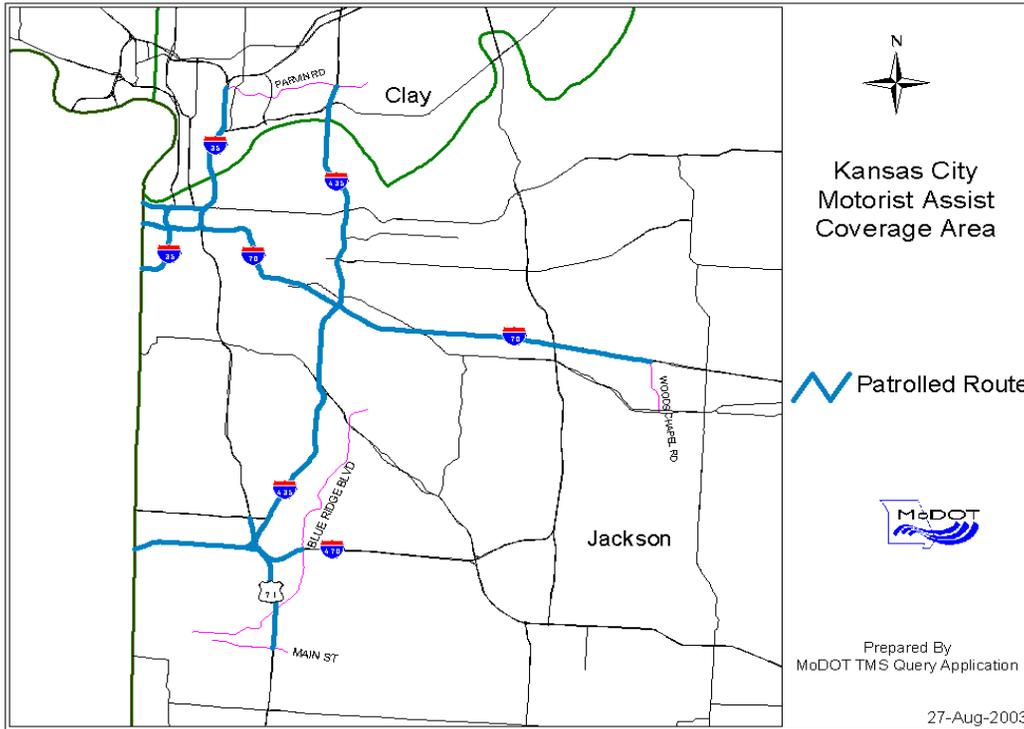
This measure is used to gauge the use of the Motorist Assist programs. Incidents impact Missouri's transportation system capacity. An incident is an unplanned event that creates a temporary reduction in roadway capacity that, in turn, impedes normal traffic flow. The sooner an incident is removed, the sooner the highway system returns to normal capacity. Therefore, responding to and quickly addressing the incidents (crashes, flat tires, stalled vehicles, etc.) improves system performance.

### Measurement and Data Collection:

Collection of monthly data began in January 2005. The Motorist Assist operators record each assist and then prepare monthly summary. St. Louis operators patrol approximately 160 freeway miles, while Kansas City operators patrol approximately 60 freeway miles.



**Desired Trend:**  
N/A



## Uninterrupted Traffic Flow

*Percent of work zones that meet customer expectations for traffic flow*

**Results Driver:** Don Hillis, Director of Operations

**Measurement Driver:** Pat McDaniel, Technical Support Engineer

**Purpose of the Measure:**

This measure will help the department meet the expectations of MoDOT customers concerning traffic flow through work zones.

**Measurement and Data Collection:**

Using a formal inspection checklist, each district work zone coordinator will be required to rate at least ten work zones per month within their respective district, and the Central Office and district engineering staffs will be required to perform inspections of any work zones that they pass through. Data collection will begin on June 1, 2005.

**Measure is Under  
Development**

# Uninterrupted Traffic Flow

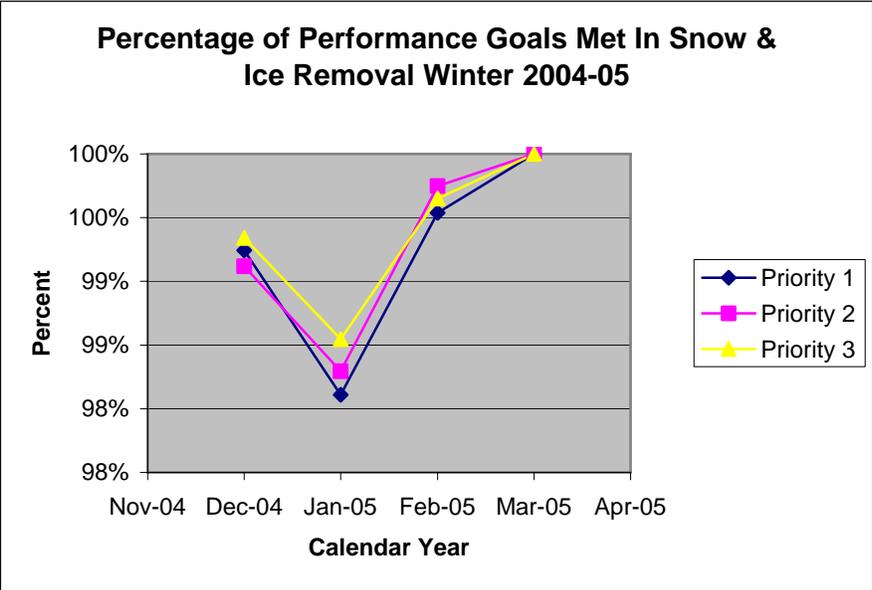
## *Percent of time meeting snow and ice removal performance goals*

**Results Driver:** Don Hillis, Director of Operations  
**Measurement Driver:** Jim Carney, State Maintenance Engineer

**Purpose of the Measure:**  
This measure tracks the effectiveness of MoDOT snow and ice removal efforts.

**Measurement and Data Collection:**  
This data is collected in the Lotus Notes Winter Event database. After each winter event, such as a snow or ice storm, personnel in the maintenance areas enter a report showing material and equipment usage and whether or not performance goals were met. Priority 1 routes are all National Highway System routes, all remaining arterials, and all collectors over 1700 annual average daily traffic. Priority 2 routes are those collector routes between 225 and 1700 annual average daily traffic. Priority 3 routes are those collector routes under 225 annual average daily traffic.

In fall of 2005, this data will be measured by average time to clear snow events on major and minor highways.



**Desired Trend:**  
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