

# Vital Signs Report

*A Scorecard of Metro's*

*Key Performance Indicators (KPI)*



**Office of Performance**

Chief Performance Officer

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## **Introduction to this report**

The Vital Signs Report presents a monthly analysis of a few key performance indicators (KPI's) that monitor long term progress in the strategic areas of safety, security, service reliability and customer satisfaction. Each month the report is presented to our Board of Directors and posted online so the public can monitor Metro's performance.

As a regional transportation system, Metro's system-wide performance is captured in the Vital Signs Report. The report is not designed to measure the experience of individual customers using Metro's services. Instead, the Vital Signs Report communicates if the Metro system's performance is improving, deteriorating, or remaining steady.

Detailed performance analysis is presented in the Vital Signs Report through answers to two prime questions: Why did performance change? What actions are being taken to improve performance? Metro is focused on these two questions to continually push to improve.

The Vital Signs Report demonstrates Metro's commitment to be transparent and accountable to our Board of Directors, jurisdictional stakeholders and the public. The monthly report documents performance results, and strives to hold WMATA's management accountable for what is working, what is not working and why.

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**Vital Signs Report – August 2011**  
**Executive Summary**

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For the most recent month of data available performance results have improved with eight measures being on target and only four worsening when compared to the prior month.

KEY PERFORMANCE INDICATOR:	Performance Is:		
	<i>On-Target</i>	<i>Improving</i>	<i>Worsening</i>
Bus On-time Performance			X
Bus Fleet Reliability			X
Rail On-time Performance	✓		
Rail Fleet Reliability			X
MetroAccess On-time Performance	✓		
Escalator Availability			X
Elevator Availability	✓		
Customer Injury Rate	✓		
Employee Injury Rate	✓		
Crime Rate	✓		
Arrests, Citations, Summonses	<i>not applicable</i>		
Customer Complaint Rate	✓		
Customer Commendation Rate	✓		

**Good Performance:** Rail on-time performance continued a steady trend of being slightly better than target even though two separate incidents on June 30 required morning peak period single tracking. MetroAccess on-time performance again showed solid performance aided by declining ridership attributed in part to continued efforts to more efficiently manage service. Elevator reliability achieved its target for the first time this year as repairs were completed and units were returned to service. The customer injury rate reached its target this month due to fewer injuries of bus passengers and on escalators and in facilities. Metro staff also placed more prominent barriers around tripping hazards in facilities. A continued focus on reducing employee injuries due to straining was realized as a result of educating employees on back safety and proper lifting techniques.

**Areas for improvement:** Bus on-time performance continued to perform below its target this year but is consistently better than the prior year’s actual performance. Bus fleet reliability has been declining but collectively for the first six months of the year it is better than target. The rail fleet reliability was negatively impacted by increased door failures due to a seasonal influx of new customers unfamiliar with how Metro train doors operate and air conditioning failures on very hot days. Escalator performance stabilized but remained below target as more preventive maintenance inspections resulted in additional repair needs. This results in short-term inconvenience for customers but improved reliability in the longer term.

## Strategic Framework Overview

There are five strategic goals that provide a framework to quantify and measure how well Metro is performing. Each of the goals have underlying objectives intended to guide all employees in the execution of their duties. Although Metro is working on all goals and objectives only a select number of performance measures are presented in the Vital Signs Report to provide a high-level view of agency progress.

5 Goals

- |       |  |
|-------|--|
| Goals | <ol style="list-style-type: none"> <li>1. <u>Create</u> a Safer Organization</li> <li>2. <u>Deliver</u> Quality Service</li> <li>3. <u>Use</u> Every Resource Wisely</li> <li>4. <u>Retain, Attract</u> and <u>Reward</u> the Best and Brightest</li> <li>5. <u>Maintain</u> and <u>Enhance</u> Metro's Image</li> </ol> |
|-------|--|

12 Objectives

Goal	Objective
1	1.1 <u>Improve</u> customer and employee safety and security ("prevention")*
	1.2 <u>Strengthen</u> Metro's safety and security response ("reaction")
2	2.1 <u>Improve</u> service reliability
	2.2 <u>Increase</u> service and capacity to relieve overcrowding and meet future demand
	2.3 <u>Maximize</u> rider satisfaction through convenient, comfortable services and facilities that are in good condition and easy to navigate
	2.4 <u>Enhance</u> mobility by improving access to and linkages between transportation options
3	3.1 <u>Manage</u> resources efficiently
	3.2 <u>Target</u> investments that reduce cost or increase revenue
4	4.1 <u>Support</u> diverse workforce development through management, training and provision of state of the art facilities, vehicles, systems and equipment
5	5.1 <u>Enhance</u> communication with customers, employees, Union leadership, Board, media and other stakeholders
	5.2 <u>Promote</u> the region's economy and livable communities
	5.3 <u>Use</u> natural resources efficiently and reduce environmental impacts

\*WMATA Board of Directors System Safety Policy states:

1. To avoid loss of life, injury of persons and damage or loss of property;
2. To instill a commitment to safety in all WMATA employees and contractor personnel; and
3. To provide for the identification and control of safety hazards, the study of safety requirements, the design, installation and fabrication of safe equipment, facilities, systems, and vehicles, and a systematic approach to the analysis and surveillance of operational safety for facilities, systems, vehicles and equipment.

## Metro Facts at a Glance

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### Metro Service Area

Size	1,500 sq. miles
Population	3.5 million

### Ridership

Mode	FY 2010	Average Weekday
Bus	124 million	434,638 (June 2011)
Rail	217 million	793,515 (June 2011)
MetroAccess	2.4 million	7,156 (June 2011)
Total	343.4 million	

### Fiscal Year 2011 Budget

Operating	\$1.5 billion
Capital	\$0.7 billion
Total	\$2.2 billion

### Metrobus General Information

Size	11,624 bus stops
Routes*	323
Fiscal Year 2011 Operating Budget	\$538 million
Highest Ridership Route in 2009	30's – Pennsylvania Ave. (16,330 avg. wkdy ridership)
Metrobus Fare	\$1.70 cash, \$1.50 SmarTrip®, Bus-to-bus Transfers Free
Express Bus Fare	\$3.85 cash, \$3.65 SmarTrip®, Airport Fare \$6.00
Bus Fleet*	1,492
Buses in Peak Service	1,244
Bus Fleet by Type*	Compressed Natural Gas (460), Electric Hybrid (401), Clean Diesel (117) and All Other (514)
Average Fleet Age*	7.5 years
Bus Garages	9 – 3 in DC, 3 in MD and 3 in VA

\*As of December 2010.



## Metrorail General Information

Fiscal Year 2011 Operating Budget	\$822 million
Highest Ridership Day	Obama Inauguration on Jan. 20, 2009 (1.1 million)
Busiest Station in 2010	Union Station (34,713 average weekday boardings in April)
Regular Fare (peak)	Minimum - \$2.20 paper fare card, \$1.95 SmarTrip® Maximum - \$5.25 paper fare card, \$5.00 SmarTrip®
Reduced Fare (non-peak)	Minimum - \$1.85 paper fare card, \$1.60 SmarTrip® Maximum - \$3.00 paper fare card, \$2.75 SmarTrip®
Peak-of-the-peak Surcharge	\$.20 - weekdays 7:30 – 9 a.m. and 4:30 – 6 p.m., depending on starting time of trip
1 <sup>st</sup> Segment Opening/Year	Farragut North-Rhode Island Avenue (1976)
Newest Stations/Year	Morgan Boulevard, New York Avenue, and Largo Town Center (2004)
Rail Cars in Revenue Service	1,104
Rail Cars in Peak Service	860
Rail Cars by Series	1000 Series (288), 2000/3000 (362), 4000 (100), 5000 (184) and 6000 (184)
Lines	5 – Blue, Green, Orange, Red and Yellow
Station Escalators	588
Station Elevators	237
Longest Escalator	Wheaton station (230 feet)
Deepest Station	Forest Glen (21 stories / 196 feet)
Rail Yards	9 – 1 in DC, 6 in MD and 2 in VA

## MetroAccess General Information

Fiscal Year 2011 Operating Budget	\$104 million
MetroAccess Fare	Within the ADA service area – twice the equivalent SmarTrip-based fare up to a \$7 maximum
Paratransit Vehicle Fleet**	600
Average Fleet Age**	2.4 years
Paratransit Garages	7 (1 in DC, 4 in MD and 2 in VA)
Contract Provider	MV Transportation

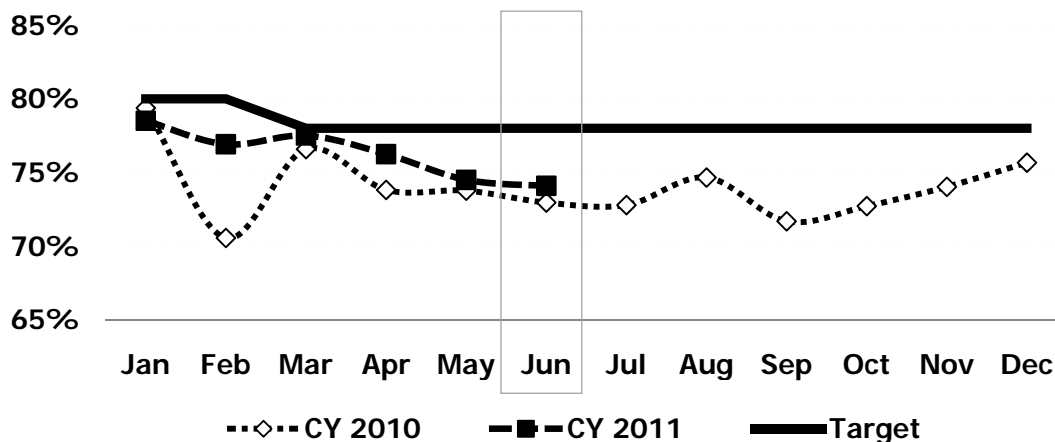
*\*\*As of July 2011.*

**Reason to Track:** This indicator illustrates how closely Metrobus adheres to published route schedules on a system-wide basis. Factors which affect on-time performance are traffic congestion, inclement weather, scheduling, vehicle reliability, and operational behavior. Bus on-time performance is essential to delivering quality service to the customer.

**Why Did Performance Change?**

- Bus on-time performance continued a favorable pattern of slightly, but consistently out-performing the same period last year. The strategic deployment of Service Operations Managers to monitor the most troubled on-time performance areas has worked well.
- The impacts of road construction, detours, and summer events negatively affect bus on-time performance during the spring and summer months.
- As the summer drew closer, there also appeared to be a larger number of special event participants when compared to the prior month, which further delayed service on some of the most challenging routes. For example, June events such as the 10<sup>th</sup> Annual Caribbean Carnival and the Susan G. Komen Race for the Cure affected the already congested streets of 14<sup>th</sup> Street, Georgia Avenue, and North Capitol.
- In addition to the increasing impact of special events, detours and delays associated with construction projects continue to affect on-time performance along some well traveled routes such as Pennsylvania Avenue.

**Bus On-Time Performance**



**Actions to Improve Performance**

- Weekday schedules for routes 52, 53, and 54 (14<sup>th</sup> Street) were adjusted June 26 to reflect current traffic conditions and improve midday bus service frequency. On-time performance of these routes will be assessed and reported in the coming months.
- Minor schedule adjustments in Clinton, Oxonhill, Forestville, and Greenbelt will also be implemented to provide a better connection for customers.
- Metro will partner with Google to make schedules available on Google Maps to help customers plan their trips. While this does not directly affect Bus on-time performance, it potentially reduces the wait time of customers.

**Conclusion:** The seasonal impacts that affect on-time performance continued during the month of June. However on-time performance continued to slightly out-perform the prior year. As Metro implements detours in response to special events and road construction, efforts will be made to implement detours that have the least amount of inconvenience to its customers.

**KPI: Bus Fleet Reliability (June)**  
**(Mean Distance Between Failures)**

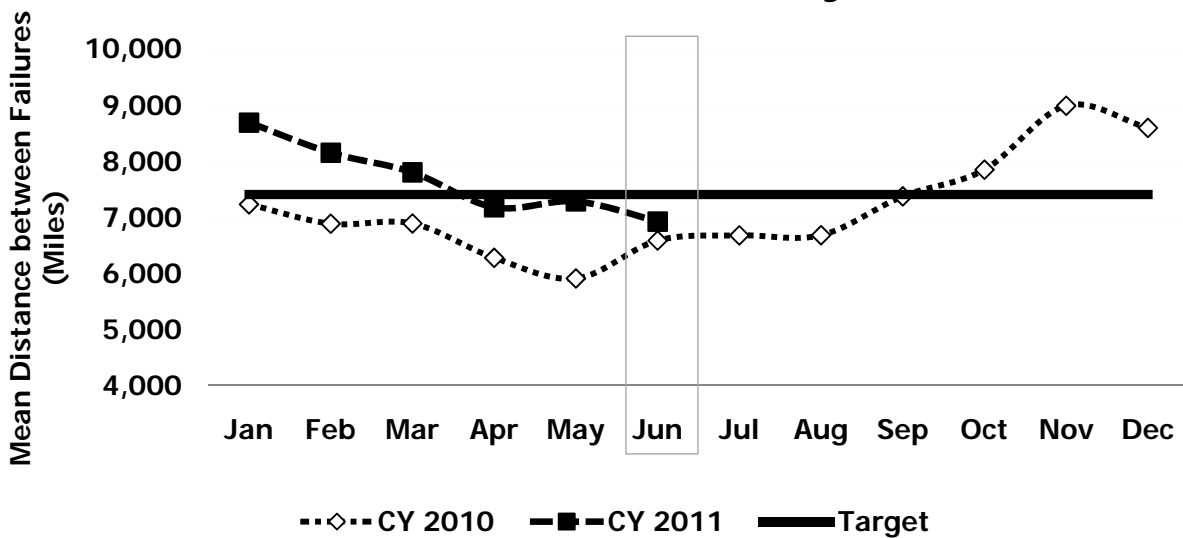
**Objective 2.1 Improve Service Reliability**

**Reason to Track:** This key performance indicator communicates service reliability and is used to monitor trends in vehicle breakdowns that cause buses to go out of service and to plan corrective actions. Factors that influence bus fleet reliability are the vehicle age, quality of a maintenance program, original vehicle quality, and road conditions affected by inclement weather and road construction. For this measure higher miles are better, meaning that the vehicle goes farther without mechanical problems.

**Why Did Performance Change?**

- June's fleet reliability was better than the prior year's but declined slightly when compared to the previous month due to increased engine faults on the new Hybrids and an increasing number of interruptions on older fleets.
- During the warmer months, it is common for the older fleets to experience an increased occurrence of failed components such as overheated coolant systems which cause the engine to shut down.
- The overall reliability rate for the first six months of the year is 7,664 miles between failures which is better than the target of 7,400. This high reliability rate is a combined result of good maintenance practices and the arrival of new buses allowing for the retirement of older, less reliable buses. Metro has consistently funded the bus replacement program for a number of years and is now seeing the benefits from that investment.

**Bus Fleet Reliability**



**Actions to Improve Performance**

- Metro will continue to work with the Hybrid bus manufacturer to swiftly resolve cooling and emission control system failures. Metro conducts monthly meetings with engine manufacturers to address all issues.
- Continue to analyze the monitoring of fluids to avoid contaminants that cause premature hydraulic failures.
- Review preventive maintenance standards to ensure adherence to manufacturer recommendations and the implementation of best practices.

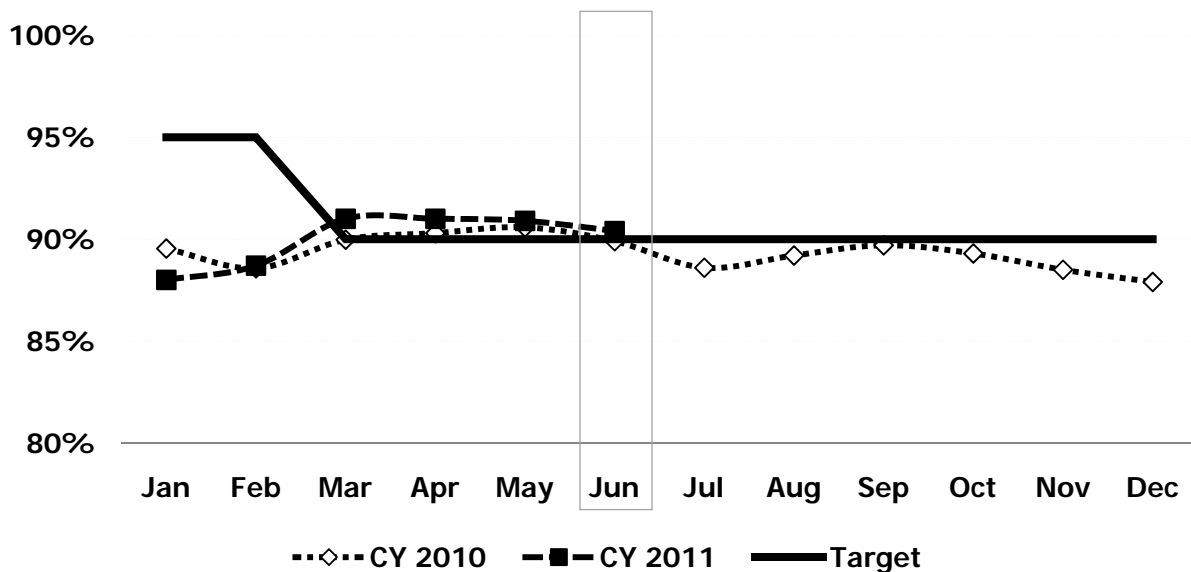
**Conclusion:** Bus maintenance staff continues to search for and implement activities that improve bus fleet reliability and the result for the first half of this year is that Metrobus fleet reliability has outperformed the target.

**Reason to Track:** On-time performance measures the adherence to weekday headways, the time between trains. Factors that can affect on-time performance include track conditions resulting in speed restrictions, the number of passengers accessing the system at once, dwell time at stations, equipment failures and delays caused by sick passengers or offloads. On-time performance is a component of customer satisfaction.

**Why Did Performance Change?**

- Metrorail on-time performance continued its reliable trend of being slightly better than target even though performance dipped slightly during June to 90.4%. Contributing to the very minor decrease were two separate incidents on June 30 that required single-tracking during the morning peak period and resulted in a drop in performance of 0.3% for the Red Line and 0.2% for the Green Line for the month.
- There were 64% more air conditioning failures than in May 2011 due to hot, humid weather; but 30% fewer failures compared to June 2010. Air conditioning system failures resulted in fewer railcars available for dispatch, leading to longer gaps between trains in service.
- The Orange and Yellow Lines had the highest on-time performance at 92.4% and the Blue Line showed improvement for the month with 88% on-time performance because of fewer delays impacting service.

### Rail On-Time Performance



**Actions to Improve Performance**

- Railcar Maintenance has assigned staff to work in the Operations Control Center on all shifts to improve communication directly with each yard about when and where cars will be available for service.
- Terminal Supervisors are now viewing real-time schedule performance information so they can monitor the system as a whole and adjust dispatching of trains to manage headways on their assigned lines.
- Rail Transportation will work with Car Maintenance to quickly make schedule adjustments to balance train spacing when railcar availability is impacted during hot days and minimize the operation of cars without working air conditioning systems. Rail Transportation employees will remain vigilant in minimizing the delays caused by door failures by communicating with customers about how the doors work, and addressing door failures before they result in service delays.

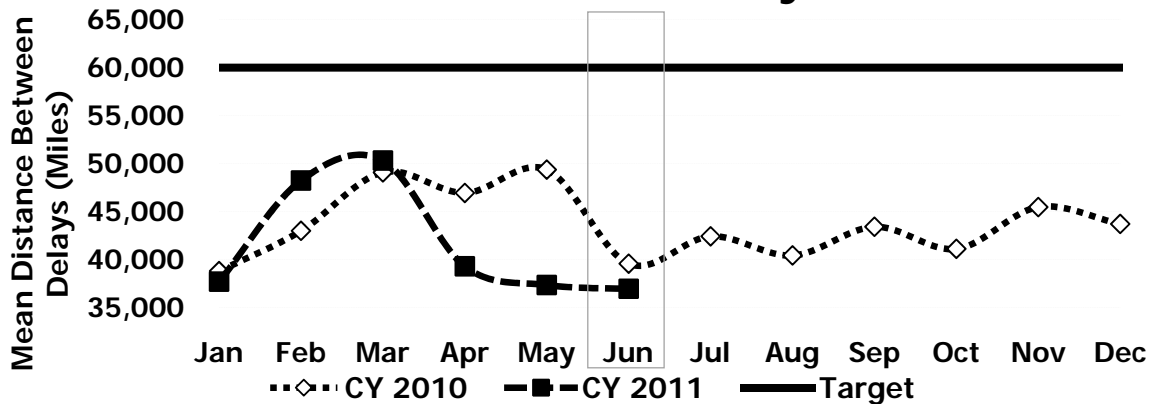
**Conclusion:** June on-time performance declined slightly due to a decrease in railcar availability because of an increase in air conditioning failures, resulting in longer times between trains.

**Reason to Track:** Mean distance between delays communicates the effectiveness of Metro's railcar maintenance program. This measure reports the number of miles between railcar failures resulting in delays of service greater than three minutes. Factors that influence railcar reliability are the age of the railcars, the amount the railcars are used and the interaction between railcars and the track. The higher the mileage for the mean distance between delays the more reliable the railcars.

**Why Did Performance Change?**

- Overall fleet reliability stabilized in June with the same number of delays and slightly fewer miles operated compared to May. Door-related delays made up 41% of the total for all railcars, and the most frequent type of failure on the 2000-3000 Series (55% of total for this car type), and the 6000 Series (50% of the total for this car type). Also, door-related delays increased for the 1000, 4000 and 5000 Series railcars this month. During June, increased numbers of visitors and customers unfamiliar with Metro's door systems impacted performance of railcar doors throughout the system.
- The 6000 Series car reliability improved from May with fewer door failures resulting in delays, returning performance to the average of the last 12 months. The 6000 Series railcars outperformed the rest of the fleet average in miles between delays, but did not make up enough of the total fleet to raise the overall performance significantly.
- The 4000 Series railcars experienced 22 delays > 3 minutes, with four more brake and four more door-related delays, offsetting improvements in other fleets. The 4000 Series cars operated only 8% of the total railcar miles and accounted for 14% of the railcar related delays.
- The 5000 Series railcars experienced four more delays > 3 minutes due to the increase in door failures.

**Rail Fleet Reliability**



**Actions to Improve Performance**

- Railcar Maintenance continues to work with Procurement on improving its parts ordering process to make sure that component parts are available for repairs. Progress is being made but will take several months to show improvement in the railcar reliability measure.
- Car Maintenance and Rail Vehicle Engineering continue to work with IFE (manufacturer of the 2000-3000 and 6000 Series door systems) and Alstom to resolve reliability issues with the doors. Several modifications to improve the reliability and maintainability of the 6,504 passenger doors across these fleets are being reviewed and/or developed for testing over the next several months.
- Railcar Maintenance and Rail Vehicle Engineering continue in the design/test phase for replacement of the Low Voltage Power Supply system, which was identified as a root cause for some of the braking issues on the 1000 Series railcars.
- Railcar Maintenance will focus on HVAC systems during the remaining summer months to keep as many cars available for service as possible.

**Conclusion:** The mean distance between delays declined slightly (1%) in June due to lower performing 4000 and 5000 Series railcars.

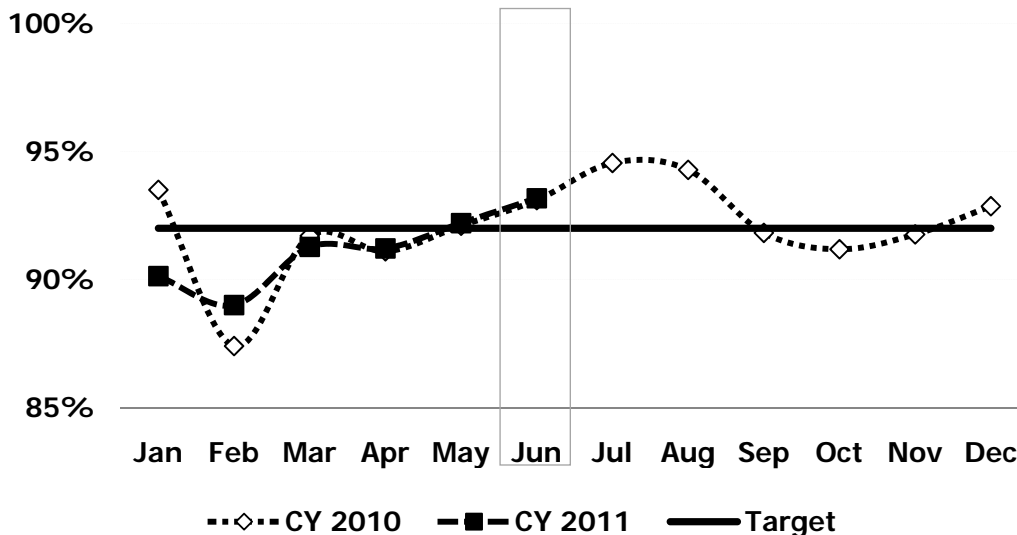
**KPI: MetroAccess On-Time Performance (June) Objective 2.1 Improve Service Reliability**

**Reason to Track:** On-time performance is a measure of MetroAccess service reliability and how well service meets both regulatory and customer expectations. Adhering to the customer's scheduled pick-up window is comparable to Metrobus adhering to scheduled timetables. Factors which affect on-time performance are traffic congestion, inclement weather, scheduling, vehicle reliability and operational behavior. MetroAccess on-time performance is essential to delivering quality service to customers, and meeting service criteria established through Federal Transit Administration regulatory guidance.

**Why Did Performance Change?**

- MetroAccess on-time performance improved in June to above the target of 92% and equal with last year's performance.
- Staff continued its focused effort on improved schedule efficiency, service reliability and on-time performance. MetroAccess Service Monitors and Road Supervisors continued their practice of proactive monitoring of division pull-outs and service delivery to ensure adherence to schedules and improve on-time performance.

**MetroAccess On-Time Performance**



**Actions to Improve Performance**

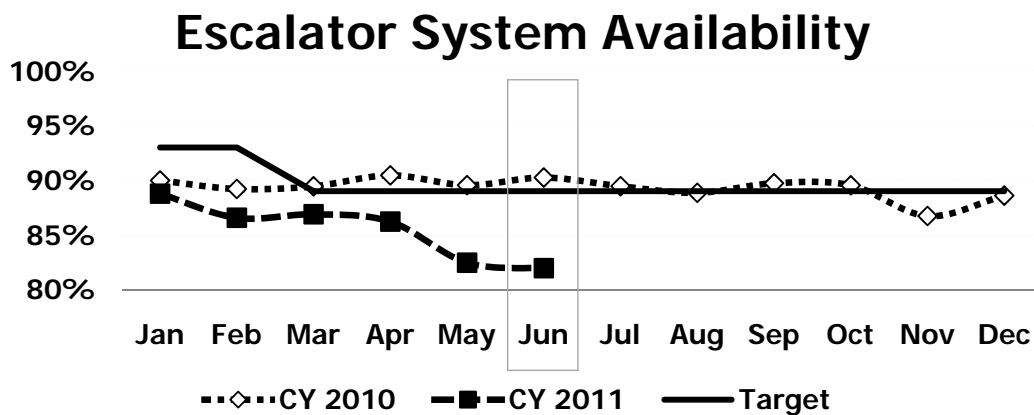
- Access staff will continue to encourage use of bus and rail services for customers who are able to do so. The Department of Access Services is working in cooperation with Bus Planning and the jurisdictions to make bus stops and sidewalks more accessible to people with disabilities. Improving accessible pathways leading to and from bus stops throughout the region will allow customers to travel more freely using the fixed-route bus system and will reduce dependence on paratransit.
- MetroAccess will continue to adjust the level of service provided with the number of customer trips reserved to manage the level of resources used with the adopted standard for providing on-time service. As more customers are able to use the fixed route bus and rail system, there is a corresponding reduction in demand on the MetroAccess system.
- MetroAccess staff will continue to monitor service provision and improve efficiency by continuing to educate customers about the impact of customer-driven changes to the schedule like cancellations and no-shows.

**Conclusion:** MetroAccess on-time performance improved in June. Staff continues to implement measures designed to reduce costs while closely monitoring efficiencies and maintaining reliable service for customers.

**Reason to Track:** Customers access Metrorail stations via escalators to the train platform. An out-of-service escalator requires walking up or down a stopped escalator, which can add to total travel time and may make stations inaccessible to some customers. Escalator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator performance (at all stations over the course of the day) and will vary from an individual customer's experience.

**Why Did Performance Change?**

- Availability stabilized in June. 482 out of 588 escalators were operating in June 2011 (based on hours of available service).
- Escalator preventive maintenance compliance improved 16% in June, resulting in a list of additional repairs for maintenance technicians. While a short-term inconvenience for our customers, this indicates that maintenance is moving toward a condition-based approach. By identifying repairs early, this minimizes the risk that an escalator will unexpectedly shutdown. Long-term, these repairs will keep escalators running longer.
- Maintenance staff brought escalators back into service more quickly in June, as hours for unscheduled service calls were down 15% despite the number of unscheduled calls increasing 6%.
- Metro is modernizing (aka overhauling) escalators at nine stations, reducing escalator availability in the short term. June 2011 escalator out-of-service hours for modernization are 16% higher than the same month in 2010. Modernization work accounted for fifteen percent of all escalator out-of-service hours in June 2011 (including corresponding "walker" units).



**Actions to Improve Performance**

- New supervisors will strategically plan intentional escalator downtime (e.g., inspection repairs and preventive maintenance repairs) so that repairs are prioritized for higher ridership stations and ensure that staffing and parts are available for timely return to service.
- A team of maintenance technicians will now focus exclusively on units with higher than average outages to identify the components causing the unscheduled outages and prevent the issues from reoccurring. While a more time-intensive approach today, this will keep the unit in service longer once resolved.
- An entirely new escalator will be put into service at Foggy Bottom, one of Metro's busiest stations. This fall two remaining entrance escalators will be replaced and a new staircase and canopy added to the entrance.
- Metro will add new MetroForward signage to barricaded escalators to improve communication with customers about the type of maintenance underway and the expected return to service date.

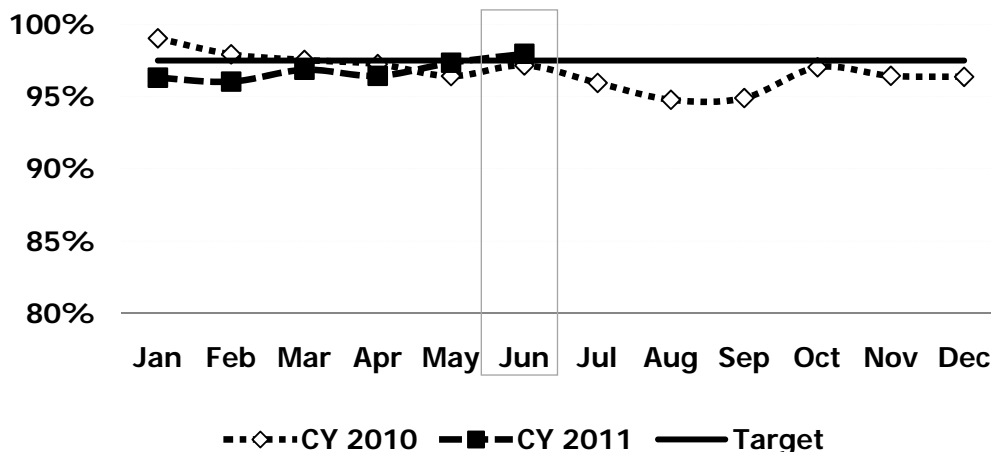
**Conclusion:** Escalator availability stopped its steep downward trend in June. Escalator performance reflects Metro's prioritization of preventive maintenance inspections. These inspections identify repairs early to minimize the risk that an escalator will unexpectedly shutdown in the future. Long-term, this proactive approach will keep escalators running longer.

**Reason to Track:** Metrorail elevators provide an accessible path of travel for persons with disabilities, seniors, customers with strollers, travelers carrying luggage and other riders. When an elevator is out of service, Metro is required to provide alternative services, which may include a shuttle bus service to another station.

**Why Did Performance Change?**

- For the first time this year, elevator system-wide availability rose above target to 97.9%. Elevator availability out-performed the same month last year, and was the highest it's been since February 2010.
- On average, 232 of 237 elevators were available for the month.
- Maintenance staff brought elevators back into service more quickly in June, as hours for unscheduled service work were down 19% despite the number of unscheduled calls increasing 21%.
- Elevator maintenance hours for repairs identified during inspections were down 89% and maintenance for communication and flooring repairs was down 54%.

### Elevator System Availability



**Actions to Improve Performance**

- Metro is developing a mechanism to prioritize elevator maintenance work to reflect elevators most critical for system access, including Metro's transfer centers. This reflects a focus on keeping the maximum number of stations available to our customers.
- Beginning in July, Metro will have a dedicated team to address major repairs on Metro's elevators.

**Conclusion:** Elevator availability reached 97.9% in June, making it the best month since February 2010.



**KPI: Customer Injury Rate (May) Per Million Passengers**

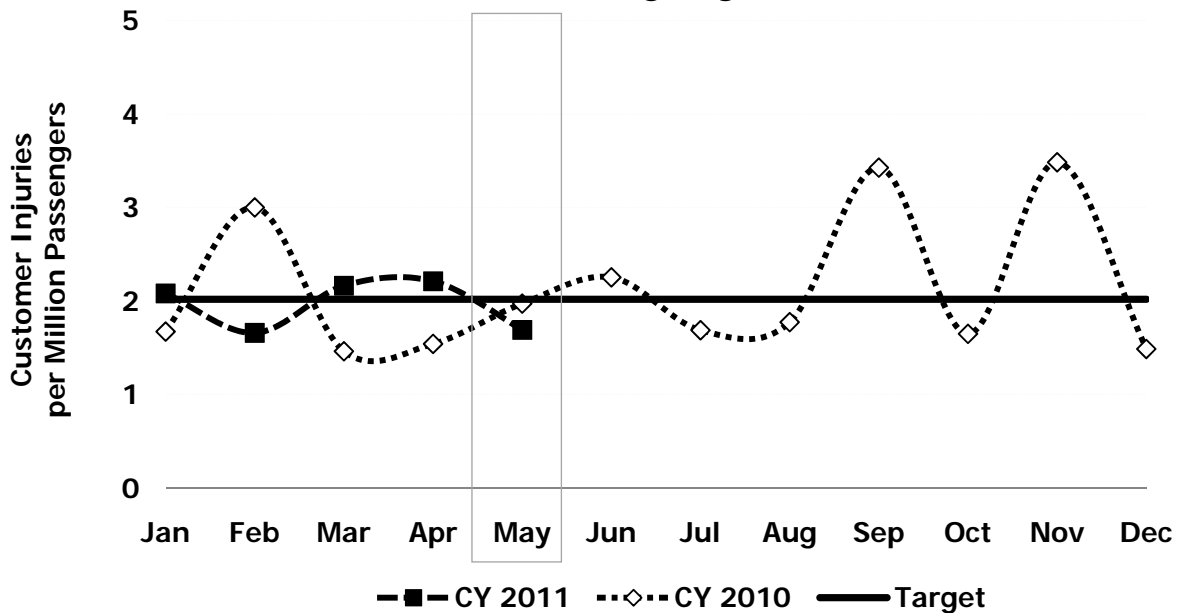
**Objective 1.1 Improve Customer and Employee Safety and Security**

**Reason to Track:** Customer safety is the highest priority for Metro and a key measure of quality service. Customers expect a safe and reliable ride each day. The customer injury rate is an indicator of how well the service is meeting this safety objective.

**Why Did Performance Change?**

- May's customer injury rate is better than the previous two months of the calendar year. There were 17 fewer injuries in the month of May as a result of the decline of bus passenger injuries, escalator, and transit facility injuries.
- Barriers around escalators have become more prominent, causing customers to walk with added caution.
- There were also fewer passenger injuries caused by MetroAccess collisions.
- Fifty percent of the bus passenger injuries were the result of a collision. There were nine collisions during the month of May which caused passenger injuries. More than half of these collisions were non-preventable.

### Customer Injury Rate



**Actions to Improve Performance**

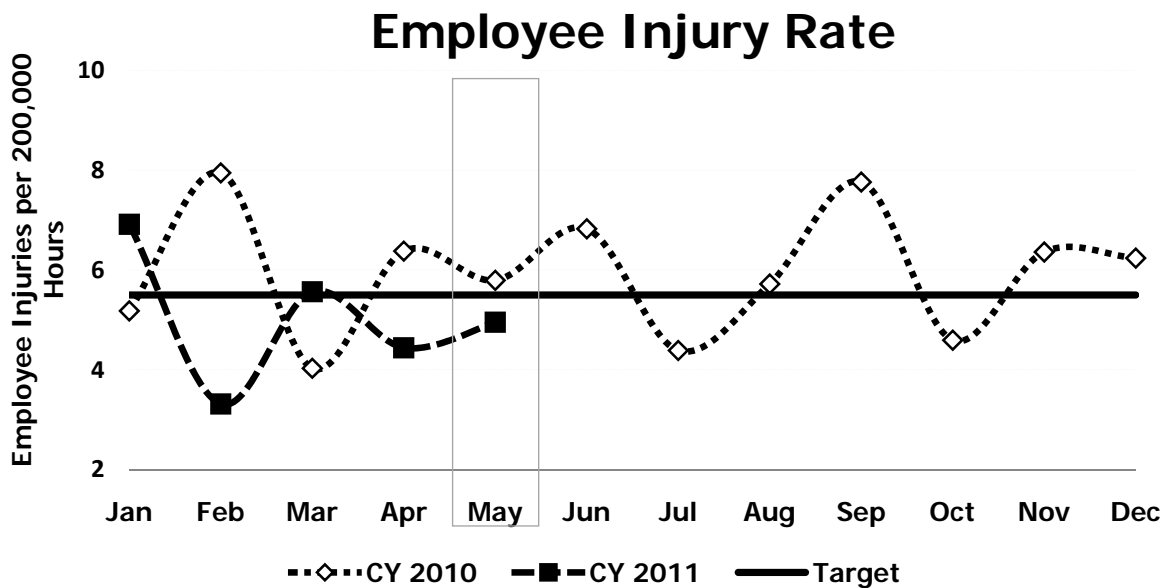
- Continue to perform detailed (OSHA Type) safety inspections of rail stations, worn floors, platforms, and interior lighting.
- Continue to ensure proper barriers around escalators during preventive maintenance work and set up warning signs about wet floors where appropriate.
- Metro's escalator safety message will be expanded to Metro's website, in addition to working on a new public safety announcement regarding escalator safety.
- Continue to address the hotline safety complaints as reported by WMATA employees (as hotline is for employees only).

**Conclusion:** The customer injury rate improved as a result of a reduction in nearly every category of customer injuries. On-going assessments of system safety will continue throughout the organization as Metro strives to be the safest transit system in America.

**Reason to Track:** Worker's compensation claims are a key indicator of how safe employees are in the workplace.

**Why Did Performance Change?**

- The employee injury rate continued to be better than the previous calendar year. The increase in the rate this month results from a large reduction in the reported number of hours worked and a small decrease in the number of employee injuries.
- Strains continued to be the number one cause of employee injuries. For two consecutive months the category striking/struck-by-an-object has replaced the slips/falls category as the second leading cause of injury. The struck-by-object pattern continued to be driven by stepping on objects, handling objects, and falling objects.
- Bus Services represents the largest portion of employee injuries; however, there has been a reduction in the number of bus employees considered to be at risk of filing a worker's comp claim.
- Rail Services employee injuries were related to strains caused by activity of bellying rail cars and slipping on uneven surfaces while walking on tracks.



**Actions to Improve Performance**

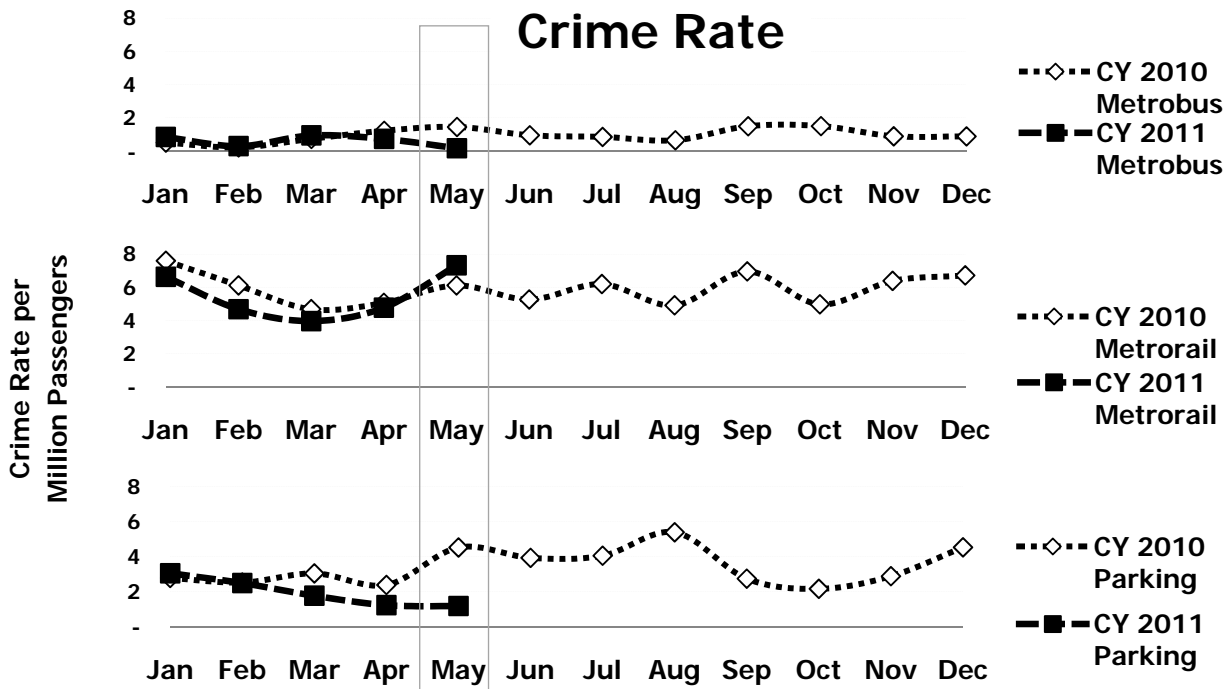
- Metro will continue to present the Back Safety & Proper Lifting training module during compliance training classes.
- Continue to provide incident and injury investigation training to supervisors. Quality investigations tend to have a positive effect on the reduction of employee injuries.
- Reiterate hydration safety tips during hot temperature warnings.
- Perform Bus Operator seat belt audits to ensure the safety of Metro Bus Operators.

**Conclusion:** Although the employee injury rate worsened slightly due to a reduction in the reported number of hours worked there were actually three fewer reported injuries. Metro will continue to emphasis safe working habits to prevent not just straining (the number one cause of injuries) but all employee injuries.

**Reason to Track:** This measure provides an indication of the perception of safety and security customers experience when traveling the Metro system. Increases or decreases in crime statistics can have a direct effect on whether customers feel safe in the system.

**Why Did Performance Change?**

- Overall, the number of crimes in the Metro system was 26% lower in May 2011 than May 2010.
- The Metrobus crime rate was at the lowest level in 10 years, down 76% from April 2011 to May 2011. Only two Part I crimes occurred on the entire Metrobus system in May as MTPD continued to check on the welfare of bus passengers and operators on routes.
- The parking crime rate remained virtually unchanged in May 2011 but was 74% lower than May 2010. Patrols were enhanced at the New Carrollton station as City of New Carrollton officers now have SmarTrip cards to access parking lots. At the Minnesota Avenue station, MTPD worked with grounds maintenance to improve officer's line of sight to the parking facility, enhancing security through landscaping improvements.
- The Metrorail crime rate increased to slightly over 7 crimes per million riders in May 2011. This was driven by an increase in bike thefts as bike usage at stations increases in warmer months. In May, MTPD removed any abandoned bikes as one of many tactics to discourage further thefts. Although the number remained small, there was an increase in aggravated assaults in May. To address this, MTPD enhanced intelligence sharing with local officials with a focus on the Orange and Blue lines east of Stadium Armory.



Target: Less than 2,279 Part I Crimes in CY 2011

**Actions to Improve Performance**

- In cooperation with Metro's Office of Long Range Planning, video cameras will be installed to monitor bike racks at five stations where bike thefts have occurred with increased frequency.
- MTPD will meet monthly with bus operators to gather information about security and identify strategies to reduce bus operator assaults.
- Officers are tracking regular visits to parking facilities in order to isolate the time of day that vehicle crimes occur, and redeploy resources as needed.

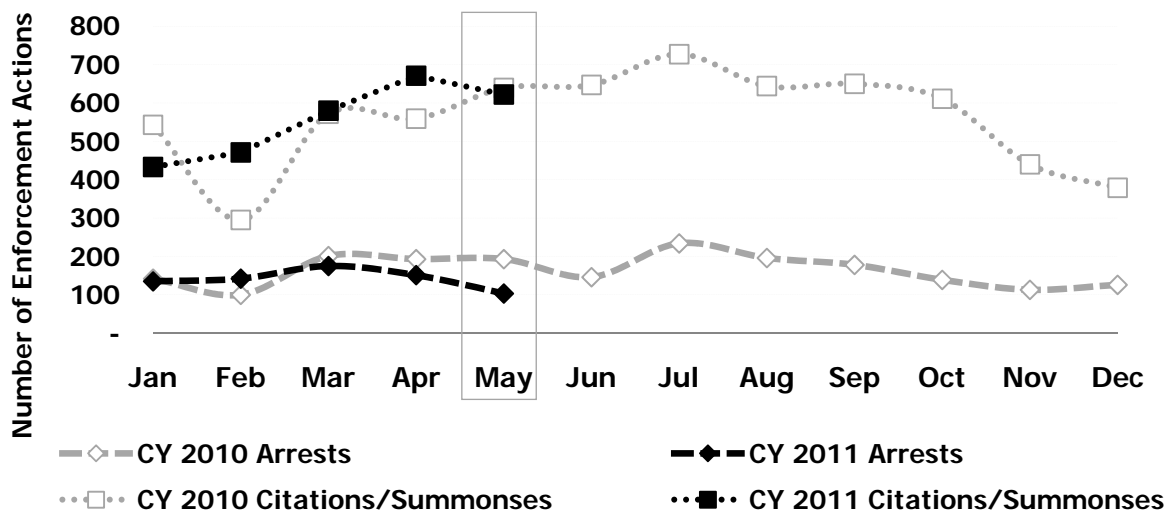
**Conclusion:** Overall, the number of crimes in the Metro system was 26% lower in May 2011 than May 2010, with significant reductions in Metrobus and parking facilities. Metrorail crime was up very slightly driven by a seasonal increase in theft of bicycles that were left parked near stations.

**Reason to Track:** This measure reflects actions by the Metro Transit Police Department to keep the Metro system safe. This includes arrests of individuals breaking the law within the Metro system and citations/summonses issued by transit police officers. Examples of citations/summonses include fare evasion and public conduct violations.

**Why Did Performance Change?**

- Citations/summonses were down in May 2011 as MTPD shifted focus to increasing visible patrols in the rail system as a result of the death of Osama Bin Laden on May 2<sup>nd</sup>. This was done in light of concern about retaliation and transit systems being a potential target. MTPD's Anti-Terrorism Team conducted additional targeted train inspections in May to increase police visibility in the transit system.
- The number of arrests (103) in May 2011 decreased from the prior month. A number of arrests were made at the Rhode Island Avenue station following the robbery of a rider by a large group of juveniles. During one event, three suspects were stopped by MTPD, positively identified for robberies of cell phones and subsequently arrested.

### Arrests, Citations and Summonses



**Actions to Improve Performance**

- In addition to a heightened level of counter-terrorism, MTPD will continue to be visible to Metro customers, riding on trains and buses as deterrence against crime.
- With school out of session, MTPD will readjust deployment strategies to match where and when young people travel during the summer months.

**Conclusion:** Arrests, citations and summonses were down in May 2011 as MTPD focused on system surveillance following the death of Osama Bin Laden.

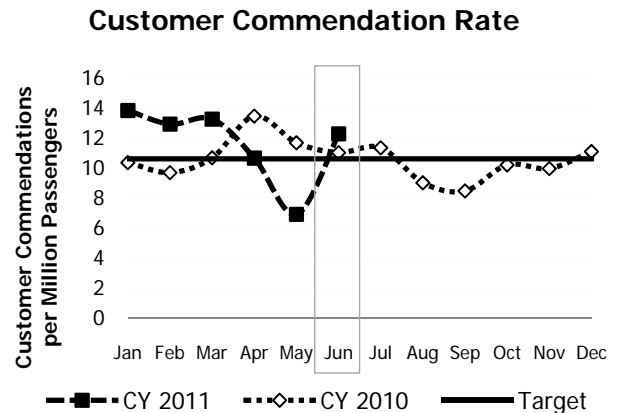
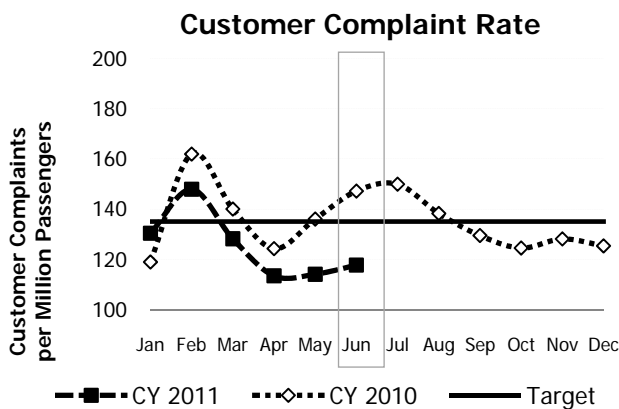
**KPI: Customer Comment Rate (June) Per Million Passengers**

**Objective 2.3 Maximize Rider Satisfaction**

**Reason to Track:** Listening to customer feedback about the quality of service provides a clear roadmap to those areas of the operation where actions to improve the service can best help to maximize rider satisfaction.

**Why Did Performance Change?**

- The notable increase in the customer commendation rate from May to June was largely a result of Metrorail staff processing a backlog, as well as increases in commendations for Metrobus and MetroAccess.
- The Customer Complaint rate increased slightly as complaints for bus and rail outpaced the decrease in MetroAccess complaints. However, compared to June last year, the rate of complaints improved 20%.
- Metrorail's complaint rate inched up slightly with a notable 58 complaints about requests for fare refunds as Metro's Treasury Department continued to address its processing backlog. Fare refund complaints have supplanted criminal activity complaints in the top five complaint categories for Metrorail. Metrorail complaints about on-time service and rude behavior also increased during the month of June, as ridership increased by 1.6 million riders.
- Metrobus experienced an increase in total complaints of 8%, with the largest increases in the categories of failure to service stop and no-shows, largely due to schedule adjustments implemented June 26 which included several route changes triggering a jump in calls from customers about the service changes.
- MetroAccess complaints dropped again in June with 99 fewer complaints for the month. Complaints about early and/or late trips dropped by 18% which correlates to the higher on-time performance shown in June.



**Actions to Improve Performance**

- Information about Metro's infrastructure improvements is available on Metro's website at <http://metroforward.com>. Through the Metro Forward campaign, Metro is working to improve communication with customers about these potential impacts to service by continually updating its website and by making real-time arrival information available so customers can better plan their trips.
- Metro's Treasury Department will continue to address refund processing time to speed up processing of refunds.
- Metrobus will continue to analyze schedules and service delivery to improve schedule reliability for customers. This process will take time to implement, as the routes are identified and schedule adjustments are made. Weekly service announcements are posted on Metro's website to notify customers about route changes due to special events and construction at [http://www.wmata.com/bus/route\\_changes.cfm](http://www.wmata.com/bus/route_changes.cfm).
- MetroAccess will continue to work directly with customers to educate them about all of the services available, and to help each customer successfully travel using the Metro region.

**Conclusion:** Customer comments reflect a month of mixed service performance as service changes were implemented, ridership increased, and a backlog in commendations was resolved.

## Vital Signs Report

### Definitions for Key Performance Indicators

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**Bus On-Time Performance** – Metrobus adherence to scheduled service.

**Calculation:** For delivered trips, difference between scheduled time and actual time arriving at a time point based on a window of no more than 2 minutes early or 7 minutes late. Sample size of observed time points varies by route.

**Bus Fleet Reliability (Bus Mean Distance between Failures)** – The number of revenue miles traveled before a mechanical breakdown. A failure is an event that requires the bus to be removed from service or deviate from the schedule.

**Calculation:** Number of failures / miles

**Rail On-Time Performance by Line** – Rail on-time performance is measured by line during weekday peak and off-peak periods. During peak service (AM/PM), station stops made within the scheduled headway plus two minutes are considered on-time. During non-peak (mid-day and late night), station stops made within the scheduled headway plus no more than 50% of the scheduled headway are considered on-time.

**Calculation:** Number of Metrorail station stops made up to the scheduled headway plus 2 minutes / total Metrorail station stops for peak service. Number of Metrorail station stops made up to 150% of the scheduled headway / total Metrorail station stops for off-peak service.

**Rail Fleet Reliability (Railcar Mean Distance between Delays)** – The number of revenue miles traveled before a railcar failure results in a delay of service of more than three minutes. Some car failures result in inconvenience or discomfort, but do not always result in a delay of service (such as hot cars).

**Calculation:** Number of failures resulting in delays greater than three minutes / total railcar miles

**MetroAccess On-Time Performance** – The number of trips provided within the on-time pick-up window as a percent of the total trips that were actually dispatched into service (delivered). This includes trips where the vehicle arrived, but the customer was not available to be picked up. Vehicles arriving at the pick-up location after the end of the 30-minute on-time window are considered late. Vehicles arriving more than 30 minutes after the end of the on-time window are regarded as very late.

**Calculation:** The number of vehicle arrivals at the pick-up location within the 30-minute on-time window / the total number of trips delivered

**Elevator and Escalator System Availability** – Percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours.

**Calculation:** Hours in service / operating hours. Hours in service = operating hours – hours out of service. Operating hours = operating hours per unit \* number of units.

**Customer Injury Rate (per million passengers<sup>1</sup>)** – Injury to any customer caused by some aspect of Metro's operation that requires immediate medical attention away from the scene of the injury.

**Calculation:** Number of injuries ÷ (number of passengers ÷ 1,000,000)

**Employee Injury Rate (per 200,000 hours)** – An employee injury is recorded when the injury is (a) work related; and, (b) one or more of the following happens to the employee: 1) receives medical treatment above first aid, 2) loses consciousness, 3) takes off days away from work, 4) is restricted in their ability to do their job, 5) is transferred to another job, 6) death.

**Calculation:** Number of injuries ÷ (total work hours ÷ 200,000)

**Crime Rate (per million passengers)** – Crimes reported to Metro Transit Police Department on bus, rail, or at parking lots, Metro facilities, bus stops and other locations in relation to Metro's monthly passenger trips. Reported by Metrobus, Metrorail, and Metro parking lots.

**Calculation:** Number of crimes / (number of passengers / 1,000,000)

**Arrests, Citations and Summonses** – The number of arrests and citations/summonses issued by the Metro Transit Police Department. Examples of citations/summonses include minor misdemeanors, fare evasion and public conduct violations.

**Customer Comment Rate (per million passengers)** – A complaint is defined as any phone call, e-mail or letter resulting in investigation and response to a customer. This measure includes the subject of fare policy but excludes specific Smarttrip matters handled through the regional customer service center. A commendation is any form of complimentary information received regarding the delivery of Metro service.

**Calculation:** Number of complaints or commendations / (number of passengers / 1,000,000)

<sup>1</sup> Passengers are defined as follows:

- Metrobus reports unlinked passenger trips. An unlinked trip is counted every time a customer boards a Metrobus. In an example where a customer transfers between two Metrobuses to complete their travel two trips are counted.
- Metrorail reports linked passenger trips. A linked trip is counted every time a customer enters through a faregate. In an example where a customer transfers between two trains to complete their travel one trip is counted.
- MetroAccess reports completed passenger trips. A fare paying passenger traveling from an origin to a destination is counted as one passenger trip.

Vital Signs Report  
Performance Data

August 2011

KPI: Bus On-Time Performance / Target = 78%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
CY 2010	79.4%	70.6%	76.6%	73.8%	73.8%	73.0%	72.8%	74.7%	71.7%	72.7%	74.0%	75.7%	74.5%
CY 2011	78.5%	76.9%	77.5%	76.3%	74.5%	74.1%							76.3%

KPI: Bus Fleet Reliability (Bus Mean Distance Between Failures) / Target = 7,400 Miles

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
CY 2010	7,223	6,878	6,882	6,270	5,902	6,578	6,670	6,673	7,366	7,842	8,982	8,587	6,622
CY 2011	8,681	8,144	7,794	7,171	7,277	6,916							7,664

Bus Fleet Reliability (Bus Mean Distance Between Failure by Fleet Type)

Type (~ % of Fleet)	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Avg.
CNG (30%)	9,059	6,680	9,165	9,939	10,410	9,520	10,242	8,480	9,802	7,790	8,657	7,835	8,965
Hybrid (27%)	9,944	11,378	11,361	13,526	14,198	12,474	11,853	11,158	10,433	9,536	11,235	8,058	11,263
Clean Diesel (8%)	7,933	7,931	10,300	12,118	12,290	12,958	11,473	8,042	7,637	9,442	7,081	9,866	9,756
All Other (35%)	4,517	4,921	4,798	4,698	5,718	5,699	5,751	6,191	5,340	5,012	4,839	5,102	5,216

KPI: Rail On-Time Performance by Line / Target = 90%

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg.
Red Line	88.5%	88.3%	88.0%	88.3%	87.5%	87.9%	85.1%	87.2%	90.7%	90.7%	90.6%	89.8%	88.6%
Blue Line	86.0%	86.1%	88.3%	87.3%	87.9%	86.3%	88.0%	86.4%	88.9%	88.8%	87.7%	88.2%	87.5%
Orange Line	88.8%	90.5%	92.1%	91.6%	91.0%	90.0%	91.7%	91.4%	93.0%	93.3%	92.5%	92.4%	91.5%
Green Line	90.3%	91.9%	91.9%	91.0%	88.3%	86.5%	90.2%	90.1%	91.3%	91.2%	92.4%	91.1%	90.5%
Yellow Line	89.0%	91.4%	92.0%	90.7%	91.2%	91.0%	91.5%	92.4%	92.3%	92.6%	92.4%	92.4%	91.6%
Average (All Lines)	88.6%	89.2%	89.7%	89.3%	88.5%	87.9%	88.0%	88.7%	91.0%	91.0%	90.9%	90.4%	89.4%

KPI: Rail Fleet Reliability (Rail Mean Distance Between Delays by Railcar Series) / Target = 60,000 miles

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg.
1000 series railcars	32,258	46,370	43,908	40,517	45,595	45,557	54,137	46,302	43,866	29,118	28,997	29,206	40,486
2000/3000 series railcars	65,428	39,911	49,582	31,572	35,820	42,065	28,076	40,431	45,169	41,760	31,047	38,769	40,803
4000 series railcars	21,553	17,893	18,645	36,587	25,073	25,195	31,393	31,646	58,442	31,054	52,372	21,733	30,965
5000 series railcars	28,290	29,410	34,094	44,462	54,016	47,509	30,078	47,868	41,251	46,561	45,038	35,451	40,336
6000 series railcars	57,029	107,198	77,921	88,918	119,427	56,172	74,865	110,928	94,443	57,550	61,979	81,549	82,332
Fleet average	42,424	40,435	43,420	41,121	45,471	43,712	37,703	48,241	50,328	39,302	37,355	36,963	42,206



Vital Signs Report  
Performance Data (cont.)

August 2011

KPI: MetroAccess On-Time Performance / Target = 92%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru June
CY 2010	93.5%	87.4%	91.7%	91.1%	92.1%	93.1%	94.6%	94.3%	91.8%	91.2%	91.8%	92.9%	91.5%
CY 2011	90.1%	89.0%	91.3%	91.2%	92.2%	93.2%							91.2%

KPI: Escalator System Availability / Target = 89%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
CY 2010	90.0%	89.2%	89.5%	90.5%	89.6%	90.3%	89.5%	88.9%	89.7%	89.5%	86.7%	88.6%	89.8%
CY 2011	88.8%	86.6%	86.9%	86.2%	82.5%	82.0%							85.5%

KPI: Elevator System Availability / Target = 97.5%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
CY 2010	99.0%	97.9%	97.5%	97.3%	96.4%	97.2%	96.0%	94.8%	94.9%	97.0%	96.4%	96.4%	97.6%
CY 2011	96.3%	96.0%	96.9%	96.4%	97.4%	98.0%							96.8%

KPI: Customer Injury Rate (per million passengers) \* / Target = ≤ 2.02 injuries per million passengers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	1.67	3.00	1.46	1.54	1.97	2.25	1.69	1.78	3.43	1.65	3.49	1.49	1.93
CY 2011	2.08	1.66	2.16	2.21	1.69								1.96

\*Includes Metrobus, Metrorail, rail transit facilities (stations, escalators and parking facilities) and MetroAccess customer injuries

Bus Customer Injury Rate (per million passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	2.08	3.66	1.73	1.77	1.84	3.33	2.40	1.61	6.92	1.98	5.91	1.78	2.21
CY 2011	1.72	0.93	3.38	2.59	2.01								2.13

Rail Customer Injury Rate (per million passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	0.06	0.15	0.10	0.19	0.22	0.20	0.10	0.11	0.17	0.11	0.18	0.00	0.14
CY 2011	0.13	0.19	0.15	0.10	0.16								0.15

Vital Signs Report  
Performance Data (cont.)

August 2011

Rail Transit Facilities Occupant Injury Rate (per million passengers)\*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	1.09	2.31	0.99	0.91	1.31	1.03	0.89	1.35	0.95	1.22	1.56	1.09	1.32
CY 2011	2.00	1.81	1.17	1.61	1.08								1.54

\*Includes station, escalator and parking facility customer injuries.

KPI: MetroAccess Customer Injury Rate (per million passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	26.18	22.06	21.57	31.55	48.11	46.48	34.47	38.84	24.61	14.45	25.50	20.53	29.89
CY 2011	16.45	10.55	14.63	32.12	27.41								20.23

KPI: Employee Injury Rate (per 200,000 hours) / Target = ≤ 5.05 injuries per 200,000 hours

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010	5.18	7.94	4.03	6.38	5.79	6.82	4.39	5.72	7.76	4.59	6.36	6.24	5.87
CY 2011	6.92	3.32	5.56	4.44	4.95								5.04

KPI: Crime Rate (per million passengers) / Target = ≤ 2,279 Part I Crimes in Calendar Year 2011

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
CY 2010 Metrobus	0.52	0.23	0.74	1.23	1.46	0.96	0.86	0.66	1.50	1.51	0.90	0.89	0.84
CY 2011 Metrobus	0.86	0.31	0.95	0.74	0.18								0.61
CY 2010 Metrorail	7.59	6.11	4.68	5.06	6.11	5.26	6.19	4.91	6.95	4.97	6.38	6.71	5.91
CY 2011 Metrorail	6.63	4.68	3.96	4.77	7.32								5.47
CY 2010 Parking	2.79	2.53	3.05	2.39	4.53	3.94	4.06	5.40	2.75	2.17	2.89	4.54	3.06
CY 2011 Parking	3.06	2.50	1.78	1.24	1.19								1.95

**Vital Signs Report**  
**Performance Data (cont.)**

**August 2011**

**Crimes by Type**

	June-10	July-10	Aug-10	Sept-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Avg.
Robbery	71	66	58	83	76	91	97	92	60	77	74	75	77
Larceny	111	131	111	91	50	58	67	44	40	41	47	70	72
Motor Vehicle Theft	13	10	18	9	17	13	10	15	5	6	4	5	10
Attempted Motor Vehicle Theft	5	10	6	9	3	3	3	6	5	1	2	0	4
Aggravated Assault	7	14	15	14	14	11	12	9	11	5	10	16	12
Rape	0	1	0	0	0	1	0	0	0	0	1	0	0
Burglary	0	0	0	1	1	1	0	0	0	0	0	0	0
Homicide	0	0	0	0	0	0	0	0	0	0	0	0	-
Arson	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total</b>	<b>207</b>	<b>232</b>	<b>208</b>	<b>207</b>	<b>161</b>	<b>178</b>	<b>189</b>	<b>166</b>	<b>121</b>	<b>130</b>	<b>138</b>	<b>166</b>	<b>176</b>

**KPI: Metro Transit Police Arrests, Citations and Summonses**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru May
<b>CY 2010 Arrests</b>	142	100	201	193	193	146	234	196	178	139	113	126	166
<b>CY 2011 Arrests</b>	135	142	175	151	103								141
<b>CY 2010 Citations/Summonses</b>	543	295	572	559	639	647	727	644	650	611	440	379	522
<b>CY 2011 Citations/Summonses</b>	433	471	580	671	622								555

**KPI: Customer Commendation Rate (per million passengers) / Target =  $\geq 10.6$  per million passengers**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Avg. Thru Jun.
<b>CY 2010</b>	10.3	9.7	10.7	13.4	11.7	11.0	11.3	9.0	8.5	10.2	10.0	11.1	11.1
<b>CY 2011</b>	13.8	12.9	13.2	10.6	6.9	12.3							11.6

**KPI: Customer Complaint Rate (per million passengers) / Target =  $\leq 135$  complaints per million passengers**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Avg. Thru Jun.
<b>CY 2010</b>	119	162	140	124	136	147	150	138	129	125	128	125	138
<b>CY 2011</b>	130	148	128	113	114	118							125

**Vital Signs Report**  
**Performance Data (cont.)**

**August 2011**

**Metrobus Ridership (millions of unlinked trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
<b>CY 2010</b>	9.6	7.1	11.0	10.8	10.3	10.5	10.4	10.6	10.5	10.6	10.1	9.0	9.9
<b>CY 2011</b>	9.3	9.7	11.5	10.8	10.9	11.1							10.5

**Metrorail Ridership (millions of linked trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
<b>CY 2010</b>	16.5	13.4	20.3	20.8	18.3	20.3	20.2	18.5	17.8	18.9	16.6	15.7	18.3
<b>CY 2011</b>	16.0	16.0	19.7	19.3	18.4	20.0							18.2

**MetroAccess Ridership (100,000s of completed trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Jun.
<b>CY 2010</b>	1.91	1.36	2.32	2.22	2.08	2.15	2.03	2.06	2.03	2.08	1.96	1.95	2.01
<b>CY 2011</b>	1.82	1.90	2.05	1.87	1.82	1.79							1.88

Note: Targets are re-evaluated annually and based on changing operating conditions and performance.