Customer Services, Operations, and Safety Committee
Board I nformation I tem III-A

March 13, 2008

## Operational Performance

# Washington Metropolitan Area Transportation Authority Board Action/ I nformation Summary 



## PURPOSE

To provide the Committee with monthly operational highlights and system performance trends for FY08.

## DESCRI PTION

Information contains operational highlights that have occurred during the first six months of FY08 in the areas of on-time performance, reliability and customer satisfaction for Metrorail, Metrobus and MetroAccess. Per Board request, specific details why a performance goal is not being achieved are provided.

## FUNDI NG I MPACT

None

## RECOMMENDATI ON

None

# Operational Performance 

## Presented to the Board of Directors: <br> Customer Service, Operations, and Safety Committee

March 13, 2008

## Bus Fleet Comparison by Failures

DEFI NITION - Number of failures relative to the size of the bus fleet for J anuary 2008.
CALCULATI ON - Total number of failures per subsystem by bus fleet/total number of each particular bus fleet Bus Failures by Subsystem

J anuary 2008


Bus Fleet Size: CNG = 275 Hybrid $=50$ Clean Diesel $=117$

## Bus Fleet Comparison by Failures

DEFI NI TI ON - Number of failures by subsystem per bus fleet for J anuary 2008.
CALCULATI ON - Total number of failures per subsystem by bus fleet
Bus Failures by Subsystem
J anuary 2008

$\square$ Engines 图 Air System $\square$ Transmission $\boxplus$ Doors $\mathrm{Q}^{2}$ Brakes
Bus Fleet Size: CNG $=275$ Hybrid $=50 \quad$ Clean Diesel $=117$

## Bus Mean Distance Between Failures

DEFI NITION - This measure identifies the number of miles traveled before a mechanical breakdown

CALCULATI ON - Number of failures/miles = Mean Distance Between Failures.


## Rail On-Time Performance Summary

DEFI NITION - Measured during peak service (morning, evening), identifying percentage of trains on each line end-to-end within a 2 minute headway deviation and measured mid day and late night within a $50 \%$ headway deviation. This measures how well we are providing service.

CALCULATI ON - (Number of Metrorail station arrivals - number of headways with $>2$ minute deviation or $50 \%$ headway deviation) / number of Metrorail station arrivals = Metrorail On Time Performance End to End.

Rail On Time Performance - Overall Average


## Rail On Time Performance (Peak Time)

metro
DEFI NITION - Measured during peak service (morning and evening) on each line end to end - identifies percentage of trains within a 2 minutes headway deviation. This measures how well we are providing service.

CALCULATI ON - (Number of Metrorail station arrivals - number of headways with $>2$ minute deviation) / number of Metrorail station arrivals = Metrorail On Time Performance End to End.

Rail On Time Performance
Peak AM Service

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| -Goal | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% |
| --FY2008 | 89\% | 87\% | 86\% | 87\% | 85\% | 89\% | 91\% |  |  |  |  |  |
| $\square-\mathrm{FY} 2007$ | 90\% | 90\% | 91\% | 89\% | 89\% | 90\% | 88\% | 87\% | 89\% | 86\% | 88\% | 87\% |


| Rail On Time Performance Peak PM Service |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|  | -Goal | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% | 95\% |
|  | -_-FY2008 | 86\% | 83\% | 83\% | 84\% | 83\% | 88\% | 90\% |  |  |  |  |  |
|  | - - FY2007 | 86\% | 86\% | 89\% | 88\% | 88\% | 91\% | 88\% | 87\% | 88\% | 85\% | 84\% | 83\% |

## Rail On Time Performance By Line

metro
DEFI NITION - Measured during peak service (morning, evening) identifying percentage of trains on each Line end-to-end within a 2 minute headway deviation and measured mid day and late night within a $50 \%$ headway deviation. This measures how well we are providing service.
CALCULATI ON - (Number of Metrorail station arrivals - number of headways with $>2$ minute deviation or $50 \%$ headway deviation) / number of Metrorail station arrivals = Metrorail On Time Performance End to End.


## Rail On Time Performance By Line

Rail On Time Performance
Orange Line (All Travel Periods)


## Rail Car Fleet Comparison by Failures

DEFI NITI ON - Number of failures by subsystem per rail car series for J anuary 2008.
CALCULATI ON - Total number of failures per subsystem by rail car series
Total Railcar Failures by Subsystem
J anuary 2008


- Propulsion 图 Brake $\square$ Door 日 HVAC © ATC

Rail car Series Size: $\mathbf{1 0 0 0}=300 \quad$ 2/ $\mathbf{3}$ Rehab $=306 \quad$ 2/ $\mathbf{3}$ Not Rehab $=58 \quad 4000=100 \quad 5000=192 \quad \mathbf{6 0 0 0}=150$

## Escalators and Elevators Reliability

DEFI NI TI ON - Percentage of time that the escalator or elevator system is available for service.
CALCULATI ON - Hours achieved divided by operating hours. Hours achieved = operating hours - (hours out of service both scheduled and unscheduled). Operating hours $=$ revenue hours * number of units.



## MetroAccess

DEFI NITION - Percentage of on-time pickup within a 30 minute window ( 15 minutes before or after scheduled pickup time). CALCULATI ON - (Completed trips - number of trips with a 30 minute or $>$ deviation) / number of completed trips $=$ MetroAccess On Time Performance.



DEFI NITION - Percentage of missed/excessively late trips (beyond 30 minutes).
CALCULATI ON - Number of completed trips with a >30 minute deviation from the scheduled arrival time/ Completed trips $=$ MetroAccess Percentage of Missed/Excessively Late Trips.

