



Customer Services, Operations, and Safety Committee

Board Information Item III

January 8, 2009

Operational Performance

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

| | | |
|---|--------------|--|
| <input type="checkbox"/> Action <input checked="" type="checkbox"/> Information | MEAD Number: | Resolution: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|---|--------------|--|

TITLE:

Operational Performance

PURPOSE:

To provide the Committee with monthly operational highlights and system performance trends for FY09.

DESCRIPTION:

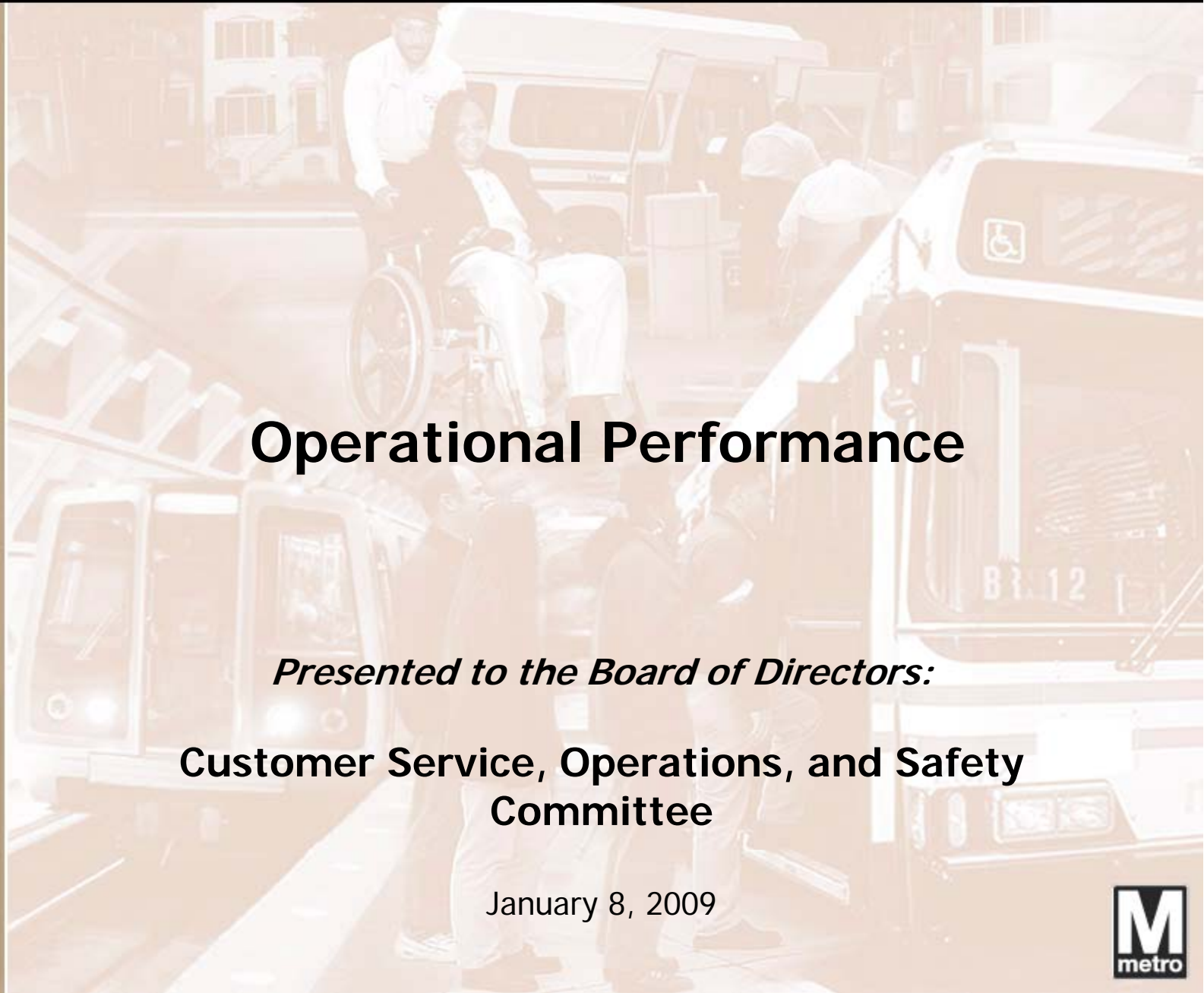
Information contains operational highlights that have occurred during the first five months of FY09 in the areas of on-time performance and reliability for Metrorail, Metrobus, MetroAccess and Vertical Transportation and rail car door malfunctions resulting in offloads.

FUNDING IMPACT:

No impact on funding.

RECOMMENDATION:

None



Operational Performance

Presented to the Board of Directors:

**Customer Service, Operations, and Safety
Committee**

January 8, 2009

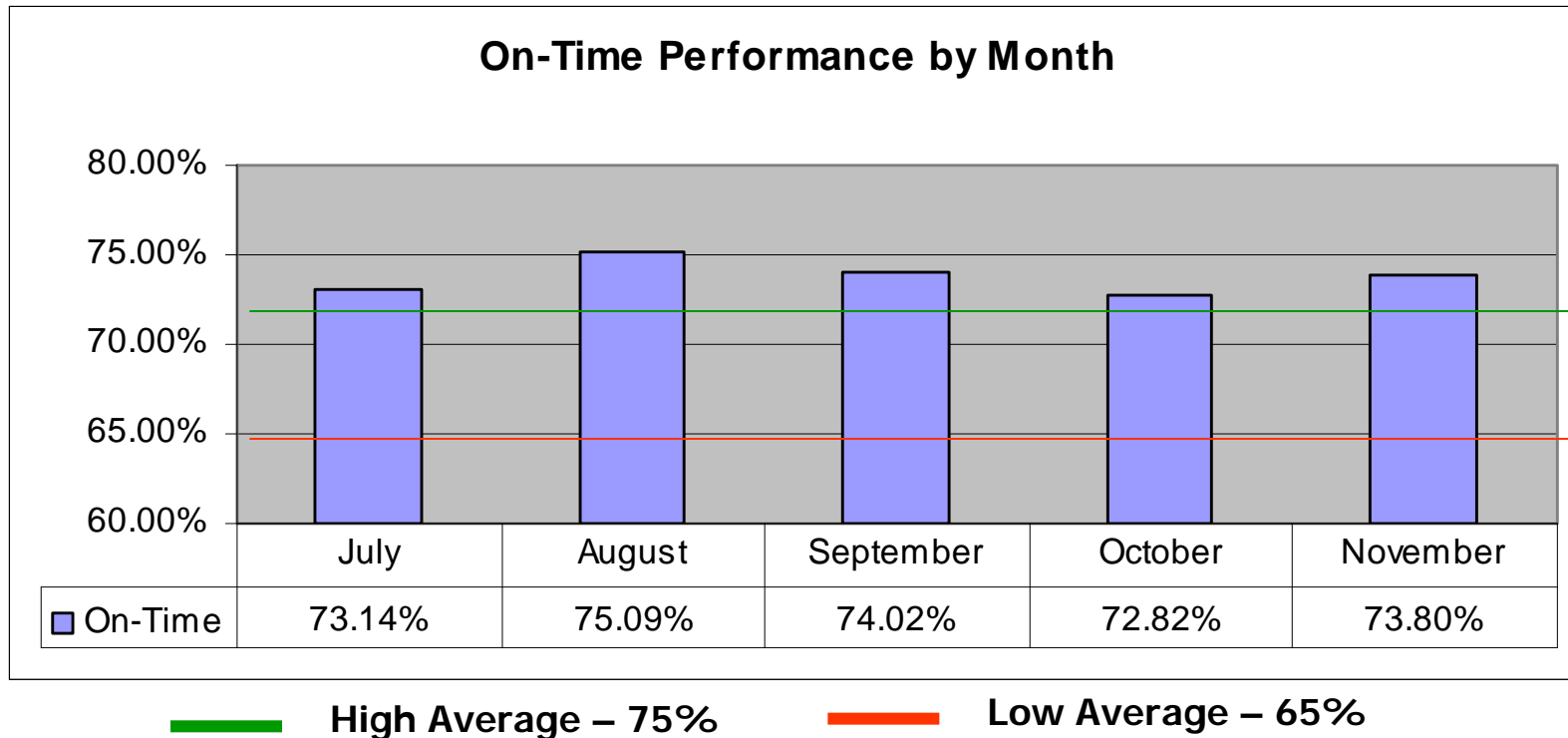




Bus On-Time Performance Comparison Chart

DEFINITION – Measurement of time throughout the day (from beginning to end of service) for all routes by capturing the data recorded by the CAD/AVL whenever a bus encounters a time point. Parameters used by other agencies have a broad range and use selected time points vs WMATA using all time points.

CALCULATION – Difference between scheduled time and actual time arriving at a time point based on 2 min early and 7 min late parameters.

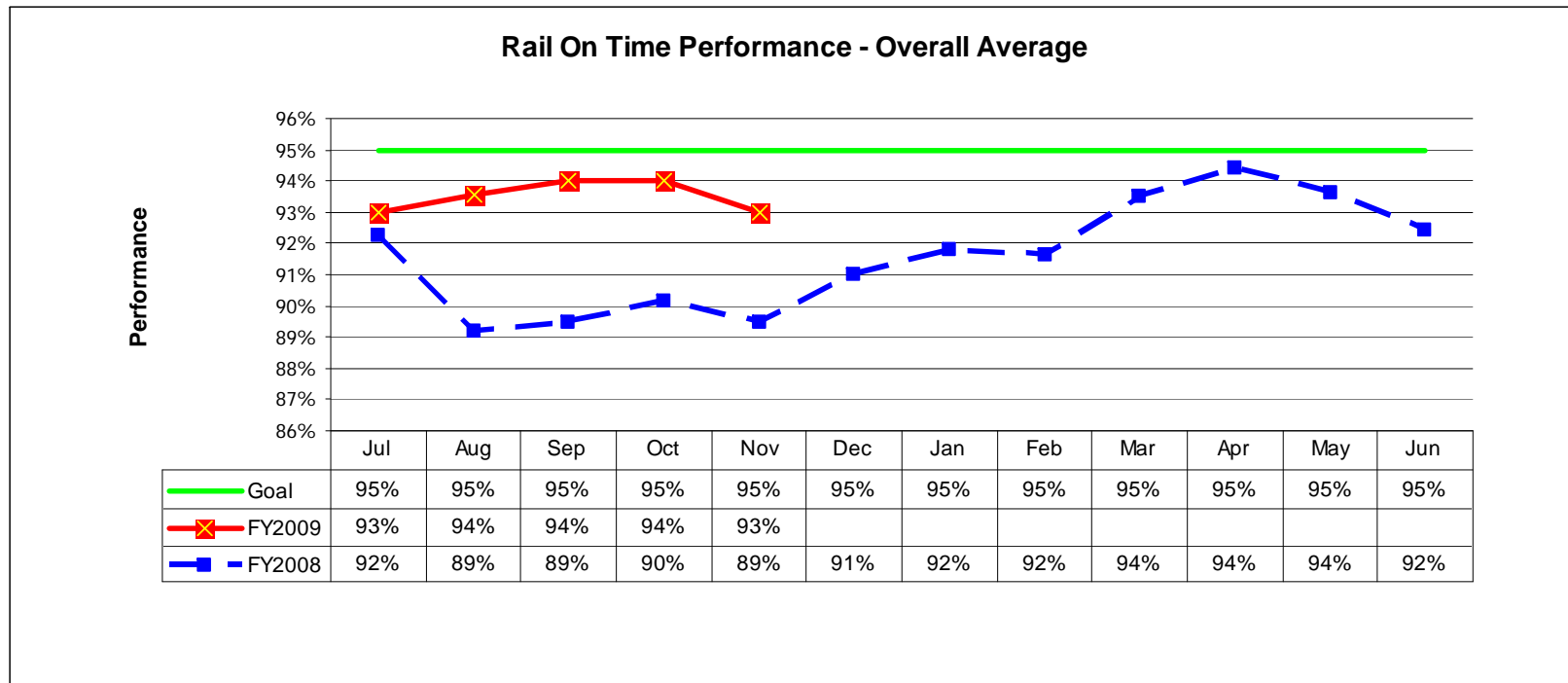




Rail On-Time Performance Summary

DEFINITION – Measured during peak service (AM/PM), identifying percentage of trains on each line **end-to-end** within a 2 minute headway deviation and measured mid-day non-peak and late night non-peak within a 50% headway deviation. This measures how well we are providing service.

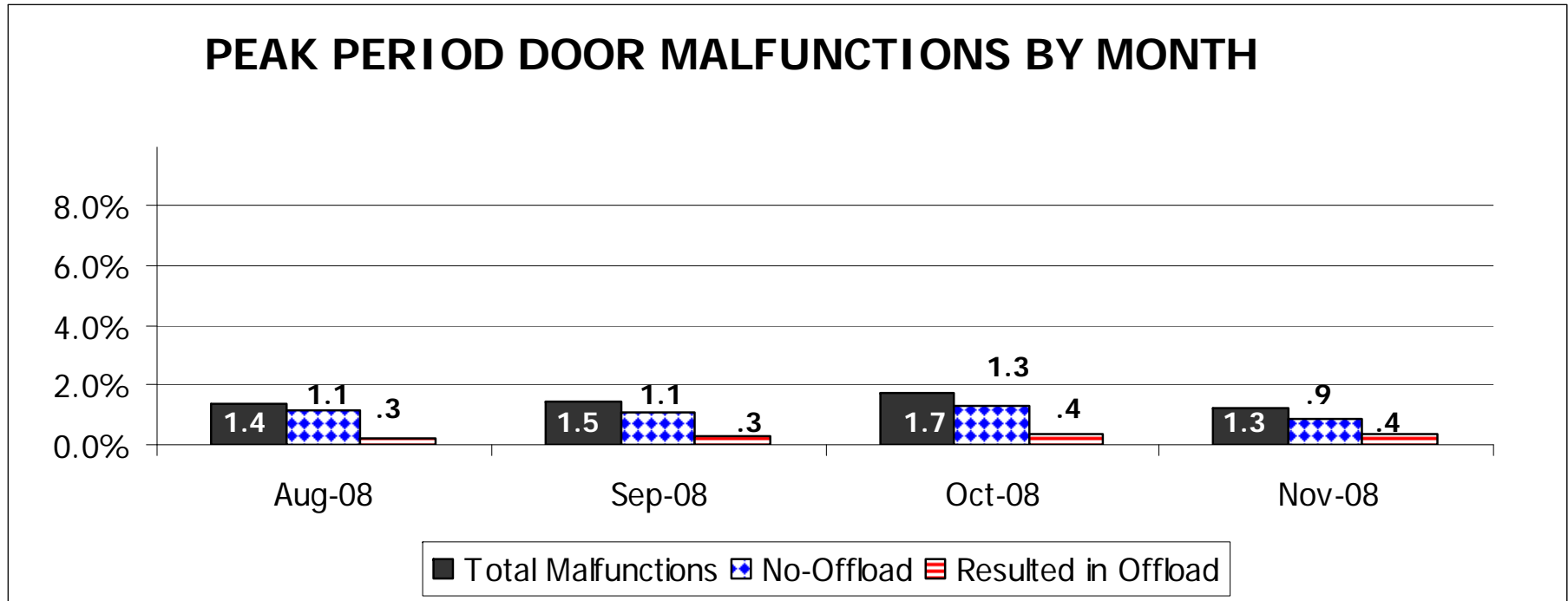
CALCULATION – (Number of Metrorail station arrivals – number of headways with >2 minute deviation or 50% headway deviation) / number of Metrorail station arrivals = Metrorail On-Time Performance End-to-End.



Red Line = 95% Blue Line = 91% Orange Line = 93% Green Line = 90% Yellow Line = 93%



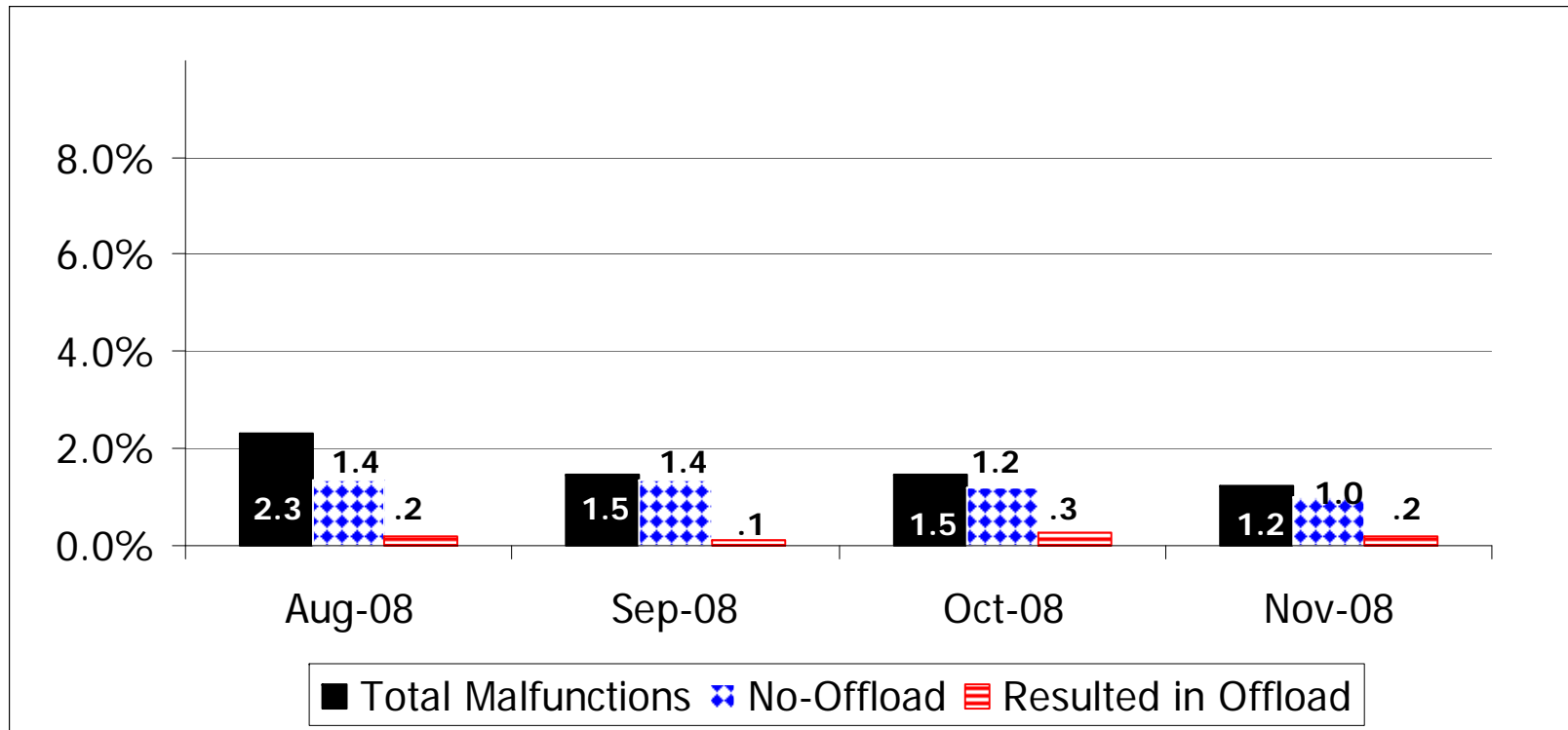
Rail Car Door Malfunctions – Peak Percentage of Trains Operated



262 trains per day during peak period x average 21 weekdays = 5,502 trains per month



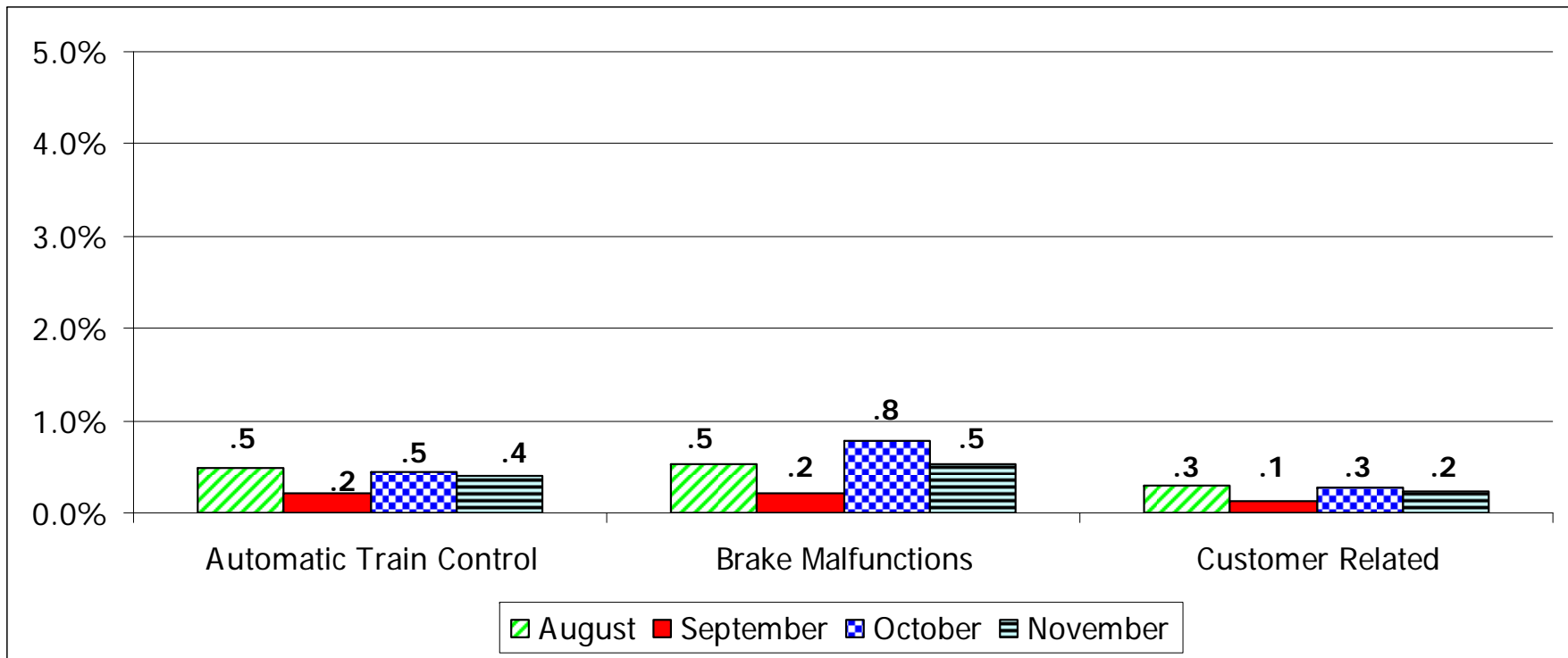
Rail Car Door Malfunctions – Non-Peak Percentage of Trains Operated



130 trains per day during non-peak period x average 21 weekdays = 2,730 trains per month



Major Incidents Affecting Rail Performance



262 trains per day during peak period + 130 during non-peak = 392 x average 21 weekdays = 8,232 trains per month

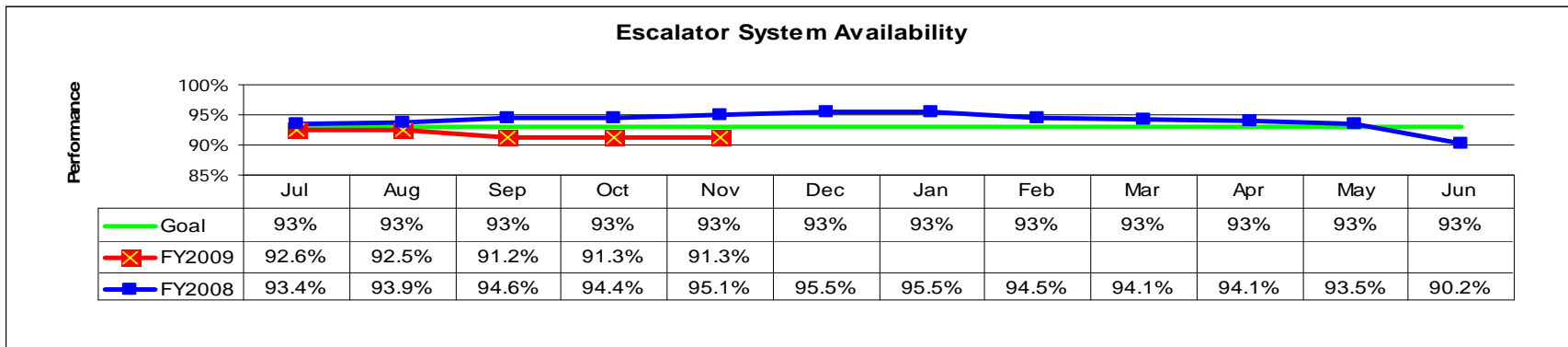
Delays resulting in four minutes or greater



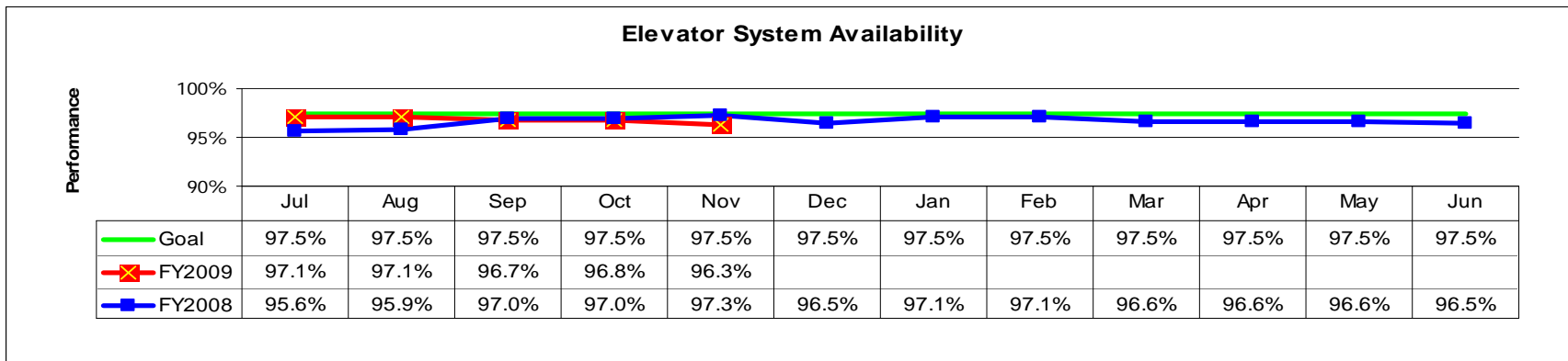
Escalators and Elevators Availability

DEFINITION – Percentage of time that the escalator or elevator system is available for service.

CALCULATION – 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.



Escalator Availability AM peak is 91.5%; PM peak is 91.6%; mid-day non-peak 90.9%; late night non-peak 91.6%



Elevator Availability AM peak is 96.2%; PM peak is 96.3%; mid-day non-peak 96.2%; late night non-peak 96.4%



Escalators September to November Top 12

DEFINITION – Top 12 Escalators with the lowest availability for the past 90 days September 2008 thru November 2008.

CALCULATION – Ranked availability.

| SEPT - NOV 2008 ESCALATORS | | SYS | OOS | HOURS | | DATE IN | REHAB | DETAILS | STATUS | REDUNDANCY |
|----------------------------|--------|--------|-------|----------|--------------|-----------|-----------|---|---------------------|-----------------|
| STATION NAME | UNIT | AVAIL | COUNT | OOS | MANUFACTURER | SERVICE | DATE | | | |
| FOGGY BOTTOM | C04X02 | 0.00% | 1 | 1,755.00 | O&K | 17-Nov-78 | Future | Floor plates/step chain/brakes/transformers/gearbox/safety switches | returned to service | 1 of 3 entry |
| SMITHSONIAN | D02N03 | 0.00% | 1 | 1,755.00 | O&K | 1-Jul-77 | Future | Hydraulic Brake and lines | returned to service | 1 of 3 entry |
| PENTAGON CITY | C08X09 | 12.36% | 10 | 1,538.01 | WE100 | 1-Jul-08 | Future | Reducer | returned to service | 1 of 3 flyover |
| EASTERN MARKET | D06X01 | 20.95% | 8 | 1,387.26 | WE100 | 1-Jul-77 | 5-Dec-00 | Replace drive motor #2 | returned to service | 1 of 3 entry |
| CHEVERLY | D11X05 | 27.35% | 11 | 1,275.05 | WE100 | 17-Nov-78 | 31-Jul-06 | Step Indexing and Safet switches | returned to service | 1 of 2 platform |
| L'ENFANT PLAZA | F03N06 | 31.33% | 18 | 1,205.16 | WE100 | 30-Apr-83 | Future | Replace Hand rail system | returned to service | 1 of 3 flyover |
| DUPONT CIRCLE | A03S01 | 38.87% | 24 | 1,072.86 | APV | 17-Jan-77 | 4-Mar-04 | Replace Auxillary Brake | returned to service | 1 of 3 entry |
| WATERFRONT | F04X03 | 51.93% | 15 | 843.65 | WE250 | 28-Dec-91 | 7-Jun-01 | Rep/Repl Drive chain motor and sprok | returned to service | 1 of 3 entry |
| CAPITOL HEIGHTS | G02X02 | 53.27% | 25 | 813.83 | WE100 | 22-Nov-80 | 5-Apr-01 | Accident & Safety Work Order | returned to service | 1 of 3 entry |
| GEORGIA AVE. | E05X06 | 55.24% | 10 | 789.61 | FUJI | 18-Sep-99 | Future | Accident & Safety Work Order | returned to service | 1 of 2 platform |
| RHODE ISLAND AVE. | B04X02 | 58.17% | 15 | 734.10 | WE100 | 27-Mar-76 | 6-Jan-05 | Repl Stub Shafts at Drives 1 & 2 | returned to service | 1 of 3 entry |
| METRO CENTER | C01S03 | 60.30% | 20 | 517.60 | WE100 | 1-Jul-77 | 26-Mar-03 | Accident & Safety Work Order | returned to service | 1 of 3 platform |

Repeater

FY09 Goal: 93%



Elevators September to November Top 12

DEFINITION – Top 12 Elevators with the most lowest availability September 2008 thru November 2008.

CALCULATION – Ranked by availability.

| SEPT - NOV 2008 ELEVATORS | | SYS | OOS | HOURS | | DATE IN | REHAB | | | | |
|---------------------------|--------|--------|-------|---------|----------------|-----------|-----------|--|---------------------|---------------|--|
| STATION NAME | UNIT | AVAIL | COUNT | OOS | MANUFACTURER | SERVICE | DATE | DETAILS | STATUS | REDUNDANCY | |
| NAVY YARD | F05E02 | 15.62% | 2 | 1480.00 | MC | 28-Dec-91 | Future | Replace Packing | returned to service | single pltfm | |
| MORGAN BLVD. | G04X01 | 33.34% | 4 | 1169.82 | KONE | 18-Dec-04 | Future | Replace Packing | returned to service | single pltfm | |
| PRINCE GEORGE'S PLAZA | E08X05 | 65.24% | 5 | 610.01 | MOTION CONTROL | 1-May-01 | Future | Intercom Malfunction | returned to service | single entry | |
| VIENNA | K08X04 | 70.90% | 3 | 510.73 | MOTION CONTROL | 22-Jan-01 | Future | Intercom Malfunction | returned to service | 1 of 2 garage | |
| PRINCE GEORGE'S PLAZA | E08X04 | 77.55% | 3 | 394.02 | ESCO | 1-May-01 | Future | Intercom Malfunction | returned to service | single entry | |
| VIENNA | K08X02 | 82.12% | 5 | 313.88 | VA ELEV | 7-Jun-86 | 26-Nov-03 | Flooding damaged door operator PCB | returned to service | single garage | |
| COURTHOUSE | K01X01 | 82.87% | 26 | 300.73 | MOTION CONTROL | 1-Dec-79 | 1-Apr-02 | Repl SCR / board brake coil / door adjustments | returned to service | single entry | |
| METRO CENTER | C01N02 | 83.60% | 29 | 287.84 | US | 1-Jul-77 | 27-Aug-01 | Repl Valve Solenoid | returned to service | single pltfm | |
| VAN NESS | A06X02 | 85.40% | 7 | 256.49 | US | 5-Dec-81 | 29-Oct-02 | Flooding damage | returned to service | single pltfm | |
| HUNTINGTON | C15S03 | 89.97% | 2 | 176.11 | SCHUMACHER | 30-Jul-08 | Future | Intercom Malfunction | returned to service | 1 of 2 garage | |
| FRANCONIA/SPRINGFIELD | J03X05 | 90.34% | 5 | 169.54 | SWIFT | 29-Jun-97 | 16-Dec-02 | Repair/Replace Governor Switch | returned to service | 1 of 3 garage | |
| WOODLEY PARK | A04X01 | 91.84% | 6 | 143.16 | MC | 5-Dec-81 | 17-Apr-02 | Accident | returned to service | single entry | |

 Repeater

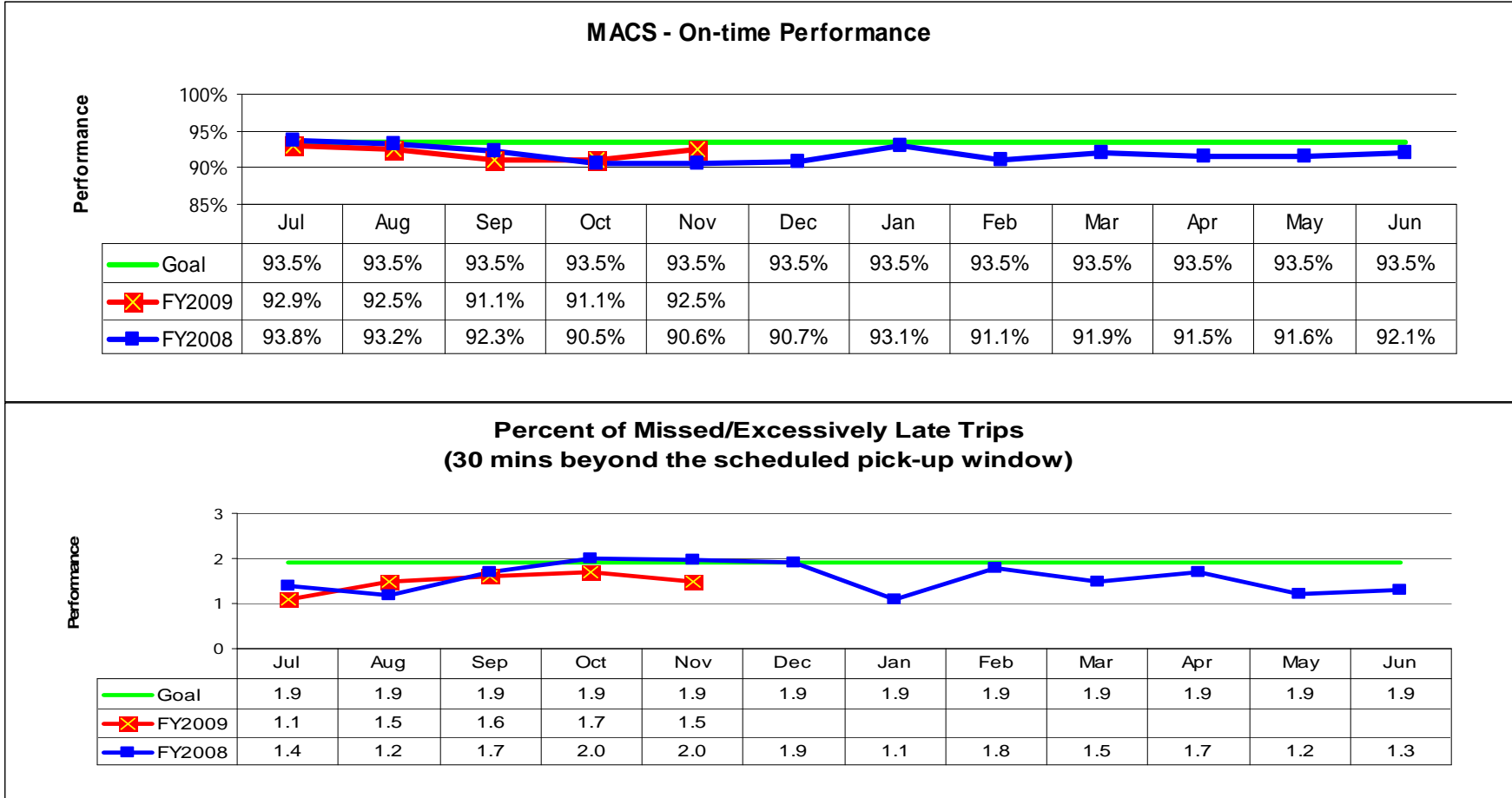
FY09 Goal: 97.5%



MetroAccess

DEFINITION – Percentage of on-time pickup within a 30-minute window (15 minutes before or after scheduled pickup time).

CALCULATION – (Total on-time trips including “no shows” to which were initially on-time/sum of total completed trips (including “no shows” to which we were initially late) and missed trips = MetroAccess On-Time Performance.



DEFINITION – Percentage of missed/excessively late trips (beyond 30 minutes).

CALCULATION – Number of completed trips with a >30 minute deviation from the scheduled arrival time/Completed trips = MetroAccess Percentage of Missed/Excessively Late Trips.



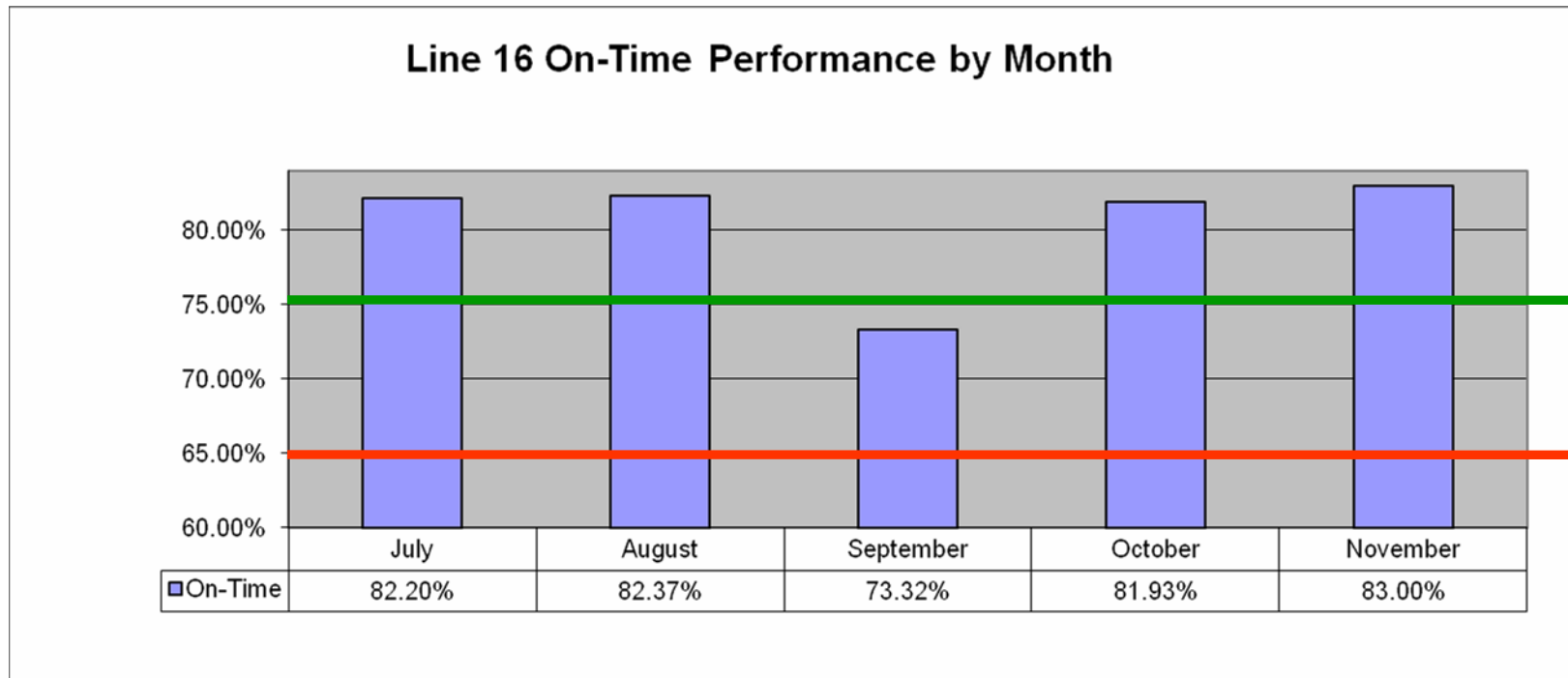
Appendix



Bus On-Time Performance Comparison Chart

DEFINITION – Measurement of time throughout the day (from beginning to end of service) for the 16 line by capturing the data recorded by the CAD/AVL whenever a bus encounters a time point. Parameters used by other agencies have a broad range and use selected time points vs WMATA using all time points.

CALCULATION – Difference between scheduled time and actual time arriving at a time point based on 2 min early and 7 min late parameters.



 High Average – 75%

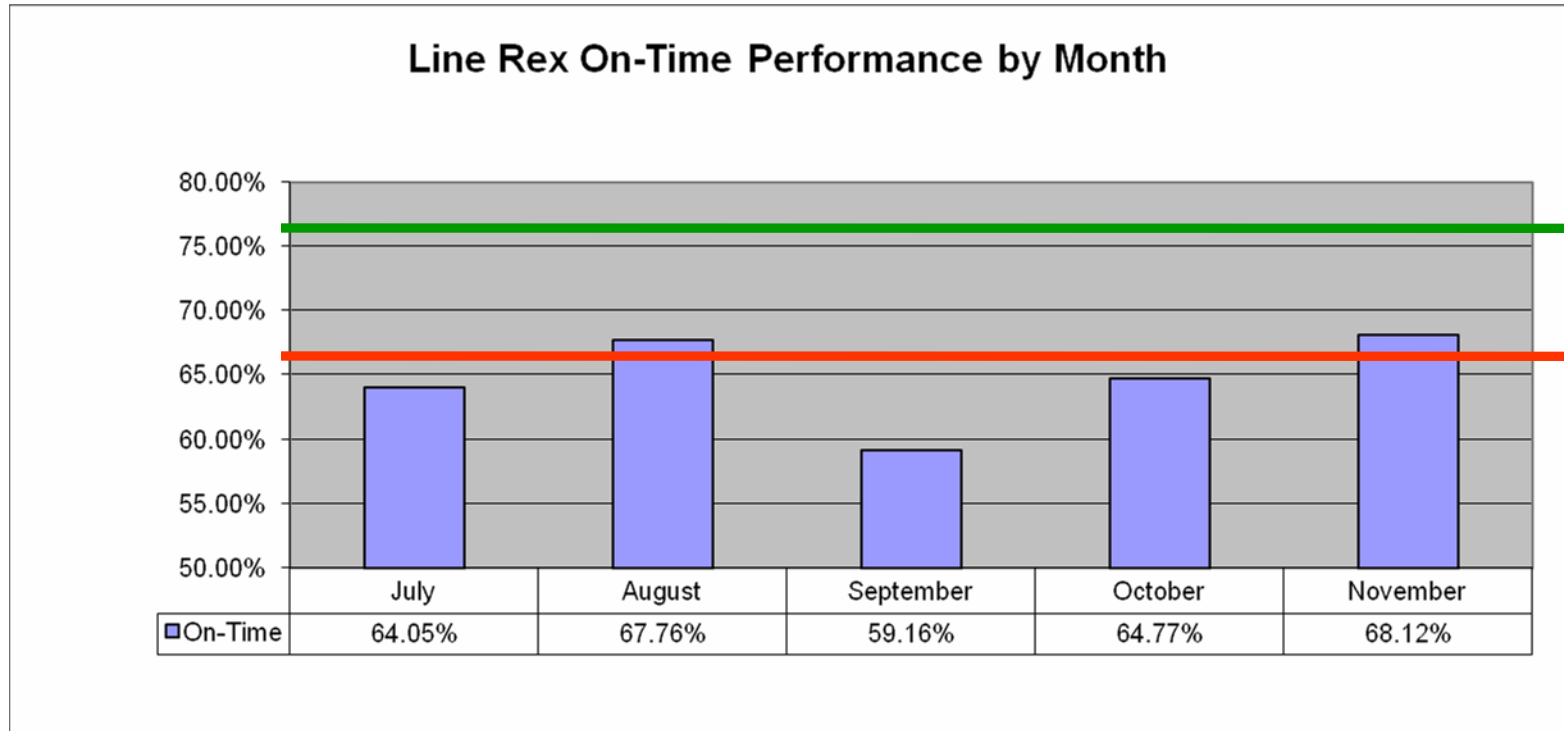
 Low Average – 65%



Bus On-Time Performance Comparison Chart

DEFINITION – Measurement of time throughout the day (from beginning to end of service) for the Rex line by capturing the data recorded by the CAD/AVL whenever a bus encounters a time point. Parameters used by other agencies have a broad range and use selected time points vs WMATA using all time points.

CALCULATION – Difference between scheduled time and actual time arriving at a time point based on 2 min early and 7 min late parameters.



 **High Average – 75%**  **Low Average – 65%**