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TO: BOARD OF DIRECTORS

FROM: ELLEN G. LEVINE, EXECUTIVE OFFICER - *ELG*  
TRANSIT OPERATIONS

SUBJECT: TRANSIT OPERATIONS PERFORMANCE REPORT  
OCTOBER 1997

The attached report has been developed to provide the Board of Directors with an objective picture of performance for MTA's bus and rail operations.

**October 1997 Highlights:**

Service Performance

- Year-to-date, both bus and rail boardings are ahead of the ridership counts reported for the same period in each of the last two years and projections indicate that ridership will exceed original budget forecasts.
- The previously chronicled downward trend in on-time bus pullouts appears to have reached the lowest point last July. After a slight improvement in August, performance, while still below goal, has been constant.
- Blue Line reversed a three month downward trend in On-time Service, reporting the highest On-time Service Rate since January 1997.
- Red Line and Green Line On-time Service Rate continue to achieve an On-time Service rate between a 98% and 100%.

Maintenance Performance

- Mean Miles Between Mechanical Failures improved for the first time in four months. This increase appears to be directly related to the assignment of ethanol buses from three to six operating divisions.

Financial Performance

- No new financial indicators are included in this report. Updated financial information will be included once revised FY98 Budget data are available.

Safety

- Transit Operations continues to experience a low Traffic Accident rate. Year-to-date data indicates performance consistent with last year.

Customer Satisfaction

- Complaints continue to increase. This increase appears to be directly related to the previously reported decline in On-time Performance.
- The Wheelchair Defect Rate increased for only the second time in six months, but is still significantly below the rate reported as recently as last April.

Transit Operations welcomes your feedback on the format and content of this report. Please call me at (213) 922-4314 if you have any questions regarding the information in this report or with requests for information or format changes.

## TABLE OF CONTENTS

Bus Service Performance	Page 2
On-Time Pullout Percentage	
Outlates and Cancellations by Division	
Boardings per Revenue Service Hour	
Rail Service Performance	Page 6
On-time Service	
Boardings per Revenue Service Hour	
Maintenance Performance	Page 9
Mean Miles Between Mechanical Failures	
Past Due Critical Preventive Maintenance Program Jobs	
Financial Performance	Page 12
Fare Revenue	
Safety	Page 13
Traffic Accidents per 100,000 Hub Miles	
Customer Satisfaction	Page 14
Complaints per 100,000 Boardings	
Complaints by Major Category	
Wheelchair Lift Defect Rate	
Summary	Page 18

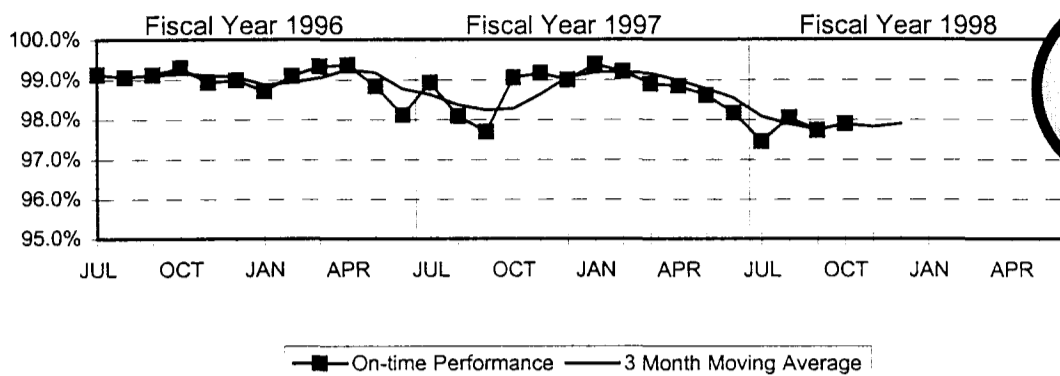
# BUS SERVICE PERFORMANCE

## On-Time Pullout Percentage

**Definition:** On-time Pullout Performance measures the percentage of buses leaving the operating division within ten minutes of the scheduled pullout time. The higher the number, the more reliable the service.

**Calculation:**  $OTP\% = [(100\% - ((\text{Total late and cancelled runs} / \text{Total scheduled pullouts}) * 100)]$

### Systemwide - Three Year Trend



**Analysis:** On-time pullout performance continues to fall below the goal of 99.5%. The previously chronicled downward trend in on-time performance appears to have reached the lowest point last July. After a slight improvement in August, performance has held consistent at close to 98%. As noted in the September Performance Report, the inability to attain the established goal can be attributed to the following factors:

1. Ethanol bus failures;
2. Bus operator shortages due to UTU contract negotiations last summer;
3. Inadequate supervision of maintenance personnel at the divisions;
4. The lack of an ATU contract which affected morale and the performance of the employees.

It should be noted that 99.5% is a very aggressive goal. During the month of October, 1,317 of over 62,700 scheduled pullouts or on average 42 out of more than 2,000 daily pullouts, were late or cancelled. In order to meet the goal of 99.5%, no more than 313 of these pullouts could be late or cancelled. On a daily basis, this translates no more than 10 late or cancelled pullouts, fewer than one per division, per day.

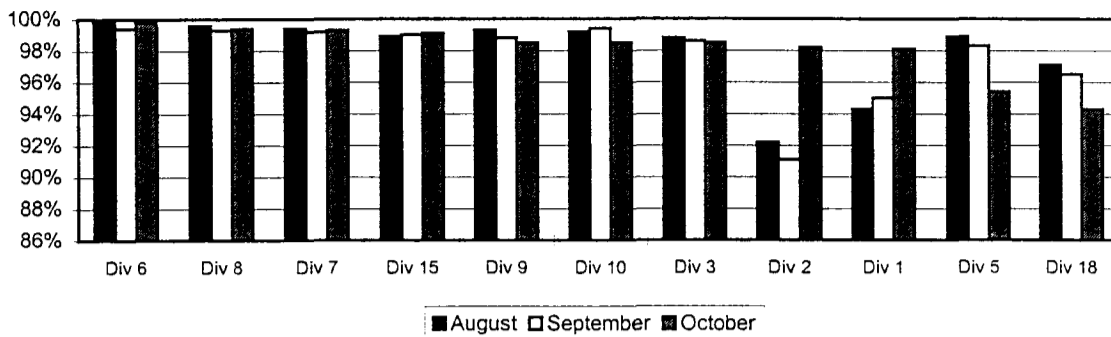
**Corrective Actions:** The following actions have been initiated or are in process to improve on-time pullout performance:

1. Increase the bus operator hiring program and focus new operator training at the division level to prepare operators for revenue service in six weeks instead of eight weeks (It is anticipated that the operator shortage will be resolved by the end of December);
2. Hire the staff identified in the FY98 budget to increase maintenance supervision at the operating divisions;
3. Implement the ATU/MTA agreement.

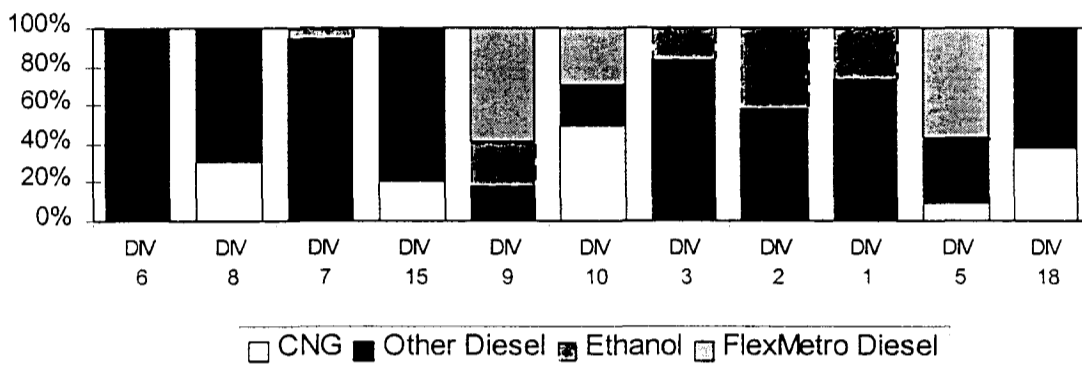
In addition staff has identified the following actions which should positively impact performance:

1. Convert the ethanol buses to non-alcohol fuel to improve reliability;
2. Implement the Maintenance Improvement Program (MIP) Leader Guidelines in December 1997. MIP Leader Guidelines will improve staff technical skills, maximize labor performance, and ultimately reduce maintenance costs while improving reliability and cleanliness;
3. Retire and replace Flex-metro buses as they become eligible for retirement.

**On-time Pullout Percentage Bus Operating Divisions  
August - October 1997**



**Fleet Mix by Divisions - October 1997**



**Outlates & Cancellations by Division- October 1997**

Division	OUTLATES		CANCELLATIONS		TOTAL ON-TIME PULL-OUT RATE	REASONS FOR OUTLATES and CANCELLATIONS	
	Number	% of Pull-outs	Number	% of Pull-outs		No Operator Available	Mechanical Failure
<b>Northern Region</b>							
1	80	1.4%	29	0.5%	98.1%	19	90
3	65	1.1%	25	0.4%	98.5%	27	63
8	16	0.3%	13	0.3%	99.4%	11	18
9	59	0.9%	36	0.6%	98.5%	48	47
15	51	0.8%	7	0.1%	99.1%	13	45
<b>Sub-Total</b>	<b>271</b>	<b>0.9%</b>	<b>110</b>	<b>0.4%</b>	<b>98.7%</b>	<b>118</b>	<b>263</b>
<b>Southern Region</b>							
2	78	1.7%	6	0.1%	98.2%	4	80
5	218	3.6%	55	0.9%	95.4%	21	252
6	3	0.2%	0	0.0%	99.8%	1	2
7	46	0.6%	7	0.1%	99.3%	11	42
10	73	1.1%	25	0.4%	98.5%	15	83
18	252	3.4%	173	2.3%	94.3%	144	281
<b>Sub-Total</b>	<b>670</b>	<b>2.0%</b>	<b>266</b>	<b>0.8%</b>	<b>97.2%</b>	<b>196</b>	<b>740</b>
<b>TOTAL</b>	<b>941</b>	<b>1.5%</b>	<b>376</b>	<b>0.6%</b>	<b>97.9%</b>	<b>314</b>	<b>1,003</b>

**Analysis:** During the month of October, Divisions 6, 8, 7, and 15, performed best with 99.1% to 99.8% on-time pullouts. Divisions 18 and 5 have the poorest record of on-time performance with 94.3% and 95.4% respectively. Divisions 1 and 2 showed significant improvement from September to October with the transfer out of Ethanol buses from these divisions. Division 3, which received the ethanol buses previously assigned to Divisions 1 and 2, experienced virtually no change in on-time performance. As detailed on the Outlates & Cancellations by Division table (previous page), the overwhelming majority of late pullouts and service cancellations were caused by the unavailability of equipment, although some divisions are still experiencing bus operator shortages. The ethanol and Flex-metro buses continue to be the most challenging to maintain. Please note, the fleet mix chart reflects the buses assigned during October.

**Corrective Actions:** In addition to the corrective actions identified on the previous page for system-wide On-Time Performance, Transit Operations continued the following activities during October to resolve the bus availability and manpower problems experienced at the Divisions:

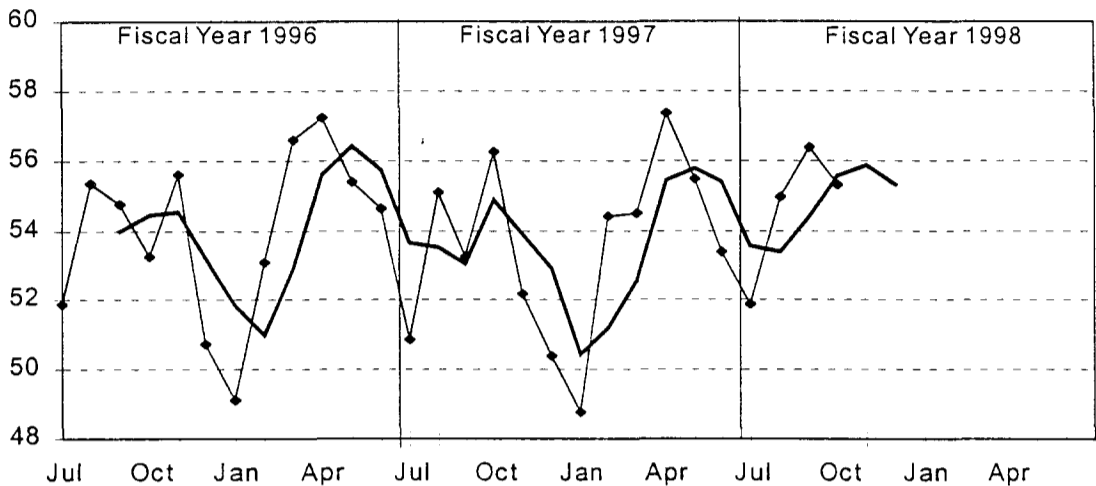
1. Spread the ethanol fleet from 3 to 6 divisions to minimize the number of miles placed on these buses. In addition to the ethanol buses moved to Division 3, ethanol buses are now operating out of Divisions 5 and 7;
2. Hired and began training 55 new operators in September and 60 in October, with an additional 60 new operators scheduled each month for November and December;
3. Equalized bus operators to more equitably allocate manpower between divisions. Further equalizations will be implemented as required;
4. Continued to work with Cummins Engines to resolve problems with the new CNG buses at Division 18.

**Boardings Per Revenue Service Hour**

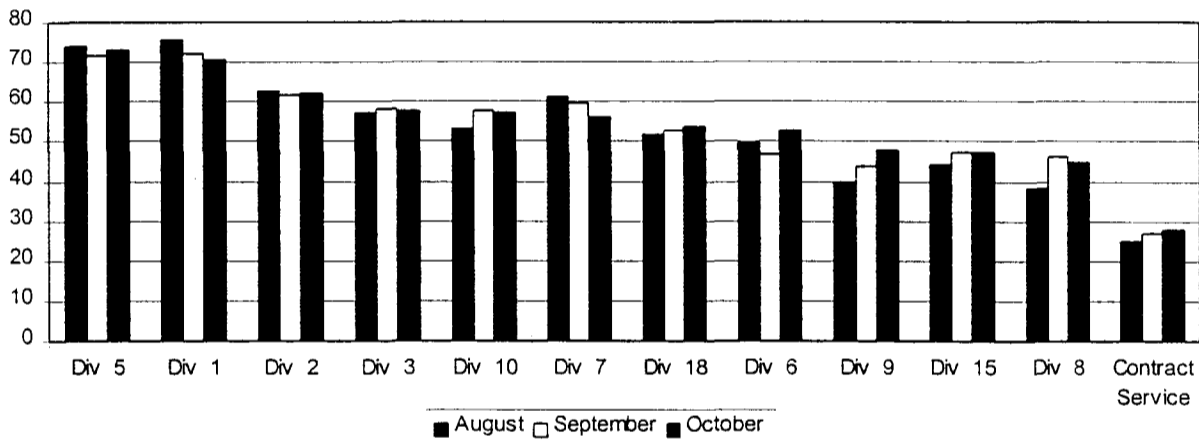
**Definition:** Boardings per hour is the number of passengers estimated to board during one hour of revenue service.

**Calculation:** Boarding/Hour = (Total Passenger Boardings/Total Revenue Service Hours)

**Systemwide - Three Year Trend**



**Bus Operating Divisions - August through October 1997**



**Analysis:** The ridership decrease between September and October is reflective of predictable seasonal trends. Year-to-date ridership has increased over the numbers reported for the same period in each of the last two years. An increase in boardings reflects a positive trend in ridership and indicates that we are transporting more people. In order to comply with the Consent Decree, ridership over acceptable load factors will require that we provide additional service. Current ridership estimates project that the MTA will exceed the goal of 341 million annual boardings assumed in the annual budget by 2% - 3%.

**Corrective Actions:** As ridership increases, staff will make necessary service adjustments to ensure that passenger loads are within the Consent Decree guidelines.

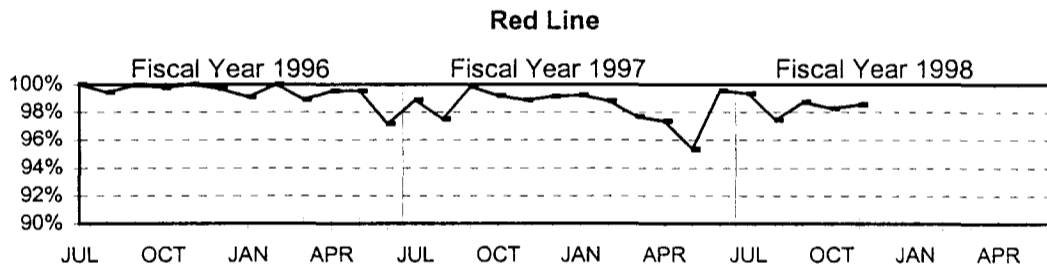
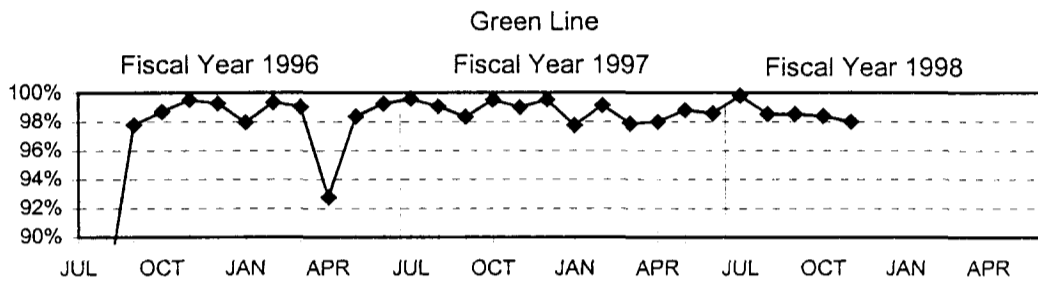
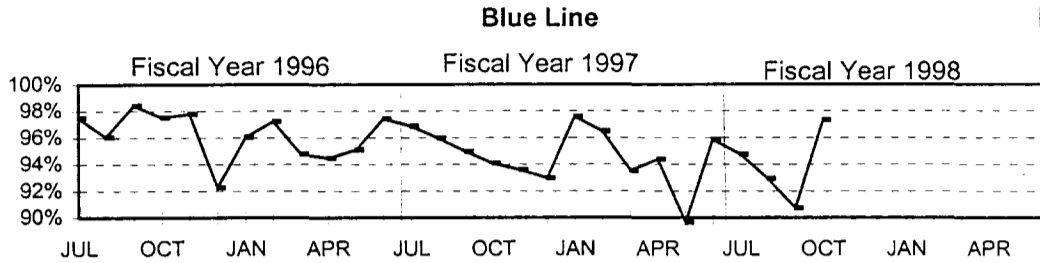
# RAIL SERVICE PERFORMANCE

## On-Time Service

**Definition:** On-time Service measures the percentage of rail train trips completed and within 2 minutes of schedule. The higher the number, the more reliable the service.

**Calculation:**  $OTP\% = [(100\% - ((\text{Total cancelled trips} + \text{late trips}) / \text{Total scheduled trips}) * 100)]$

### Three Year Trend By Rail Line



**Analysis:** To date, there has been adequate manpower and equipment to ensure on-time pullouts for all three rail lines. External incidents such as debris on the tracks, power supply interruptions, accidents, etc. Create delays which impact the on-time service of each rail line. The Blue Line, which has numerous at-grade crossings and runs on surface streets is more susceptible to service disruptions than either the Green Line or Red Line which run on dedicated rights-of-way.

**Corrective Action:** Given the unique nature of the service disruptions that impact rail service, Transit Operations responses will vary. It should be noted that when a rail incident occurs and it is projected to impact service, Transit Operations dispatches buses to facilitate the movement of rail passengers. One area which Transit Operations has focused on improving is the time it takes to clear accidents on the Blue Line. While accidents are infrequent, they can result in significant service disruptions. Transit Operations is working closely with local police agencies and the California Highway Patrol to expedite the investigation and clearing of accident scenes so that service can be resumed as quickly as possible.

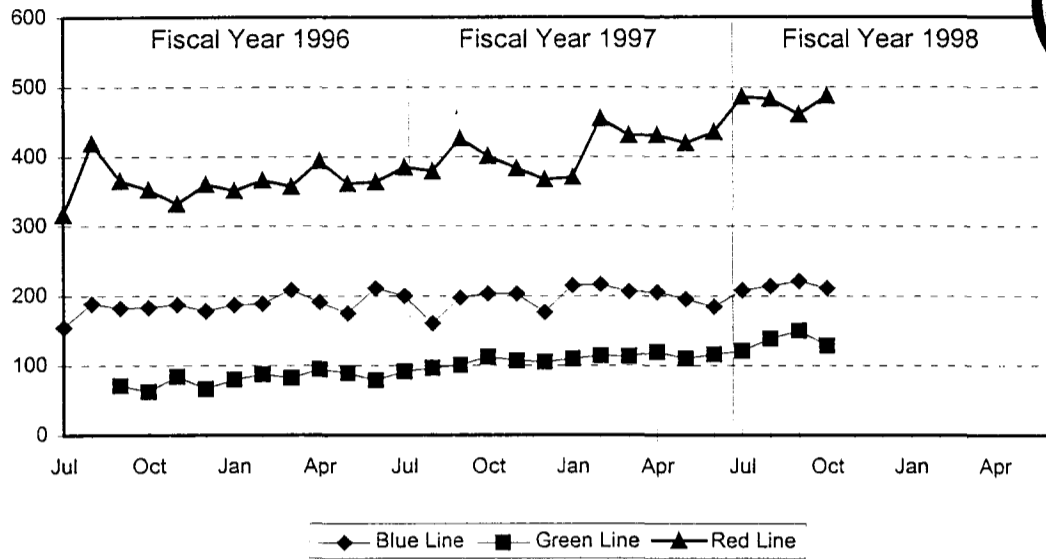


**Boardings/Revenue Service Hour**

**Definition:** Boardings per hour is the number of passengers estimated to board during one hour of revenue service.

**Calculation:** Boarding/Hour = (Total Passenger Boardings/Total Revenue Service Hours)

**Three Year Trend by Rail Line**



**Analysis:** MTA's rail system is still relatively new, therefore, all three rail lines continue to experience some ridership growth. This growth will continue as the rail system expands, providing more service and better integration of bus and rail transportation options. The data on this chart reports boardings per revenue service hour. The differences between the three rail lines is reflective of the service operated and should not be used to draw conclusions regarding the relative performance. Current ridership estimates project that all three rail lines will meet or exceed the boardings goal assumed in the annual budget.

**Corrective Actions:** As ridership increases, staff will review options to increase capacity to best meet ridership demands.

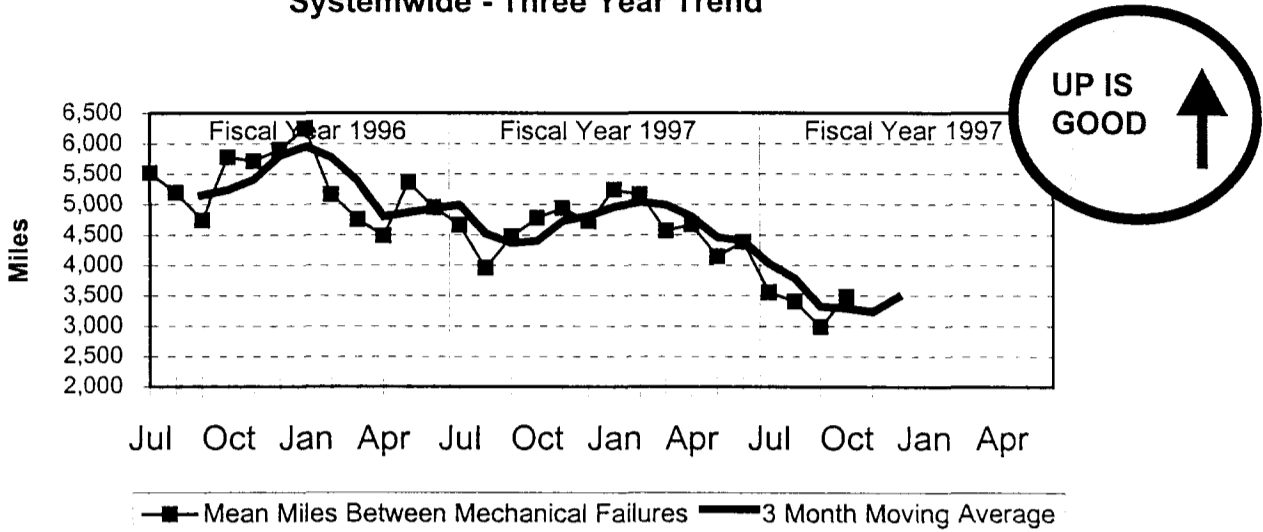
# MAINTENANCE PERFORMANCE

## Mean Miles Between Mechanical Failure

**Definition:** Average Hub Miles traveled between mechanical problems that result in a service disruption of greater than ten minutes.

**Calculation:** MBRC = (Total Hub Miles/Chargeable Mechanical Related Roadcalls)

### Systemwide - Three Year Trend

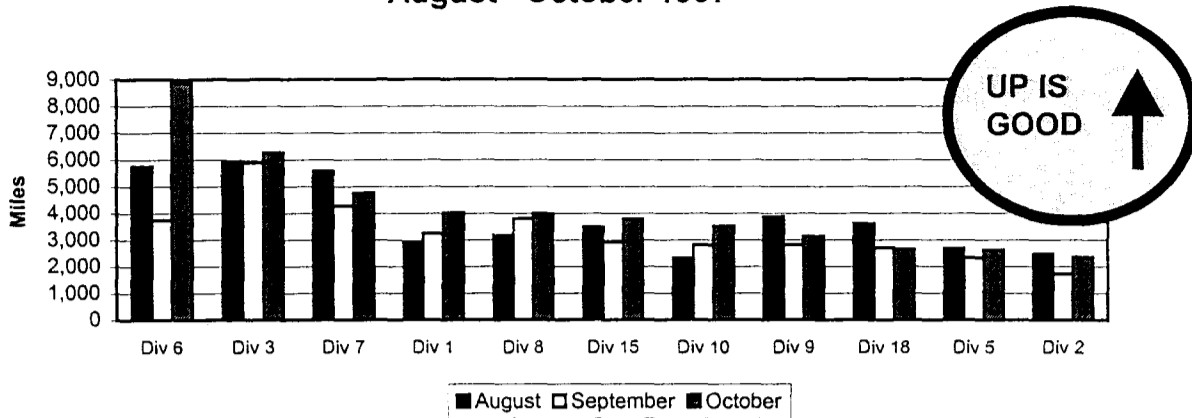


**Analysis:** As noted last month, the trend toward increased roadcalls is driven by the same problems discussed in service performance. The overall reliability and age of the fleet and some unique problems with the CNG buses have also had a negative impact on the mean miles between mechanical failures. The addition of 102 buses over the last two years for load reduction service required the activation of older, retirement eligible buses. Although the best of these older diesel buses are generally more reliable than others in the fleet, buses previously designated for retirement require added maintenance attention. Additionally, many of the 100 buses provided to the contract operators were more reliable than those retained. The reduced range of the CNG buses and some problems with new CNG buses have resulted in a higher rate of road calls than that experienced by the remainder of the fleet. The CNG fueling pressure has been increased and more recent data indicates improvement in the number of CNG related out-of-fuel roadcalls and the other CNG problems are being addressed with the manufacturer.

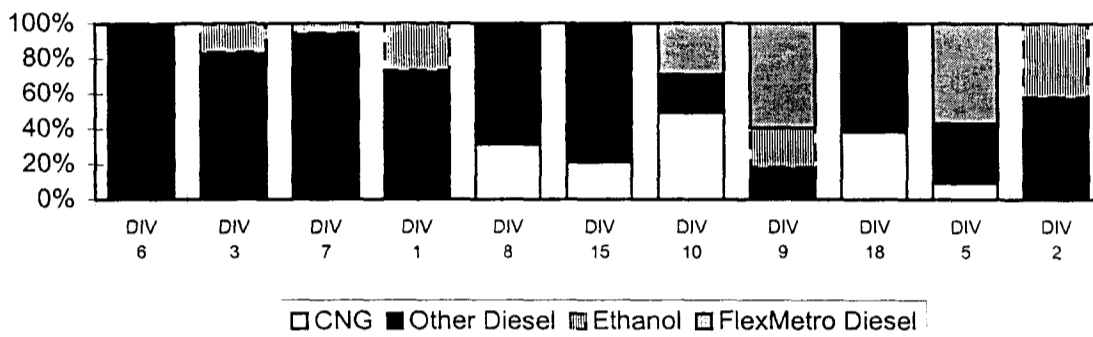
**Corrective Actions:**

1. Convert the ethanol buses to non-alcohol fuel to improve reliability;
2. Implement the Maintenance Improvement Program (MIP) Leader Guidelines in December 1997. MIP Leader Guidelines will improve staff technical skills, maximize labor performance, and ultimately reduce maintenance costs while improving reliability and cleanliness;
3. Hire the staff identified in the FY98 budget to increase maintenance supervision at the operating divisions;
4. Implement the ATU/MTA agreement.;
5. Spread the ethanol fleet from 3 to 6 divisions to minimize the number of miles placed on these buses. In addition to the ethanol buses moved to Division 3, ethanol buses are now operating out of Divisions 5 and 7;
6. Continue to work with Cummins Engines to resolve problems with the new CNG buses at Division 18;
7. Retire and replace Flex-metro buses as they become eligible for retirement.

**Bus Operating Divisions Mean Miles Between Mechanical Failure  
August - October 1997**



**Fleet Mix by Fuel Type - October 1997**



**Analysis:** All Divisions reported either improved or static performance between September and October. Bus type has a significant impact on a Division's mean miles between mechanical failure. Divisions 6, 3 and 7 have the highest number of mean miles between vehicle failures and have fleets which, until recently, were comprised of only diesel buses. With the exception of Division 18, there is a strong correlation between divisions with a high percentage of ethanol and Flex-metro buses lower than average mean miles between mechanical failures. Division 18 is impacted by the CNG fueling and engine issues noted on the previous page. Please note, the fleet mix chart reflects the buses assigned during October.

**Corrective Actions:** The steps taken to improve the mean miles between mechanical failures are the same as those described on the previous page for system-wide improvements:

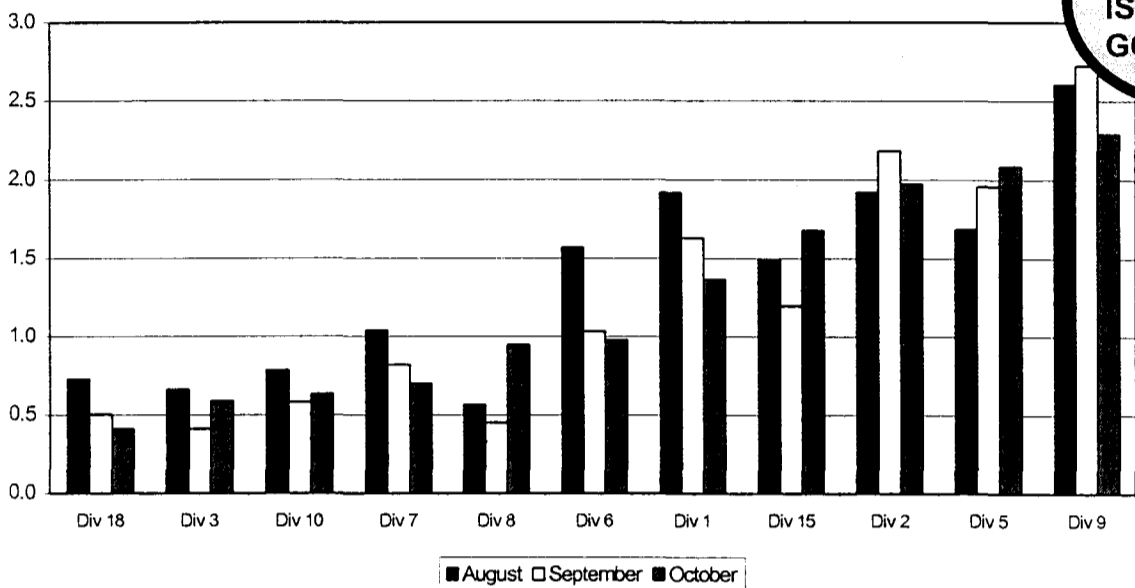
1. Convert the ethanol buses to non-alcohol fuel to improve reliability;
2. Implement the Maintenance Improvement Program (MIP) Leader Guidelines in December 1997. MIP Leader Guidelines will improve staff technical skills, maximize labor performance, and ultimately reduce maintenance costs while improving reliability and cleanliness;
3. Hire the staff identified in the FY98 budget to increase maintenance supervision at the operating divisions;
4. Implement the ATU/MTA agreement..
5. Spread the ethanol fleet from 3 to 6 divisions to minimize the number of miles placed on these buses. In addition to the ethanol buses moved to Division 3, ethanol buses are now operating out of Divisions 5 and 7.
6. Continued to work with Cummins Engines to resolve problems with the new CNG buses at Division 18;
7. Retire and replace Flex-metro buses as they become eligible for retirement.

Past Due Critical Preventive Maintenance Program (PMPs) Jobs

**Definition:** Average past due critical scheduled preventive maintenance jobs per bus. This indicator measures maintenance management's ability to prioritize and perform critical repairs and indicates the general maintenance condition of the fleet.

**Calculation:** Past Due Critical PMP's = (Total Past Due Critical PMP's/Buses)

Bus Operating Divisions - August - October 1997

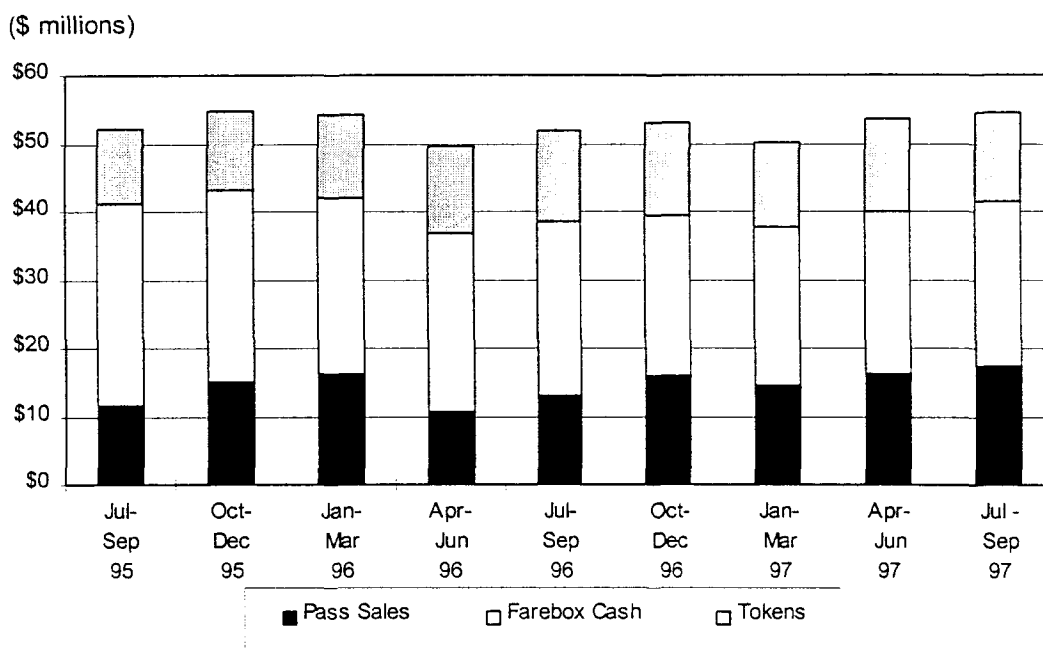


**Analysis:** A high and/or increasing rate of Past Due Critical PMP's can be an early warning sign that a Division is headed toward problems in the mechanical related performance indicators. While this indicator alone does not indicate better or worse maintenance performance, most Divisions that are maintaining a low rate of past due PMP's are also reporting better than average performance for On-time Pullouts and Mean Miles Between Mechanical Failures. However, Division 18 does not follow this pattern. While this division reports the lowest rate of past due PMP's, its performance for both On-time Pullouts and Mean Miles Between Mechanical Failures is below the system-wide averages.

**Corrective Actions:** The PMP program is a critical element of the Maintenance Improvement Program (MIP) which involves revising standards for PMP work to improve maintenance productivity. The FY98 budget included revised PMP parameters which, when implemented, will allow maintenance personnel to focus their attention on improving the critical PMP's.

## FINANCIAL PERFORMANCE

### Fare Revenue Systemwide - Three Year Trend by Quarters



**Analysis:** Fare revenues for FY98 have improved compared to this time in FY97 and in FY96. The fare revenue for FY98 is on budget for the first quarter of FY98. The annual budget for FY98 fare revenue is \$220 million; the first quarter revenues (all media combined) is \$54 million. Pass and token sales are expected to increase while cash sales are expected to decrease compared to previous years due to the consent decree fare mandates.

**Corrective Actions:** The Transit Institute Training Program includes a module to train Bus Operators on methods for collecting fares from reluctant passengers. The purpose of this module is to improve Operator collection methods. The MTA has also improved counterfeit prevention methods during FY98 to reduce opportunities for fraud.

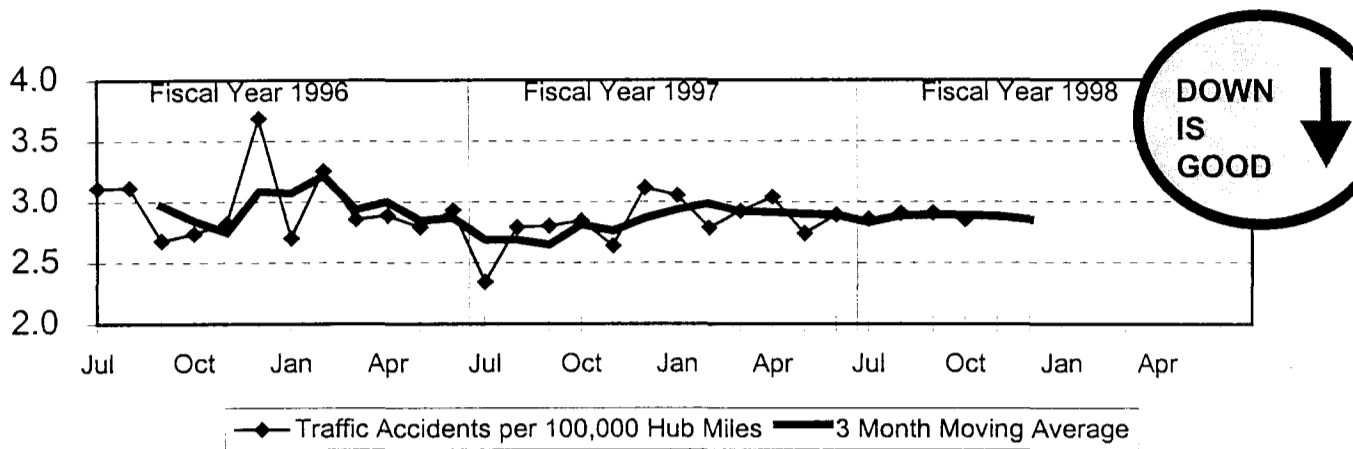
Please note: This is the same information that appeared in last month's Performance Report. Staff is working on an updated version of this chart and additional financial performance indicators. These changes will be included in next month's report.

## SAFETY PERFORMANCE

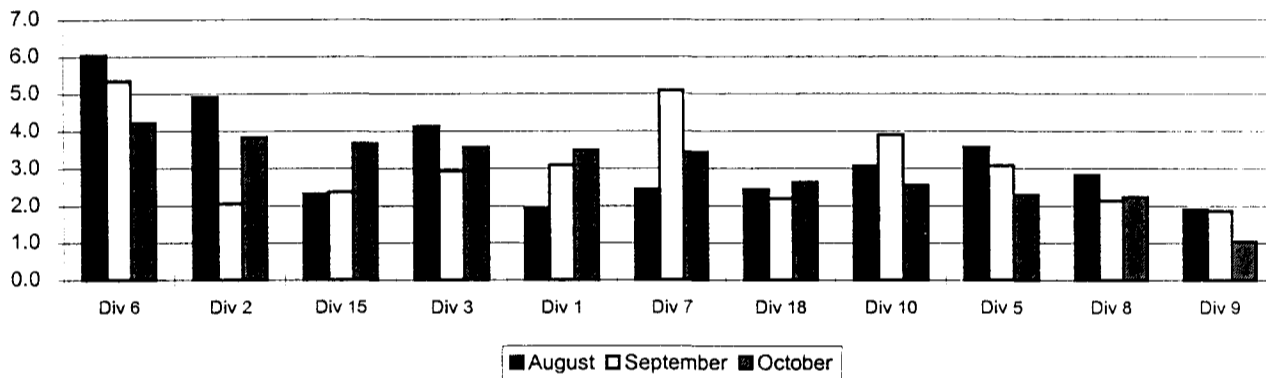
### Traffic Accidents per 100,000 Hub Miles Systemwide - Three Year Trend

**Definition:** Average number of Traffic Accidents for every 100,000 Hub Miles traveled . This indicator measures system safety.

**Calculation:** Traffic Accidents Per 100,000 Hub Miles = (# Traffic Accidents/(Hub Miles/100,000))



### Bus Operating Division - August - October 1997



**Analysis:** During the first quarter of FY98, MTA averaged 2.9 accidents per 100,000 miles. This represents no significant change from FY97. The consistently low accident rate can be attributed to MTA's continuous focus on safety and the number of high seniority bus operators.

**Corrective Actions:** Although the MTA experiences a low accident rate, safety continues to be a high priority for MTA. Specific programs initiated in FY98 include the following;

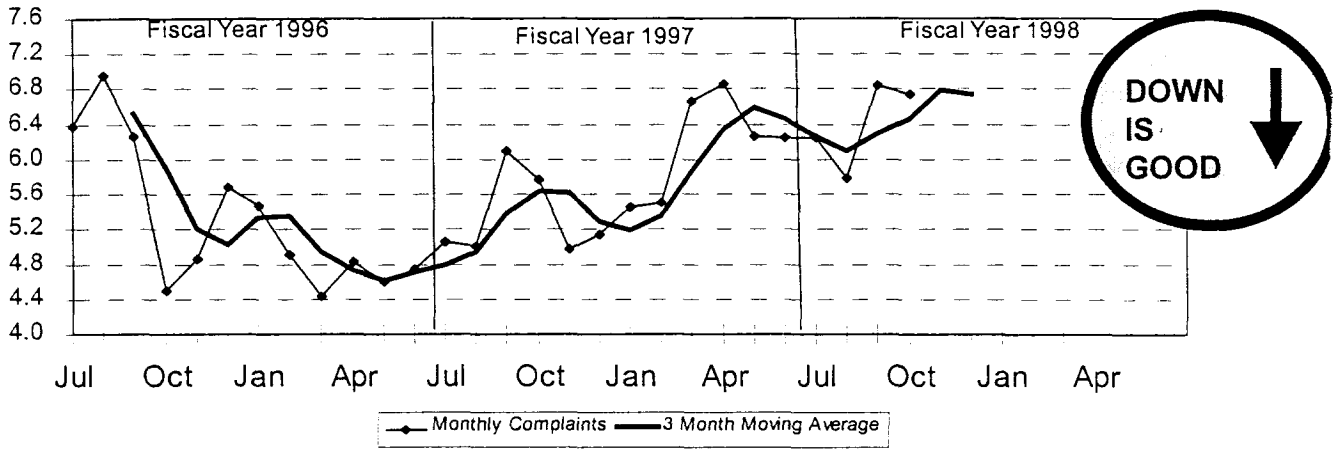
1. Injury and Illness Prevention Program - to train employees and keep safety a constant message for all workers.
2. Safety Awareness Program - designed to help customers use Metro services safely, and to communicate safety information to motorists and pedestrians.
3. The CEO has initiated the integration of all safety resources into one Department reporting to the Office of the CEO.

## CUSTOMER SATISFACTION

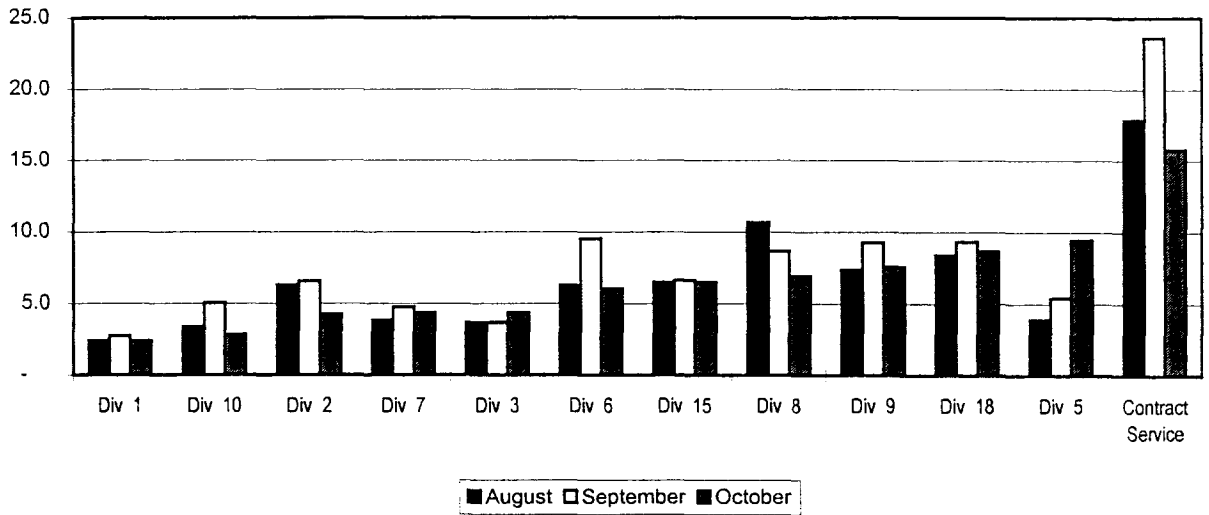
### Complaints per 100,000 Boardings Systemwide - Three Year Trend

**Definition:** Average number of customer complaints per 100,000 unlinked passenger trips. This indicator measures service quality and customer satisfaction.

**Calculation:** Customer complaints per 100,000 Boardings = Complaints/(Unlinked Passenger Trips/100,000)



### Bus Operating Divisions - August - October 1997



## CUSTOMER SATISFACTION - Continued

### Complaints per 100,000 Boardings

**Analysis:** The data indicates that complaints have increased during FY98 after a downtrend at the end of FY97. As reported last month, the rise in complaints is attributed to the decline in on-time performance resulting from equipment failures and a shortage of bus operators. The high number of complaints received during March and April of 1997, can be attributed to the "On-time Guaranteed Ride Program" which encouraged passenger feedback. It is interesting to note, that while Division 1 has had some difficulty in meeting the On-Time Pullout Performance Goal, it received the least number of customer complaints during October with fewer than 2.5 complaints per 100,000 boardings in October. The contract service operated by Laidlaw and ATE/Ryder improved between September and October, however, this service still resulted in the highest complaint rate for MTA operated service at over 15 complaints for every 100,000 boardings during the period reported.

**Corrective Actions:** In addition to the technical corrections identified earlier to reduce equipment failures and hire new bus operators, Transit Operations started several new programs during FY98 to provide better response to customers. These programs are the following:

1. **Meet the MTA Family** - Transit Operations executive management selects a heavily used location on a monthly basis to talk with customers, identify problem areas and listen to customer complaints.
2. **Consent Decree Joint Working Group(JWG)** - Transit Operations management meets weekly with the JWG to discuss overcrowding and other customer satisfaction issues and to identify ways the MTA can respond to customer requests.
3. **Transit Institute** - The Transit Institute is a two-day training program required for all bus operators to promote the Customer First attitude of the MTA. Included in the training are sessions on sensitivity training, strategies for dealing with difficult people, and empowerment to do the right thing for the customer.
4. **Service Quality** - The Management Ride program requires MTA management staff to ride MTA service at least three times each month and to report on operator courtesy, cleanliness of the bus, comfort and adherence to ADA requirements. Management also speaks to the passengers and records information to make service improvements.



**Complaints by Major Category**

**Definition:** Complaints are defined by a customer telephone or mail received. Each complaint is categorized and counted.

**Calculation:** Complaints are counted by the number of telephone and mail complaints received by category.

**Systemwide - One Year Trend**

**% of Total Complaints by Category**

Type of Complaint	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Schedule Related	33.4	32.5	28.5	32.4	33.5	41.5	39.3	36.7	36.7	37.4	41.2	44.7	44.8
Passed Up	16.7	19.2	16.3	18.7	16.4	13.5	18.3	17.0	13.5	14.9	16.0	16.7	14.3
Unsafe Operation	11.7	11.0	9.5	7.8	10.2	9.1	7.3	7.2	9.0	9.6	9.8	8.6	7.0
Operator Discourtesy	13.1	13.1	14.8	13.3	15.3	14.1	13.1	15.6	13.4	11.6	10.8	9.3	8.6
Other	25.1	24.2	30.8	27.7	24.6	21.7	22.1	23.9	27.4	26.6	22.2	20.8	25.2

**Analysis:** The one-year trend shows that the highest number of complaints are related to service reliability. For the last two months, almost forty-five percent of all complaints received are schedule related. This is consistent with on-time performance and service cancellations reported earlier in the report. On a positive note, Unsafe Operation and Operator Discourtesy complaints have remained consistent in total and represent a very small percentage of total complaints received.

**Corrective Actions:** As noted in the Service performance section of this report, management has taken or is in the process of initiating the following actions to improve service reliability:

1. Increase the bus operator hiring program and focus new operator training at the division level to prepare operators for revenue service in six weeks instead of eight weeks (It is anticipated that the operator shortage will be resolved by the end of December);
2. Hire the staff identified in the FY98 budget to increase maintenance supervision at the operating divisions;
3. Implement the ATU/MTA agreement.

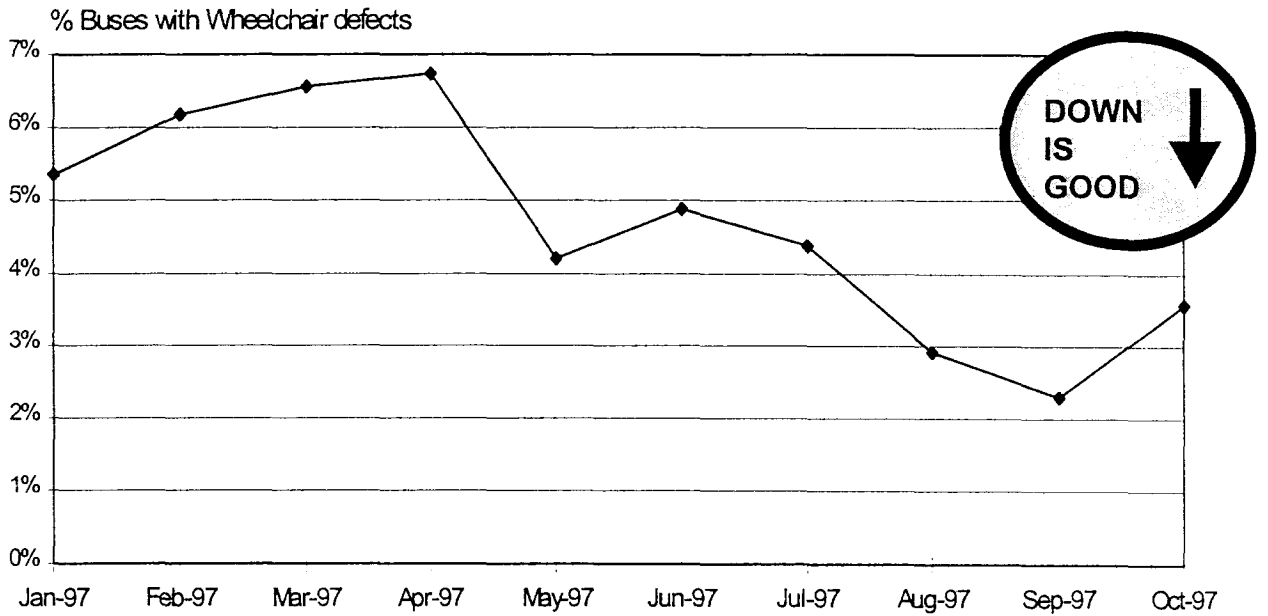
In addition staff has identified the following additional actions which should positively impact performance:

1. Convert the ethanol buses to non-alcohol fuel to improve reliability;
2. Implement the Maintenance Improvement Program (MIP) Leader Guidelines in December 1997. MIP Leader Guidelines will improve staff technical skills, maximize labor performance, and ultimately reduce maintenance costs while improving reliability and cleanliness;
3. Retire and replace Flex-metro buses as they become eligible for retirement.

**Wheelchair Lift Defect Rate  
January 1997 Through October 1997**

**Definition:** This performance indicator expresses the number of inoperative wheelchair lifts as a percentage of the fleet.

**Calculation:** % Assigned Buses with Wheelchair Lift Defects = Wheelchair lifts with defects/Total assigned buses .



**Analysis:** After experiencing a reduction in this performance measure of almost two-thirds in the previous six months, October data indicates an increase in defects. While still down by almost 50% from the Wheelchair Defect Rate reported as recently as last April, this indicator is the focus of considerable attention within Transit Operations and will continue to be closely watched.

**Corrective Actions:** A temporary instructor was hired in August 1997 to train additional maintenance personnel to ensure that a sufficient number of qualified mechanics were available at each division to repair wheelchair lifts. Continued emphasis and stress on wheelchair lift maintenance and continued training of mechanics will maintain or improve the current level of performance. Additionally, preventive maintenance on wheelchair lifts is being stepped up in order to prevent problems associated with rainy weather.

## TRANSIT OPERATIONS PERFORMANCE REPORT

### Summary

While progress has been made in resolving the bus operator shortage, as this report indicates, Transit Operations continues to experience problems in the area of equipment maintenance. These problems are driving the most significant challenge facing MTA bus service, schedule reliability. As is noted throughout this report, there are three principle factors which must be resolved in order to reverse the negative trend in the maintenance related performance indicators:

- Ethanol bus engine failures
- High maintenance requirements of the aging diesel buses
- Maintenance operations productivity

The first two issues and their resolutions are well documented. The third issue has been a significant concern for Transit Operations management and over the last six months actions have been taken to improve the performance and productivity of all maintenance activities. While ongoing labor negotiations and the hiring freeze have slowed progress, these impediments appear to be almost totally resolved. This is evidenced by the slight improvement in On-time Pullout Performance and the dramatic improvement in the Wheelchair Lift Defect Rate. It is anticipated that further improvements will be seen in the next few months as budgeted staffing changes are fully implemented and the Maintenance Improvement Program (MIP) Leader Guidelines are implemented in December.