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FEBRUARY 19, 1998

TO: BOARD OF DIRECTORS

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

SUBJECT: TRANSIT OPERATIONS PERFORMANCE REPORT  
DECEMBER 1997

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

**December 1997 Highlights:**

Service Performance

- Management has taken aggressive corrective actions to deal with problems at Division 5 which were the primary cause of the decline in on-time performance for December.
- Scheduled Revenue Service Hours Lost were slightly below 3%. Revenue Service Hours are lost as a result of service disruptions and late/cancelled pullouts. December performance is approximately 1% worse than November due to the fleet reliability issues.
- Boardings Per Revenue Service Hour did not change from November to December. Lower Boardings Per Revenue Service Hour is an indication of the progress that has been achieved in reducing overcrowding on buses.
- Red Line and Green Line On-time Service improved to better than 99%. The Blue Line continues to report monthly fluctuations as a result of the unique problems of operating on an at-grade right-of-way.

Maintenance Performance

- As with the Service Related Performance indicators, this indicator is impacted by the cumulative effects of the previously reported mechanical problems with ethanol and FlexMetro buses and the high percentage of retirement eligible buses in the active fleet.

Transit Operations Performance Report - December 1997  
Page Two

Financial Performance

- Year-to-date Bus and Rail Operating expenses are forecast to be approximately 0.6% over budget.
- Fare Revenue is on target to meet budget and reflects a shift from cash to pass revenue.

Safety

- Traffic Accident rates have risen in the last two months primarily as a result of normal seasonal fluctuations. This year-to-date data indicates performance consistent with last year.

Customer Satisfaction

- Customer complaints dropped for the third consecutive month and are at the lowest level in ten months.
- The Wheelchair Defect Rate has increased over the last three months partly as a result of weather related problems. Transit Operations has focused on ensuring that all ADA requirements are met and buses are not run in-service with inoperable wheelchair lifts.

MTA's goal is to schedule service to provide average passenger loads of less than 135% of seated capacity. Passenger load standard monitoring reports indicate that more than 96% of the time periods checked on the 77 heaviest bus lines do not exceed the established passenger load standard.

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.



# **Transit Operations Performance Report**

*for*  
**December 1997**

*Prepared by:*

**Los Angeles County  
Metropolitan Transportation Authority  
Transit Operations Division**



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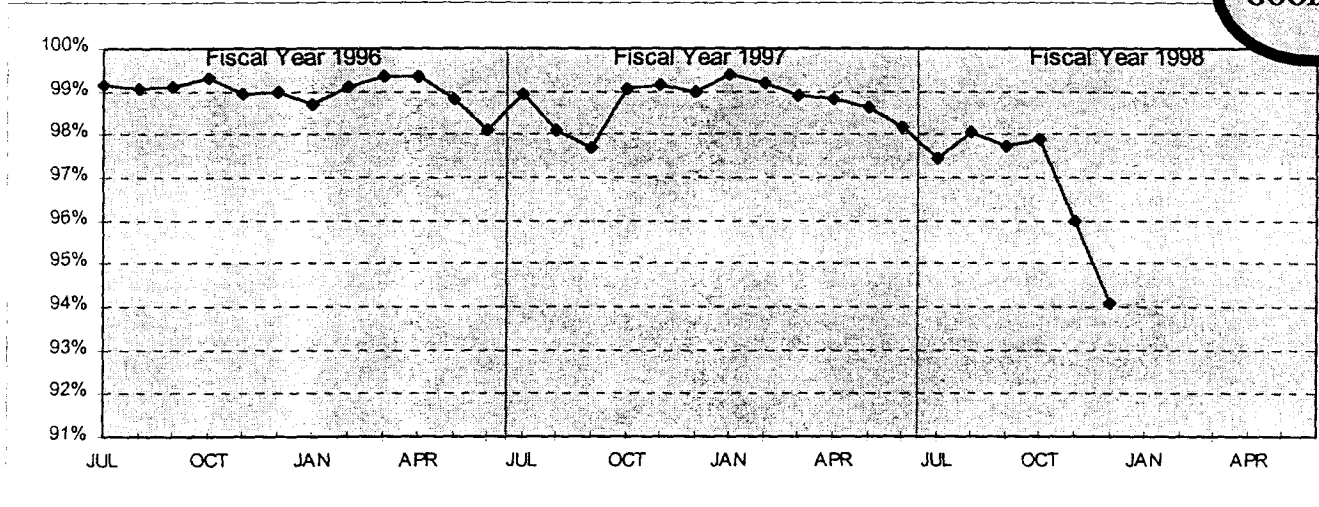
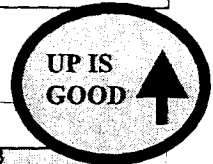
# BUS SERVICE PERFORMANCE

## On-Time Pullout Percentage

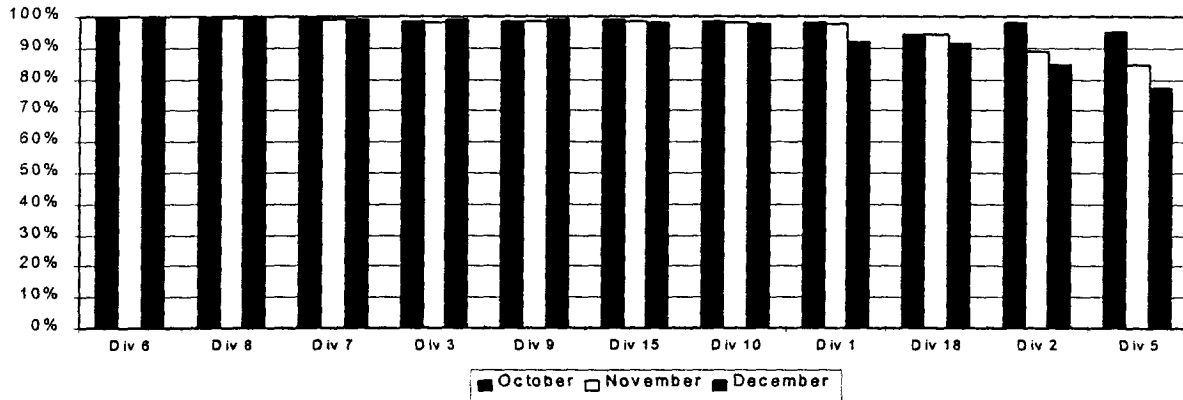
**Definition:** On-time Pullout Performance measures the percentage of buses leaving the operating division within ten minutes of the scheduled pullout time. The higher the number, the more reliable the service.

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

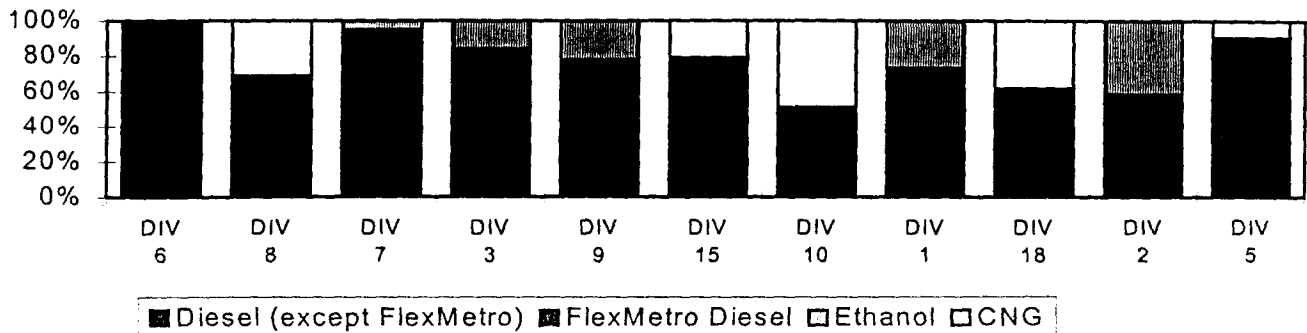
### Systemwide - Three Year Trend



### On-Time Pullout Performance Percentage Bus Operating Divisions October - December 1997



### Fleet Mix by Divisions - December 1997



Outlates & Cancellations by Division- December 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	No Equipment	Other
Northern Region								
1	393	6.9%	68	1.2%	91.9%	13	445	3
3	41	0.8%	4	0.1%	99.2%	4	39	2
8	18	0.4%	12	0.3%	99.3%	12	18	0
9	51	0.8%	7	0.1%	99.1%	7	51	0
15	87	1.4%	29	0.5%	98.1%	7	102	7
Sub-Total	590	2.1%	120	0.4%	97.5%	43	655	12
Southern Region								
2	280	6.5%	371	8.6%	84.8%	69	580	2
5	583	9.9%	754	12.8%	77.2%	81	1254	2
6	0	0.0%	0	0.0%	100.0%	0	0	0
7	59	0.8%	1	0.0%	99.2%	3	53	4
10	63	1.0%	111	1.7%	97.4%	11	162	1
18	495	6.8%	139	1.9%	91.3%	60	566	8
Sub-Total	1,480	4.5%	1,376	4.2%	91.2%	224	2615	17
<b>TOTAL</b>	<b>2,070</b>	<b>3.4%</b>	<b>1,496</b>	<b>2.5%</b>	<b>94.1%</b>	<b>267</b>	<b>3,270</b>	<b>29</b>

**Analysis:** On-time pullout performance continues to fall below the goal of 99.5%. Nearly 92% of the reported late pullouts and service cancellations are due to the unavailability of equipment. As has been reported for the previous several months, Transit Operations continues to be challenged by the cumulative effects of ethanol engine failures, problems endemic with the FlexMetro fleet, the need to operate retirement eligible equipment to meet the consent decree service mandates, a slow recruitment process to fully staff all maintenance supervisory positions and a variety of maintenance issues at Division 5. Additionally, Division 18's on-time performance is impacted by warranty-related issues with the recently received CNG buses.

**Corrective Actions:** The following actions have been initiated and/or are in progress to improve on-time performance:

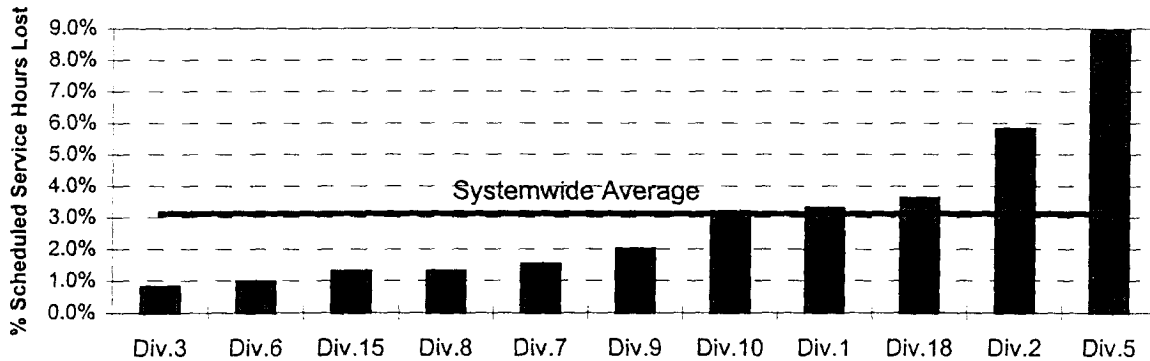
1. Transit Operations has assigned ethanol buses to six divisions instead of three to lessen the negative impact on service delivery systemwide.
2. Of the 52 division Equipment Maintenance Supervisor positions budgeted for FY98, 42 positions have been filled. Transit Operations is in the process of hiring the 10 additional positions necessary to meet the FY98 budgeted requirement.
3. The recovery team assigned to Division 5 continues to assess and resolve equipment-related problems to restore equipment reliability. The preliminary data for January indicates significant improvement in on-time performance.
4. Equipment Engineering and Procurement (Warranty Section) are working closely with Cummins to resolve on-going CNG mechanical problems. To date, Cummins has replaced the ignition modules on all 4700 and 6300 series CNG buses. Additionally, a new style fuel control solenoid is being evaluated to decrease problems with this component.

**Scheduled Revenue Service Hours Lost**

**Definition:** This performance indicator measures the number of service hours lost as a percentage of total scheduled service hours.

**Calculation:**  $SHL\% = (\text{Total Service Hours Lost} / \text{Total Scheduled Service Hours})$

**Bus Operating Divisions - December 1997**



**Analysis:** This performance indicator quantifies the on-street impact of in-service mechanical failures and service which was either canceled or left the operating division late. This is the second month this indicator has been tracked, therefore, meaningful trend data is not yet available. It should be noted that while there is not a direct quantifiable relationship between this indicator and the On-time Pullout Percentage indicator, Scheduled Revenue Service Hours Lost is impacted by many of the same mechanical problems. The high late/cancellation rates experienced by Divisions 2 and 5 coupled with a low Mean Miles Between Mechanical Failures resulted in a systemwide increase in Lost Revenue Service Hours from a rate of approximately 2% in November to 3% in December.

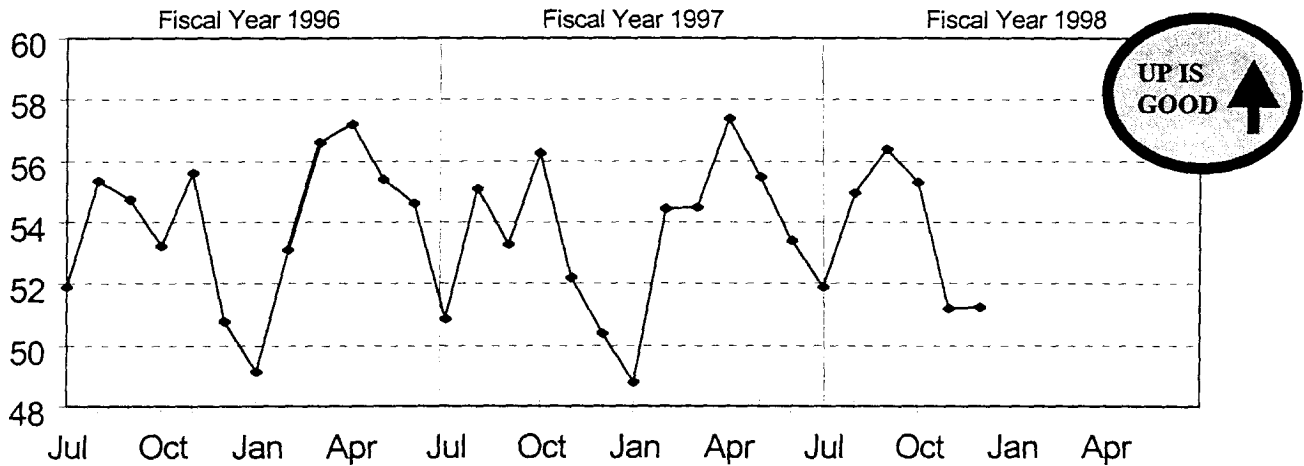
**Corrective Actions:** The Lost Revenue Service Hour rate will improve as Transit Operations resolve the previously reported fleet reliability problems.

**Boardings Per Revenue Service Hour**

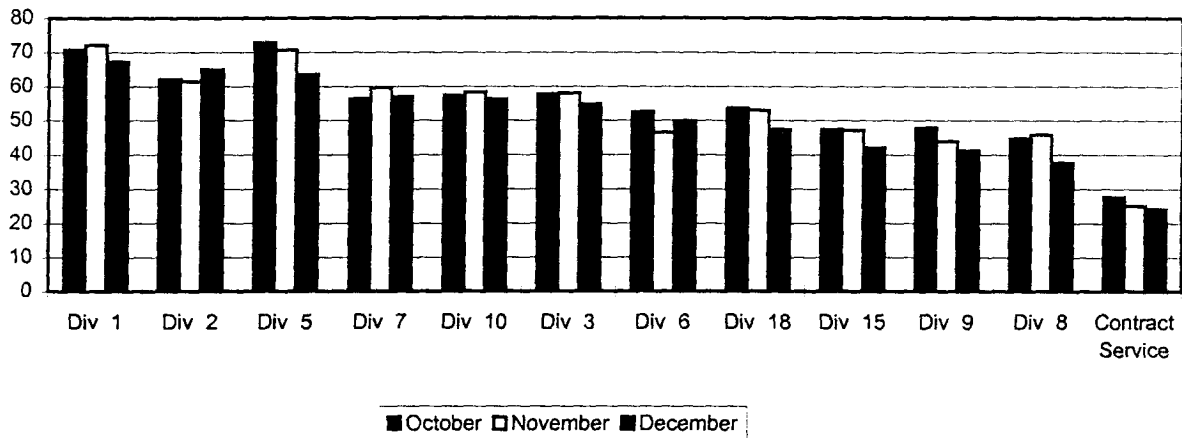
**Definition:** Boardings per hour is the number of passengers estimated to board during one hour of revenue service.

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

**Systemwide - Three Year Trend**



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



**Analysis:** Boardings Per Revenue Service Hours remain constant between November and December consistent with the seasonal trend. The Boardings per Revenue Service Hour performance reported above is impacted by the additional service implemented to comply with the requirements of the Consent Decree. The reduced load ratio mandated by the Consent Decree to reduce overcrowding equates to fewer Boardings Per Revenue Service Hour.

**Corrective Actions:** Staff is continually making adjustments in service levels, schedules and maximum utilization of equipment to ensure passenger loads are within the Consent Decree guidelines.



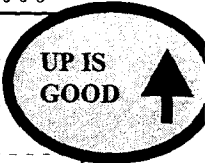
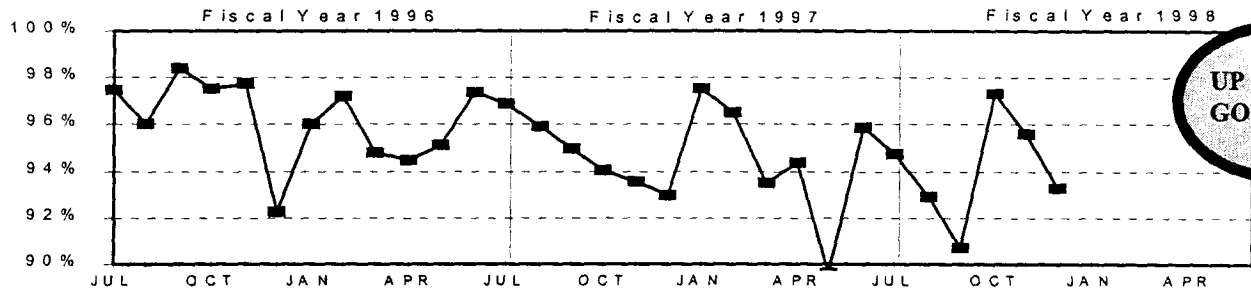
# RAIL SERVICE PERFORMANCE

## On-Time Service

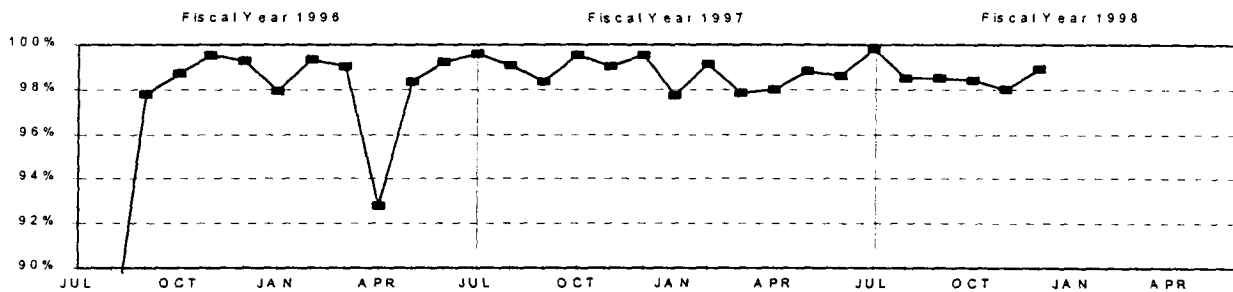
**Definition:** On-time Service measures the percentage of rail trains trips completed and within two minutes of schedule. The higher the number, the more reliable the service.

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

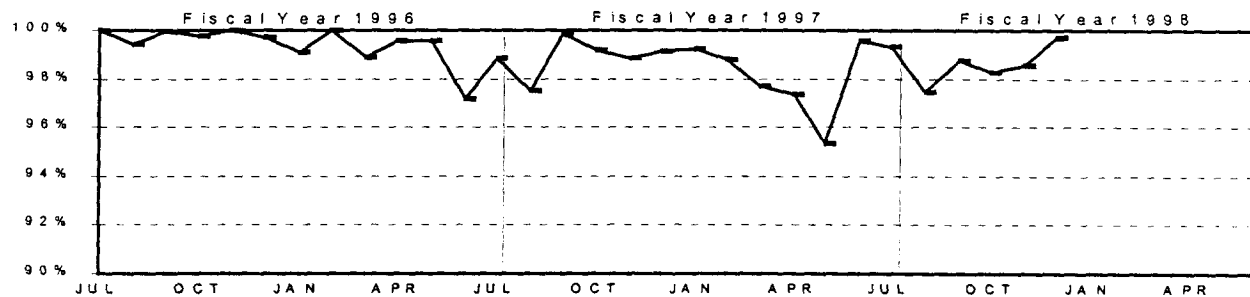
### Three Year Trend By Rail Line Blue Line



### Green Line



### Red Line



**Analysis:** Rail On-time Service for the Red Line and Green Line remains consistently above 98%. The Blue Line continues to experience a lower on-time service rate of slightly over 93%. Blue Line performance can be attributed to passenger vehicles and pedestrians infringing onto the rail right-of-way. When an accident occurs on the right-of-way, it affects the entire line. Trains must operate on a single track around the affected area. Single track operations usually result in significant service delays. During the month of December, the Blue Line experienced over 160 incidents resulting in approximately 300 late or cancelled trips. Of the 160 incidents, 5 or 3% were accidents. These 5 accidents resulted in 75 or 25% of the 300 reported late or cancelled trips.

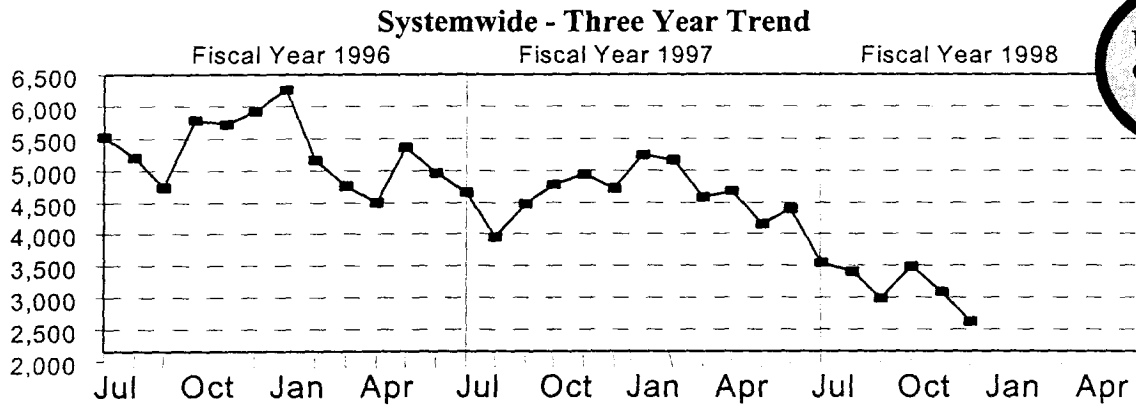
**Corrective Action:** Given the unique nature of service disruptions that impact rail service, Transit Operations' responses will vary. If an incident occurs, and is projected to have a significant impact on service, buses are dispatched to facilitate the movement of rail passengers. As noted above, traffic accidents, while infrequent, can result in significant service delays. Transit Operations is working closely with local police agencies to expedite the investigation and clearing of accident scenes so that service is restored as soon as possible.

# MAINTENANCE PERFORMANCE

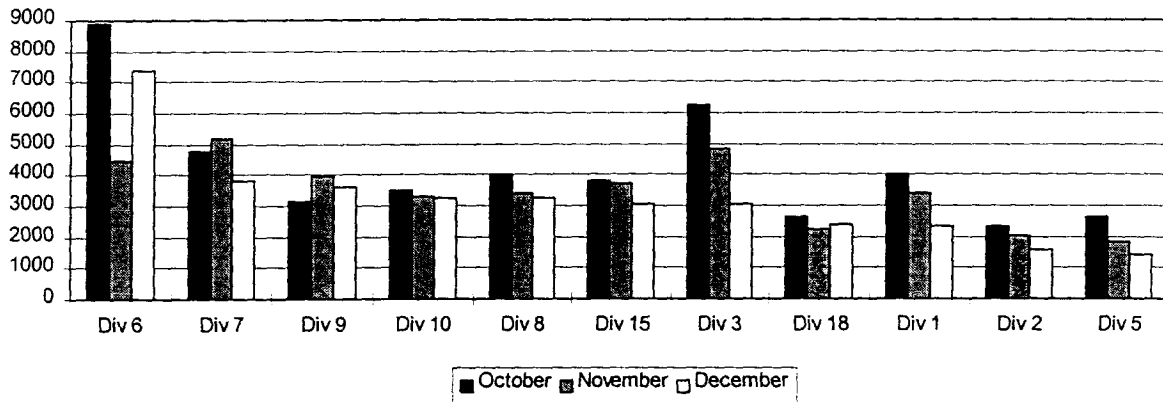
## Mean Miles Between Mechanical Failures

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

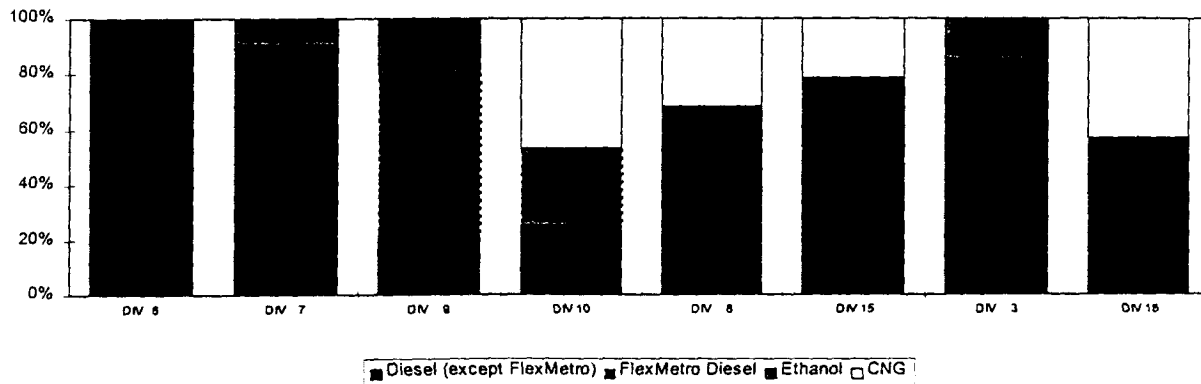
**Calculation:** MBRC = (Total Hub Miles/Chargeable Mechanical Related Roadcalls)



## Bus Operating Divisions October - December 1997



## Fleet Mix by Fuel Type - December 1997



### Mean Miles Between Mechanical Failures

**Analysis:** Mean Miles Between Mechanical Failures dropped to approximately 2,600 miles. This drop is the continuation of the downward trend experienced over the last two years. As previously reported, this downward trend is the result of the cumulative effects of operating an aging fleet (over 40% of the active buses are retirement eligible), the endemic problems with both ethanol powered and the FlexMetro buses and some problems with the new CNG buses.

The type of buses assigned to a division can have a significant impact on the mean miles between mechanical failures. Divisions 1 and 2 have the highest percentage of ethanol buses and both divisions continue to be challenged to improve mean miles between mechanical failures. Division 18 has received the majority of new CNG buses and is therefore impacted to a higher degree as fleet defect issues are worked out. However, Division 9, despite being challenged to maintain a high percentage of problem plagued buses (both FlexMetro and ethanol), has continued to remain one of the best performing divisions.

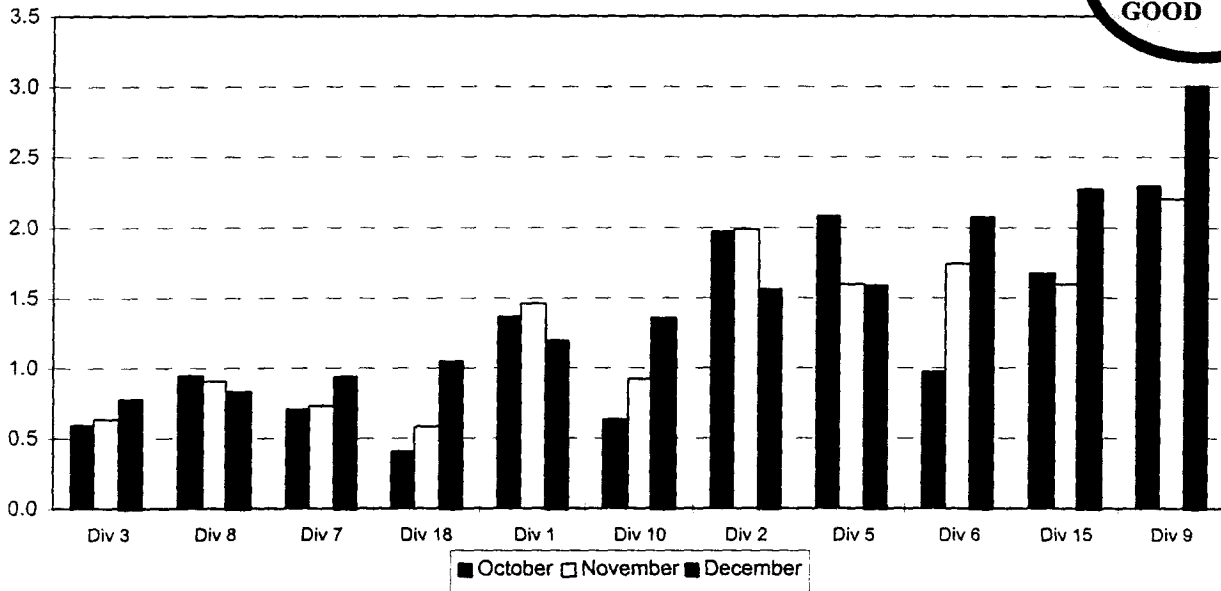
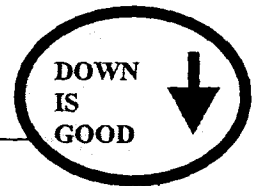
**Corrective Actions:** The corrective actions necessary to improve Mean Miles Between Mechanical Failures are the resolution of the same mechanical reliability issues which have been previously documented. The MTA must address the alcohol fueled buses, retire old buses and hire budgeted supervisory staff to improve the productivity of maintenance activities.

**Past Due Critical Preventive Maintenance Program (PMP's) 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 -October - December 1997**



**Analysis:** Only three of the eleven operating divisions reported a decrease in Past Due Critical PMP's. Division resources are focused on specific maintenance problems, especially those associated with the alternative fueled fleet, the FlexMetros and the high number of retirement eligible buses, thereby preventing divisions from completing all PMP jobs when due. The growing rate of past due PMP's can be attributed to two additional issues, the previously reported vacancies in maintenance supervisory staff and continuing pressure to reduce expenses resulting in reductions in the overtime being expended.

**Corrective Actions:** Transit Operations must implement the same actions required to resolve the Bus Service performance and Mean Miles Between Mechanical Failures problems previously reported. There are no quick fixes. Through the recently implemented Maintenance Improvement Program (MIP), it is anticipated that the PMP work and overall maintenance productivity will improve. This program is designed to assist division management in prioritizing work assignments and focusing on the critical PMP's which will improve overall fleet reliability and ultimately lower maintenance related expenses.

## FINANCIAL PERFORMANCE

### Year-To-Date Bus and Rail Operating Expenses

	Year-to-Date (July 1997 - December 1997)		Variance	
	Budget	Actual	Amount	%
Bus Operators Wages	78,551,901	83,369,982	(4,818,081)	-6.1%
Mechanics & Service Attendants Wages	31,088,782	29,966,161	1,122,621	3.6%
NC/TCU/TPOA/Team/UTU Non-Operators Salaries	27,651,660	32,106,348	(4,454,688)	-16.1%
Allocated Fringes	76,702,344	80,909,658	(4,207,314)	-5.5%
Allocated Overhead	39,384,882	41,291,123	(1,906,241)	-4.8%
Fuel & Lubricants	18,446,867	15,561,576	2,885,291	15.6%
Parts	13,974,381	13,435,961	538,420	3.9%
Insurance & PL/PD Reserves	15,174,010	14,801,527	372,483	2.5%
Services/Materiel & Supplies/Other	27,327,398	20,341,694	6,985,704	25.6%
 Sub-total	 328,302,224	 331,784,030	 (3,481,806)	 -1.1%
 Purchased Transportation	 10,026,119	 8,695,680	 1,330,439	 13.3%
 Total	 338,328,343	 340,479,710	 (2,151,367)	 -0.6%

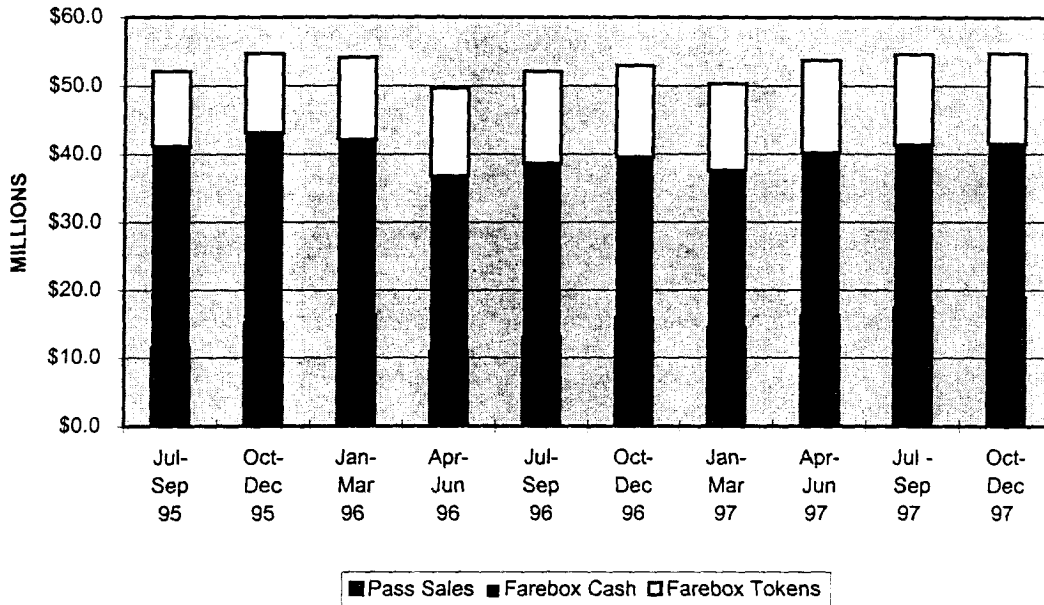
**Analysis:** Overall total bus and rail operating expenses are tracking virtually on budget. As reported in the chart above, there are significant variances in selected expense categories.

- Negative Variances (over budget) - Bus and Train Operator salaries are 6.1% over budget. This is principally the result of seasonal fluctuations in bus service and the previously reported manpower shortage. The year-to-date budget for operator salaries is predicated on a straight-line distribution of expenses. However, actual expenses are reflective of the seasonal fluctuations in bus service. The previously reported Bus Operator shortage during this period resulted in the need to expend additional overtime to insure service availability. The 16.1% variance in the Non-Contract and other support position salaries and the variances in Allocated Fringes and Overhead, are being reviewed by the Finance Department.
- Positive variances (under budget) - Fuel and lubricant expenses are running 15.6% under budget. This is primarily the result of lower than budgeted diesel fuel costs. Services/Materiel & Supplies/Other expenses are running 25.6 % under budget. The expenses in this category are typically understated in the early months of the Fiscal Year. Similarly, reported Purchased Transportation expenses are lagging actual expenses. The currently operating contract bus service is projected to be slightly under budget by year-end.

**Corrective Actions:** Management focus on financial goals has increased since the reliability of financial information has improved. Within Transit Operations, monthly variance analyses are being conducted. Additionally, performance review meetings are held on a regular basis to discuss indicators that have a direct relationship to financial performance. In addition, actions have been taken by both the Board and MTA management which will reduce expenses in the second six months of the Fiscal Year. For example the financial impact of the reduction in owl service, implementation of BDOF and the recently negotiated wage tier, have not be realized.

FINANCIAL PERFORMANCE - Continued

Fare Revenue  
Systemwide - Three Year Trend by Quarters



**Analysis:** Bus and rail fare revenues are on budget for FY98. While total fare receipts are unchanged between the first and second quarters, there is a slight decrease in farebox cash sales. This drop is anticipated as a result of the implementation of the consent decree fare mandates. However, the loss of farebox cash revenue has been compensated for by an increase in pass sales revenue.

**Corrective Actions:** The Transit Institute training program includes a module to train Bus Operators on methods for collecting fares from reluctant passengers. This focus on fare collection will help ensure that the correct fare is collected for every boarding passenger. Additionally, the MTA in conjunction with our new transit policing partners are working closely to develop improved counterfeit prevention methods to reduce opportunities for fraud.

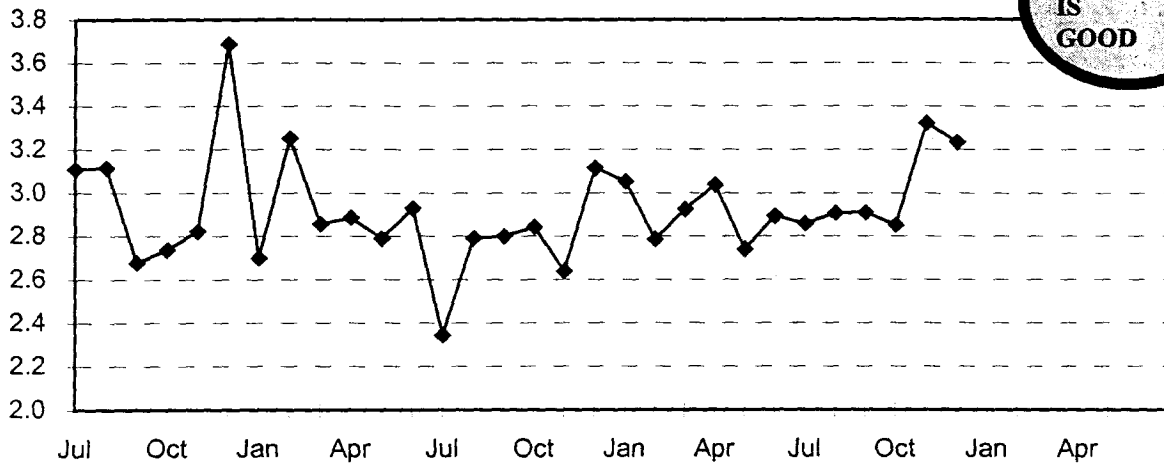
# SAFETY PERFORMANCE

## Traffic Accidents per 100,000 Hub Miles

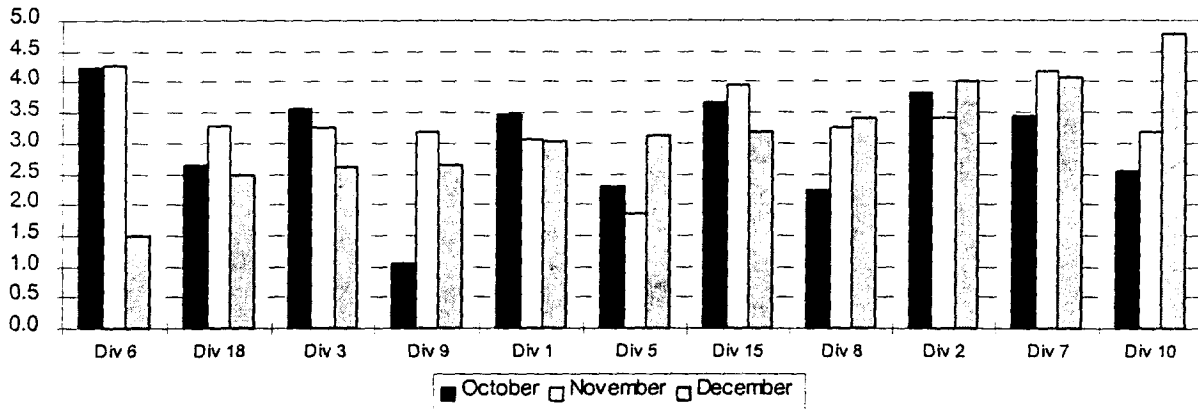
**Definition:** Average number of Traffic Accidents for every 100,000 Hub Miles traveled . This indicator measures system safety.

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

### Systemwide - Three Year Trend



### Bus Operating Division - October - December 1997



**Analysis:** Systemwide Traffic Accidents per 100,000 Hub Miles declined slightly between November and December. While it is difficult to attribute fluctuations in this indicator during any one month to a specific factor, there are two factors which are influencing current performance. First, is the impact of inclement weather. As noted in the three-year trend, accident rates experience a rise during the late fall and winter. The other factor is the recent increase in the number of newly hired operators.

**Corrective Actions:** As previously reported, Transit Operations has implemented several on-going programs to ensure both in-service and work place safety. The progress of these programs is being monitored.

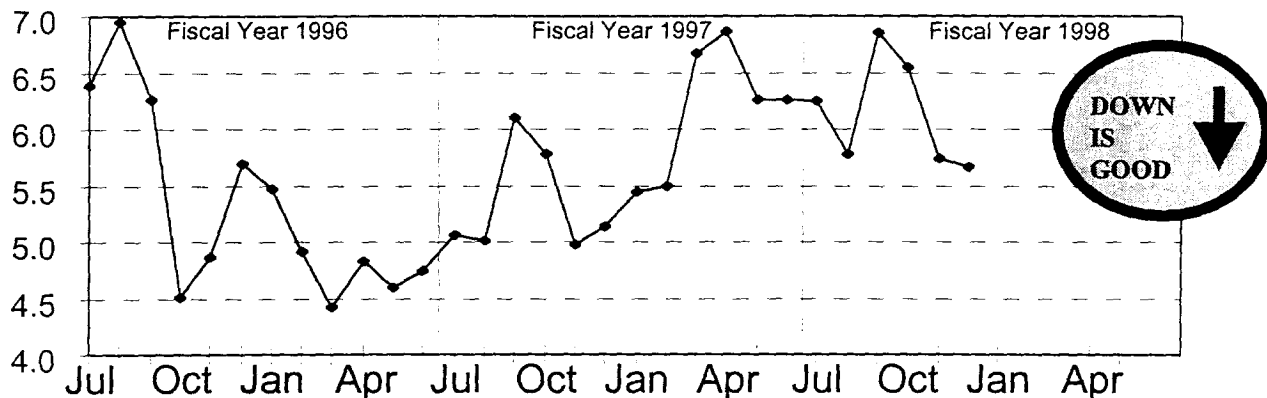
## CUSTOMER SATISFACTION

### Complaints per 100,000 Boardings

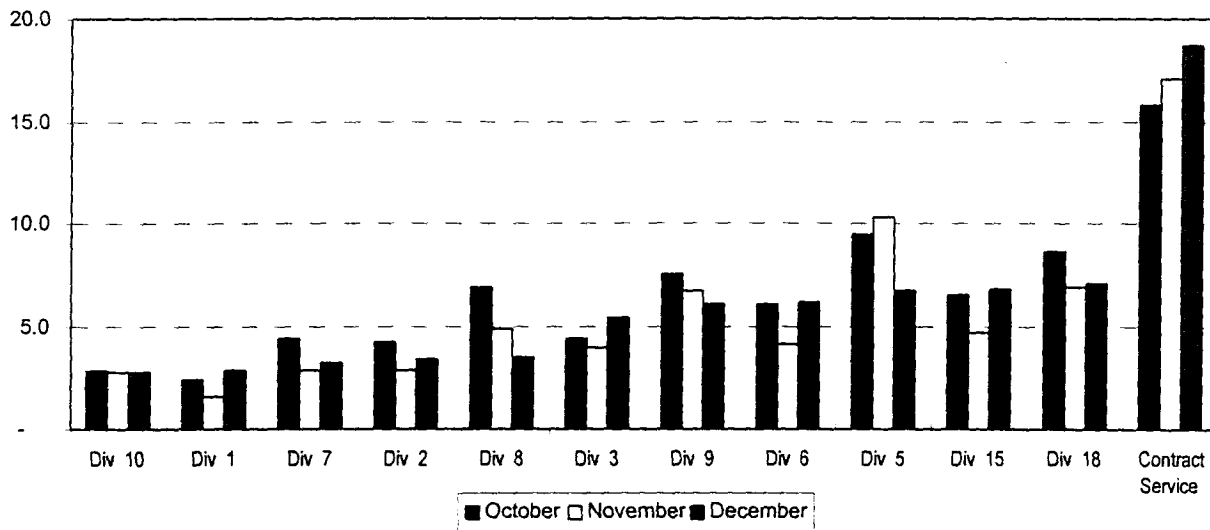
**Definition:** Average number of customer complaints per 100,000 unlinked passenger trips. This indicator measures service quality and customer satisfaction.

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

#### Systemwide - Three Year Trend



#### Bus Operating Divisions - October - December 1997



**Analysis:** Complaints per 100,000 Boardings decreased for the third consecutive month. This decrease is attributed to several programs instituted by Transit Operations to improve MTA's customer relations and provide better customer service. As a result of equipment and service reliability problems, Contract Service continues to experience the highest Complaints per 100,000 Boardings.

**Corrective Action:** As previously reported, Transit Operations has instituted several programs to improve the MTA/transit rider relationship. Programs such as "meet the MTA Family" enable passengers to meet Transit Operations executive staff to discuss any concerns they may have with our service and encourage the public to identify problems with our system and recommend solutions. The Transit Institute provides training to the operators on building a better relationship with our customers. The Service Quality Unit has increased on-street presence to identify service delivery problems. Furthermore, Transit Operations is working aggressively with our contract operators to resolve the issues resulting in their high complaint rate. Further reductions will occur as Transit Operations moves forward in increasing on-street service, reducing passenger loads and resolving mechanical issues that impact service reliability.



**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	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Schedule Related	28.5	32.4	33.5	41.5	39.3	36.7	36.7	37.4	41.2	44.7	44.8	49.3	47.7
Passed Up	16.3	18.7	16.4	13.5	18.3	17.0	13.5	14.9	16.0	16.7	14.3	12.2	12.0
Unsafe Operation	9.5	7.8	10.2	9.1	7.3	7.2	9.0	9.6	9.8	8.6	7.0	8.1	7.3
Operator Discourtesy	14.8	13.3	15.3	14.1	13.1	15.6	13.4	11.6	10.8	9.3	8.6	9.0	10.8
Other	30.8	27.7	24.6	21.7	22.1	23.9	27.4	26.6	22.2	20.8	25.2	21.5	22.2

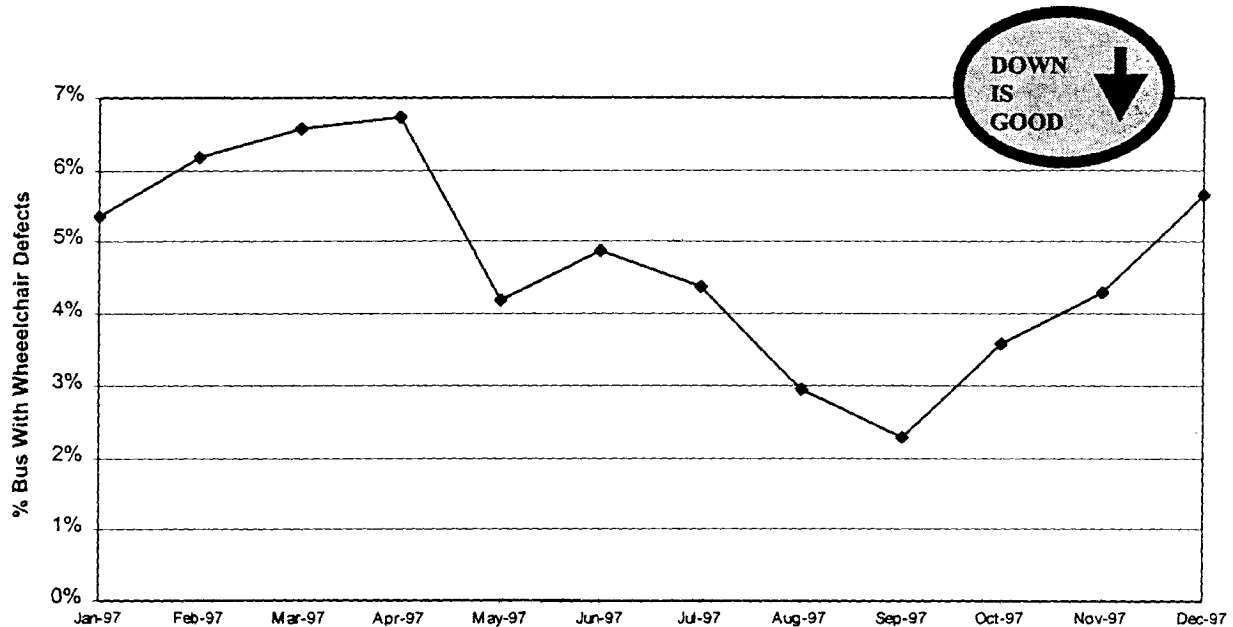
**Analysis:** Similar to last month, nearly half of all complaints are related to schedule adherence. This is consistent with the service reliability problems noted throughout this report. Unsafe operation and operator discourtesy complaints represent a small percentage of total passenger complaints. This could be an indication of the positive impacts that the Transit Institute and other Transit Operations customer relations initiatives are having on our customers.

**Corrective Actions:** A reduction in the schedule-related complaints is expected to occur when reliability of the fleet improves. Improvement in service reliability remains a high priority.

**Wheelchair Lift Defect Rate  
Systemwide January 1997 Through December 1997**

**Definition:** Wheelchair Lift Defect Rate is 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:** December data indicates that the number of inoperative wheelchair lifts continued to increase from 4.2% to over 5.5% of the active fleet. This increase is primarily the result of weather-related problems. The increase in wheelchair defects is the result of lifts on buses with down engines or other major mechanical problems not being repaired until other required major repair work on the bus is completed.

**Corrective Actions:** Continued increased focus on preventive maintenance and repairing wheelchairs within 72-hours remains a high priority.