

**Final Phase I Report**

*submitted to the*

**LOS ANGELES COUNTY TRANSPORTATION COMMISSION**

*for the*

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**FY89 - FY91 TRIENNIAL PERFORMANCE AUDIT OF THE  
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT**

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*prepared by*

**BOOZ • ALLEN & HAMILTON INC.**  
Transportation Consulting Division  
Los Angeles, California

*in association with*

**MACDORMAN & ASSOCIATES**  
McLean, Virginia

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May 13, 1993

Ms. Julie Austin  
Project Manager  
Los Angeles County Metropolitan Transportation Authority  
818 West Seventh Street, Suite 1100  
Los Angeles, California 90017-4606

Subject: Final Phase I Report: FY89 - FY91 Triennial Performance Audit of The Southern California Rapid Transit District

Dear Ms. Austin:

Booz•Allen & Hamilton Inc., in association with MacDorman & Associates, is pleased to submit this final triennial performance audit report of the Southern California Rapid Transit District (SCRTD). This report documents Phase I audit findings, conclusions, and recommendations in the areas of:

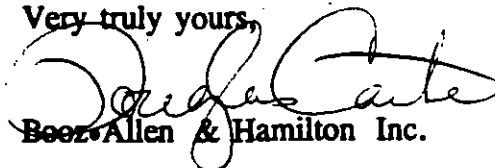
- progress to implement prior audit recommendation
- compliance with TDA and TPM reporting requirements
- TDA system-wide performance indicator trends
- goals, objectives and management reporting systems
- compliance with Proposition A Discretionary Guidelines.

In addition, this report presents high level functional area performance indicators for use in determining if any areas warrant additional analysis in Phase II.

A draft of this report was reviewed with SCRTD and LACTC staff. Comments have been incorporated, as appropriate.

We would like to thank the LACTC and SCRTD staff for their cooperation and assistance throughout this audit. If you have any questions or comments regarding this report, please do not hesitate to contact me at (213) 312-5000, or Mike Ferreri at (215) 496-8400.

Very truly yours,



Booz•Allen & Hamilton Inc.

Douglas W. Carter  
Principal

Attachment

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**EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

This report represents the State mandated (i.e., California Public Utilities Code Section 99246) performance audit of the Southern California Rapid Transit District (SCRTD). It covers Fiscal Years 1989, 1990, and 1991; the period from July 1, 1988 through June 30, 1991.

Performance audits are a triennial requirement for the continued receipt of State Transportation Development Act (TDA) funds for public transit. The conduct of this audit is administered by the Los Angeles County Transportation Commission (LACTC), and prepared by Booz•Allen & Hamilton Inc., in association with MacDorman & Associates.

### A. OVERVIEW OF SCRTD

The SCRTD is a public agency established in 1964 by the California State Legislature and is governed by a Board of Directors consisting of eleven members appointed by local elected officials. Five members are appointed by the Los Angeles County Board of Supervisors, two by the Mayor of the City of Los Angeles, with concurrence of the City Council, and four by a selection committee representing the other 83 cities in the District.

Reporting directly to the Board is the General Manager who is supported by four Assistant General Managers and eleven departments.

The District owns and operates a fleet of 2,519 buses which operate out of 13 bus operating divisions and six support facilities scattered throughout its 1,443 square mile service area.

During the audit review period, the District successfully began light rail operations. On July 14, 1990, the Metro Blue Line began service from Pico and Seventh Streets in Downtown Los Angeles to Downtown Long Beach.

Financial uncertainty is a significant issue which faces the District today and which will continue to challenge the SCRTD/MTA over the next couple of years. Funding levels are declining, with most reductions in state and regional funding the direct result of the current economic recession. Ridership and fare revenue are also declining, likely results of the economic downturn and service reductions. While the SCRTD has reduced service over the FY89 to FY91 audit period, costs continue to grow at, or just above, the rate of inflation. This widening gap between cost and revenue trends will likely create significant financial shortfalls for the SCRTD/MTA and require timely attention.

## B. SUMMARY OF FINDINGS

This Phase I performance audit report has reviewed performance in six areas with findings as follows.

### Progress To Implement Prior Audit Recommendations

The prior performance audit, completed in June 1989, offered a total of 15 recommendations for consideration by SCRTD. Recommendations focused on the issues of:

- completing electronic farebox installation
- continued reductions of operator and maintenance employee absence rates
- refining reporting procedures (e.g., full-time equivalents)
- evaluating, planning and implementing service change packages
- implementing a graffiti and vandalism abatement program
- developing unscheduled cost per hour objective/managing unscheduled time
- assessing individual and pooled claims reserving practices.

Overall, the District has made reasonable progress in implementing the majority of prior audit recommendations and in improving performance in the areas addressed by these recommendations. Noteworthy achievements resulting from implementation of prior audit recommendations include:

- **Operator and Maintenance Employee Attendance** -- The rate of SCRTD operator and maintenance employee absence was significantly reduced between FY88 and FY91. This is attributable to changes in policy and management efforts to effect a more productive work force. Insufficient detail was available to the performance auditor to calculate the precise amount of dollar savings. However, information reported by SCRTD in compliance with UMTA Section 15 provides the basis for a reasonable assessment of the change in operator efficiency. It is estimated that SCRTD saved more than \$50 million between FY88 and FY91 had the rate of operator efficiency remained at the FY88 level. Savings between years are based on maintaining the level of efficiency from the previous year. This performance is considered outstanding by the performance auditor.
- **Risk Management** -- The District's Risk Management Department has fully complied with prior audit recommendations regarding improved reserving methodologies. The SCRTD now uses three separate techniques for reserve estimation, and the methods are complimentary, rigorous and technically balanced. The reserving methodologies are supported by vastly improved statistical information and reports on claims activity. Also, the new claims administrator has gone through the individual claim files and improved claim

by claim reserves since the prior audit recommendations were made. Actual results show that total reserves, which had been continually increasing, declined by nearly \$24 million over two years.

One prior audit recommendation, to develop an unscheduled cost objective for transportation, was implemented in FY93.

Three of the 15 prior audit recommendations were not fully implemented, including:

- reporting procedures for full-time employee equivalents
- Board approval of performance objectives supporting District goals
- increased consideration of ridership impacts from service changes.

These prior audit recommendations are still applicable in the current operating and financial environment and have therefore been included in this performance audit.

#### Compliance With Data Collection and Reporting Requirements

The procedures for collecting and reporting statistics for the LACTC's Transit Performance Measurement (TPM) Program and State TDA indicators were reviewed. SCRTD is in compliance with reporting requirements for:

- total vehicle miles
- vehicle service miles
- total vehicle hours
- vehicle service hours
- peak vehicles
- unlinked passengers
- passenger revenue
- operating cost
- auxiliary revenues and local subsidies.

SCRTD was found to be in non-compliance with TPM and State TDA reporting requirements for employee full-time equivalents (FTEs). The State definition for FTEs is different than that used for Federal Section 15 Reporting, resulting in minor differences (i.e., about four percent). This distinction in reporting definition has not been incorporated into SCRTD reporting practices.

#### System-wide Performance Trends

System-wide performance trends for fixed-route bus service indicate that costs increased at a rate slightly more than inflation when adjusted for service levels. While passenger and service levels declined, cost increases outstripped these reductions and are likely to outstrip the sum of passenger revenues and funding subsidies in the near future,



given current economic conditions. While these trends did not reach a critical point during the audit review period, they set the stage for subsequent year budget shortfall problems. Key performance trends include:

- **Cost Efficiency**, measured by cost per hour, has increased 19.3 percent compared to an inflationary increase of about 16 percent (i.e., 15.9 percent for CPI-W, i.e., Urban Wage Earners and Clerical Workers and 16.5 percent for CPI-U, i.e., All Urban Consumers) for the FY88 to FY91 audit review period. In FY88, the base year for comparison, the District made a one-time cost adjustment for inventory expenses. Accounting for this adjustment, the District's cost per hour increased 16.2 percent. During the audit review period, costs increased about 16 percent while service hours were reduced by 2.9 percent.
- **Cost Effectiveness**, measured by cost per passenger, has steadily increased throughout the audit review period, with a slight decline from FY90 to FY91. Between FY88 and FY91, operating cost per passenger increased from \$1.19 to \$1.40, representing a 17.6 percent increase. Accounting for the FY88 inventory expense adjustment, District costs per passenger increased by 14.8 percent. District bus ridership declined in FY89 and FY90, then began to increase in FY91. Overall, ridership declined by two percent between FY88 and FY91.
- **Productivity**, measured by passengers per hour, has improved slightly (i.e., 0.9 percent). Service reductions (i.e., 2.9 percent decline in vehicle service hours from FY88 through FY91) were consistent with declines in bus patronage (2.0 percent decline from FY88 to FY91). Passengers per service mile improved by 3.5 percent between FY88 and FY91. This is a result of a 5.3 percent reduction in mileage and a 2.0 percent reduction in patronage.

#### Goals, Objectives and Management Reporting Systems

Findings regarding the District's goals, objectives and management performance monitoring systems are as follows:

- District-wide goals are presented in the SRTP. A separate, but very similar, set of goals is also presented in the annual budget. Neither document contains quantifiable performance standards or objectives
- Annual performance goals (i.e., quantifiable performance objective standards) are published in the District's Quarterly Performance Profile Report. Performance goals are based on prior year performance and annual budget and operating assumptions developed in the SRTP and refined in the Budget.

- The District communicates performance goals and progress relative to these goals throughout the organization. The primary communication device is the Quarterly Performance Profile Report, which is circulated to all Executive Staff and Department Heads.
- Performance goals include those items which relate to external funding agency performance requirements (e.g., cost per hour, absence reduction targets, farebox recovery ratio, passengers per hour).

The District has in place the building blocks for a comprehensive goals and objectives management process. District-wide goals, however, are not linked to the measurable performance objectives used for internal management purposes. Combining the District-wide goals approved by the Board with measurable performance objectives used to guide internal management would strengthen the current system.

#### Compliance With Proposition A Discretionary Guidelines

In each of the audit review years, the District received Proposition A Discretionary funding. A review of the SCRTD performance relative to requirements set forth in the LACTC Proposition A Discretionary Guidelines indicates that the District complied with a majority of items (e.g., management rights, service coverage, hours of operation, farebox recovery, and service notification). The District, however, failed to comply with two provisions, including:

- Section 1.1.A-- requirement that operators not be effectively precluded from contracting for services by any new collective bargaining unit
- Section 8.6-- prohibition of automatic (non-COLA) pay increases not linked to "pay for performance" for operators whose system-wide weekday cost per hour is above the County-wide average.

Compliance with Section 1.1.A was a minimum requirement for receipt of Proposition A Discretionary funding. Failure to comply with Section 8.6 was to result in a five percent funding reduction in each year until compliance was achieved. Financial penalties for failing to achieve these two requirements were waived by the LACTC as part of the eight point plan negotiated between the LACTC and SCRTD. Effective in FY92, Proposition A Guidelines have been revised and no longer include these two requirements.

#### Functional Area Performance Trends

A high level review of functional area performance was conducted using Section 15 and financial audit information. This high level review is not meant to be comprehensive, but rather, to identify functional areas with significant opportunities for performance

improvement. Further analysis of potential improvement opportunities, as part of this audit under a second phase, is subject to approval by the LACTC.

Overall, functional area performance results are generally positive with two exceptions -- the cost efficiency of revenue vehicle maintenance and of administrative functions. Both functions experienced per unit cost growth substantially more than inflation. Contrasting the decline in these two performance indicators are a variety of performance trend improvements as described below:

- **Transportation** -- The Transportation Division accounts for the single largest portion of SCRTD's total operating budget. Over the audit period, transportation expenditures have grown from \$275.0 million in FY88 to \$304.4 million in FY91, representing a 10.7 percent increase compared to an inflationary increase of 15.9 percent. During the same period, vehicle service hours declined 2.9 percent. Contributing to this positive performance trend has been the District's ability to manage unscheduled costs, improved operator attendance and labor productivity. Service safety has also improved.
- **Revenue Vehicle Maintenance** -- Revenue vehicle maintenance performance trends have been positive with the exception of cost efficiency. Between FY88 and FY91, bus revenue vehicle maintenance costs per mile have increased 35 percent -- more than twice the rate of inflationary increases during the same time period. Contributing factors include the graffiti and vandalism reduction program, rehabilitation of over 900 RTS-II buses, implementation of the alternative fuels program and compliance with more stringent environmental regulations. While cost efficiency has declined and the spare ratio is over 20 percent, other indicators generally exhibit improved performance. Vehicle reliability and productivity have both improved.
- **Planning and Marketing** -- The District's planning and marketing function experience some modest improvements with respect to service productivity, and increased farebox recovery and linked passengers. Unlinked passengers declined by two percent and deadhead hours and miles increased by about one percent. Passenger complaints increased significantly in FY91, as did marketing costs. The increase in marketing costs is primarily attributed to Blue Line start-up promotional activities. The dramatic increase in complaints is most likely a result of two new programs that encourage customers to let the District know how they are performing. The increase in complaints is an area requiring District-wide action. Complaints are up by over 30 percent in all categories except for safe operations.
- **Administration** -- The District's Risk Management Department has developed and implemented a series of risk reduction programs, expanded safety and risk awareness in all major SCRTD departments, improved risk analysis and reporting capabilities and vastly expanded loss reserve risk estimation abilities.

The SCRTD has fully complied with the prior audit recommendation related to reserving practices which tended to overreserve. Actual results show that total reserves, which had been continually increasing, declined by nearly \$24.0 million over two years. SCRTD staff, their external auditor and this performance auditor all believe that these reserve reductions are reasonable. Contrasting this positive performance is a decline in overall cost efficiency for administrative functions. Between FY90 and FY91, administrative costs decreased 1.5 percent. Contributing to this decrease was a 205 percent reduction in workers' compensation and a 64 percent reduction in PL & PD expense. Excluding these risk management costs from FY90 and FY91, administrative expenses grew 67 percent compared to a five percent rate of inflation.

### C. RECOMMENDATIONS

This report has reviewed the performance of SCRTD for Fiscal Years 1989, 1990 and 1991. The following five recommendations address data reporting compliance, and performance improvement opportunities. A full description of the findings which support each recommendation, as well as the anticipated results are contained in Section VIII of the full report.

#### Current and Future Challenges

During the audit review period, several trends emerged which require District attention to meet the current challenge of this economic recession and future transit needs in the County. Four recommendations are offered for consideration by the District.

**Recommendation #1: Evaluate cost, revenue and funding trends and develop a progressive financial and operating strategy which meets District objectives during the ongoing economic downturn.**

**Recommendation #2: Develop and monitor quantifiable performance objectives in support of the recommended strategic financial and operating plan.**

**Recommendation #3: Develop a comprehensive service quality program aimed at improving customer satisfaction and reducing complaints.**

**Recommendation #4: Investigate the causes and develop a strategy for addressing areas of high cost growth.**

#### Data Reporting and Compliance

One recommendation is offered that deals with compliance. There are no costs associated with implementing this recommendation and there are no cost savings as a result of implementation.

**Recommendation #5: Calculate and report employee full-time equivalents according to the State definition.**

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# I. INTRODUCTION

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## I. INTRODUCTION

This report represents the State mandated (i.e., California Public Utilities Code Section 99246) performance audit of Southern California Rapid Transit District (SCRTD). It covers Fiscal Years 1989, 1990, and 1991; the period from July 1, 1988 through June 30, 1991.

Performance audits are a triennial requirement for the continued receipt of State Transportation Development Act (TDA) funds for public transit. The conduct of this audit is administered by the Los Angeles County Transportation Commission (LACTC), and prepared by Booz•Allen & Hamilton Inc., in association with MacDorman & Associates.

### A. PERFORMANCE AUDIT SCOPE

The performance audit is designed to serve as a high level management letter that evaluates the effectiveness and efficiency of public transit service provided by SCRTD. The scope of this performance audit covers:

- progress to implement prior audit recommendation
- compliance with TDA and TPM reporting requirements
- TDA and TPM performance indicator trends
- goals, objectives and management reporting systems
- compliance with Proposition A Discretionary Guidelines
- functional area performance indicators.

Findings and conclusions in the first five areas were developed through analysis of performance indicator trends, document reviews, and transit management interviews. Based on these findings, recommendations to improve the effectiveness and efficiency of the system, or to bring the operator into compliance with TDA and LACTC requirements have been made.

While recommendations focus on opportunities for improvement, the audit does present significant accomplishments as appropriate. Significant accomplishments and positive performance trends are important in that they provide a balanced perspective of overall operator performance when combined with recommendations.

The final area of analysis, review of functional area performance indicators, was conducted using Section 15 and financial audit information. The purpose of this high level review was to determine if functional areas with good or stable performance, as well as areas that may warrant additional analysis under a second performance audit phase. Functional reviews are not meant to be comprehensive or in-depth.

## B. SYSTEM OVERVIEW

The SCRTD is a public agency established in 1964 by the California State Legislature and is governed by a Board of Directors consisting of eleven members appointed by elected local officials. Five members are appointed by the Los Angeles County Board of Supervisors, two by the Mayor of the City of Los Angeles with concurrence of the City Council and four by a selection committee representing the other 83 cities in the District.

### Agency Mission

The SCRTD does not have a mission statement, per se, but does compile District-wide goals and objectives on an annual basis which are provided in the Annual Budget which is adopted in late June, prior to the onset of the next fiscal year.

### Organization and Management

The organizational structure of the SCRTD is illustrated in Exhibit 1, with the Board of Directors at the head of the organization. Reporting directly to the Board is the General Manager, who is supported by four Assistant General Managers and eleven departments. Significant organizational changes were made during the audit review period which resulted in the current structure. Roles and responsibilities include:

- The Board of Directors is responsible for the guidance and policy of the SCRTD as a whole. The attainment of goals and objectives are accomplished through Board meetings and interface of all management levels and staff.
- The General Manager along with the Assistant General Managers and support groups are accountable for execution of Board goals and objectives.
- The General Manager and his staff evaluate District options through detailed analysis of all relevant issues.

Progress and performance of stated goals and objectives is presented to the Board, General Manager and Assistant Managers in monthly and quarterly reports developed from the SCRTD management information system.

### Facilities and Equipment

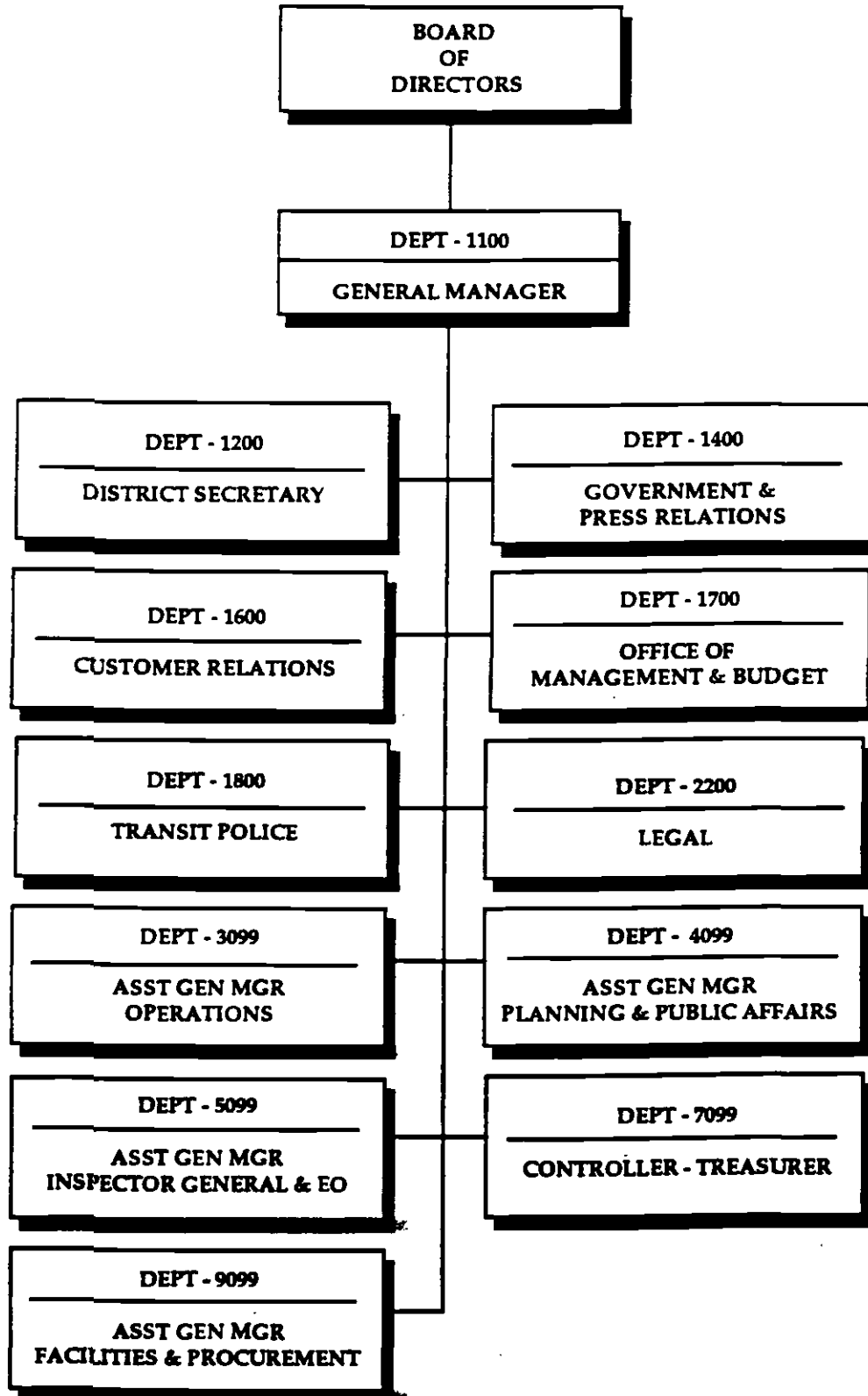
At the end of FY91, the District operated 215 bus routes and the Metro Blue Line from Downtown Los Angeles to Downtown Long Beach. In FY91, the SCRTD owned a fleet of 2,519 buses of which 1,968 were active and 551 inactive. The fleet was comprised of 30', 35', 40' and 60' buses with 89.9 percent of the fleet lift equipped. The fleet age averaged 7.64 years in FY91.



Exhibit 1

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District

# ORGANIZATION CHART



SCRTD utilizes 13 operating facilities and six support facilities to provide maintenance repairs and additional support functions for the entire District. Most of the heavy vehicle maintenance functions and the central receiving are based at the Central Maintenance facility, located adjacent to downtown Los Angeles.

### Changes and Challenges

In FY89, the first year of the audit review period, the District increased fares. The regular adult cash fare (i.e., base fare) was increased from \$0.85 to \$1.10. This fare change was the first since FY86 and remains in effect today.

During the audit review period, the District successfully began revenue operations of the Metro Blue Line light rail service. Prior to start-up, the Transportation Department worked aggressively to ensure the successful operation of the Blue Line through extensive efforts in the area of failure management. The Scheduling and Operations Planning departments supported start-up efforts by developing a comprehensive bus-rail interface program to increase transit opportunities for residents of the Blue Line Corridor.

The Transportation and Maintenance departments have continued to increase productivity through absenteeism reductions. Additional improvements were achieved through a decline in accidents, reductions in paid overtime for maintenance personnel, fast fueling capabilities and the implementation of emissions testing. Improved street supervision has brought about higher levels of on-time performance and allowed the District to have greater load balancing control. Through routing has also been implemented for a number of routes.

The Maintenance Department introduced a graffiti and vandalism abatement program in FY89. In FY90, the program was intensified and positions were added to improve fleet appearance. Additional positions were also added to the Transit Police to increase the number of apprehensions related to acts of vandalism. The program was developed further in FY90, with the introduction of a pilot program to coordinate the District's anti-graffiti effort with local schools.

There are a number of challenges still faced by the District, as shown by the significant increase of customer complaints during the audit review period. The District plans to increase driver training efforts to improve customer service and counter customer complaints.

Financial uncertainty is a significant issue which faces the District today and which will continue to challenge the SCRTD over the next couple of years. Funding levels are declining, with most reductions in state and regional funding the direct result of the current economic recession. Ridership and fare revenue are also declining, likely results of the economic downturn and service reductions. While the SCRTD has reduced service over the FY92 audit period, costs continue to grow at, or just above, the rate of inflation. This widening gap between cost and revenue trends will likely create significant financial shortfalls for the SCRTD and require timely attention.

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**II. PROGRESS TO IMPLEMENT PRIOR  
AUDIT RECOMMENDATIONS**

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## II. PROGRESS TO IMPLEMENT PRIOR AUDIT RECOMMENDATIONS

The prior performance audit offered a total of 15 recommendations in the areas of reporting compliance, transportation employee attendance, maintenance, service planning and risk management. Prior audit recommendations reviewed herein include both Phase I (i.e., compliance and functional reviews) and Phase II recommendations (i.e., detailed review of risk management and planning functions).

SCRTD has fully implemented the majority of the prior audit recommendations, resulting in improved performance in the areas addressed by these recommendations. Excellent results were achieved in the areas of attendance and risk management reserving practices. Implementation of planning recommendations has been reasonable -- there were several recommendations that the District did not fully agree with and therefore did not implement. This auditor concurs that the District's approach to these issues was reasonable, although additional action is required relative to one of the planning recommendations. One recommendation relating to reporting has not been fully addressed by the District and is therefore included as a recommendation in this audit. While reasonable progress has been made in this area, additional actions are needed.

Detailed results for each prior audit recommendation follow.

### A. DATA REPORTING COMPLIANCE

The prior performance audit found that the District had made significant improvements in data reporting compliance. There were, however, two data items that warranted improved reporting -- auxiliary revenues and local subsidies, and full-time employee equivalents (FTEs). The District has addressed the first item, but not the second.

Prior Audit Recommendation #1: The District should implement changes to its TPM procedures to comply with the allocation guidelines for auxiliary revenue and local subsidies.

**Understanding of the Issue:** During the last performance audit, the SCRTD was found to be in compliance with the reporting of these data items (i.e., auxiliary revenue and local subsidies) in aggregate. SCRTD was not in compliance with the guidelines for allocating auxiliary revenue and local subsidies across all service categories. LACTC TPM Guidelines specify that auxiliary revenues are to be allocated based on vehicle service miles.

**Actions Taken and Results:** The District revised its methodology for allocation of auxiliary revenues and local subsidies by type of service and day of week, consistent with LACTC guidelines. Local subsidies for special services excluded from TPM calculations recorded in the appropriate day of week "Other" service type classification. Remaining local subsidies are then added to auxiliary and non-transportation revenues and allocated based on vehicle service miles. TPM Guidelines do not specify the inclusion or exclusion of non-

on vehicle service miles. TPM Guidelines do not specify the inclusion or exclusion of non-transportation revenues. The District's practice of including non-transportation revenues, however, is consistent with the practices used by LACTC and other transit operator staff.

**Conclusion:** The District has fully implemented this recommendation in accordance with written LACTC TPM Guidelines and common practices.

Prior Audit Recommendation #2: The SCRTD should document the OMB procedure for estimating full-time equivalent employees, and should accurately report these statistics under the TDA, TPM and UMTA Section 15 reporting programs.

**Understanding of the Issue:** During the prior audit, SCRTD was found to be in non-compliance with TPM and TDA reporting requirements for employee full-time equivalents (FTEs). The reason for the misreporting of this indicator was two-fold. First, FTE statistics reported in Section 15, TPM and TDA reports were believed to be significantly overstated by the District and the auditor. Second, the same statistic was reported for all three reporting programs, which is not consistent with reporting requirements which specify that FTE's should be based on 2,080 hours per employee for Section 15 reporting, while a factor of 2,000 hours per employee should be applied when determining FTE's for TDA and TPM reports -- a differential of four percent.

**Actions Taken and Results:** In FY89, the District revised data processing procedures to ensure that non-work or "benefit" hours were excluded from the computation of annual employee regular and overtime pay hours. While this is an important step in complying with FTE reporting, the District is still does not fully comply with State and LACTC TPM definition. FTE's reported for FY89 though FY91 on the TPM reporting form were consistent with the FTE's reported in Section 15 -- both reports used the Section 15 definition of 2,080 pay hours. The State definition, however, specifies that FTEs be calculated by dividing the number of person-hours worked by 2,000. The State has recently clarified this definition by specifying that person-hours include regular or overtime work hours for which employees have been paid. LACTC's TPM definition for FTEs is the same as the prior State definition. Recent clarifications in the State definition have not been incorporated into written TPM guidelines, although the practice is that the two reporting requirements are the same.

Interviews with District personnel indicate that the District uses the same methodology required for Section 15 reporting when reporting FTE's on TPM and TDA reporting forms. District personnel noted that the same procedure was used for all reports to avoid confusion, which in the past resulted in inconsistent reporting of FTEs. FTEs reported in the State Controller's report were different than those reported in Section 15 (i.e., 2.3 percent higher for FY89, 3.7 percent higher for FY90, and 2.5 percent lower for FY91). Based on District stated reporting practices, there should be no difference in externally reported FTE figures.

There are two issues here. One is that if the District is using the same procedures to calculate FTEs for all external reports, presumably there would be no difference in reporting statistics. The second issue is that data definitions are not the same and District procedures should account for these differences.

**Conclusion:** While the District has improved the consistency of Section 15 and TPM data, differences still exist in figures reported to the State Controller. The District does not use the correct definition in calculating FTEs for State reporting purposes (i.e., FTEs reported to the State are four percent less than expected given the 2,000 work hour definition). Additional actions relative to this recommendation are warranted.

## B. TRANSPORTATION

The prior performance audit made three recommendations related to the transportation function. Two recommendations (i.e., prior audit recommendations #3 and #4) dealing with operator absence reduction have been fully implemented with significant improvements in work force productivity and cost savings. Prior audit recommendation #5, dealing with development of an unscheduled cost objective, was fully implemented in FY93.

Prior Audit Recommendation #3: SCRTD should continue progressive management actions to improve driver attendance and meet the FY89 absence reduction target developed jointly with the LACTC.

**Understanding of the Issue:** The attendance of District operators reportedly improved 7.2 percent during the previous triennial performance audit period of FY86 through FY88. Driver absence, including long-term occupational and non-occupational absence, declined during the period from an average of 49.7 to 46.1 annual days per full-time equivalent employee (FTE). Throughout the prior audit review period, SCRTD had dramatically improved driver attendance performance through concerted and continued management efforts. These attendance improvements resulted in a \$4 million approximate savings over two years (i.e., FY87 and FY88).

While conducting the prior audit, the District reported additional driver absence reductions in FY89 as a result of new labor contract provisions. SCRTD had met the LACTC targets for attendance improvements for FY87 and FY88, and given the absence rates during the conduct of the audit, all indications were that FY89 targets would also be met.

**Actions Taken and Results:** During the prior audit period of FY86 through FY88, the District established an internal objective of reducing absenteeism by 10 percent. To achieve this reduction, Transportation and Maintenance managers implemented attendance improvement programs, which include: more extensive applicant screening which considers prior attendance; offering attendance incentives and expanding the recognition program;

team building; establishing light duty work programs; placing telephone calls and conducting home visits; discipline; and initiating an absence information system to monitor change.

Reductions in absenteeism also resulted from changes and/or additions to the collective bargaining agreement provisions, which provided management with greater control over employee attendance. These provisions included:

- combining the missout program with the general absence disciplinary program
- limiting voluntary overtime to drivers who work a full week
- requiring verification of medical illness
- limiting holiday pay for absent employees.

District management monitors employee attendance using a series of reports which are prepared in conjunction with the timekeeping and payroll system. The reporting system, known as the Manpower Availability Performance Report, was developed and initiated just prior to FY89 and provides absence information in varying levels of detail. Standard reports provide cumulative information based on the prior annual period, i.e., a moving 52-week period.

The reports show regular absence or absence of less than 30 days duration in ten categories, e.g., sick, occupational injuries, missouts, etc. Long-term leave absence is provided in two categories; occupational and non-occupational. Absence values are presented in average days of unavailability per FTE and percentage rates of unavailability for each absence category and total.

The series of reports are developed on a uniform and consistent basis across all key District departments, divisions, and other functional employee groupings and provides an excellent source of information for effective attendance management.

The cumulative impact of these actions are reflected in the progress made during FY89. As shown below, the District exceeded the third year operator absence reduction target:

	<u>FY89</u> <u>Target*</u>	<u>FY89</u> <u>Actual*</u>
Absence Rate Without Long Term Leave	25.9	18.4
Long Term Leave Absence Rate	17.8	19.4
Total Absence Rate	43.7	37.8

\* Based on FTEs and expressed in days lost per operator per year.

**Conclusion:** The SCRTD has well exceeded the FY89 absence reduction targets developed jointly with the LACTC, and has therefore fully implemented this recommendation.

Recommendation #4: The District should continue to improve driver attendance performance over the coming three year period.

**Understanding of the Issue:** While attendance improvement was apparent during the prior audit, SCRTD driver absences were still higher than other large transit systems and other west coast operators. It was recommended that the District and the LACTC jointly develop further absence reduction targets to be met over the three year period of FY89 through FY91. The recommendation suggested that both parties consider an annual reduction of 1.3 days per driver per year (excluding long-term leave) for each of FY90, FY91 and FY92. If implemented, the FY92 target would be 22.0 days per driver per year, which was the mean absence rate of SDTC, NYCTA, CTA, Muni, WMATA, SRTD, BART and Metro in FY88. The recommendation also suggested that the objective for long-term leave be placed at 18.9 days per driver per year (which is the FY89 actual rate).

**Actions Taken and Results:** Under a Phase II performance audit task, a report was prepared for the Los Angeles County Transportation Commission, in 1991, which examined SCRTD driver and maintenance employee absence rates during FY89 and FY90 and compared these rates with those of other transit systems. The findings of the report showed attendance of both employee groups had significantly improved about 30 percent since FY86. While the report also displayed the District's absence rates as higher than other surveyed systems, the gap between the rate differences of FY89 and FY90 narrowed.

Absence reduction targets were not jointly established by the District and LACTC. Rather, the District continued with the programs largely initiated in the prior audit period. Additionally, newer approaches were considered including a wellness program to promote good health habits, day-care facilities, and an 9-80 work week. Ideas such as providing electronic mechanisms to adjust vehicle mirrors in order to reduce the potential of falling from bumpers or incurring back strains were shelved because of budget constraints have generally resulted in fewer actions during this performance audit period than last. It is management's feeling that they may be reaching a plateau where opportunities for significant reductions are now only available in the area of industrial injury. Based on their experience with industrial injury cases at the District, annual absence reduction targets of 10 percent may not be achievable.

The results of District actions relative to reductions in operator absence are as follows:

- Average operator total absence declined from an average of 46 to 28 days per FTE or nearly 40 percent between FY88 and FY91 (Exhibit 2). Total absence declined, on average, 18.1 days per FTE. The two primary components of total absence, regular and long-term leave absence declined 11.9 and 6.2 days per FTE, respectively.



Exhibit 2

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**AVERAGE DAYS ABSENT PER FTE OPERATOR BY ABSENCE CATEGORY**

ABSENCE CATEGORY	FY88	FY89	FY90	FY91	Increased/(Decreased) Absence Rate			Percentage Change FY88-91
					FY88-89	FY89-90	FY90-91	
<b>REGULAR ABSENCE</b>								
Sick Leave	15.16	9.84	6.53	6.48	(5.32)	(3.31)	(0.05)	(57.28)
Occupational Injuries	1.85	1.91	2.12	2.08	0.06	0.21	(0.04)	12.22
Off With Permission	2.26	3.82	4.17	4.39	1.56	0.35	0.23	94.38
Missout/Tardy/Unexcused Absence	1.56	0.47	0.35	0.40	(1.09)	(0.12)	0.05	(74.42)
Disciplinary Suspension	0.33	1.03	0.97	0.75	0.70	(0.06)	(0.22)	128.18
Other	6.09	1.33	1.24	1.24	(4.76)	(0.09)	0.00	(79.64)
<b>TOTAL REGULAR ABSENCE</b>	<b>27.25</b>	<b>18.40</b>	<b>15.38</b>	<b>15.34</b>	<b>(8.85)</b>	<b>(3.02)</b>	<b>(0.04)</b>	<b>(43.72)</b>
<b>LONG-TERM LEAVE ABSENCE</b>	<b>18.83</b>	<b>19.41</b>	<b>16.47</b>	<b>12.65</b>	<b>0.58</b>	<b>(2.94)</b>	<b>(3.82)</b>	<b>(32.80)</b>
<b>TOTAL ALL ABSENCE</b>	<b>46.08</b>	<b>37.81</b>	<b>31.85</b>	<b>27.99</b>	<b>(8.28)</b>	<b>(5.96)</b>	<b>(3.86)</b>	<b>(39.26)</b>

Source: SCRTD Manpower Availability Reports. Changes between years were calculated by MacDorman & Associates Inc.

Note: Other Regular Absence includes bereavement, jury duty, military leave, union business, and awaiting test results. Long-Term Leave Absence includes sick leave, occupational injuries, and other non-disciplinary reasons.

- The largest absolute absence reduction was achieved in sick leave (8.7 days). The most significant percentage reductions were in other regular absence (79.6%) and tardiness and unexcused absence (74.4%).
- Disciplinary suspension absence increased as a result of improved disciplinary procedures. Regular occupational injuries increased about 12 percent which is consistent with the reduction in long-term absence.
- Finally, off with permission absence nearly doubled as a result of the purposeful decision to permit more requested time off for personal business to obviate operators using sick leave to accomplish the same objective.

Exhibit 3 shows the trend of driver regular absence rates between FY88 and FY91, by operating division. All divisions achieved significant reductions which ranged between 32.1 percent and 55.6 percent. Average absence reduction ranged from about 7 to 19 days per FTE.

The District reports it does not estimate the cost savings resulting from absence reduction. Rather, it relies on such measures as the number of FTE operators per work assignment. The auditor believes that potential cost savings of absence reduction can be estimated, but that mere reduction in absence does not necessarily save dollars unless the work force is accordingly reduced to achieve optimal operating conditions. The true results of absence reduction may be estimated by measuring total operator cost (wages plus fringe benefits) per platform hour or vehicle service hour and then such results are complicated by numerous other factors.

**Conclusion:** The rate of SCRTD operator absence was significantly reduced between FY88 and FY91. This is attributable to changes in policy and management's effort to effect a more productive work force. Theoretically, reducing absence saves money and increases efficiency. However, the amount of money saved and the increase in efficiency is directly dependent upon other management's approach to reducing the size of the work force. If absence is reduced and the work force remains constant, few dollars are saved and efficiency remains relatively constant.

It is possible to calculate the amount of money which could be saved by absence reductions achieved by the District. To achieve theoretical optimal cost conditions under the significant reductions achieved would, no doubt, necessitate employee layoffs. This action may be counter-productive. The real question is how much was efficiency increased and what savings were achieved by SCRTD due to absence reduction?

Insufficient detail was available to the performance auditor to calculate the precise amount of dollar savings. However, information reported by SCRTD in compliance with UMTA Section 15 provides the basis for a reasonable assessment of the change in operator efficiency. Exhibit 4 presents a series of financial statistics taken from Form 301 and 321

Exhibit 3

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District

**COMPARISON OF OPERATOR REGULAR  
ABSENCE RATES BY SCRTD DIVISION**

(Average Days Absent per FTE Operator)

DIVISION	FY88	FY90	FY91	Increased/(Decreased) Absence Rate			Percentage Change FY88-91
				FY88-90	FY90-91	FY88-91	
3201 Alameda	24.83	15.27	15.35	(9.56)	0.08	(9.48)	(38.19)
3203 Cypress Park	27.58	15.28	15.18	(12.30)	(0.10)	(12.41)	(44.98)
3205 South Central	34.34	15.66	15.40	(18.68)	(0.26)	(18.94)	(55.17)
3206 Venice	29.73	14.32	15.07	(15.42)	0.76	(14.66)	(49.30)
3207 West Hollywood	28.90	14.19	12.82	(14.72)	(1.36)	(16.08)	(55.63)
3208 Chatsworth	21.72	13.20	14.75	(8.52)	1.55	(6.97)	(32.09)
3209 El Monte	25.30	12.43	12.22	(12.87)	(0.22)	(13.08)	(51.71)
3210 E.Los Angeles	28.42	16.68	15.88	(11.75)	(0.79)	(12.54)	(44.11)
3212 Long Beach	26.97	14.83	14.88	(12.14)	0.04	(12.09)	(44.84)
3215 Sun Valley	27.33	13.99	13.76	(13.35)	(0.22)	(13.57)	(49.65)
3216 Pomona	21.91	15.81	14.67	(6.10)	(1.14)	(7.24)	(33.04)
3218 South Bay	25.53	15.33	14.72	(10.20)	(0.62)	(10.81)	(42.35)
3280 Blue Line	NA	4.15	15.31	4.15	11.16	15.31	---
Operator Average	27.25	15.38	15.34	(11.87)	(0.04)	(11.91)	(43.72)

Source: SCRTD Manpower Availability Performance Report. Changes between years were calculated by MacDorman & Associates Inc.

Note: Regular Absence includes sick leave, occupational injuries, off with permission, missout/tardy/unexcused absence, disciplinary suspension, bereavement, jury duty, military leave, union business, awaiting test results, but not long-term sick leave, occupational injuries, or other non-disciplinary reasons.

Exhibit 4

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**ESTIMATED BUS OPERATOR EFFICIENCY AND COST SAVINGS**

ITEM	FISCAL YEAR				% Change FY88 - FY91
	FY 88	FY 89	FY 90	FY 91	
Platform Time Wages	\$96,738,183	\$106,209,740	\$113,905,582	\$122,274,801	26.40%
Total Wages	\$139,428,250	\$132,449,132	\$143,991,449	\$154,647,069	10.92%
Estimated Fringe Benefits	\$76,619,002	\$81,410,484	\$80,011,991	\$76,484,163	-0.18%
Total Wages & Fringe Benefits	\$216,047,252	\$213,859,616	\$224,003,440	\$231,131,232	6.98%
Percent Platform Wages of Total Wages & Fringe Benefits	44.78%	49.66%	50.85%	52.90%	18.15%
Average % Change Between Years	---	10.91%	2.39%	4.04%	5.72%
Estimated Cost Savings (\$ in millions)	---	FY88-FY89 \$26.2M	FY89-FY90 \$5.5M	FY90-FY91 \$9.7M	\$51.2M*

Source: SCRTD Section 15 Reports, Forms 310 and 321.

\*Sum of average savings between years is less than the total change between FY88 and FY91.

for FY88 through FY91. Efficiency for each fiscal year for bus operators is calculated by dividing platform wages (Form 321) by total operator wages plus fringe benefits (Form 301).

While factors such as wage increases, changing fringe benefit costs, and operator attrition mask the attendance improvement results, SCRTD achieved an absolute 18.15 percent improvement in operator efficiency between FY88 and FY91. The amount of change varied between years with the greatest reduction (10.91%) occurring between FY88 and FY89.

It is estimated that SCRTD saved more than \$50 million between FY88 and FY91 had the rate of operator efficiency remained at the FY88 level. Savings between years are shown in Exhibit 4 based on maintaining the level of efficiency from the previous year. This performance is considered outstanding by the performance auditor.

The SCRTD has been effective in reducing absenteeism levels and has therefore fully implemented this recommendation.

Prior Audit Recommendation #5: The Transportation Department should develop an overall unscheduled cost per hour objective and closely manage all unscheduled time.

**Understanding of the Issue:** The results of the prior audit indicated that the Transportation Department had successfully reduced several categories of unscheduled driver cost (e.g., ordered call-backs, voluntary call-backs, absences), with the exception of standby time, which grew at a rapid pace. The increase in standby time was attributed to maintaining excessive numbers of driver on-hand beyond staffing levels required for driver assignments. As a result, the District paid these drivers to standby in case additional resources were needed to meet service requirements. The result of excessive standby time translated to a 236 percent increase in standby time and a 225 percent increase in associated direct labor costs (excluding variable benefits costs) from FY86 to FY89. Despite positive cost management results, the Transportation Department could have had even greater performance had standby time been managed at a lower level.

**Actions Taken and Results:** Transportation Department management disagree with this recommendation to develop an overall unscheduled cost per hour objective. Standby hours have decreased dramatically (-74.1% from FY88 to FY91) concurrent with a slight decrease in operator pay hours (-2.7 from FY88 to FY91) which has resulted in improved cost effectiveness (i.e., Section VII of this audit contains summary statistics relative to these findings). These positive cost management results could have been driven by a number of factors, including:

- An increase in driver training, which allowed management to further train drivers who were on site for standby time.

- Increased coordination and communication with the scheduling department, which could have contributed to the Transportation Department's ability to better manage the unscheduled portion of driver costs -- since schedules are set by the Scheduling Department.

While outside the audit period, the District has fully complied with this recommendation. In FY93 the District developed unscheduled cost objectives for transportation including: overtime expense as a percentage of total labor expense; unscheduled operator overtime as a percentage of total operator labor costs; and operator overtime work hours as a percentage of work hours.

**Conclusion:** The District has addressed the issue raised in the prior audit -- stand by hours have decreased dramatically during the current audit review period and the Transportation Department continues to exhibit positive cost management results. Inclusion of an unscheduled cost objective in the Transportation Department's functional level performance objectives, however, has not been done. Continued attention to unscheduled costs, expressed as a performance objective of the Transportation Department, is still a valid recommendation. The District has complied with the intent of this recommendation, achieving full implementation in FY93.

### C. MAINTENANCE

Similar to the Transportation Department, the prior audit offered two recommendations relating to maintenance employee absence reduction. Two additional recommendations relating to mitigation of farebox/fare collection and graffiti/vandalism problems were also made. The District has fully implemented these four recommendations as described below.

Prior Audit Recommendation #6: The District should take appropriate management actions to ensure that the FY89 maintenance employee absence rate reduction target is met.

**Understanding of the Issue:** The attendance of District maintenance employees reportedly improved 6.3 percent during the previous triennial performance audit period FY86 through FY88. Maintenance employee absence, excluding long-term leave, declined during this period from an average 31.5 to 24.2 days per FTE.

The District had exceeded the FY87 and FY88 absence reduction targets for maintenance employees developed jointly with the LACTC. These reductions in maintenance employee absence rates resulted from progressive management actions. Although the results through March, 1989 suggested that the District would meet FY89 absence rate targets, continued management action was required to assure that the District would meet the FY89 targets.

**Actions Taken and Results:** A new attendance policy aimed at decreasing maintenance employee absence rates was negotiated with the ATU in 1988. As a result of the changes in the attendance policy coupled with intensified management efforts to control poor attendance, the Maintenance Department exceeded the FY89 absence rate target for all maintenance personnel (excluding long-term leave), as shown below:

	<b>FY89 Target*</b>	<b>FY89 Actual*</b>
Mechanics	16.3	16.5
Service Attendants	24.5	23.7
Maintenance Clerical Staff	17.8	---
All Maintenance Personnel	18.5	15.5

\* Based on FTEs and expressed in days lost per maintenance employee per year.

In FY89, overall absences were 15.5 days per maintenance employee, compared to a target of 18.5 days per maintenance employee.

**Conclusion:** The SCRTD has well exceeded the FY89 absence reduction targets for maintenance employees developed jointly with the LACTC, and has therefore fully implemented this recommendation.

Prior Audit Recommendation #7: SCRTD should continue to manage maintenance employee attendance and achieve further reductions over the coming three years.

**Understanding of the Issue:** The prior audit found that the District had made significant progress in reducing maintenance employee absences. Despite these improvements, SCRTD's maintenance absence rate was still above some of its peers. The auditor recommended that the SCRTD, in conjunction with the LACTC, adopt and attain absence reduction targets for FY90, FY91 and FY92. The prior audit suggested a FY92 target of 16.4 days of absence per maintenance employee per year. This is only 1.4 days less than FY88 actual results, and was believed attainable based on the District's performance during the prior audit review period. An average annual target reduction of 0.7 days per year would meet this requirement (i.e., the FY89 target was 18.5 days).

**Actions Taken and Results:** Maintenance employees are a more heterogeneous work group than operators and therefore the absence rates of two primary groups were reviewed. These groups are mechanics and service attendants. Performance results achieved include:

- Average mechanic total absence declined from an average of 23.0 days per FTE in FY89 to 20.1 days in FY90 and then slightly to 22.7 in FY91, as shown in Exhibit 5. Total absence declined, on average, 0.7 days per FTE between FY89 and FY91. The two primary components of total absence are regular

Exhibit 5

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**AVERAGE DAYS ABSENT PER FTE MECHANIC BY ABSENCE CATEGORY**

ABSENCE CATEGORY	FY89	FY90	FY91	Increased/(Decreased) Absence Rate		Percentage Change FY89-91
				FY89-90	FY90-91	
<b>REGULAR ABSENCE</b>						
Sick Leave	10.32	8.78	9.04	(1.54)	0.26	(12.41)
Occupational Injuries	2.71	2.00	2.33	(0.71)	0.33	(13.95)
Off With Permission	1.22	0.94	0.63	(0.28)	(0.31)	(48.56)
Missout/Tardy/Unexcused Absence	0.25	0.11	0.09	(0.14)	(0.02)	(64.23)
Disciplinary Suspension	0.30	0.26	0.20	(0.04)	(0.07)	(33.89)
Other	1.68	1.92	2.44	0.24	0.52	44.98
<b>TOTAL REGULAR ABSENCE</b>	<b>16.48</b>	<b>14.02</b>	<b>14.72</b>	<b>(2.46)</b>	<b>0.71</b>	<b>(10.64)</b>
<b>LONG-TERM LEAVE ABSENCE</b>	<b>6.54</b>	<b>6.06</b>	<b>7.97</b>	<b>(0.48)</b>	<b>1.91</b>	<b>21.83</b>
<b>TOTAL ALL ABSENCE</b>	<b>23.02</b>	<b>20.08</b>	<b>22.69</b>	<b>(2.94)</b>	<b>2.61</b>	<b>(1.41)</b>

Source: SCRTD Manpower Availability Reports. Changes between years were calculated by MacDorman & Associates Inc.

Note: Other Regular Absence includes bereavement, jury duty, military leave, union business, and awaiting test results.

Long-Term Leave Absence includes sick leave, occupational injuries, and other non-disciplinary reasons.



and long-term leave absence. Regular absence declined 1.8 days per FTE while long-term leave absence increased 1.4 days.

- The largest absolute absence reduction was achieved in sick leave (i.e., 1.3 days). The most significant percentage reductions were in tardiness and unexcused absence (i.e., 64.2 percent) and off with permission (48.6 percent). "Other" absence increased 45.0 percent because of increased bereavement, jury duty, military leave (Desert Shield/Storm), union business, and awaiting test results.
- Average service attendant total absence between FY89 and FY91 declined from 36.7 to 31.6 days per FTE or 13.8 percent, as shown in Exhibit 6. Total absence declined, on average, 5.1 days per FTE between FY89 and FY91. The two components of total absence, regular and long-term leave absence, declined 1.8 and 3.3 days per FTE, respectively.
- The largest absolute absence reduction was achieved in sick leave (1.9 days). The most significant percentage reductions were in disciplinary suspension (48.1%) and off with permission (38.7%). Service attendant absence because of occupational injuries absence increased 42.3 percent.

**Conclusion:** Despite increases in maintenance employee absences from FY90 to FY91, the District has achieved significant reductions in maintenance employee absenteeism over the three year audit review period. The District has therefore fully complied with this recommendation.

Recommendation #8: SCRTD should develop and implement a comprehensive vandalism and graffiti reduction program.

**Understanding of the Issue:** During the prior audit review period, vandalism costs had grown by a minimum of 300 percent between 1985 and 1988 at the District alone. Estimates of vandalism cost for FY89 exceeded \$6.7 million. It was recommended that the SCRTD examine and revise internal procedures and policies related to vandalism abatement to reduce exposure and cost of repair. Recommended measures to reduce exposure included better lighting and security at yards, stronger response to vandals caught in the act (e.g., stiff fines, legal proceedings) and incentives to turn in vandals.

Cost control measures included lesser quality paint (e.g., adjusting for shortened paint cycles due to graffiti), a partial bus paint policy to address graffiti, and changes to other bus, bus stop and facility materials (i.e., graffiti resistant paint) according to potential for damage. It was also recommended that the SCRTD take immediate steps to prevent the assignment of other maintenance resources (e.g., cleaning staff, PM time, repair time) to the vandalism problem.

Exhibit 6

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**AVERAGE DAYS ABSENT PER FTE SERVICE  
 ATTENDANT BY ABSENCE CATEGORY**

ABSENCE CATEGORY	FY89	FY90	FY91	Increased/(Decreased) Absence Rate		Percentage Change FY88-91
				FY89-90	FY90-91	
<b>REGULAR ABSENCE</b>						
Sick Leave	15.45	14.01	13.60	(1.44)	(0.42)	(12.03)
Occupational Injuries	2.98	1.83	4.25	(1.16)	2.42	42.34
Off With Permission	2.57	1.51	1.58	(1.07)	0.07	(38.73)
Missout/Tardy/Unexcused Absence	0.30	0.43	0.22	0.13	(0.22)	(27.61)
Disciplinary Suspension	0.91	0.90	0.47	(0.01)	(0.43)	(48.12)
Other	1.48	1.96	1.83	0.48	(0.13)	23.18
<b>TOTAL REGULAR ABSENCE</b>	<b>23.70</b>	<b>20.63</b>	<b>21.93</b>	<b>(3.07)</b>	<b>1.30</b>	<b>(7.46)</b>
<b>LONG-TERM LEAVE ABSENCE</b>	<b>12.97</b>	<b>10.52</b>	<b>9.68</b>	<b>(2.45)</b>	<b>(0.84)</b>	<b>(25.34)</b>
<b>TOTAL ALL ABSENCE</b>	<b>36.67</b>	<b>31.15</b>	<b>31.61</b>	<b>(5.52)</b>	<b>0.46</b>	<b>(13.78)</b>

Source: SCRTD Manpower Availability Reports. Changes between years were calculated by MacDorman & Associates Inc.

Note: Other Regular Absence includes bereavement, jury duty, military leave, union business, and awaiting test results.

Long-Term Leave Absence includes sick leave, occupational injuries, and other non-disciplinary reasons.

It was further recommended that the District join forces with other groups and agencies throughout Los Angeles to curb vandalism (e.g., Chamber of Commerce, business associations, neighborhood groups, schools, police, cities, the County and other public agencies). Advertisement campaigns, public watch groups, rewards and volunteer clean-up were some suggested measures to help curb vandalism.

**Actions Taken and Results:** A graffiti and vandalism abatement program was instituted in FY89. In FY90, the program was intensified and positions were added to improve fleet appearance. Cost saving measures, such as applying protective coatings to windows and replacing seat coverings with cut-resistant materials have also been added as a component of the program. A new two-stripe paint scheme replaced the three-stripe decal, which resulted in a twenty percent savings in vehicle repainting costs. When possible, touch up painting of vehicles is performed at the operating divisions, thereby reducing the demand and expense for the complete repainting of buses.

Additional positions were also added to the Transit Police to increase the number of apprehensions related to acts of vandalism. The program was developed further in FY90, with the introduction of a pilot program to coordinate the District's anti-graffiti effort with local schools. The Government and Public Affairs and the Marketing and Communications departments have also been instrumental in promoting the Graffiti and Vandalism program through publicity and public out-reach efforts. The District has also sponsored State legislation mandating increased penalties for offenders.

Another program, "LA Pride", was also developed in FY90 to improve the appearance of transit vehicles. The program, which was developed in association with the City of Los Angeles, is also aimed at reducing standing loads by 50 percent and improving on-time performance on selected District bus lines. Funding for this program was used to purchase additional vehicles and to fund a graffiti cleaning task force composed of local high school students.

Despite the District's efforts to fight graffiti and vandalism, incidents continue to occur and the District must continue to devote appropriate resources to the graffiti and vandalism abatement program.

**Conclusion:** The District launched a graffiti and vandalism abatement program in FY89 and has continued to invest significant resources to counter the damage to the District's vehicles and facilities. The District has therefore fully implemented this recommendation, though it is important to note that the District must continue to devote appropriate resources to the graffiti and vandalism abatement program. This is discussed further in a separate Phase I Task Report.

Prior Audit Recommendation #9: SCRTD should take appropriate management actions to mitigate current farebox and fare collection problems.

**Understanding of the Issue:** During the conduct of the FY86 to FY88 performance audit, the SCRTD farebox implementation program had been marred by a number of technical, contractual, and legal problems which had resulted in significant delays. In FY88, the District had tested 30 fareboxes and installed 1,700 of the 2,450 units by FY89. Although progress had been made through the first half of FY89, installation of the remaining fareboxes was delayed in February, 1989 due to persistent reliability problems. Despite the testing of 30 fareboxes in FY88, and the multiple farebox design revisions, the new fareboxes could not withstand the rigors of the SCRTD operating environment.

SCRTD management responded to this equipment reliability problem with an aggressive maintenance program, including deployment of a team of field mechanics to make repairs enroute. Yet the farebox reliability problems continued to result in revenue loss, service delays, passenger/driver conflicts and excessive maintenance costs. Despite the District's aggressive effort to resolve reliability problems, the fareboxes continued to malfunction during revenue operations.

**Actions Taken and Results:** During FY89, the District completed installation of 2,360 electronic fareboxes. Throughout FY89, passengers were directed to insert dollar bills flat into the currency receiving slot to avoid jamming of the dollar bill transport mechanism. Incidence of farebox jamming, which resulted in service delays and higher maintenance roadcall rates, had declined significantly as a result of on-board passenger instruction for proper farebox use.

**Conclusion:** The SCRTD has fully implemented this recommendation as all fareboxes were installed and fully operational as of the latter half of FY89.

#### D. PLANNING

Phase I of the FY86 to FY88 triennial performance audit provided two recommendations related to planning functions. These recommendations were examined in further detail in Phase II of the performance audit and are superseded by the five recommendations provided in the subsequent report. The District has fully implemented one of these recommendations, made reasonable efforts on two others and no progress on the remaining two. The District did not agree with four of the five recommendations.

Prior Audit Recommendation #10: The District should re-examine its decision to omit performance targets from the FY90 SRTP and Budget documents. It should consider quantitative objectives in future editions of the SRTP and Budget documents, as was the practice through FY89.

**Understanding of the Issue:** The District set its FY90 SRTP and Budget goals without the quantifiable performance objectives used in previous years. Quantitative objectives are essential to guide the District in all aspects of its planning, operations and

management. Furthermore, it is essential that the Board review and adopt such quantifiable targets every year.

**Actions Taken and Results:** The District has continued to omit performance targets in the FY91 SRTP and Budget documents. During interviews with District personnel, it was noted that "most people at the District never see the SRTP" and that the majority of District personnel rely on the quarterly performance profile to assess the District's performance. It was also noted that when quantifiable objectives had been used in the past, many staff/departments only focused on meeting the stated requirement, without assessing how these requirements contributed to the accomplishments of the District.

**Conclusion:** The SCRTD has not complied with this recommendation as the District continues to omit quantifiable performance objectives in Board approved documents such as the SRTP and Annual Budget.

The District has developed quantifiable performance goals which are published in the Monthly Performance Profile Report. These goals are not formally adopted by the Board. Many of the assumptions used to develop these performance goals, however, are stated in the Board adopted SRTP and/or Annual Budget. The link between District-wide goals and quantifiable performance objectives is not direct as separate documents communicate these two presumably related pieces of information.

Although the monthly performance profile is a valuable tool for the District to assess current performance relative to prior performance, this report does not directly correlate with the District-wide goals stated in the SRTP and Annual Budget. Combining quantifiable performance goals used for internal communications (i.e., Monthly Performance Profile) with Board-approved District-wide goals (i.e., SRTP and Annual Budget) used to communicate performance expectations to the public and external agencies would meet the intent of this recommendation.

Given the operating and financial challenges that face the District, it seems more important than ever that District-wide goals and measurable performance expectations be clearly linked, approved by the Board, and communicated to the public and throughout the agency.

Prior Audit Recommendation #11: The District should evaluate the impact of service change packages relative to quantitative performance objectives.

**Understanding of the Issue:** The District did not estimate the impacts of service change packages on the District's adopted goals and objectives or service standards. The District should track the impacts of the packages when they are implemented.

**Actions Taken and Results:** The District did not agree with this recommendation. It feels that its current planning process is appropriate for its operating environment.

The District's service planning process is driven by its operating budget. The current budget is approximately 7,150,000 vehicle hours of service.

Based on its adopted service standards, the District has an overcrowding problem. A joint District/LACTC study recommended in March 1991 as many as 125 additional buses (assuming that there are no redeployment opportunities) are needed to meet the District's loading standards. The District does not feel that re-deployment of vehicles can meet this need and estimates that it needs to provide approximately 7,500,000 vehicle hours of service to comply with the standards.

Since the District has not received funding for this additional service (i.e., 7,500,000 requested as opposed to 7,150,000 funded), the District has focused its planning attention on routes with severe overcrowding. With a constrained budget, the District has tried to shift internal resources from lightly-used lines to the problem lines. District management believes that this re-deployment approach serves to reduce the disparity of overcrowding among lines but does not address the fundamental overcrowding problem.

**Conclusion:** Efforts related to this recommendation have been reasonable given current funding constraints. The District is in a difficult position because it does not have the funding to operate the service that is needed to meet its service standards. There are two views of how the District should address this problem.

From a technical viewpoint, the District could revise its standards so that they are consistent with the available funding. This would mean increasing the loading standards either uniformly or selectively among service types and headway classes. Possible selective changes would include raising the loading standards for:

- peak period service for 31-60 minute lines above 100 percent (e.g., most systems accept a certain level of standing passengers during peak periods)
- night and express service for 21-60 minute lines to 100 percent (e.g., most systems schedule service to provide every passenger a seat).

The District could raise its standards to a point where less than 7,150,000 vehicle hours are needed. This would provide the District the operating cushion to conduct the types of analysis suggested in the recommendation.

From a political viewpoint, however, the District has decided that it should not revise its standards. RTD services are extremely productive and the District believes that it should not change its standards and reduce the quality of service for its riders. Instead, it should try to obtain more funding to support its current service standards.

The District's approach is reasonable in the current operating environment and therefore a finding of reasonable progress has been made. The District could, however,

develop revised service standards that are consistent with available funding. These plans would support the District's argument for more funding and serve as action plan if the funds are not obtained.

Prior Audit Recommendation #12: The District should assign coordination and review responsibility for service change packages and their impact on quantifiable objectives to a specific section.

**Understanding of the Issue:** The planning and marketing activities are scattered in several District departments. No department has final authority for service changes and evaluating their impacts. This could result in inconsistent planning, analysis, and implementation.

**Actions Taken and Results:** The District uses a New Service Review Board (NSRB) to coordinate service planning activities and recommendations. The NSRB consists of the Controller and Assistant General Managers for Planning, Operations, and Facilities. They meet every two weeks to discuss service policies and issues and proposed service changes. As appropriate, the NSRB invites other District managers to discuss specific service recommendations.

All service changes requiring District Board approval first are reviewed by the NSRB. If approved by the NSRB, they are forwarded to the District Board for approval.

**Conclusion:** The NSRB coordinates the service planning activities of the District. Its function is similar to those of service review committees that are successful in other transit systems. As long as the NSRB meets regularly and uses a consistent approach to evaluate service change packages, it addresses the coordination concerns of the prior audit recommendation. The auditor believes that the District's approach to coordinating service changes is appropriate.

Prior Audit Recommendation #13: The District should analyze and plan its service change packages on the basis of multiple years. It should estimate the impacts of service changes for a period of least two years.

**Understanding of the Issue:** Sound planning practice requires that service change packages be analyzed for both their short- and intermediate-term impacts. SCRTD practice has been to estimate impacts solely on the basis of the fiscal year in which they were implemented. It was noted in the Phase II review of the planning function that service was added in FY90, despite service hour reductions that were made in FY89. During the preparation of the Phase II report, the District had released the draft FY91 Business Plan which acknowledged that there will need to be a cut in service in FY91 unless additional funds are available through the farebox or some other means. Service changes that result in service reductions, then increases, followed again by cutbacks, represent an inefficient use of District resources. Given these variations in service provisions, it was recommended that

the District should evaluate and implement service changes on the basis of operating budget projections over a multi-year horizon.

**Actions Taken and Results:** The District did not agree with this recommendation. It feels that its current planning process is appropriate for its operating environment.

The District's service planning process is driven by its operating budget. It is a "zero sum game" -- service is taken from one area to serve another.

Most of the changes are minor frequency adjustments to address overcrowding problems. The impacts of these changes have little impact on the District budget. In many cases, the justification for the changes is to improve service quality for existing riders with the hope that new riders may be attracted.

**Conclusion:** The District's approach is consistent with those used by other transit systems. While it is important to estimate the impacts of the changes, most transit systems do not make forecasts beyond one year unless the change involves a significant change in resources. Most of the District's changes are minor, due to constrained funding, and involve no net increase in resources.

Therefore, the District's approach appears reasonable for the current funding environment. If significant new funding is obtained, the District might consider making multiple-year forecasts for new services. A finding of reasonable efforts is appropriate for District actions to implement this recommendation.

Prior Audit Recommendation #14: The District should project and analyze the revenue and ridership impacts of each service change package and verify the results of service change packages. The service change process should be driven by ridership needs, not only by service hour targets.

**Understanding of the Issue:** The District does not formally conduct follow-up studies of the actual cost, ridership, and revenue changes. These studies would show if expectation were fulfilled. They also might provide insight on how the District's forecasting methods could be improved. While the impact of service change packages in terms of hours and budget were clearly defined, projected ridership impacts were not as clear.

**Actions Taken and Results:** The District understands the nature of this recommendation and would like to improve its procedures. For minor changes, it feels that this recommendation is impractical since the impacts are minor and obvious. For major changes, it does not formally monitor the forecasted impacts, but does monitor ridership. It would like to formally monitor the impacts, but does not have sufficient staff.

The District does not totally agree with moving away from the service hour targets approach. While it recognizes that a more structured approach would be more accurate,



it feels that little benefit would result because most of its changes in the current funding environment have been minor.

**Conclusion:** The District did not take action and should proceed to adopt the recommendation. While this may not change the service recommendations made by the District, it will provide additional justification for these changes.

#### E. RISK MANAGEMENT

The Risk Management Department and the SCRTD as a whole, have implemented a number of performance initiatives and have improved employee and public safety overall. The risk management function has only been operating as a single unit since FY86, and has made substantial headway in identifying and reducing risk and loss throughout the District. While performance has mostly been positive (e.g., accidents, injuries and claims are down), reserving practices were noted to be a matter of significant concern in the prior audit.

Prior Audit Recommendation #15: SCRTD should assess its individual and pooled claims reserving practices, and adjust these as appropriate to avoid under or over reserving for liabilities incurred.

**Understanding of the Issue:** The prior audit noted that workers' compensation and PL/PD injuries and claims were declining relative to FY85 rates. Expected severity (i.e., average cost per claim) had risen above the rate of inflation. Considered together, these factors implied a two percent real cost increase in liabilities between FY85 and FY88. This compared to 23 percent actual real growth in accident year adjusted reserves.

The reason for the high growth in the adjusted reserves was not apparent to the audit team, and seemed to contradict trends in claim and injury frequency and severity. Claims reserving and overall workers' compensation cost control is a matter of concern and the District was asked to reexamine these practices in the near-term. Such an examination should also consider recent changes in the management of individual claims by the new claims administrator, and changes in reserving at the individual claim level which could impact the accuracy and process of District efforts to reserve for all claims.

**Actions Taken and Results:** The SCRTD Risk Management Department and the Controller/Treasurer worked with SCRTD's external auditor and the performance auditor to review and analyze reserving practices in detail. As a result of this effort, the SCRTD adopted three loss reserve estimation techniques which are used in a complimentary manner to estimate reserve levels from pooled claims. The models include one developed by the external auditor, one by the performance auditor and one by SCRTD. The calibration and application of each method was reviewed in detail in a working session with all of the participating parties. Since that time, SCRTD has routinely applied all three methods to the pool of claims and used the results of the methods in determining the actual reserve amount.

Actions taken toward full implementation of the prior audit recommendation include:

- Constant and consistent claims evaluation and reserves reduction efforts by the claims administrator since the prior audit. Individual claims are reviewed with the latest data available and individual reserves adjusted. Claims are closed as quickly as possible. Statistical reports demonstrate that individual claims are in better order than was the case during the FY89 audit period (e.g., areas like open claims with no activity, claims with negative balance).
- Statistical analysis and reporting on claim types and total claims far exceeds SCRTD capabilities during the prior audit. This information is used in measuring the pulse and trends of risk and loss events and costs. The statistical information is being used to predict and avoid major types of risk through loss prevention programs. The information is routinely shared with major departments of SCRTD and has been described as useful by staff supervisors and managers in identifying and addressing areas of risk.
- The three reserving methods discussed above are applied on a routine basis and the results of each clearly compared in selecting a final reserve figure. Model runs have been quite close for all three methods over the past two years, and results are regularly updated and used by the SCRTD in budgeting and risk management reserving efforts. Staff understand the models, their differences, and calibration and application issues.
- Actual reserve levels have declined in each of the prior two years, another demonstration of improved reserving. Mathematical evidence suggested that the prior risk reserve estimation procedure tended to overreserve, and a reduction in total reserves was expected. After three years of continuous growth, total reserves of \$183 million in FY90 were reduced to \$169 million in FY91 and to \$159 million in FY92. The reductions are believed reasonable by the SCRTD, their external auditor and this performance auditor.

**Conclusion:** The District has fully implemented actions which comply with the FY89 audit recommendation on risk reserving practices and the expected result has been achieved -- reserve levels have been reduced significantly. The system developed by the SCRTD for reserving both individual claims and pooled claims is rigorous and appears effective. SCRTD's loss and reserve analysis tools and capabilities are sophisticated and rigorous, exceeding the technical capabilities of most risk managers in the transit industry.

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**III. COMPLIANCE WITH DATA COLLECTION  
AND REPORTING REQUIREMENTS**

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### III. COMPLIANCE WITH DATA COLLECTION AND REPORTING REQUIREMENTS

The procedures for collecting and reporting statistics for the LACTC's Transit Performance Measurement (TPM) Program and State TDA indicators were reviewed. Ten statistics were examined for District bus service (i.e., both TDA and TPM requirements) while only five indicators were examined for the rail system (i.e., TDA requirements). SCRTD is in compliance with reporting requirements for:

- total vehicle miles
- vehicle service miles
- total vehicle hours
- vehicle service hours
- peak vehicles
- unlinked passengers
- passenger revenue
- operating cost
- auxiliary revenues and local subsidies.

SCRTD was found to be in non-compliance with TPM and with State TDA reporting requirements for bus and rail employee full-time equivalents (FTEs). The State definition for FTEs is different than that used for Federal Section 15 Reporting. This distinction in reporting definitions has not been incorporated into SCRTD reporting practices. While of finding of non-compliance has been made, the difference in the two definitions results in a four percent understatement of FTEs for State and LACTC reporting purposes.

Compliance with ten data items used in LACTC TPM reporting was assessed for SCRTD bus service. Five of these ten items (i.e., vehicle service miles, vehicle service hours, unlinked passengers, operating cost, and FTEs) are also used in State TDA reporting and were reviewed for SCRTD rail service. Data definitions, methodology and auditor's assessment of each data item follow.

#### Total Vehicle Miles

**Definition** -- Total vehicle miles are defined as the total distance traveled by revenue vehicles, including both in-service and deadhead miles. SCRTD terminology is consistent with the LACTC definition of this operating statistic.

**Methodology** -- The data collection procedures used to determine and report total vehicle miles is also used to determine vehicle service miles, total vehicle hours and vehicle service hours. The data collection procedures follow the same steps and utilize the same sources of information. This results in the development of annual statistics for TDA and Section 15 reports. Separate procedures have been developed to allocate annual bus statistics to weekdays and weekends and to the service classifications required for the TPM program.

The current procedure used to develop annual bus mileage and hours operated begins with input from the 4-24 Report, prepared by the Scheduling Department, which lists total miles and hours and vehicle service mile and hours by line for weekday, Saturday and Sunday services. Annualized statistics are then generated by factoring the daily statistics by the appropriate number of days for which a particular shake-up was effective. These statistics are then adjusted to reflect service added or lost during the year. These annual actual operating statistics are then included in TDA, and Section 15 reports.

Since the information collected above is not broken down by line or by service classification, SCRTD uses another method to satisfy TPM reporting requirements. These procedures also rely on the 4-2 Report for the scheduled information by line. With the assistance of the Line Code File which shows each line's service classification, scheduled statistics for each shake-up are developed by classification. All shake-ups applicable during the year are summed to obtain scheduled weekday and total annual statistics. Adjustments are made to reflect any service added during the year after the shake-up took place. This, then, is the scheduled number of hours and miles for each service classification.

At this point, no adjustment is made for service lost. The service classification totals are used to determine their relative proportions of miles and hours. The resulting proportions are then applied to the corresponding actual annual weekday statistics. This serves to adjust the service classification level statistics from scheduled to actual.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic. Reported figures during the audit review period include:

Year	LACTC TPM	Section 15
1988	108,215,000	108,215,424
1989	101,107,000	101,106,656
1990	102,128,000	102,204,126*
1991	103,808,000	103,807,755 (Bus)
	2,432,000	2,432,198 (Rail)

\* includes service provided out of Los Angeles County.

### Vehicle Service Miles

**Definition** -- Vehicle service miles are the total annual miles while vehicles are in revenue service. Miles to and from storage facilities and other deadhead travel are excluded. SCRTD terminology is consistent with the LACTC and State TDA definition of this operating statistic.

**Methodology** -- Vehicle service miles for bus services are calculated by the same methodology used to determine total vehicle miles.

A similar approach, using scheduled information, is used for capturing and reporting rail mile and hour statistics. The District uses "Mini-Scheduler" software to develop the schedule for rail service, including train and passenger car summaries. Vehicle revenue service miles and hours are captured, as well as deadhead. Temporary adjustments are tracked using CS10 Reports for service disruptions, as well as a sampling technique for missed trips. Scheduled mile and hour information is adjusted accordingly.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic for both bus and rail modes. Reported figures during the audit review period include:

Year	State Controller	LACTC TPM	Section 15
1988	NA	92,955,000	92,954,722
1989	86,145,712	86,146,000	86,145,712
1990	86,591,586	86,592,000	86,591,596
1991	89,111,000	88,059,000	88,059,243 (Bus)
	NA	2,395,000	2,395,176 (Rail)

### Total Vehicle Hours

**Definition** -- Total vehicle hours are defined as the total hours that vehicles are in operation, including both revenue and non-revenue service. SCRTD terminology is consistent with the LACTC definition of this operating statistic.

**Methodology** -- Total vehicle hours are determined by the same methodology described above for calculating total vehicle miles.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic. Reported figures during the audit review period include:

Year	LACTCTPM	Section 15
1988	7,988,000	7,988,244
1989	7,464,000	7,463,523
1990	7,564,000	7,564,094
1991	7,798,000	7,798,358 (Bus)
	145,000	145,000 (Rail)

### Vehicle Service Hours

**Definition** -- Vehicle service hours are the total annual number of hours that vehicles are in revenue service. Excluded are travel to and from storage facilities and other deadhead travel. SCRTD terminology is consistent with the LACTC and State TDA definition of this operating statistic.

**Methodology** -- Total vehicle hours for the bus mode are determined by the same methodology described above for calculating total vehicle miles. The methodology described for rail car vehicle service miles also applies to vehicle service car hours.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic for both bus and rail modes. Reported figures during the audit review period include:

Year	State Controller	LACTCTPM	Section 15
1988	NA	7,376,000	7,375,598
1989	6,861,503	6,862,000	6,861,503
1990	6,953,613	6,954,000	6,953,650
1991	7,140,000	7,163,000	7,162,709 (Bus)
	54,300	143,000	142,712 (Rail)

### Peak Vehicles

**Definition** -- Peak vehicles are defined as the maximum number of vehicles assigned to revenue service at any one time. SCRTD terminology is consistent with the LACTC definition of this operating statistic.

**Methodology** -- The SCRTD determines the number of peak vehicles based on each line's peak vehicle requirements for the highest month throughout the fiscal year. The number of peak vehicles is then aggregated for all lines in the service classification.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic. Reported figures during the audit review period include:

Year	State Controller	LACTC TPM	Section 15
1988	NA	2,040	2,040
1989	1,826	1,939	1,939
1990	1,858	1,929	1,929
1991	1,968	1,915	1,968 (Bus)
	30	30	30 (Rail)
<u>Unlinked Passengers</u>			

**Definition** -- Unlinked passengers are the total annual number of unlinked trips; all passenger boardings, whether revenue producing or not. SCRTD terminology is consistent with the LACTC and State TDA definition of this operating statistic.

**Methodology** -- Annual system wide statistics for unlinked passengers are developed using the FTA approved Section 15 sampling plan. This revenue based sampling procedure requires SCRTD to conduct a monthly fare survey of randomly selected trips, employing stratified cluster sampling techniques. The products of the survey are the average fare for cash riders as well as the average boardings for four types of passes -- regular rider, senior citizen and handicapped person, student, and college student. Survey results also distinguish between weekday, Saturday, and Sunday ridership. The same methodology is used for both bus and rail modes.

These factors are used to develop total ridership statistics. The factors are applied to daily farebox receipts and monthly pass sales revenue to develop a total estimate of unlinked passengers for the system. Revenue statistics distinguish between weekday and weekend to aid in the calculations that will be needed for TPM reporting.

In addition to this procedure, SCRTD conducts a ride check of each line in the system on an annual basis. Boardings are counted periodically by ride-checkers on all scheduled trips for a particular day. The ride-checker uses a hand-held computer. For TPM reporting, these totals are aggregated by service classification. All boardings counted for weekdays are arrayed by service classification. A distribution across service classes is developed and applied to the annual weekday unlinked passengers statistic developed previously using the Section 15 sampling plan. A similar two step procedure is also used to allocate annualized weekday passenger revenue to each of the five classes of service. The unlinked passenger statistic is then used for TDA reporting. TPM statistics are developed from this annual total by disaggregating the information by service classification and operating period.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic for both bus and rail modes. Reported figures during the audit review period include:



Year	State Controller	LACTC TPM	Section 15
1988	NA	424,646,000	424,646,100
1989	411,820,000	411,820,000	411,820,000
1990	401,054,720	401,055,000	401,054,720
1991*	416,164,554	416,170,000	416,169,554 (Bus)
	6,773,289	7,487,000	7,487,185 (Rail)

\*Following review of a draft of this report, the District noted that, "The Performance Audit bases all bus boarding related indicators on the number originally submitted to FTA of 416,170,000 unlinked passenger trips. This number was formally revised in September 1992 to 402,885,000. "The District, however, has been unable to substantiate this change in terms of revised documentation (e.g., revised Section 15 report, revised State Controller's report, revised TPM forms, data collection/reporting procedures necessitating a revision in ridership figures).

### Passenger Revenue

**Definition** -- Passenger revenue is defined as revenue earned from carrying passengers along regularly scheduled routes and services, including base fare, zone and express premiums, transfers, park-and-ride revenues, and special transit fares. SCRTD terminology is consistent with the LACTC definition of this statistic.

**Methodology** -- The methodology used to determine annual unlinked passenger statistics also provide the data needed to generate annual statistics for passenger revenue.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic. Reported figures during the audit review period include:

Year	State Controller	LACTC TPM	Section 15	Audit
1988	NA	\$187,772,000	\$187,771,833	\$187,772,000
1989	\$229,882,123	\$230,859,100	\$230,858,774	\$230,859,000
1990	\$239,904,880	\$239,905,000	\$239,904,679	\$239,905,000
1991	\$243,421,747	\$239,030,000 (Bus)	\$243,421,747	\$243,422,000
		\$ 4,391,000 (Rail)		

### Auxiliary Revenue and Local Subsidies

**Definition** -- Auxiliary revenue (object class 406) is defined as revenues earned from operations closely associated with transportation operations (e.g., advertising income, station concession income). Local subsidies include object classes 408 -- taxes levied directly by transit system, 409 -- local cash grants and reimbursements, and 410 -- local special fare assistance. In the Los Angeles funding environment, local subsidies most frequently refer

to Proposition A Local Return funds. Written TPM guidelines do not specify the inclusion of object class 407 -- non-transportation revenues in this category of TPM reporting. The practice of LACTC staff and other transit operators, however, is to include non-transportation revenues. SCRTD terminology is consistent with current practices used by the LACTC and other operators.

**Methodology** -- Section 15 data submitted by the District (i.e., Form 201) provides adequate information to determine auxiliary and non-transportation revenues. Section 15 data (i.e., Form 203) provides notes that allow for the separation of Proposition A Discretionary funds from Local Return funds -- Local Return funds are included while Discretionary funds are not.

The sum of these funds is then allocated to individual service/day of week classifications based on vehicle service miles. The prior audit finding that the SCRTD was not allocating auxiliary revenues and local subsidies according to TPM guidelines has been corrected.

**Assessment** -- SCRTD is full compliance with reporting practices common throughout Los Angeles for this statistic. Reported figures during the audit review period include:

Year	LACTC TPM	Section 15
1988	\$12,768,000	\$12,767,825
1989	\$14,178,000	\$14,178,290
1990	\$11,531,000	\$11,480,626
1991	\$11,709,000 (Bus) \$ 559,000 (Rail)	\$12,268,325

Revenue information contained in the District's annual financial audit is not in sufficient detail to verify the detail required for TPM reporting purposes. In the FY91 financial audit, route subsidies, auxiliary revenues and interest earnings were each specified, along with "Other" and "Local Operating Grants." While not a compliance issue, it would be beneficial to staff responsible for preparing TPM data for the District audit to specify revenues at a level of detail that would support TPM reporting requirements.

#### Operating Cost

**Definition** -- Operating cost is the total annual cost of running a transit operation (including purchased transportation services), exclusive of depreciation, capital expenditures, vehicle lease costs, and direct costs of providing charter service (not applicable to the SCRTD). SCRTD terminology is consistent with the LACTC and State TDA definition of this statistic.

**Methodology** -- SCRTD uses the LACTC specified three-variable cost allocation procedure for estimating weekday bus operating cost by service classification. The SCRTD has corrected the deficiency noted in the prior audit with respect to cost allocation for TPM reporting purposes (i.e., SCRTD was allocating some administrative costs to Saturday, Sunday and Holiday service).

TPM procedures do not apply to rail services. A separate study was sponsored by the LACTC to evaluate the allocation of costs between rail and bus modes. Statistics reported herein are taken from the District's FY91 Audited Financial Statement.

**Assessment** -- SCRTD is in full compliance with reporting of this statistic for both bus and rail modes. Reported figures during the audit review period include:

Year	State Contr.	LACTC TPM	Section 15	Audit
1988	NA	\$504,448,000	\$504,447,696	\$504,447,000
1989	\$528,566,214	\$533,060,000	\$533,059,770	\$533,060,000
1990	\$565,137,317	\$565,137,000	\$565,137,319	\$565,137,000
1991	\$623,124,928	\$584,621,000 (Bus) \$ 38,530,000 (Rail)	\$623,150,757	\$564,669,000 (Bus) \$38,482,000 (Rail)

#### Employee Full-Time Equivalents (FTEs)

**Definition** -- Employee full-time equivalents are determined by the total annual employee regular and overtime hours worked (including contractor pay hours for purchased transportation services) divided by 2,000 hours for TDA and LACTC TPM Program purposes. The TDA definition is different from the FTA Section 15 definition where the dividing factor is 2,080 of total hours worked. SCRTD terminology is not consistent with the State TDA definition of this operating statistic.

**Methodology** -- Beginning in FY89, FTEs are calculated by Accounting according to the Section 15 definition. Figures reported in FY88, the last year of the prior audit review period, included hours associated with premium overtime pay (e.g., payment of one and one-half hours for one hour of overtime work). The prior auditor estimated the correct FY88 figure to be 8,880 FTEs. While the reporting deficiency noted in the prior audit was corrected in FY89, the District used 2,080 rather than 2,000 as the dividing factor to determine FTEs.

Figures since FY89 are fairly consistent between reports with the exception of the State Controller's Report. One possible reason for the variation in FTEs reported between the State Controller's and Section 15 reports could be attributed to changes in this statistic which arise between the submittal dates of the reports -- the State Controller's report is due

90 days after the end of the fiscal year, while Section 15 reports are due 120 days after the fiscal year end.

**Assessment** -- SCRTD does not fully comply with reporting requirements for FTEs, which are understated by approximately four percent. Reported figures during the audit review period include:

Year	State Controller	LACTC TPM	Section 15
1988	NA	10,196	10,196
1989	7,887.5	7,707	7,707
1990	7,945.5	7,663	7,663
1991	7,571 (incl. rail)	7,764 (Bus) 227 (Rail)	7,764 (Bus) 227 (Rail)

Using the prior audit adjusted FY88 FTE figure, and increasing District reported FTEs by four percent results in the following factors used to assess TDA performance trends:

Year	Adjusted FTE
1988	8,880
1989	8,015
1990	7,970
1991	8,075 (Bus) 236 (Rail)

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**IV. PERFORMANCE INDICATOR TRENDS**

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#### IV. PERFORMANCE INDICATOR TRENDS

This section provides the results of our TDA and TPM indicator analysis to assess trends in the efficiency and effectiveness of SCRTD.

##### A. TDA INDICATOR TRENDS

Verified data items used to calculate TDA indicators are shown in Exhibit 7. Exhibit 8 shows performance results for TDA indicators for both bus and rail modes. Rail service began on July 14, 1990 (i.e., FY91). While indicators have been prepared for FY91 rail service, there is no discussion of trends.

Key performance trends for SCRTD bus services are as follows:

- **Cost Efficiency**, measured by cost per hour, has increased 19.3 percent compared to an inflationary increase of about 16 percent (i.e., 15.9 percent for CPI-W and 16.5 for CPI-U) between FY88 and FY91. In FY88, the base year for comparison, the District made a one-time cost adjustment for inventory expenses. Accounting for this adjustment, the District's cost per hour increased 16.2 percent. During the audit review period, costs increased about 16 percent while service hours were reduced by 2.9 percent. The District ended the audit review period with an average cost per hour of \$81.62.
- **Cost Effectiveness**, measured by cost per passenger, has steadily increased throughout the audit review period, with a slight decline from FY90 to FY91. Between FY88 and FY91, operating cost per passenger increased from \$1.19 to \$1.40, representing a 17.6 percent increase compared to a 15.9 percent increase in inflation. Accounting for the FY88 inventory expense adjustment, District costs per passenger increased by 14.8 percent. District bus ridership declined in FY89 and FY90, then began to increase in FY91. Despite increases in FY91, total bus ridership ended the audit review period two percent below the FY88 level. In FY89, the District increased its base fare from \$0.85 to \$1.10.
- **Service Effectiveness**, measured by passengers per hour, has improved slightly (i.e., 0.9 percent). Service reductions (i.e., 2.9 percent decline in vehicle service hours from FY88 through FY91) were consistent with declines in bus patronage (2.0 percent decline from FY88 to FY91). With an average of 58 passengers per hour, District services are very productive. Passengers per service mile improved by 3.5 percent between FY88 and FY91. This is a result of a 5.3 percent reduction in mileage and a 2.0 percent reduction in patronage. At five passengers per mile, District services exhibit excellent service effectiveness. Between FY88 and FY89, the District reduced service

Exhibit 7

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**TDA DATA ITEMS**

TDA DATA ITEMS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE
	FY88	FY89	FY90	FY91	FY88 - FY91
<b>FIXED-ROUTE BUS</b>					
Operating Cost (less depreciation) (000)	504,448 (a)	\$533,060	\$565,137	\$584,669	15.9%
% change from prior year	---	5.7%	6.0%	3.5%	
Unlinked Passengers (000)	424,646	411,820	401,055	416,170 (c)	-100.0%
% change from prior year	---	-3.0%	-2.6%	-100.0%	
Vehicle Service Hours (000)	7,376	6,862	6,954	7,163	-2.9%
% change from prior year	---	-7.0%	1.3%	3.0%	
Vehicle Service Miles (000)	92,955	86,150	86,592	88,059	-5.3%
% change from prior year	---	-7.3%	0.5%	1.7%	
Full-Time Employees	8,880	8,015	7,970	8,075	-9.1%
% change from prior year	---	-9.7%	-0.6%	1.3%	
<b>LIGHT RAIL (b)</b>					
Operating Cost (less depreciation) (000)	---	---	---	\$38,482	---
% change from prior year	---	---	---	---	---
Unlinked Passengers (000)	---	---	---	7,487	---
% change from prior year	---	---	---	---	---
Vehicle Service Car Hours (000)	---	---	---	143	---
% change from prior year	---	---	---	---	---
Vehicle Service Car Miles (000)	---	---	---	2,395	---
% change from prior year	---	---	---	---	---
Full-Time Employees	---	---	---	236	---
% change from prior year	---	---	---	---	---
CONSUMER PRICE INDEX-Urban Wage Earners (CPI-W)		4.8%	5.2%	5.2%	15.9%

Sources: Operating costs from Financial Audits; Operating statistics of hours, miles and passengers from UMTA Section 15; FTEs from TPM Reports, except for FY88 which is from the prior performance audit.

(a) Costs are \$13,669 lower due to one-time inventory adjustment.

(b) Light Rail operations began on July 14, 1990.

(c) District management has noted that this statistic, as reported to the FTA, may be in error.

Exhibit 8

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**TDA INDICATORS**

TDA INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE
	FY88	FY89	FY90	FY91	FY88 - FY91
<b>FIXED-ROUTE BUS</b>					
Operating Cost/Vehicle Service Hour	\$68.39(a)	\$77.68	\$81.27	\$81.62	19.3%
Operating Cost/Unlinked Passenger	\$1.19(b)	\$1.29	\$1.41	\$1.40	17.6%
Unlinked Passengers/Vehicle Service Hour	58	60	58	58	0.9%
Unlinked Passengers/Vehicle Service Mile	5	5	5	5	3.5%
Vehicle Service Hours/FTE	831	856	873	887	6.8%
<b>LIGHT RAIL (c)</b>					
Operating Cost/Vehicle Service Hour	---	---	---	\$269.65	---
Operating Cost/Unlinked Passengers	---	---	---	\$5.14	---
Unlinked Passengers/Vehicle Service Car Hour	---	---	---	52.5	---
Unlinked Passengers/Vehicle Service Car Mile	---	---	---	3.1	---
Vehicle Service Hours/FTE	---	---	---	312.8	---
<b>CHANGE IN CONSUMER PRICE INDEX-</b>					
Urban Wage Earners (CPI-W)	---	4.8%	5.2%	5.2%	15.9%

(a) Cost per hour without inventory adjustment \$70.24 -> 16.2%

(b) Cost per passenger without inventory adjustment \$1.22 -> 14.8%

(c) Light Rail operations began on July 14, 1990.



hours and miles by 7.0 and 7.3 percent, respectively. Some of this adjustment was made in anticipation of a drop in ridership resulting from the fare increase. Between FY88 and FY89, ridership dropped 3.0 percent and continued to drop another 2.6 percent in FY90. In response to overcrowding on some lines, the District added service in both FY90 and FY91.

- **Labor Productivity**, measured by vehicle service hours per employee full-time equivalent (FTE) shows an improvement of about seven percent between FY88 and FY92. During the audit review period FTEs declined by about nine percent while vehicle service hours decreased by about three percent.

System-wide performance trends for fixed-route bus service indicate that costs increased at a rate slightly more than inflation when adjusted for service levels. While passenger and service levels declined, cost increases outstripped these reductions and the rate of inflation. These trends resulted in a decline in both cost efficiency and effectiveness (i.e., 3.4 and 1.7 percent, respectively when adjusted for inflation). Continuation of these trends, in combination with a decline in sales tax subsidies and farebox revenues resulting from current economic conditions, is a course that does not bode well for the future. While these trends did not reach a critical point during the audit review period, they set the stage for subsequent year budget problems. Changing those trends that are under the District's control is the major challenge facing the SCRTD.

#### B. TPM WEEKDAY INDICATOR TRENDS

Verified data items used to calculate TPM Program indicators and performance results for TPM weekday statistics are shown in Exhibit 9 for local bus service and Exhibit 10 for express bus service. Highlights of TPM performance trends for SCRTD local and express bus weekday services follow. When reviewing TPM performance trends, it is important to keep in mind that these trends deal only with weekday services and the costs associated with these services do not include the mileage and hour costs of deadhead travel. As a result, cost efficiency and cost effectiveness trends tend to be more favorable than those presented using TDA indicators.

##### Local Bus Service

Local bus service weekday performance trends for cost efficiency are mixed. Cost per hour increases have been substantially less than the rate of inflation. At the same time, farebox recovery (both with and without local subsidies) has declined. Ridership and farebox revenues have both increased, and the average fare per passenger has increased. Cost effectiveness (i.e., LACTC subsidy per passenger) has declined -- subsidies per passenger have increased more than inflation. The decline in farebox recovery and increase in subsidy per passenger are of critical concern given current economic conditions.

Exhibit 9

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District

**TPM DATA ITEMS AND INDICATORS**

Local Bus Service Weekday Statistics

DATA ITEMS & INDICATORS	AUDIT REVIEW PERIOD			% CHANGE FY89 - FY91
	FY89	FY90	FY91	
<b>TPM DATA ITEMS</b>				
Vehicle Service Hours (000)	4,287	4,447	4,600	7.3%
Peak Vehicles	1,467	1,481	1,462	-0.3%
Unlinked Passengers (000)	294,322	287,995	297,896	1.2%
Passenger Revenue (000)	\$154,129	\$161,686	\$161,192	4.6%
Auxiliary Revenue & Local Subsidies (000)	\$8,038	\$6,888	\$7,264	-9.6%
LACTC Subsidies (000)	\$144,999	\$161,728	\$178,427	23.1%
Operating Cost less Depreciation (000)	\$307,166	\$330,302	\$346,883	12.9%
<b>TPM INDICATORS</b>				
Operating Cost/Vehicle Service Hour	\$71.65	\$74.28	\$75.41	5.2%
Passenger & Auxiliary Rev. & Local Sub./Operating Cost	52.8%	51.0%	48.6%	-8.0%
Unlinked Passengers/Vehicle Service Hour	68.65	64.76	64.76	-5.7%
Passenger Revenue/Operating Cost	50.18%	48.95%	46.47%	-7.4%
Passenger Revenue/Unlinked Passenger	\$0.52	\$0.56	\$0.54	3.3%
Vehicle Service Hours/Peak Vehicle	2,922	3,003	3,146	7.7%
LACTC Subsidy/Unlinked Passenger	\$0.49	\$0.56	\$0.60	21.6%
<b>CHANGE IN CONSUMER PRICE INDEX - ALL URBAN CONSUMERS (CPI-U)</b>	4.8%	5.5%	5.4%	11.2%

Exhibit 10

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District

**TPM DATA ITEMS AND INDICATORS**

Express Bus Service Weekday Statistics

DATA ITEMS & INDICATORS	AUDIT REVIEW PERIOD			% CHANGE FY89 - FY91
	FY89	FY90	FY91	
<b>TPM DATA ITEMS</b>				
Vehicle Service Hours (000)	1,068	983	999	-6.5%
Peak Vehicles	439	408	390	-11.2%
Unlinked Passengers (000)	37,134	33,030	35,813	-3.6%
Passenger Revenue (000)	\$30,061	\$29,062	\$29,594	-1.6%
Auxiliary Revenue & Local Subsidies (000)	\$2,956	\$2,181	\$2,259	-23.6%
LACTC Subsidies (000)	\$57,562	\$55,243	\$56,890	-1.2%
Operating Cost less Depreciation (000)	\$90,579	\$86,486	\$88,743	-2.0%
<b>TPM INDICATORS</b>				
Operating Cost/Vehicle Service Hour	\$84.81	\$87.98	\$88.83	4.7%
Passenger & Auxiliary Rev. & Local Sub./Operating Cost	36.5%	36.1%	35.9%	-1.5%
Unlinked Passengers/Vehicle Service Hour	34.77	33.60	35.85	3.1%
Passenger Revenue/Operating Cost	33.19%	33.60%	33.35%	0.5%
Passenger Revenue/Unlinked Passenger	\$0.81	\$0.88	\$0.83	2.1%
Vehicle Service Hours/Peak Vehicle	2,433	2,409	2,562	5.3%
LACTC Subsidy/Unlinked Passenger	\$1.55	\$1.67	\$1.59	2.5%
<b>CHANGE IN CONSUMER PRICE INDEX - ALL URBAN CONSUMERS (CPI-U)</b>				
	4.8%	5.5%	5.4%	11.2%

Service effectiveness (i.e., passengers per hour) has also declined, although at about 65 passengers per hour performance is still outstanding. Vehicle utilization has improved.

Verified data items used to calculate TPM indicators and performance results for SCRTD local bus services are shown in Exhibit 9 and described below:

- **Operating Cost per Vehicle Service Hour** increased 5.2 percent between FY89 and FY91, well below the rate of inflation. The average cost per hour of local bus service in FY91 was \$75.41. Between FY89 and FY91, weekday service hours increased 7.3 percent while operating costs increased 12.9 percent. Inflation during the same period increased approximately 11 percent.
- **Passenger Farebox and Auxiliary Revenues plus Local Subsidies over Operating Costs** declined by eight percent (i.e., from about 53 percent in FY89 to about 49 percent in FY91).
- **Unlinked Passengers per Vehicle Service Hour** declined by about six percent. At about 65 passengers per hour in FY91, performance is still excellent. This noted decline is the result of a 7.3 percent increase in service and a 1.2 percent increase in ridership. This trend is not surprising given that the majority of service added between FY89 and FY91 was to relieve overcrowding.
- **Passenger Revenue per Operating Cost**, more commonly referred to as farebox recovery, shows a decline in performance. In FY89, the farebox recovery was just over 50 percent. In FY91, it dropped to 46.5 percent, which is still good by industry norms. Operating costs increased by 12.9 percent while farebox revenues increased by less than five percent. Fares did not keep pace with the 11 percent inflation rate over the three year period.
- **Passenger Revenue per Unlinked Passenger**, or average fare per boarding, increased by 3.3 percent from \$0.52 to \$0.54. Fare revenue increased 4.6 percent and riders increased 1.2 percent.
- **Vehicle Service Hours per Peak Vehicle**, show improving vehicle utilization. In FY89, each peak vehicle operated approximately 2,922 service hours compared to 3,146 in FY91 -- an increase of about eight percent. The number of peak vehicles operated by the District in local services decreased by 0.3 percent (i.e., five vehicles) while service hours increased by 7.3 percent.
- **LACTC Subsidy per Unlinked Passenger** increased from \$0.49 per passenger in FY89 to \$0.60 in FY91. Subsidy per passenger requirements increased 21.6 percent compared to inflationary increases of 11.2 percent. Subsidy

requirements increased by about 23 percent while ridership increased just over one percent.

### Express Bus Service

Express bus weekday service performance trends between FY89 and FY91 have been mostly positive. All indicators experienced modest improvement with the exception of farebox recovery, including local subsidies, which declined by 1.5 percent.

Verified data items used to calculate TPM indicators and performance results for SCRTD express bus services are shown in Exhibit 10 and described below:

- **Operating Cost per Vehicle Service Hour** increased 4.7 percent between FY89 and FY91. This compares quite favorably with inflationary increases over the same period of 11 percent. At \$88.83 per hour in FY91, District express bus service is about 18 percent more expensive on a per hour basis than local weekday SCRTD service. Between FY89 and FY91, operating costs declined two percent while vehicle service hours declined 6.5 percent.
- **Passenger Farebox and Auxiliary Revenues plus Local Subsidies over Operating Costs** decreased by 1.5 percent due to a 23.6 percent decrease in auxiliary revenue and local subsidies. Passenger revenues declined 1.6 percent and operating costs declined by two percent. Farebox recovery, including auxiliary revenues and local subsidies, was about 36 percent in FY91.
- **Unlinked Passengers per Vehicle Service Hour** increased from about 35 passengers per hour in FY89 to approximately 36 in FY91. This equates to a three percent improvement in service productivity. Between FY89 and FY91, both passengers and service hours declined by 3.6 and 6.5 percent, respectively.
- **Passenger Revenue per Operating Cost** remained essentially status quo (i.e., 0.5 percent improvement) between FY89 and FY91. The farebox recovery ratio in FY91 was about 33 percent. Farebox revenues declined by 1.6 percent and operating expenses by two percent.
- **Passenger Revenue per Unlinked Passenger** improved by 2.1 percent, from \$0.81 in FY89 to \$0.83 in FY91. The increase in average fare per boarding, however, was less than the 11 percent inflationary increase during the same time period. Passenger revenues declined by 1.6 percent and ridership by 3.6 percent.
- **Vehicle Service Hours per Peak Vehicle** increased from 2,433 in FY89 to 2,562 in FY91. Vehicle utilization improved by 5.3 percent over the three year

period. Vehicle service hours were reduced by 6.5 percent, whereas peak vehicles were reduced by 11.2 percent (i.e., 49 vehicles).

- **LACTC Subsidy per Unlinked Passenger** increased less than inflation (i.e., 2.5 percent compared to 11.2 percent inflation): LACTC subsidies decreased 1.2 percent while ridership decreased 3.6 percent. In FY91, express bus subsidy per passenger was at \$1.59 compared to \$0.60 for local SCRTD service.

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**V. GOALS, OBJECTIVES, AND MANAGEMENT  
REPORTING SYSTEMS**

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## V. GOALS, OBJECTIVES AND MANAGEMENT REPORTING SYSTEMS

Findings regarding the District's goals, objectives and management performance monitoring systems are as follows:

- District-wide goals are presented in the SRTP. A separate, but very similar, set of goals is also presented in the annual budget. Neither document contains quantifiable performance standards or objectives. The SRTP is more widely distributed to external agencies; the annual budget is more widely distributed internally.
- Annual performance goals (i.e., quantifiable performance objective standards) are published in the District's Monthly Performance Profile Report. Performance goals are based on prior year performance and annual budget and operating assumptions developed in the SRTP and refined in the Budget.
- The District communicates performance goals and progress relative to these goals throughout the organization. The primary communication device is the Monthly Performance Profile Report, which is circulated to all Executive Staff and Department Heads.
- Performance goals include those items which relate to external funding agency performance requirements (e.g., cost per hour, absence reduction targets, farebox recovery ratio, passengers per hour), as well as other items of key interest to District management.

The District has in place the building blocks for a comprehensive goals and objectives management process. District-wide goals, however, are not linked to the measurable performance objectives used for internal management purposes. Combining the District-wide goals approved by the Board with measurable performance objectives used to guide internal management would strengthen the current system. Expanding strategic planning efforts begun in the District's FY89 Business Plan is a second opportunity for the District to better position itself to meet future challenges.

Given the operating and financial challenges that face the District, it seems more important than ever that District-wide goals and measurable performance expectations be clearly linked, approved by the Board, and communicated to the public and throughout the agency. At the very least, better linkage between SRTP goals, budget objectives and measurable performance targets is needed. A more pro-active approach would be to combine this effort with additional steps to develop the District's strategic business plan.



The following discusses SCRTD's systems and processes for establishing performance objectives and monitoring performance results to identify areas of stable, improving and declining performance.

A. DEVELOPMENT OF GOALS AND OBJECTIVES

District-wide goals are developed as part of the preparation of two documents -- the Short Range Transit Plan (SRTP) and the Annual Budget. Responsibility for preparing the SRTP rests with the Planning Department. Responsibility for preparing the Annual Budget rests with the Office of Management and Budget (OMB).

SRTP development begins in November with Board approval in March. At the time the Board adopts the SRTP, the budget process is already underway, having begun in February. The budget process culminates with the Board's adoption of the Annual Budget at the end of the fiscal year in June, prior to the onset of the next fiscal year. Thus, the planning cycle begins in November and extends through June, a period of eight months with five months preparation for both the SRTP and Annual Budget with a two month overlap.

An examination of the goals and objectives presented in both the SRTP and Annual Budget for FY89 shows that they are virtually the same with minor adjustments in performance targets. Conversely, in FY90 and FY91 the stated goals in each document varied somewhat. One explanation for the differences in the stated District-wide goals is the perspective. District-wide goals in the SRTP are relevant to both annual and a five-year outlook. District-wide goals presented in the Annual Budget are only significant for the next fiscal year. Despite differences, there are goals common to both documents, including:

- rationalize institutional structures for providing transportation services and policies
- convert transit operations to "clean air" vehicles and technologies
- improve service quality.

Beginning in FY90, both the SRTP and Annual Budget excluded measurable performance objectives. This was a significant change from previous years when both documents contained identical goals and objectives with only minor differences in the annual performance targets.

The following describes some of the strengths of each document as management and strategic policy tools.

## Short Range Transit Plan

District-wide goals contained in the SRTP are shown in Exhibit 11. District-wide goals which are specified only in the SRTP relate to more generalized strategies with a focus on securing additional funding and/or consideration of transit issues in the local policy arena. Examples from the FY91 SRTP include:

- increase third party funding support for transit operations/fleet expansion
- restructure transportation finance to bring user charges closer to costs, making financial incentives for using transit equal to those of the automobile
- increase priority access for transit (e.g., coordinated traffic/parking policies, transit right-of-ways)
- encourage local governments/developers to include transit supportive components in all new projects.

The SRTP also includes a detailed discussion of each goal, followed by the progress made during the current fiscal year. Given current progress, actions that need to be pursued in the future are also provided. In most cases, these actions need to be addressed in the near future, to ensure that each of the goals are met in the long term.

During the audit review period (i.e., FY89), the District developed a separate volume -- the Business Plan -- of the SRTP which addresses long term objectives of the District. Prior to the development of the Business Plan, the SRTP only emphasized near term tactical implementation planning for the strategic priorities of the District. Although the Business Plan is the first step toward far reaching strategic planning, development of a full strategic plan would further assist the SCRTD in meeting the changing transportation needs of Los Angeles County. The broad-based nature and longer-term perspective of the District-wide goals contained in the FY90 and FY91 SRTPs are more appropriate to a strategic business plan and represent the first steps in this process.

Additional steps to expand the strategic plan might include an assessment of stakeholder expectations; an analysis of changing demographics, future land use and development plans and restrictions; policies and long-term plans of other agencies influencing or responsible for travel issues (e.g., SCAQMB, Caltrans, LACTC); alternative strategies and investment levels required to meet different levels of needs; capital investment strategies reflecting future expectations and funding opportunities; and coordinated (i.e., with other agencies) action plans to move the region toward better transportation solutions in the future. The District should investigate and consider these typical business planning procedures given the financial, operational and organizational challenges unique to Los Angeles' transportation environment.

Exhibit 11

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District

**DISTRICT-WIDE GOALS AS STATED IN  
THE FY91-FY95 BUSINESS PLAN (SRTD)**

1. Rationalize the institutional structures for establishing regional transportation policy and for provision of service.
2. Expand the delivery capacity for bus and rail transit service.
3. Achieve conversion of transit operations to "clean air" vehicles and technologies in support of regional air quality goals.
4. Improve service quality by increasing reliability, cleanliness, courtesy, and safety of bus and rail transit service.
5. Expand SCRTD's options and capabilities to provide transit services.
6. Make transit more convenient to use.
7. Attract increasing third party funding support for transit operations, and secure additional public funding for facility and fleet expansion.
8. Restructure transportation finance to bring user charges closer to costs, making the financial incentives for using transit equal to those of the automobile.
9. Increase priority access for transit vehicles through coordinated traffic and parking policies and additional exclusive transit rights-of-way.
10. Encourage local governments and developers to include transit supportive components and travel demand management in the design standards for all new projects.

## Annual Budget

District-wide goals listed in the Annual Budget are shown in Exhibit 12. For each goal, a brief description of projects and programs which support the goal are provided. District-wide goals specific to the Annual Budget tend to focus more on internal management and policy issues and, at least for FY91, rail start-up. Examples include:

- administer the District's human resources programs ... designed to attract, motivate and retain high-quality employees
- continue the District's Disadvantaged Business Enterprise policy; maximize opportunities for DBE participation in contract and procurement activities
- design, construct, and implement, in conjunction with the Rail Construction Corporation, an integrated rail transit system
- ensure that Blue Line revenue operations are safe and successful.

In some instances, the objectives in the Annual Budget describe a program to help achieve a District-wide goal (e.g., continue the graffiti and vandalism mitigation program could be considered supportive of improve service quality).

Information on District-wide goals, budget objectives and summaries of special programs and/or projects in support of these is contained in the Annual Budget overview. Subsequent sections provide the overall financial plan for the District as well as detailed department level

## B. MANAGEMENT REPORTING SYSTEMS

The District-wide goals set forth in the SRTP and Annual Budget set a direction. Since FY89, however, there are no quantifiable benchmarks directly linked to District-wide goals by which performance can be periodically monitored and evaluated.

While quantifiable performance measures are no longer included in the SRTP and Annual Budget documents, the District does measure and monitor performance. A key performance monitoring document is the Monthly Performance Profile Report prepared by OMB. All functional departments contributing data for the production of this report are required to submit the applicable information to OMB one week prior to distribution at the end of the month. The performance profile is distributed to all executive staff and department heads, as well as to all members of the Board of Directors.

The OMB profile provides the current status of quantifiable performance indicators and goals for bus, light rail and system-wide operations for four different time periods:

Exhibit 12

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District

**DISTRICT-WIDE OBJECTIVES AS STATED  
IN THE FY91 ANNUAL BUDGET**

- Objective 1: Improve service quality by increasing safety, cleanliness, courtesy, and reliability of the mass transit system.
- Objective 2: Continue the comprehensive, aggressive, on-going program to mitigate graffiti and vandalism.
- Objective 3: Design, construct, implement and operate, in conjunction with the Rail Construction Corporation of the Los Angeles County Transportation Commission, a rail transit system that is well-integrated with the overall regional public transportation system and the communities it serves.
- Objective 4: Ensure that the Blue Line revenue operations are safe and successful.
- Objective 5: Promote development and implementation of alternative fuel vehicles for conversion of transit operations to "clean air" vehicles and technologies in support of regional air quality goals.
- Objective 6: Administer the District's human resources programs in a cost-effective, efficient manner designed to attract, hire, motivate and retain high-quality employees and to follow all equal opportunity guidelines.
- Objective 7: Implement programs to increase ridership and revenue.
- Objective 8: Rationalize the institutional structures for establishing regional transportation policy including service equity requirements and improving transit service in cooperation with the LACTC, municipal transit operators, cities and other agencies.
- Objective 9: Promote urban planning and circulation policies which are supportive of transit operations and transit riders.
- Objective 10: To continue the District's Disadvantaged Business Enterprise policy and program, thereby ensuring maximum opportunity for DBE's to participate in the District's contract and procurement activities.

- current versus previous month and same month last year
- current three months versus previous three months and the same period for the prior year
- fiscal year-to-date versus the same period last year
- current year-to-date annualized versus previous fiscal year actual, most recent twelve month period and the current fiscal year goal.

Given the different time periods presented in each profile, the SCRTD can obtain an up-to-date indication of its status toward meeting its performance goals.

Although the monthly performance profile is a valuable tool for the District to assess current performance relative to prior performance, this report does not directly correlate with the District-wide goals stated in the SRTP and Annual Budget. Combining quantifiable performance goals used for internal communications (i.e., Monthly Performance Profile) with Board-approved District-wide goals (i.e., SRTP and Annual Budget) used to communicate performance expectations to the public and external agencies would meet the intent of this recommendation.

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**VI. COMPLIANCE WITH PROPOSITION A  
DISCRETIONARY GUIDELINES**

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## VI. COMPLIANCE WITH PROPOSITION A DISCRETIONARY GUIDELINES

In each of the audit review years, the District received Proposition A Discretionary funding. A review of the SCRTD performance relative to requirements set forth in the LACTC Proposition A Discretionary Guidelines indicates that the District complied with a majority of items (e.g., management rights, service coverage, hours of operation, farebox recovery, and service notification). The District, however, failed to comply with two provisions, including:

- Section 1.1.A -- requirement that operators not be effectively precluded from contracting for services by any new collective bargaining unit
- Section 8.6 -- prohibition of automatic (non-COLA) pay increases not linked to "pay for performance" for operators whose system-wide weekday cost per hour is above the County-wide average.

Compliance with Section 1.1.A was a minimum requirement for receipt of Proposition A Discretionary funding. Failure to comply with Section 8.6 was to result in a five percent funding reduction in each year until compliance was achieved. Financial penalties for failing to achieve these two requirements were waived by the LACTC as part of the eight point plan negotiated between the LACTC and SCRTD. Effective in FY92, Proposition A Guidelines have been revised and no longer include these two requirements.

The following discussion provides a synopsis of the extent of this compliance. One should note that only fixed-route services are subject to this review.

- Operators must not be effectively precluded by any collective bargaining agreement in effect on or after July 1, 1988 from contracting services.

SCRTD ATU and UTU labor contracts allow for contracting in limited circumstances. In assessing compliance, a key question is when to labor agreement restrictions effectively preclude contracting. Based on the arbitration ruling regarding SCRTD contracting of Blue Line Shuttle service, SCRTD is effectively precluded from contracting.

Failure to comply with this requirement was to result in the SCRTD being ineligible for Proposition A Discretionary funding. The eight point plan negotiated between the LACTC and SCRTD waived the financial penalty related to non-compliance with this requirement over the length of the contracts in effect through FY91. The LACTC has since revised the Proposition A Discretionary Guidelines and this requirement is no longer applicable as of FY92.



- TPM farebox recovery standard of 33 percent in FY89 and 38 percent in FY90 and FY91 should be achieved.

SCRTD is in compliance with this requirement. System-wide weekday performance results for the appropriate TPM indicator (i.e., passenger revenues plus auxiliary revenues plus local subsidies over operating costs) are as follows:

- FY89 farebox ratio 46.3 percent
- FY90 farebox ratio 45.8 percent
- FY91 farebox ratio 43.8 percent.

The District's farebox recovery exceeded the LACTC requirement in each of the audit review years.

- Minimum service standards will be maintained.
  - Hours of operation shall be weekdays from 6:00 a.m. to 7:00 p.m.

SCRTD is in compliance with this requirement as indicated by an inspection of public timetables. Service on many routes exceeds this minimum requirement.

- Availability of service within one mile of 95 percent of the residents in the service area should be no less frequent than hourly.

According to SCRTD's "Consolidated Transit Service Policies" (Adopted 4-10-86), District services will be provided to ensure that at least 90 percent of the population of its service area has access to transit within one mile. SCRTD believes that it exceeds the requirements of Proposition A. District services, in combination with municipal services (e.g., systems funded with Proposition A Local Return funds, as well as other "included" operator services) most likely provide the requisite coverage.

- Operators are subject to the LACTC Service Notification Policy.

SCRTD is in compliance with this requirement. The only services SCRTD canceled were transferred to Foothill Transit and LADOT. SCRTD did not cancel any other weekend, midday or peak period service. SCRTD made changes to 56 routes to accommodate Blue Line service where a public hearing was required pursuant to Section 5(i)(3) of the Urban Mass Transportation Act of 1964, as amended. Major changes were effective December 2, 1989 and minor adjustments on August 7, 1990 for Dodger Stadium and Lakeview Terrace. SCRTD believes the above changes were made in accordance with the LACTC Service Notification Policy.

- Discretionary grants can only be awarded to operators with adopted budgets which do not show a deficit. Fare, service and expense assumptions must be supported by governing board action.

In FY89, FY90 and FY91, the District complied with this requirement, as evidenced by Board approved budgets. Included in each annual budget was a discussion of fare, service and expense assumptions for the coming fiscal year.

- Local contribution must be five percent of total operating budget or 25 percent of Proposition A Local Return subsidies, whichever is less.

SCR TD is excluded from this provision as it pertains only to municipal operators.

- Operators who execute new labor contracts in effect on or after July 1, 1988 with automatic pay increases not linked to "pay for performance" will have their discretionary grants reduced until the contract is changed.

In each of the audit review years, SCR TD's system-wide weekday cost per hour was above the unweighted County-wide average. Therefore, this requirement applied to the SCR TD.

SCR TD is not in compliance with this requirement. Automatic wage increases of \$0.30 per year were specified in Article 1 of the ATU and UTU contracts for FY89, FY90 and FY91. The five percent funding penalty for non-compliance was waived by the LACTC based on the eight point plan negotiated between the two agencies.

Beginning in FY92, this requirement is no longer included in the Proposition A Discretionary Guidelines.

- Operators who execute new labor contracts in effect on or after July 1, 1988 will be required to have management rights clauses in any collective bargaining agreement. Operators without these management rights will have their discretionary grants reduced until the contract is changed.

SCR TD is in compliance with this requirement. Collective bargaining agreements include managements rights clauses. It should be noted, however, that other clauses within these contracts limit management rights (e.g., limitations on the use of part-time employees).

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**VII. FUNCTIONAL AREA  
PERFORMANCE INDICATORS**

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## VII. FUNCTIONAL AREA PERFORMANCE INDICATORS

A high level review of functional area performance indicators was conducted using Section 15, Financial Audit and SCRTD Monthly Performance Profile information. The purpose of this review is to identify areas of good and stable performance, as well as areas with potential for improvement. Based on this high level review, the LACTC, in conjunction with the transit operators, will identify areas for potential Phase II analysis.

Indicators have been grouped into four functional areas, including:

- transportation
- revenue vehicle maintenance
- planning and marketing
- administration.

All indicators are for the bus mode only, unless otherwise noted.

Overall performance trends have been mostly positive, particularly in the transportation and risk management functions. Maintenance performance has been improving with the exception of maintenance cost efficiency. Cost efficiency in administrative functions has also declined, despite significant reductions in risk management costs. Highlights of performance indicator trends in each area follow.

### A. TRANSPORTATION

The Transportation Division accounts for the single largest portion of SCRTD's total operating budget. Over the audit period, transportation expenditures have grown from \$275.0 million in FY88 to \$304.4 million in FY91, representing a 10.7 percent increase compared to an inflationary increase of 15.9 percent. During the same period, vehicle service hours declined 2.9 percent. Contributing to this positive performance trend has been the District's ability to manage unscheduled costs, improved operator attendance and labor productivity. Safety has also improved.

Exhibit 13 presents transportation functional indicators, with key results summarized below.

The District has also exhibited exemplary performance with respect to operator staffing and unscheduled cost control as evidenced by:

- operator pay hour to platform hours declined by 13.3 percent from 1.57 in FY88 to 1.36 in FY91, representing a reduction in non-productive time

Exhibit 13

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**INDICATORS FOR TRANSPORTATION FUNCTIONAL REVIEW**

DATA ITEMS & INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE
	FY88	FY89	FY90	FY91	FY88 - FY91
<b>DATA ITEMS</b>					
Operator Pay Hours	11,088,914	10,118,097	10,669,151	10,794,145	-2.7%
Platform Hours (Actual) (a)	7,071,533	7,588,257	7,749,206	7,935,521	12.2%
Stand-by Hours	1,003,603	259,527	258,349	260,296	-74.1%
Unscheduled Overtime	486,245	335,081	395,241	394,670	-18.8%
Total Transportation Costs	\$274,954,345	\$273,016,284	\$291,649,083	\$304,365,696	10.7%
Vehicle Service Hours	7,375,598	6,861,503	6,953,650	7,164,709	-2.9%
Vehicle Service Miles	92,954,722	86,145,712	86,591,596	88,059,243	-5.3%
Scheduled Service Miles	93,609,171	86,761,296	87,114,958	88,485,565	-5.5%
Total Vehicle Miles	108,215,424	101,106,656	102,204,126	103,807,755	-4.1%
Total Accidents	6,335	5,223	5,022	4,696	-25.9%
Personal Injury Accidents	4,722	4,351	3,994	3,434	-27.3%
Collision Accidents	4,620	4,232	4,336	3,926	-15.0%
Passenger Accidents	1,781	1,508	NA	1,383	-22.3%
Unlinked Passengers	424,646,100	411,820,000	401,054,720	416,169,554	-2.0%
Operator Training Costs	\$1,826,596	\$1,320,628	\$2,927,615	\$2,069,200	13.3%
Revenue Vehicle Operations FTEs	5,050	4,439	4,255	4,295	-15.0%
<b>INDICATORS</b>					
Operator Pay Hours/Platform Hours (Actual)	1.57	1.33	1.38	1.36	-13.3%
Unscheduled Overtime/Operator Pay Hours	0.04	0.03	0.04	0.04	-16.6%
Unscheduled Overtime/Platform Hours	0.07	0.04	0.05	0.05	-27.7%
Stand-by Time/Platform Hours	0.14	0.03	0.03	0.03	-76.9%
Total Transportation Cost/Vehicle Service Hour	\$37.28	\$39.79	\$41.94	\$42.48	14.0%
Vehicle Service Miles/Scheduled Service Miles	0.99	0.99	0.99	1.00	0.2%
Total Vehicle Miles/Collision Accidents	23,423	23,891	23,571	26,441	12.9%
Personal Injury Accidents/Total Vehicle Accidents	0.75	0.83	0.80	0.73	-1.9%
Unlinked Passengers/Passenger Accidents	238,431	273,090	NA	300,918	26.2%
Training Costs/Revenue Vehicle Operations FTEs	\$361.69	\$297.49	\$688.04	\$481.00	33.2%
CONSUMER PRICE INDEX CHANGE-Urban Wage Earners (CPI-W)	4.3%	4.8%	5.2%	5.2%	15.9%

Source: UMTA Section 15 Reports

(a) For FY88, District management has noted that this statistic, as reported to the FTA, may be in error.

- unscheduled overtime as a percentage of pay hours and as a percentage of platform hours has declined by 17 and 28 percent, respectively -- unscheduled overtime is now less than five percent of operator pay hours
- stand-by time as a percentage of platform hours has decreased from 14 percent in FY88 to three percent in FY91 -- an improvement of 77 percent.

It is likely that positive performance is due to improved scheduling and dispatching practices, coupled with continued improvement in bus operator attendance. This improvement in labor productivity is one factor contributing to positive cost efficiency results for the transportation function.

Cost efficiency, as measured by transportation cost per vehicle service hour, increased 14 percent compared with an inflationary increase of 16 percent. Although the District has been successful in controlling transportation costs (i.e., 11 percent) at a rate lower than that of inflation, it is important to note that a three percent reduction in vehicle service hours has also contributed to the District's ability to control costs.

In service safety has been improved by SCRTD between FY88 and FY91, as demonstrated by several performance indicators:

- miles between collision accidents have increased by 13 percent, indicating more travel without an accident at SCRTD
- slightly fewer vehicle accidents resulted in personal injury claims in FY91 than in any of the prior three years
- passenger safety is greatly improved, with only one rider in 300,918 reporting a passenger accident in FY91 (a 26 percent improvement over the audit period).

The positive safety performance exhibited by the District could be attributed, in part, to the 13.3 percent increase in operator training costs experienced during the audit review period. In FY90, eight additional Transit Operator Supervisors were added whose responsibilities include driver training. Training costs per FTE increased 33.2 percent between FY88 and FY91 and most likely reflect additional training requirements mandated by the State.

In FY90, the District added two new programs -- the Service Reliability and Improved Radio Communications programs. The Service Reliability Program was designed to improve service quality and reliability through enhanced road supervision and increased communications between Operators, Transit Operations Supervisors and Scheduling Department personnel. The Improved Radio Communications Program was developed due to the high incidence of intolerably long wait times. In an effort to improve radio

communications and increase the level of driver training, eight Transit Operator Supervisors (TOS) were added to the pool of Transportation personnel. The additional TOS's have helped to reduce the response times in emergency situations and provided better management of service disruptions.

## B. REVENUE VEHICLE MAINTENANCE

The maintenance function is responsible for the upkeep and disposition of the District's revenue and non-revenue vehicle fleets and facilities. According to annual statistics reported by the District, vehicle maintenance is responsible for an active bus fleet of approximately 2,519 vehicles. Performance statistics for the District's revenue vehicle maintenance function are shown in Exhibit 14 and highlighted below.

Revenue vehicle maintenance performance trends have been positive with the exception of cost efficiency. Between FY88 and FY91, bus revenue vehicle maintenance costs per mile have increased 35 percent -- more than twice the rate of inflationary increases during the same time period. Maintenance costs increased 28.1 percent while vehicle service miles declined 5.3 percent. Increased maintenance costs are attributed to a number of factors, including:

- Implementation of the graffiti and vandalism abatement program in FY89, required increased investment in maintenance resources throughout the audit review period -- vandalism has accounted for \$6.6 million, \$8.4 million and \$10.4 million of maintenance costs in FY89, FY90 and FY91, respectively.
- Introduction of the multi-year mid-life bus rehabilitation program of the 939 RTS-II buses during FY89, also required additional maintenance resources. Although, the bus rehabilitation program has a significant effect on the Maintenance Department's bottom line during the audit review period, the greatest benefits of this program will be achieved after FY91, when all of the rehabilitated vehicles will be returned to revenue service.
- Implementation of the District's alternative fuels program resulted in increased costs in FY90 to support the District's methanol fleet. Additional resources, including the hiring of a Business Development Manager in FY91, were also employed to further develop and test equipment and alternative fuel vehicles, including Compressed Natural Gas (CNG). These programs, however, are funded by federal grants and supported by private local participation.
- Actions associated with meeting stringent environmental regulations also contributed to cost growth. Actions included developing special inspection and maintenance procedures to procuring special equipment for:

Exhibit 14

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**INDICATORS FOR VEHICLE MAINTENANCE FUNCTIONAL REVIEW**

DATA ITEMS & INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE FY88 - FY91
	FY88	FY89	FY90	FY91	
<b>DATA ITEMS</b>					
Total Maintenance Costs	\$112,396,835	\$119,063,072	\$135,402,319	\$143,980,000	28.1%
Vehicle Service Miles	92,954,722	86,145,712	86,591,596	88,059,243	-5.3%
Total Vehicle Miles	108,215,424	101,106,656	102,204,126	103,807,755	-4.1%
Peak Vehicles	1,910	1,939	1,929	1,968	3.0%
Active Vehicles	2,447	2,387	2,518	2,519	2.9%
Total Roadcalls	91,159	88,764	87,237	27,348	-70.0%
Mechanical Failure	26,873	21,769	19,439	15,185	-43.5%
Other Reasons	64,286	66,995	67,798	12,163	-81.1%
Number of Mechanics (FTEs) (a)	1,750	1,033	1,044	1,081	-38.2%
<b>INDICATORS</b>					
Maintenance Costs/Vehicle Service Mile	\$1.21	\$1.38	\$1.56	\$1.64	35.2%
Spare Ratio	28%	23%	31%	28%	0.0%
Total Vehicle Miles/Total Roadcall	1187	1139	1172	3796	219.8%
Total Vehicle Miles/Mechanical Failure Roadcall	4027	4645	5258	6836	69.8%
Total Vehicle Miles/Other Roadcall	1683	1509	1507	8535	407.0%
Total Vehicle Miles/Active Vehicle	44224	42357	40589	41210	-6.8%
Active Vehicles/Mechanic (FTEs)	1.40	2.31	2.41	2.33	66.6%
<b>CONSUMER PRICE INDEX CHANGE-Urban Wage Earners (CPI-W)</b>	4.3%	4.8%	5.2%	5.2%	15.9%

Source: UMTA Section 15 Reports, except for FY88 peak and active vehicles which came from the SCRTD Vehicle Maintenance System Bus Availability Summary (6/17/88)  
 (a) District Management has noted that this statistic as reported to the FTA may be in error.



- hazardous waste disposal
- freon control
- emissions measurement.

Between FY88 and FY90, the District's spare ratio increased from 16 percent to 31 percent. The increase in the spare ratio is likely attributed to the slow disposal of vehicles in FY90, given the replacement of 500 buses within the fiscal year. In FY91, the spare ratio was reduced to 28 percent. The impacts of alternative fueled vehicles on spare ratio requirements is being evaluated in a separate performance audit task. At 28 percent, the District exceeds Federal standards.

While cost efficiency has declined and the spare ratio is over 20 percent, other indicators generally exhibit improved performance. Vehicle reliability as measured improved dramatically over the audit review period as demonstrated by:

- total vehicle miles between all roadcalls has increased from 1,187 in FY88 to 3,796 in FY91 -- an improvement of over 200 percent
- miles between mechanical roadcalls has improved by approximately 70 percent and can be expected to improve further upon completion of the RTS-II mid-life rehabilitation program
- miles between other roadcalls has shown the greatest improvement (i.e., over 400 percent) due to resolution of the previously experienced problems with fare collection equipment.

Additional factors contributing to maintenance performance results include:

- Better value engineering. The District has increased preventative maintenance efforts, including improved maintenance training and instruction to enhance the District's ability to rehabilitate vehicles, while also ensuring that mechanics are keeping pace with new technologies.
- The availability of improved products, such as recyclable air filters, also allows the District to easily determine if these filters need to be replaced.
- Participation in national maintenance bus rodeos, which, through the spirit of competition, encourages maintenance employees to be efficient and effective in identifying vehicle defects and then making the appropriate repairs.
- Improved maintenance of alternative fuel vehicles, which are still relatively new to the transit industry and are therefore not as reliable as diesel fuel vehicles.

Vehicle utilization has declined from 45,680 annual miles per active vehicle to 41,210 in FY91. Despite this ten percent reduction, the District still exceeds the industry average of 35,000 annual miles per active vehicle.

Maintenance labor efficiency, measured by active vehicles per full time equivalent (FTE) mechanic, has exhibited positive performance during the audit review period, as shown by the 72.1 percent increase for this indicator from FY88 to FY91. This positive performance is likely attributed to the economies of scale which have resulted from the mid-life bus rehabilitation program, requiring many of the mechanics to work solely on the 939 RTS-II buses which are being overhauled as part of the program. Management system scheduling and controlling has also improved during the audit review period, thereby contributing to improved labor productivity. One of these management systems includes the introduction of MRP in the repair environment, which provides maintenance with the ability to better forecast parts inventory requirements.

### C. PLANNING AND MARKETING

The District's planning and marketing function experienced some modest improvements with respect to service productivity, and increased farebox recovery and linked passengers. Unlinked passengers declined by two percent and deadhead hours and miles increased by about one percent. Passenger complaints increased significantly in FY91, as did marketing costs. The increase in marketing costs is primarily attributed to Blue Line start-up promotional activities. The dramatic increase in complaints is most likely a result of two new programs that encourage customers to let the District know how they are performing. The increase in complaints is an area requiring District-wide action.

Planning and marketing functional indicators are shown in Exhibit 15 and described below.

Service productivity experience a modest improvement. Unlinked passengers per hour and per mile increased 0.9 and 3.5 percent, respectively for bus services. Unlinked passengers declined in both FY89 and FY90, then began to increase again in FY91 for an overall reduction of two percent. During this same time period, service hours and miles were reduced 2.9 and 5.3 percent, respectively. While unlinked passengers decline, linked passengers improved by 3.8 percent during the four year period. The increase in linked passengers occurred in FY91.

The farebox recovery ratio also increased during the audit review period, reflecting a 4.9 percent increase from FY88 to FY91. The greatest proportion of farebox recovery, however, occurred in FY89 when the base fare was increased from \$0.85 to \$1.10. In FY90, the farebox recovery ratio was 42 percent, dropping to 39 percent in FY91 with implementation of the Blue Line. In FY91, the farebox recovery ratio for bus services was 41 percent compared to a 37 percent bus service farebox recovery ratio in FY88.

Exhibit 15

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**INDICATORS FOR PLANNING AND MARKETING FUNCTIONAL REVIEWS**

DATA ITEMS & INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE
	FY88	FY89	FY90	FY91	FY88 - FY91
<b>DATA ITEMS</b>					
Unlinked Passengers	424,646,100	411,820,000	401,054,720	416,169,554	-2.0%
Linked Passengers	262,380,000	256,472,000	254,469,000	272,465,786	3.8%
Vehicle Service Hours	7,375,598	6,861,503	6,953,650	7,162,709	-2.9%
Vehicle Service Miles	92,954,722	86,145,712	86,591,596	88,059,243	-5.3%
Total Vehicle Hours	7,988,244	7,463,523	7,564,094	7,798,358	-2.4%
Total Vehicle Miles	108,215,424	101,106,656	102,204,126	103,807,755	-4.1%
Passenger Revenue (000) (Bus and Rail)	\$187,772	230,859	239,905	243,422	29.6%
Operating Expense less depreciation (000) (Bus and Rail)	\$504,448	\$533,060	\$565,137	\$623,151	23.5%
Marketing Costs (000) (Bus and Rail)	\$1,468	\$1,530	\$1,891	\$2,357	60.6%
Passenger Complaints	13,289	13,599	14,294	20,285	52.6%
<b>INDICATORS</b>					
Unlinked Passengers/Vehicle Service Hour	58	60	58	58	0.9%
Unlinked Passengers/Vehicle Service Mile	5	5	5	5	3.5%
Farebox Recovery Ratio (Bus and Rail)	0.37	0.43	0.42	0.39	4.9%
Vehicle Service Hours/Total Vehicle Hour	0.92	0.92	0.92	0.92	-0.5%
Vehicle Service Miles/Total Vehicle Mile	0.86	0.85	0.85	0.85	-1.2%
Complaints per 100,000 riders	3.1	3.3	3.6	4.9	55.8%
CONSUMER PRICE INDEX CHANGE-Urban Wage Earners (CPI-W)	4.3%	4.8%	5.2%	5.2%	15.9%

Source: UMTA Section 15 Reports. All statistics are for bus only unless otherwise stated.

Vehicle service hours as a percentage of total hours and vehicle service miles as a percentage of total miles remained relatively constant between FY88 and FY91. Deadhead hours are approximately eight percent of total hours; deadhead miles are 15 percent.

Promotional costs for the District rose significantly during the audit period (i.e., 60.6 percent). The greatest increase in marketing costs (i.e., 25 percent) occurred in FY91 with the increased publicity associated with the introduction of Blue Line revenue operations. Increased marketing costs have also resulted from increased staff to:

- focus on the Corporate Pass Program
- disseminate transit news
- create market research capability.

These efforts were embarked upon to enhance the District's response to current riders, while also identifying new markets to increase the transit share. In addition to expanded market research efforts, the District expanded its telephone information function in FY90 to reduce caller wait times for receiving route and scheduling information.

One area of concern is the increase in customer complaints. Between FY88 and FY91, total complaints increased 52.6 percent. Complaints per 100,000 riders increased 55.8 percent. As shown below, complaints increased in all categories except unsafe bus operation which declined by 15.6 percent. All other categories experience more than a 35 percent increase. The "Other" category of complaint increased 83.1 percent. Contrasting this decline in performance from a consumer perspective is an 18.3 percent increase in bus operator commendations.

<u>COMPLAINT TYPE</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>Percent Change</u>
Passup	2,282	2,152	2,381	3,225	41.3%
Accessible Service Issues	562	565	573	762	35.6%
Schedule Reliability	4,406	4,009	4,081	6,376	44.7%
Unsafe Bus Operation	2,314	1,951	1,929	1,951	-15.7%
Operator Discourtesy	1,577	1,658	1,656	2,283	44.8%
Other	3,106	3,264	3,674	5,688	83.1%
Total Complaints	14,247	13,599	14,294	20,285	42.4%
Bus Operator Commendations	1,005	852	981	1,189	18.3%

*Sources: Monthly Performance Profiles and Complaint record history prepared by the Customer Relations Department.*

The District attributes the increase in customer complaints to two programs which were introduced in July of 1990, including:

- **The Transit Riders Bill of Rights** -- This program was created in an effort to increase consumer awareness and outreach. This program provides transit riders with a commitment from the District to provide passengers with quality transit services (e.g., courteous drivers, clean vehicles, safe and reliable service).
- **The On-Time Warranty Program** -- This program was also designed to increase passengers' awareness of the District's performance. The program was designed to provide passengers with a free ride in situations where the bus was 15 or more minutes later than the scheduled arrival time. Cash paying passengers were allowed to board the bus without paying the fare, while passengers with monthly passes, were provided with a warranty card that could be redeemed for a discount toward the next pass purchased.

Both of these programs were designed to increase passenger awareness of public transit services, while also prompting passengers to report service complaints or commendations. With the introduction of these two programs, the District anticipated an increase in customer complaints. It could be expected that the on-time warranty program might result in an increase in customer schedule reliability complaints. Schedule reliability complaints as a percent of total complaints, however, was essentially unchanged between FY88 and FY91 (i.e., about 31 percent). All categories of complaints increased with the exception of unsafe bus operations.

District procedures for handling complaints are as follows. Complaints are taken and investigated by the Customer Relations Department. Passengers can file a complaint through the mail, phone or in-person at the District's administrative offices. Once a complaint is received, a customer relations representative reviews the complaint and then assigns the complaint to an operating division or department based on the nature of the complaint. The division or department manager is then required to interview the affected personnel (e.g., driver) regarding the events/situation surrounding the complaint. Depending on the nature of the complaint, the Scheduling Department is also required to investigate and respond, especially for complaints concerning schedule reliability or pass-ups.

As of FY91, the Customer Relations Department added 12 additional full-time employee equivalents to respond to the majority of the complaints received by the District. Since the expansion of the department, the District has been able to provide a written or verbal response to the majority of passengers who file a complaint, which is designed to first reiterate the nature of the complaint, the actions taken by the District to investigate, followed by the corrective measures which have been taken.

#### D. ADMINISTRATION

The Administrative functions of the District are administered by a number of departments and include functions such as budget, risk management and personnel.

Performance results in the area of risk management have been excellent. Cost reductions achieved in the area of risk management have been offset to some degree by administrative cost increases in other areas. Administrative functional performance indicators are shown in Exhibit 16 and described below.

The Office of Management and Budget, who is responsible for preparing the Annual Budget and monitoring performance relative to the budget, has been successful in keeping actual operating costs within ten percent of the adopted budget. In FY89, actual expenses exceeded the budget by about six percent. In FY90 and FY91, the budget was exceeded by just two and one percent, respectively.

Administrative costs per peak vehicles increased 18.2 percent from FY88 to FY91 compared to 16 percent inflation. This increase is somewhat misleading -- in FY88 the District made a one time inventory expense reduction of \$13.7 million. Accounting for this adjustment, administrative costs per peak vehicle increased 4.1 percent between FY88 and FY91.

Administrative costs per peak vehicle (i.e., \$59,873 accounting for the one-time inventory adjustment) increased 10.4 percent between FY88 and FY89. Factors contributing to this one-year increase and decline in performance include an eight percent average pay increase for non-contract employees and rising PL/PD costs. Between FY89 and FY90, administrative costs per peak vehicle declined 2.4 percent compared to a 5.2 percent increase in inflation. This positive trend continued into FY91 with costs per peak vehicle declining another 3.4 percent. A \$21.2 million reduction in PL/PD expenses, between FY90 and FY91, contributed to these positive results.

While overall administrative cost efficiency has improved between FY88 and FY91, it is important to note that the \$21.1 million reduction in FY91 PL/PD expenses masks administrative cost increases in other areas. When PL/PD costs are excluded, the remaining administrative costs increased by 21 percent (i.e., \$19.3 million) between FY90 and FY91. Approximately \$5.4 million of this growth is attributable to policy directed growth for transit police and customer relations and another \$4.1 million is attributable to inflationary increases. The remaining \$9.8 million in cost growth is unexplained, as shown in Exhibit 17.

SCRTD has managed losses due to accidents and injuries more effectively over the performance audit period than in the past. Losses, when adjusted for exposure, have shown dramatic decline in real dollar terms, as noted below:

- PL & PD cost per passenger declined by nearly 50 percent over the audit period, with a similar result in the PL & PD cost per vehicle service mile operated.

Exhibit 16

FY89-FY91 Triennial Performance Audit of Southern California Rapid Transit District  
**INDICATORS FOR ADMINISTRATIVE FUNCTIONAL REVIEW**

DATA ITEMS & INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% CHANGE
	FY88	FY89	FY90	FY91	FY88 - FY91
<b>DATA ITEMS</b>					
Vehicle Service Hours	7,375,598	6,861,503	6,953,650	7,162,709	-2.9%
Revenue Vehicle Operations FTEs	5,050	4,439	4,255	4,295	-15.0%
Actual Expenditures (Operating Costs) (000)	\$504,448	\$533,060	\$565,137	\$623,151	23.5%
Budgeted Expenditures (000)	\$510,113	\$503,350	\$554,400	\$615,981	20.8%
Personal Liability & Property Damage Expenses (000)	\$22,966	\$26,824	\$33,006	\$11,818	-48.5%
Unlinked Passengers (000)	424,646	411,820	401,055	416,170	-2.0%
Vehicle Service Miles (000)	92,955	86,146	86,592	88,059	-5.3%
Workers Compensation Costs (000)	\$31,692	\$35,459	\$35,253	\$17,197	-45.7%
Total Amount Paid in Salaries & Wages (000)	\$264,444	\$257,174	\$288,403	\$304,794	15.3%
Administrative Costs (000)	\$100,688(a)	\$128,131	\$124,460	\$122,616	21.8%
Peak Vehicles	1,910	1,939	1,929	1,968	3.0%
<b>INDICATORS</b>					
Actual Expenditures/Budgeted Expenditure	98.9%	105.9%	101.9%	101.2%	2.3%
PL & PD Expenses/Unlinked Passenger	\$0.054	\$0.065	\$0.082	\$0.028	-47.5%
PL & PD Expenses/Vehicle Service Mile	\$0.25	\$0.31	\$0.38	\$0.13	-45.7%
Workers Comp Costs/FTE	\$6,275	\$7,988	\$8,285	\$4,004	-36.2%
Workers Comp Costs/Total Salaries & Wages	\$0.120	\$0.138	\$0.122	\$0.056	-52.9%
Administrative Costs/Peak Vehicle	\$52,716	\$66,081	\$64,520	\$62,305	18.2%
<b>CONSUMER PRICE INDEX CHANGE-Urban Wage Earners (CPI-W)</b>	4.3%	4.8%	5.2%		15.9%

Sources: UMTA Section 15 Reports and Financial Audits, except for FY88 peak vehicles which are from the 6/17/88 SCRTD Vehicle Maintenance System Bus Availability Summary.

(a) excludes one-time inventory adjustment of \$13,669,000

Exhibit 17

FY89-FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**FY90 vs FY91 ADMINISTRATIVE COST COMPARISON**  
**BUS SERVICE MODE**

Cost Adjustments	FY90	FY91	Change FY90-FY91	
			\$	%
Total Admin. Costs (\$M)	\$124.5	\$122.6	(1.9)	- 2%
Less PL/PD Costs (\$M)	<u>\$ 33.0</u>	<u>\$ 11.8</u>	<u>(21.2)</u>	<u>-64%</u>
Subtotal	\$ 91.5	\$110.8	19.3	21%
Less Policy Directed Growth For:				
- Transit Police (\$M)	\$ 5.3	\$ 9.3	4.0	76%
- Customer Relations (\$M)	<u>\$ 7.9</u>	<u>\$ 9.3</u>	<u>1.4</u>	<u>18%</u>
Subtotal Policy Directed Growth	\$ 13.2	\$ 18.6	5.4	41%
Subtotal Adjust. Admin. Costs (\$M)	\$ 78.3	\$ 92.2	13.9	18%
Less 5.2% Inflationary Increase (\$M)	---	\$ 4.1	4.1	---
Adjusted Admin. Costs (\$M)	\$ 78.3	\$ 88.1	9.8	13%
Adjusted Admin. Costs Per Peak Vehicle	\$40,590	\$44,765	\$4,175	10.3%
Change in Consumer Price Index				5.2%

Source: Section 15 Reports and SCRTD comments to draft report.



- Workers' compensation costs per full time equivalent employee declined by more than one-third; and workers' compensation cost per total salaries and wages paid declined more than 50 percent over the FY92 audit period.

It is important to note that these figures represent financial year loss costs. The costs reported on fiscal year expenditure documents like UMTA Section 15 Reports include the cost of new losses (i.e., actual payments and reserves) and any adjustments to prior year reserves. As noted earlier in this report, SCRTD reserving methodologies used at the beginning of the study tended to over reserve, and these methods were changed midway into the audit period. In particular, FY91 results included a downward adjustment to claims which initiated in prior years and this adjustment was financially significant (i.e., total reserves at the end of FY91 were \$14 million less than total reserves at the end of FY90).

Another way to review loss trends is on an accident year basis. This approach compares the current estimated cost of claims originating in a specific fiscal year. All adjustments to claims reserves and actual payment on claims originating in a given year are attributed to that year. Exhibit 18 presents accident year costs for workers' compensation. In this case, workers' compensation costs per full time equivalent employee about equals inflation (i.e., CPI-W of 15.9 percent); and workers' compensation cost per salaries and wages paid showed a real cost decline (costs fell 12 percent compared to inflationary growth of nearly 16 percent).

All measures of loss cost containment exhibit excellent performance by SCRTD over the audit period. This performance is the result of a wide variety of progressive management actions and loss prevention programs implemented by SCRTD over the last three years. Injury prevention programs (e.g., back), working environment changes (e.g., back belts for maintenance employees, redesigned seats for drivers), training and exercise programs, and expanded investigations capabilities have all been implemented. A District-wide management task force on risk management has been formed and meets regularly on loss and accident reduction opportunities. Statistical and analytic reporting capabilities have vastly improved making it easier to identify improvement candidates and opportunities. Both management efforts, and loss reduction results have been exemplary at SCRTD over the FY92 audit period.

Exhibit 18

FY89 - FY91 Triennial Performance Audit of the Southern California Rapid Transit District  
**ACCIDENT YEAR COSTS AND PERFORMANCE**

DATA & INDICATORS	BASE YEAR	AUDIT REVIEW PERIOD			% Change FY88 - FY91
	FY88	FY89	FY90	FY91	
<b>DATA ITEMS</b>					
Workers Compensation (WC)	\$17,480,831	\$20,725,948	\$20,498,352	\$17,774,294	1.68%
Full-Time Equivalent (FTEs)	8,880	7,707	7,663	7,764	-12.57%
Salaries and Wages	\$264,440,000	\$257,174,000	\$288,403,000	\$304,794,000	15.26%
<b>INDICATORS</b>					
WC/FTE	\$1,969	\$2,689	\$2,675	\$2,289	16.29%
WC/Salaries and Wages	\$0.07	\$0.08	\$0.07	\$0.06	-11.78%

NOTE: Workers compensation costs reflect figures as of June 30, 1991

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## VIII. RECOMMENDATIONS

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This report has reviewed the performance of SCRTD for Fiscal Years 1989, 1990 and 1991. The following five recommendations address data reporting compliance and performance improvement opportunities.

### A. CURRENT AND FUTURE CHALLENGES

During the audit review period, several trends emerged which require District attention to meet the current challenge of this economic recession and future transit needs in the County. Four recommendations are offered for consideration by the District.

Recommendation #1: Evaluate cost, revenue and funding trends and develop a progressive financial and operating strategy which meets District objectives during the ongoing economic downturn.

**Findings:** Over the audit period, SCRTD has experienced the initial effects of a sluggish and worsening economy. Several statistics describe trends to which SCRTD will be required to respond in FY92, FY93 and FY94:

- SCRTD has made difficult decisions regarding service levels and has reduced total vehicle service hours by nearly three percent and miles by more than five percent. Additional service reductions may warrant review, depending on financial results of the system in future years.
- Total operating costs (less depreciation) have increased at the rate of inflation (15.9 percent CPI-W), and hence, cost per hour and mile have increased at a rate greater than inflation. Given poor economic projections for employment and government funding in the region, cost growth requires greater control at SCRTD in the future.
- Unlinked passengers have declined by two percent over the audit period, with much of this decline attributable to service reductions and regional economic conditions. Given the negative economic outlook for Southern California and the increasing jobless rate, SCRTD needs to develop a financial strategy which counters a potential decline to its market and hence, to fare revenue.
- While government subsidies to SCRTD have increased over the current audit period, Statewide collection of TDA revenues and regional collections of sales taxes are expected to decline in available economic forecasts. SCRTD's financial and operating strategy should also address the risk of declining subsidies during the economic crises.

Significant future financial shortfalls will occur in FY92, FY93 and FY94 if current trends continue unabated. The District is working with the Los Angeles County Transportation Commission (LACTC) and a third party task force to identify immediate and long term strategies to increase revenues and reduce costs in a manner which minimizes negative impacts on the transit riding public. SCRTD should pursue the development of a strategy which offers alternative approaches and solutions to the upcoming financial and operating issues, and should implement these solutions in a timely manner.

**Anticipated Results:** SCRTD should develop a financial and operating strategy which is flexible and which considers risks and opportunities related to the current and future negative economic impacts expected in the region. Development of a strategy will provide the District viable alternatives to address future risk and allow timely and prudent action to avoid a financial crisis. A sound program will be flexible and provide the greatest level of service to the transit riding public given real and dire financial constraints.

Recommendation #2: Develop and monitor quantifiable performance objectives in support of the recommended strategic financial and operating plan.

**Findings:** District-wide goals are presented in the SRTP. A separate, but very similar, set of goals is also presented in the annual budget. As of FY90, neither document contains quantifiable performance standards or objectives. The SRTP is more widely distributed to external agencies; the annual budget is more widely distributed internally. Annual performance goals (i.e., quantifiable performance objective standards) are published in the District's Monthly Performance Profile Report. Performance goals are based on prior year performance and annual budget and operating assumptions developed in the SRTP and refined in the Budget.

The District has in place the building blocks for a comprehensive goals and objectives management process. District-wide goals, however, are not linked to the measurable performance objectives used for internal management purposes. Combining the District-wide goals approved by the Board with measurable performance objectives used to guide internal management would strengthen the current system.

Although the monthly performance profile is a valuable tool for the District to assess current performance relative to prior performance, this report does not directly correlate with the District-wide goals stated in the SRTP and Annual Budget.

Given the operating and financial challenges that face the District, it is more important than ever that District-wide goals and measurable performance expectations be clearly linked, approved by the Board, and communicated to the public and throughout the agency. At the very least, better linkage between SRTP goals, budget objectives and measurable performance targets is needed. Linking a subset of key performance indicators and standards used in the Monthly Performance Profile Report to SRTP and Annual Budget goals would meet the intent of this recommendation. A more pro-active approach would

be to combine this effort with additional steps to develop the District's strategic business plan.

**Anticipated Results:** Establishing measurable performance objectives that support strategic financial and operating plans does not have a financial cost in and of itself. It is beneficial in communicating performance expectations and priorities at all levels throughout an agency, to funding agencies, and to customers. Clear communication of objectives and expected outcomes is the first step in building consensus for funding and implementing necessary programs and services. Measurable objectives help ensure accountability of for the expenditure of public resources.

Recommendation #3: Develop a comprehensive service quality program aimed at improving customer satisfaction and reducing complaints.

**Findings:** Between FY88 and FY91, customer complaints increased 52.6 percent. Complaints per 100,000 riders increased 55.8 percent. Complaints regarding safe bus operations went down by 15.7 percent; all other categories experience more than a 35 percent increase. The "Other" category of complaint increased 83.1 percent. Contrasting this overall decline in performance from a consumer perspective is an 18.3 percent increase in bus operator commendations.

<u>COMPLAINT TYPE</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>Percent Change</u>
Passup	2,282	2,152	2,381	3,225	41.3%
Accessible Service Issues	562	565	573	762	35.6%
Schedule Reliability	4,406	4,009	4,081	6,376	44.7%
Unsafe Bus Operation	2,314	1,951	1,929	1,951	-15.7%
Operator Discourtesy	1,577	1,658	1,656	2,283	44.8%
Other	3,106	3,264	3,674	5,688	83.1%
Total Complaints	14,247	13,599	14,294	20,285	42.4%
Bus Operator Commendations	1,005	852	981	1,189	18.3%

*Sources: Monthly Performance Profiles and Complaint record history prepared by the Customer Relations Department.*

The District attributes the increase in customer complaints to two programs which were introduced in July of 1990, including the transit riders bill of rights and the on-time warranty program. Both of these programs were designed to increase passenger awareness of public transit services, while also prompting passengers to report service complaints or commendations. With the introduction of these two programs, the District anticipated an increase in customer complaints. It could be expected that the on-time warranty program might result in an increase in customer schedule reliability complaints. Schedule reliability

complaints as a percent of total complaints, however, was essentially unchanged between FY88 and FY91 (i.e., about 31 percent). All categories of complaints increased with the exception of unsafe bus operations.

In developing a strategic financial and operating strategy, customer satisfaction should be a key component. The objectives which support this strategic plan should include service quality performance objectives as well as continuing the current District practice of monitoring and addressing customer complaints. During the audit review period, the District has implemented programs related to service quality. Customers complaints may be an indication that these programs are not working or that they are not enough. Expectations could also be higher as a result of programs such as the on-time warranty program.

Reduction of customer complaints will require:

- commitment by management to make customer satisfaction and service quality a priority -- service quality is one of the current District-wide objectives in both the SRTP and budget
- communication of this priority at all levels throughout the organization
- evaluation of existing programs relative to service quality and customer satisfaction results
- development of new and potential revision to existing policies and programs aimed at improving service quality and customer satisfaction
- finding the funding for and implementation of programs -- changing existing resource allocations and/or working with local jurisdictions to fund service quality improvements (e.g., the LA Pride program)
- communicating plans and programs, as well as performance results, to current and potential customers.

**Anticipated Benefits:** Customer satisfaction with transit services will help to retain current riders. Dissemination of information about service quality performance will help change perceptions if such perceptions are inaccurate or help attract additional riders if performance is good. Customer satisfaction with transit services is a key element in improving mobility in the County and reducing congestion. Given a choice, people will not select transit alternatives if they are not happy with the service.

**Recommendation #4: Investigate the causes and develop a strategy for addressing areas of high cost growth.**

**Findings:** Two functional areas experienced declines in cost efficiency during the audit review period -- administration (excluding risk management costs) and revenue vehicle maintenance.

Administrative costs per peak vehicles increased 18.2 percent from FY88 to FY91 compared to 16 percent inflation. This increase is somewhat misleading -- in FY88 the District made a one time inventory expense reduction of \$13.7 million. Accounting for this adjustment, administrative costs per peak vehicle increased 4.1 percent. A \$11.1 million reduction in PL/PD expenses between FY88 and FY91 contributed to these positive performance results.

The positive PL/PD cost performance, however, masks an administrative cost increase between FY90 and FY91 that is in excess of inflationary increases and other areas of policy Board directed growth. Exhibit 17 (contained in Section VII of this report) presents relevant financial statistics. Approximately \$9.8 million (of a total FY91 bus mode administrative budget of \$122.6 million) of unexplained administrative cost growth was observed between FY90 and FY91.

Between FY88 and FY91, bus revenue vehicle maintenance costs per mile have increased 35 percent -- more than twice the rate of inflationary increases during the same time period. Maintenance costs increased 28.1 percent while vehicle service miles declined 5.3 percent. Increased maintenance costs are attributed to a number of factors, including:

- implementation of the graffiti and vandalism abatement program
- introduction of the multi-year mid-life bus rehabilitation program
- implementation of the District's alternative fuels program
- actions associated with meeting stringent environmental regulations.

The causes of administrative cost increases are not clear -- risk management is not the contributing factor. Some factors contributing to increased maintenance costs are identifiable. The four maintenance programs listed above are in support of District-wide goals. Of the two high growth cost areas, administration is of greater concern because results are less tangible and causes are not defined. A clearer understanding of factors contributing to this cost growth in administration is required.

**Anticipated Results:** A better understanding of the causes of administrative cost increases will allow for cost reduction strategies to be developed. A better understanding of contributing factors could also result in the conclusion that said increases were necessary and/or unavoidable. Phase I is intended to be a high level diagnostic of performance and compliance. Analysis of administrative cost increases is a potential candidate for Phase II analysis or the new MTA.



**B. DATA REPORTING AND COMPLIANCE**

One recommendation is offered that deals with compliance. Costs associated with implementing this recommendation are minimal.

Recommendation #5: Calculate and report employee full-time equivalents according to the State definition.

**Findings:** The prior audit noted that the District did not comply with FTE reporting requirements. Several changes were made and the District is now in full compliance with Federal Section 15 reporting requirements for FTEs. The Federal definition is based on total work hours divided by 2,080 equating to one FTE. The State definition using a dividing factor of 2,000. The difference is four percent. The District should use the correct dividing factor for State and LACTC reporting requirements.

**Anticipated Results:** Full compliance with State and LACTC reporting requirements.