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OFFICE OF THE
Auditor General
of British Columbia

**1999 Follow-up
of Performance
Audits/Reviews**

Canadian Cataloguing in Publication Data

British Columbia. Office of the Auditor General.

1999 follow-up of performance audits/reviews

(Report ; 1999/2000: 1)

ISBN 0-7726-3841-1

1. Public administration – British Columbia – Evaluation. 2. Travel costs – British Columbia – Management – Evaluation. 3. British Columbia – Officials and employees – Salaries, etc. 4. B.C. Transit – Personnel management – Evaluation. 5. Earthquakes – British Columbia – Safety measures – Evaluation. 6. Ferries – British Columbia – Maintenance and repair – Evaluation. 7. Marine terminals – British Columbia – Maintenance and repair – Evaluation. 8. Trucks – Inspection – British Columbia – Evaluation.

I. Title. II. Series: British Columbia. Office of the Auditor General.
Report ; 1999/2000: 1.

HJ9921.Z9B74 1999

352.4'39'09711

C99 – 960122–9



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auditor general's comments



I am pleased to present in this report the results of my Office's initial follow-up work on four performance audits and one review issued in 1997, and further follow-up work on two audits issued in 1996 and first followed up in 1998.

We perform follow-up reviews to provide the Legislative Assembly and the public with an update on the progress made by management in implementing our recommendations.

These recommendations are designed to improve public sector performance, and are an important value-added component of my Office's work. In cases where significant recommendations have not been substantially implemented at the time of our initial follow-up, we carry out further follow-up work in subsequent years.

Our approach was to ask management of the organizations with responsibility for the matters examined in the audits and the review to provide us with written reports describing action taken with respect to the audit recommendations. My staff then reviewed these reports to determine if the information reported, including an assessment of the progress made in implementing the recommendations, was presented fairly in all significant respects. For each report we reviewed, we concluded that it was.

In this report, we provide a summary of each of the original audits and the review and our overall conclusions from them, followed by each organization's response to our request for an accounting of progress. For the two audits subject to further follow-up work, we included the organization's initial response as well as the current response where appropriate.

While I am pleased that some action has been taken to implement most of the recommendations made in our audits and the review, I am concerned that, in many cases, the work is proceeding slowly. I recognize that there is continuing pressure on the availability of resources. However, this pressure reinforces the need to ensure

reasonable performance for every dollar that is spent. In this regard, I believe it is important that these recommendations be implemented on a timely basis.

I wish to express my appreciation to the staff and executives of the government organizations concerned for their cooperation in preparing the follow-up reports, providing the appropriate documentation and assisting my staff throughout the review process.

*George L. Morfitt, FCA
Auditor General*

*Victoria, British Columbia
May 1999*



introduction

This report provides information about the extent to which the recommendations arising in the performance audit and review reports issued during 1997 have been implemented by the organizations responsible. It also provides similar information for certain recommendations arising in two audits issued in 1996 that were initially included in our report “Follow-up of 1996 Performance Audits/Studies” issued in 1998.

The 1997 audits were:

- Ministry of Finance and Corporate Relations
Management of Travel
(1996/97 Report 7)
- BC Transit:
Managing Operator Productivity
(1996/97 Report 9)
Its Success as a Market-focused Organization
(1996/97 Report 9)
- The Ministry of Attorney General,
Provincial Emergency Program
Earthquake Preparedness
(1997/98 Report 1)

The 1997 review was:

- **Executive Severance Practices: Government Ministries and Crown Corporations**
(1996/97 Report 8)

The 1996 audits for which further follow-up reviews were carried out are:

- British Columbia Ferry Corporation
Fleet and Terminal Maintenance Management
(1995/96 Report 2)
- Ministry of Transportation and Highways
Trucking Safety
(1996/97 Report 4)

Our approach was to ask management of each of the government organizations with responsibility for the matters examined in our original audits and the review to provide us with a written report describing their progress in implementing the recommendations they had agreed to when the audits were first done. For audits receiving

a further follow-up, we included only significant recommendations that had not been substantially implemented at the time of our initial follow-up.

We sent our requests to management for follow-up reports in December 1998 and, in February and March 1999, reviewed each of the written responses we received to ascertain whether they were factually correct and fair. Our objective was to assess whether the progress being reported was plausible in the circumstances (Appendix A).

These examinations were reviews rather than audits and so they provide a moderate rather than a high level of assurance. They were, however, all carried out in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted of enquiry, document review, and discussion.



follow-up
of 1997 reports



Ministry of Finance and
Corporate Relations:
management of travel



Ministry of Finance and Corporate Relations: management of travel

Responsibility for travel in the British Columbia government is shared by a number of groups. The Financial Administration Act assigns responsibility for providing direction to Treasury Board and the Minister of Finance and Corporate Relations. Development of specific policies has been delegated to Treasury Board Staff, the Office of the Comptroller General and the Public Service Employee Relations Commission. Each ministry, in turn, is responsible for managing its travel budget. They are also responsible for ensuring that travel policies are followed, amounts paid comply with the rates authorized, and other amounts claimed for reimbursement are reasonable. All travelers are responsible for making economic choices when making travel arrangements.

In April 1997, we reported the results of our audit on how travel was managed in the British Columbia government. We focused our audit on the period from April to July 1996.

In December 1998, we asked the ministry to provide us with a report on its progress in implementing the recommendations arising from the audit. The ministry's response and our review comments follow.



summary of original audit report

Audit Purpose

The purpose of our audit was to assess whether travel in the British Columbia government was managed with due regard for economy and efficiency. The audit examined:

- the direction provided by government to its employees to ensure economic and efficient travel practices;
- travel arrangement mechanisms available to staff, including how to make travel choices and alternatives to travel;
- the reasonableness of rates used to reimburse staff;
- methods used to pay for travel and reimburse staff for expenses incurred;
- management initiatives to promote economy and efficiency; and
- the adequacy and usefulness of information collected by management to be able to effectively manage travel costs.

Overall Conclusion

We concluded that government could make substantial savings on its travel expenditures by improving the way it managed travel. Management of travel was ineffective because ministries, central agencies, and Treasury Board did not have the information to allow them to make informed travel policy decisions and later measure their effects. For example, the government had not pursued consolidating purchasing power for air travel, a potential source for savings, partly because current systems did not provide the information, such as the amount of government business done with particular suppliers, needed to negotiate good rates.

The direction on travel spending that was provided to employees and their supervisors was not coordinated between ministries and central agencies and provided little guidance on how to make cost-effective travel choices. There was no central monitoring of how travel dollars were spent and the extent to which policies were effective. As a result, it was difficult for government to maximize purchasing power.

The government was successfully controlling the amount spent on certain aspects of travel. For example, it had established daily rates for meals and negotiated favourable rates for rental cars and hotels. It had also set up a corporate travel card system that provided administrative savings on cash advances; however, the savings were not being fully realized because the majority of employees did not use the card. Ministries had been provided with economic alternatives to travel, such as videoconferencing which was being used by some ministries and central agencies. The government-wide freeze on travel had significantly increased its use. Government was aware that streamlining of procedures and use of automation also offered potential savings in administration costs, but progress in this area had been slow.



follow-up

Office of the Auditor General Review Comments

Information provided by the Ministry of Finance and Corporate Relations regarding progress in implementing the recommendations included in our 1997 audit report is set out below (in colour). We reviewed this information to see if it is fairly stated, in all significant respects.

We carried out the review in February and March 1999. The review was made in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted primarily of enquiry, document review and discussions.

Based on our review, nothing has come to our attention to cause us to believe that the ministry's progress report does not present fairly, in all significant respects, the progress made in implementing the recommendations included in our 1997 audit report.

Ministry of Finance and Corporate Relations Progress Report

Government Travel Review Carried Out in 1995

In the original audit report we had noted:

In March 1995, Treasury Board directed the Ministry of Finance and Corporate Relations to undertake a review of government travel management policy and practices, with the objectives of improving accountabilities, achieving greater efficiencies, and obtaining expenditure reductions. In March 1996, the 1995 Government Travel Review report was presented to Treasury Board. The report contained a number of recommendations which, if implemented, were anticipated by Travel Smart to accrue annual savings of at least \$5 million.

We had recommended:

Government should review the recommendations contained in the recent Ministry of Finance and Corporate Relations' report to Treasury Board on government travel, and take the necessary steps to reduce travel expenditures.

*Ministry Response***Partially Implemented.**

On August 8, 1996, the Secretary to Treasury Board directed the adoption of most of the recommendations of the Government Travel Review, which was undertaken by the ministry during the 1995/96 fiscal year. In response, an action plan to implement the Review's recommendations was developed and all but one of the initiatives are complete or well underway. The only exception was Recommendation 5B regarding ministerial travel claims, which further investigation found would not accrue suggested costs savings. Use of the electronic Travel Voucher by ministries will, however, achieve most of the suggested benefits.

Gathering Information to Manage Travel Effectively

In the original audit report we had noted:

The ministries and central agencies did not have appropriate systems and processes to capture the information needed to allow them to manage travel effectively. The database system maintained by the agency providing the corporate travel card had the potential to provide substantial travel information, but since the card was not used by all employees, the information collected was incomplete. Also, the travel component in the government-wide Corporate Accounting System that was under development was not considered a high priority for implementation.

We had recommended:

The government should develop both short-term and long-term strategies for collecting information to manage travel. Short-term strategies include better use of existing systems such as those available through the corporate travel card contract. Long-term strategies include decisions on developing travel components in the government-wide Corporate Accounting System or better using information systems offered by travel service providers.

*Ministry Response***Fully Implemented.**

The ministry has endorsed this recommendation and the Office of the Comptroller General (OCG) has directed all government ministries to use Business Travel Accounts (BTA), together with Preferred Travel Agency Agreements (PTAA), for all travel bookings involving airfare or other travel costs paid

directly by the government. The ministry has also taken the first step towards electronic data capture of our travel information. An Electronic Travel Voucher form is now being implemented in several ministries. The form will aid in the completion of the travel voucher as it has built-in coding that automatically calculates the per diem entitlement based on group and full/part day travel. It also will check the accommodation amount entered and notes any entry that is not within existing travel policy and warns the employee of the discrepancy. The form also calculates the totals automatically, which solves a major problem with the previous forms, as arithmetic errors were the most often noted reason for delays on the manual forms. The current E-form requires the employee to print out the completed form for processing. However, it is anticipated that the form will become more interactive over the next few years as more ministries have the ability to use it and the government accounting system becomes more uniform.

Providing Direction to Travelers

Central Oversight Function

In the original audit report we had noted:

Travel policy was addressed in four different government-wide manuals, in separate central agency directives, and in collective (union) agreements. Each ministry that we reviewed had consolidated the travel policies into its own manual or series of memos ranging from 15 to 100 pages, and most had developed a pocket guide.

These documents varied in content and accessibility. As a result, there was no assurance that travelers were exposed to all the policies, which could have lead to inconsistencies in how—or even whether—policies were applied.

We had recommended:

The government should consolidate travel policies in one document and ensure they are available to all who travel or approve travel. In addition, a pocket version of the policies should be developed for easy reference by employees.

*Ministry Response***Fully Implemented.**

The government reviewed its travel policies and has developed a solution to the problem of access and ease of use of the policies. OCG has provided government-wide access to their various policy manuals through their Internet site. The site has a search ability to permit users to simultaneously search all policy manuals. The web site allows OCG to ensure the information is kept current and therefore ministries need not try to maintain hard copies of the policies in all their offices, thus resulting in substantial cost savings in paper and time. In addition, OCG has produce a Pocket Travel Guide which is available to ministries. The Pocket Guide contains the major travel policies and also a card with the current travel allowances that will allow the employee to keep the guide up-to-date with any future reimbursement changes. The Purchasing Commission, Transportation Management Group, continues the service provided by the Travel Smart Program, and will offer an electronic version of the Government Business Travel Guide on its Internet site. This site will also have the major travel policy directives noted and will provide links to the OCG Internet site.

*Who is Providing the Direction**In the original audit report we had noted:*

Without someone in charge of monitoring how travel dollars were spent in government and the extent to which policies were being effective—through strategic planning and development and review of travel policy—it would remain difficult for government to know whether purchasing power was being maximized, and whether policies were accomplishing what they had intended.

We had recommended:

The government should monitor how travel dollars are spent and through strategic planning, policy development, and evaluation ensure that value for money is maximized and travel policies are accomplishing what is intended.

Ministry Response

Partially Implemented.

The government shares the Auditor General's concern that all travel dollars be spent wisely. Improvements to travel policy, availability of the pocket travel guide, adoption of electronic travel claims processing, continuous monitoring of travel industry developments for new cost-saving opportunities, and further evaluation of the effectiveness of government's system of travel management will contribute to this goal being met.

Entitlements or Value for Money

In the original audit report we had noted:

Travelers need guidance on what is expected when they make travel decisions. The 1995 Government Travel Review identified this need and suggested that a component on travel management include general rules-of-thumb such as using personal vehicles only if the daily mileage did not exceed 150 kilometers, taking weekend excursion fares if possible and considering alternatives to travel such as teleconferencing or videoconferencing. This type of guidance, combined with tables comparing various trip scenarios between locations within the province, including employee downtime and inconvenience considerations, would go a long way to helping the government get the best value for its travel dollar.

We had recommended:

The government should ensure that communications to employees include specific guidelines and examples that demonstrate its philosophy that employees should use the most cost-effective method when making travel choices.

Ministry Response

Fully Implemented.

The pocket guide referenced in recommendation number three contains guidelines which reinforce the government's lowest total cost approach as well as practical examples of cost-effective methods to assist those traveling to achieve this end. The Purchasing Commission's web site contains car rental information which shows users the cheapest rate in each town. The web site also contains an electronic guide to hotels that offer government accommodation rates in each town.

Establishing Rates for Reimbursement

Air Travel Rates and Arrangements

In the original audit report we had noted:

The 1995 Government Travel Review estimated that 18% (\$19 million) of the total provincial travel costs for the fiscal year 1994/95 was for airfare. With the exception of the Ministry of Health, most arrangements were made through a travel agency of the arranger's choice or directly with the airlines. In an internal study done for Cabinet in 1994, it was reported that some of these travel agencies were very effective at securing cost advantages from their suppliers but that most failed to pass on these savings to government. The study identified a number of options for securing savings to government including one travel agency for all of government, pre-approved agencies, a negotiated pricing structure with airlines and an in-house travel agency.

We had recommended:

The government should proceed with one or more of the airfare savings options identified in the 1994 study prepared for Cabinet, as a means of reducing the cost of air travel, and continue to monitor the industry for new opportunities for savings.

Ministry Response

Partially Implemented.

The government continues its discussion with air carriers to identify airfare savings opportunities which will reduce the cost of air travel while ensuring that there is minimum negative impact on small air carriers and travel agents across the province. To assist in this process, Preferred Travel Agency Agreements were established to ensure the collection of valuable air travel data to be used in future discussions with the air carriers. Government also continues to promote smaller, low-cost airlines that are now entering the market place. The OCG is considering recommending that bookings be done farther in advance where possible and that government travelers avail themselves of restricted fare tickets which have a sliding scale of discounts the farther ahead one books. Should cancellation be required, credits may be used against future flights. Cost savings will be maximized even though some cancellation charges may be incurred. Also, excursion fares within BC will be recommended where practical, and cost savings can be achieved even though extra costs may be incurred to stay over a Saturday night.

*Meal, Incidental, and Personal Vehicle Mileage Reimbursement Rates**In the original audit report we had noted:*

Union employee rates for both meal and vehicle allowances were negotiated as part of the collective bargaining process. The 1995 Government Travel Review recommended that these rates be removed as a bargaining item. We believed that reimbursement rates for all employees should be based on actual costs and a defined level of service, and that they should be reviewed periodically to ensure that they are reasonable.

We had recommended:

The government should periodically obtain information on meal costs for the most frequently traveled locations in the Province, based on a level of service which it has defined, and compare the results to the reimbursement rates to ensure they are reasonable.

*Ministry Response***Fully Implemented.**

The Public Service Employee Relations Commission will continue to review the meal allowances for all employee groups to ensure they remain reasonable.

We had recommended:

The government should consider the recommendation of the 1995 Government Travel Review to remove rates as a bargaining item in the union agreements and review the meal and incidental rates to determine whether multiple reimbursement rates are appropriate. It should also review the kilometric reimbursement rate to ensure that it is based on actual costs.

*Ministry Response***Partially Implemented.**

The Public Service Employees Relations Commission (PSERC) notes that these benefits are negotiable items within existing collective agreements. It is unlikely that the unions would agree to such a proposal. PSERC will continue to examine the appropriateness of kilometric reimbursement rates on a regular basis.

Administering the Payment Process

The Corporate Travel Card

In the original audit report we had noted:

The use of a corporate travel card was one initiative that had been used to reduce the cost of providing travel advances and obtain information on government travel. However, the card's use was voluntary and it had not gained wide acceptance among travelers, though the change to joint liability and the efforts to publicize the advantages of the card may have increased its use.

We had recommended:

The government should continue to promote the use of its corporate travel card.

Ministry Response

Fully Implemented.

The government continues to actively promote the use of its corporate travel card. The government has negotiated an amendment to the BCGEU Master Agreement and issued a directive to management requiring all employees to use the travel card instead of applying for government travel advances. Only those employees who don't qualify for the travel card will be permitted to receive travel advances. The majority of frequent travelers are now using the card and the amended policy has resulted in approximately 1000 new cards being issued since June/98. The government also encourages the use of the corporate travel card when approached by less frequent travelers for advice on methods to pay for travel.

Costs and Savings

In the original audit report we had noted:

The 1995 Government Travel Review found that the processing of travel claims was costly. Vouchers were reviewed at several levels, resulting in unnecessary duplication of auditing. This concern over the costliness of manual systems had been echoed in the AMEX survey and in travel reports issued by other jurisdictions.

Also, throughout government, airfares were paid by the traveler or by each ministry directly to the travel agency. About 20 individual programs or branches in the various ministries were using an AMEX business travel account to consolidate their airfare payments. The government saved by processing fewer billings. This cost saving method was not included in travel policy and as a result, other government operations may have been unaware of the savings opportunities.

We had recommended:

The government should review the cost/benefit of automating travel related systems and take a comprehensive and integrated approach to the streamlining of expense processing, reimbursement, payment to suppliers, and information management of the travel function. This approach should provide direction and support to ministries currently attempting to carry out these initiatives on their own.

Ministry Response

Partially Implemented.

As previously noted, government is well underway with the implementation of a centralized electronic travel voucher system and use of the business travel accounts that are associated with the corporate travel card contract. These initiatives will be examined for additional benefits which may be derived from a reduction in claims processing costs as well as improved quality and availability of travel management information.

Videoconferencing—An Alternative to Travel

In the original audit report we had noted:

The government had begun to identify and promote videoconferencing as an alternative to travel, in an effort to reduce the cost of government travel. Through the efforts of the Information Technology Services Division, formerly British Columbia Systems Corporation, opportunities were becoming available to expand the use of videoconferencing, which in many situations can accomplish the same objectives as travel at substantial savings. However, the lack of information being given to employees and supervisors about the availability and application of this alternative had limited its use.

We had recommended:

As recommended in the 1995 Government Travel Review, the government should develop a government-wide policy on videoconferencing and continue to promote its use across government.

Ministry Response

Fully Implemented.

The recommendations of the Task Force Report on Video Conferencing have been accepted. General Management Operating Policy (GMOP) policy statement development is complete and use of video conferencing continues to grow within government, with some ministries now establishing their own sites. The Ministry of Education has determined that use of their video conferencing sites is increasing at an average rate of 20% per year and has demonstrated the cost savings that accrue through the use of this service. According to that ministry's review, government has saved an estimated \$440,000 on travel costs (98/99) through the use of video conferencing.



executive severance practices:
government ministries
and crown corporations



executive severance practices: government ministries and crown corporations

Ultimately, compensation of all provincial public service and public sector employees is the responsibility of the provincial government.

In recent years, executive severance compensation packages within the British Columbia public sector have come under increased public scrutiny.

In April 1997, we reported the results of our review to determine the extent of severance costs resulting from the termination of employment of senior executives within government ministries and Crown corporations. Our review had also examined whether the government had provided direction to ensure severance guidelines were in place, reasonable and consistent. The review covered all severance payments issued to senior executives during the period from January 1, 1990, to November 30, 1995.

In December 1998, we asked both the Public Service Employee Relations Commission and the Public Sector Employers' Council Secretariat to provide us with a report on their progress in implementing the recommendations arising from our review. Their response and our comments follow.



summary of original audit report

Audit Purpose

We conducted our review to determine the extent of severance costs resulting from the termination of employment of senior executives within government ministries and Crown corporations. We further wanted to determine whether the government had:

- provided direction to ministries and major Crown corporations to ensure severance guidelines were in place, reasonable and consistent;
- monitored compliance; and
- informed the Legislative Assembly about severance costs for government's senior managers.

Within ministries, compensation for management employees is determined on the basis of established management classifications ranging from entry level positions at Management Level 1, to Deputy and Associate Deputy Ministers at Management Level 12. We defined senior management as including Management Levels 9 to 12, which comprises mainly Assistant Deputy Ministers and Deputy Ministers, and Order-in-Council appointments under the Public Service Act. The Public Service Employee Relations Commission is responsible for administering severance arrangements for provincial government ministries.

Overall Conclusion

Most severance settlements within ministries and Crown corporations had been reasonable. However, we found one in four payouts made by Crown corporations excessive. While progress had been made toward improving the controls over severance settlements in Crown corporations, the controls were not yet strong enough to prevent excessive settlements from happening in future.

The provincial government had conducted two major studies on ministry and Crown corporation human resource management practices, including severances, since 1989. Within ministries, many recommendations resulting from these studies had been implemented and an improved level of reasonableness and consistency in severance packages had been achieved for senior executives.

The same could not be said for Crown corporations, however. Although the establishment of the provincial government's Public Sector Employers' Council (PSEC) and the Crown Corporation Employers' Association (CCEA) had resulted in a spirit of cooperation and improved communications between government and Crown corporations, we concluded that accountability practices to ensure reasonableness and consistency over executive severance practices of Crown corporations needed to be tightened.

During the six-year period surveyed, ministries and Crown corporations paid approximately \$13.7 million to 87 senior executives as compensation in lieu of notice.

Within ministries, the average severance package for 43 terminated senior executives was \$133,250, representing an average of 15 months of equivalent gross salary and benefits. Within Crown corporations, the average severance package for 44 terminated senior executives was \$180,258, an average of 16.3 months of equivalent gross salary and benefits.



follow-up

Office of the Auditor General Review Comments

Information provided by the Public Service Employee Relations Commission and the Public Sector Employers' Council Secretariat regarding progress in implementing the recommendations included in our 1997 report is set out below (in colour). We reviewed this information to see if it is fairly stated, in all significant respects.

We carried out the review during January and February 1999. The review was made in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted primarily of enquiry, document review and discussion.

Based on our review, nothing has come to our attention to cause us to believe that the Public Service Employee Relations Commission and the Public Sector Employers' Council Secretariat's progress reports do not present fairly, in all significant respects, the progress made in implementing the recommendations contained in our 1997 report.

Ministries

Public Service Employee Relations Commission (PSERC) Progress Report

Ensuring Severance Guidelines Are In Place

Alternative Options Not Clearly Defined

In the original audit report we had noted:

The new PSERC policy did not provide direction in those circumstances that may warrant immediate severing of the employer-employee relationship. While the policy focused on providing working notice, employing senior executives at the higher levels under such provisions was not likely to be viable, and thus compensation in lieu of notice would continue to be a practice.

We had recommended:

Where working notice is not a practical severance option, the Public Service Employee Relations Commission's severance policy should identify alternative strategies.

Commission Response

This recommendation has been fully implemented.

The provincial government’s severance policy permits the Commissioner, PSERC, to provide alternate severance arrangements where working notice of termination of employment is not practical. Consideration is given to all relevant facts of each case to determine the most appropriate settlement option.

Deputy Level Executives Excluded From Policy

In the original audit report we had noted:

The new severance policy excluded Deputy and Associate Deputy Ministers. Senior executives at this level remained covered by the Treasury Board directive 219 (dated August 31, 1989). This directive did not address concerns over “double dipping” nor such alternative options as working notice and lump sum versus salary continuance payment methods.

We had recommended:

As part of its periodic review of severance arrangements with senior executives at the Deputy and Associate Deputy Minister levels, government should consider both strengthening measures to control “double dipping” and providing terminated employees the option to receive either discounted lump sum payments or full salary continuance.

Commission Response

This recommendation has been fully implemented.

The Public Service Employee Relations Commission’s severance agreements contain a term that addresses the principle of no “double dipping”—employees must notify PSERC of any public sector contract or employment. Spot audits of payroll records are completed on a regular basis, and employees within the PSERC branch are trained to review rehire situations of previously terminated employees. We have streamlined the sharing of information within other branches of PSERC, such as the Staffing Branch, to assist our efforts of ensuring no “double dipping.”

The Employment Termination Standards established by the Public Sector Employers Council also addresses the issue of “double dipping” by requiring repayment of severance funds in the event of re-employment within the public sector during the settlement period.

As a result of a recent policy change Associate Deputy Ministers are now covered by the standard severance policy, which provides for an option of a discounted lump sum payment in lieu of salary continuance. The policy for Deputy Ministers is based on the Nemetz recommendations and provides for a set severance formula that forms part of their employment contract.

Compliance With Severance Guidelines

Information Databases Need Improvement

In the original audit report we had noted:

The management of severance information was weak. Individual severance files were maintained on a manual basis only and computerized reports, based on information partially extracted from those files, were incomplete and did not include all costs.

PSERC was beginning to offer a broader range of severance options and assistance programs and thus the need to keep track of these and to capture their full cost would require PSERC to ensure it had a reliable information system.

We had recommended:

As soon as possible, the Public Service Employee Relations Commission should computerize all employee severance information.

Commission Response

This recommendation has been fully implemented.

As part of the Public Service Employee Relations Commission's integration of its information systems with the Corporate Human Resource Information Payroll System, severance information is being computerized to assist with reporting and tracking re-employment of terminated employees. All employee severance information is now maintained on the Microsoft Access database.



Crown Corporations

Public Sector Employers' Council Secretariat (PSEC)

Progress Report

General Comments

The Auditor's General's report *Executive Severance Practices: Government Ministries and Crown Corporation* was released in April 1997. Since the publication of the report, a number of significant developments have taken place that address the report's recommendations.

In July 1997, the legislature enacted Bill 20, *Public Sector Employers Amendment Act, 1997*. This Act permits the establishment of employment termination standards by the Public Sector Employers' Council (PSEC) for public sector exempt employees, and the adoption of the standards as regulations by the Lieutenant Governor in Council. The Act also provides a mechanism for compliance with the regulated standards—specifically, repayment by the terminated employee of any money in excess of the amount permitted by the regulations.

PSEC developed and passed *Employment Termination Standards (ETS)*, which were later adopted into regulation and made effective to May 1, 1997. The ETS reflect common law standards. The standards define the terms and conditions for severance and notice period (including limits on eligibility and maximum amount of severance and notice), duties of an employee during notice period, re-employment in the public sector, and the term of employment contract. The ETS apply to contracts entered into, revised or re-negotiated after May 1, 1997. In effect, the ETS supersede the employment termination provisions in all public sector employment contracts, except for those contracts that predate the standards.

Bill 20 and the ETS represent a significant change in the management of employment termination practice in the public sector. Previous PSEC standards did not have the force of law and were not very effective in managing the type and scope of severance arrangements entered into by public sector employers, including those in the Crown Corporation sector. Bill 20 and the ETS have introduced a new and improved severance management regime.

To ensure compliance with the new standards, PSEC Secretariat has been undertaking a number of tasks:

- Development of an ETS information booklet for all public sector employers. This booklet is designed to inform and

educate public sector employers and human resources practitioners of the ETS. Distribution of the booklet is scheduled to begin in February 1999.

- Collection, review, and evaluation of executive employment contracts and relevant corporate policies. To date, PSEC Secretariat has collected and reviewed contracts for senior executives in the college sector and is about to begin collecting exempt employee contracts in the Crown corporation sector. Exempt contracts in other sectors will also be periodically requested. In addition, individual employer policies governing employment termination will be requested and reviewed to determine compliance with the ETS. Where contracts and corporate policies are found to be non-compliant, PSEC Secretariat will work with the parties to bring the contracts and policies in line with the ETS.
- Development and evaluation of an employment contract and corporate policy database. The database is designed to manage (including storing, analyzing and reporting) key employment termination information derived from the contract and corporate policy review process (above). The system is currently being evaluated and refined using the contract information gathered from the college sector.
- Design of a severance reporting form. This form will be used by employers on an ongoing basis to report on the terms and conditions of actual severances. PSEC Secretariat will also be requesting that employers use the severance reporting form to report on all severances made from May 1, 1997 to January 31, 1999. Severance reporting forms will be reviewed by the Secretariat to determine compliance with the ETS. The severance reporting form will be distributed to employers along with the ETS information booklet in February 1999. To ensure severance reporting forms are being sent in, the Secretariat will periodically send out a verification letter to employers.
- Development of a severance report database. PSEC Secretariat is currently designing a database to capture information included on the severance reporting form and compliance audit. The database will be used to monitor severance outcomes and produce aggregate reports on public sector severances.

While work still remains to be done to fully implement the ETS, developments to date have effectively addressed the recommendations made in the Auditor General's report. The report's specific recommendations are addressed in turn.

Ensuring Severance Guidelines Are In Place

Crown Corporation Employers' Association (CCEA) Development of Sector Guidelines

In the original audit report we had noted:

Both the CCEA and PSEC had agreed that developing "one size fits all" guidelines would not reflect the diversity found in the Crown corporation sector. As a result, the CCEA developed general guidelines only, which were intended to comply with the spirit and intent of PSEC's standards while allowing each Crown corporation an opportunity to propose compensation benchmarks reflective of its business. At the time of our audit, most Crown corporations indicated to us that individual corporate responses proposing compensation benchmarks were on hold pending approval of CCEA's guidelines by PSEC.

The CCEA's guidelines were submitted to PSEC late in 1995. At the time of our review, they had yet to be formally approved, however, as the council had met only once since December 1995. Following approval, each Crown corporation would then formally submit its own specific compensation proposals and implementation ranges, consistent with the CCEA guidelines, to PSEC for approval and recommendation to Treasury Board.

We had recommended:

The Public Sector Employers' Council should quickly approve the Crown Corporation Employers' Association guidelines, and require early submission of individual Crown corporation proposals.

Council Response

This recommendation has been partially implemented.

The Crown Corporation Exempt Compensation Guidelines were approved by PSEC on January 30, 1997. The CCEA guidelines contain a "Severance Arrangements" section. For the most part, this section covers off the issues contained in the ETS (i.e., it references statutory and common law; it has a 24 month maximum; it requires provisions for dismissal for cause and resignation initiated by the employee without compensation; it discourages double-dipping). It should be noted, however, that Bill 20 and the ETS supersede the CCEA Guidelines.

The CCEA guidelines require each Crown corporation to submit exempt compensation plans for review and approval by the PSEC Exempt Compensation Sub-Committee. The purpose of the committee is to expedite approval of exempt compensation proposals as they come forward subject to ratification at the next scheduled meeting of Council.

In the middle of 1998, a meeting of the CCEA executive and the Chair of PSEC was held. The Chair advised CCEA that due to fiscal pressures, it was not appropriate to proceed with the development of exempt compensation plans and salary increases at this time.

In the interim, a sub-committee of CCEA and PSEC Secretariat has been working on the appropriate use of market comparison data in setting pay policies for exempt and executive employees in Crown corporations. The issues concerning the appropriate use of market data are quite complex. Discussions are continuing on how these issues should be resolved and on other compensation issues that could be addressed prior to a final resolution of market comparison criteria.

Accordingly, the CCEA and PSEC Secretariat are developing a proposal to establish a strategy for managing executive compensation which will consist of two phases:

- Phase 1 (present to December 1999)—process and strategy to address internal inequities and issues of immediate concern
- Phase 2 (January to March 2000)—process and strategy for appropriate positioning of executive compensation relative to comparable organizations

The primary objective of phase 1 is to develop an implementation plan for making compensation adjustments for those earning more than \$100,000 which, in accordance with the PSEC Executive Compensation Management Policy, are “conservative in their approach, reflecting public expectations, labour relations considerations and fiscal realities.” It is expected that the Phase 1 process and strategy will be brought to the PSEC Exempt Compensation Sub-Committee for its consideration in 1999.

It is not expected that Crown proposals will include guidelines on severance, however, where they do they will be required to be consistent with the CCEA guidelines and ETS.

Compliance With Severance Guidelines

Employment Contracts

In the original audit report we had noted:

Written employment contracts between Crown corporation employers and senior executives were not being used extensively. However, where contracts were in use, we found they generally resulted in severance settlements greater than what might have been awarded under common law or, where established, corporate policy.

We had recommended:

Employment contracts should contain severance provisions that reflect common law standards.

Council Response

This recommendation has been addressed.

The Employment Termination Standards (ETS) reflect common-law standards. For instance, under the ETS, an employee must not be given notice period or severance when terminated for cause, upon expiry of his/her employment contract, or upon retirement or voluntary resignation. Further, in the absence of an employment termination plan approved by council, severance is limited to the lesser of an amount equal to the remaining term of the contract or an amount provided under common law. In no case can severance exceed 24 months salary and benefits. The ETS also require an employee to notify his or her previous employer of any re-employment with a BC public sector employer during the notice period or period in lieu of which severance is provided. Where an employee is re-employed in the BC public sector during this period, no severance is payable and the employee must repay any amount that is attributable to the period during which the employee is re-employed. The ETS permit an employer to require the employee to continue his/her job duties or assign the employee to similar duties or a successor employer during the notice period. Finally, the ETS place a five-year cap on “rolling term” contracts.

The ETS apply to all exempt employee contracts commenced, changed or renewed on or after May 1, 1997. As contracts that predate the standards come up for renewal, the contracts will automatically fall within the scope of the ETS.

In addition, information received from CCEA suggests that as a matter of practice, Crowns are modifying contracts to ensure they comply with the ETS and common law standards.

As already noted, PSEC Secretariat is currently planning the collection of Crown corporation exempt employee contracts. Contract analysis will help indicate: 1) the extent of contracts that pre-date the ETS and contain provisions inconsistent with the current standards; 2) the extent of the contracts that the ETS apply and the degree of compliance; 3) changes in employment termination and severance practices before and after the ETS; 4) potential future severance liabilities; and 5) outstanding employment termination issues that may need to be addressed.

PSEC Secretariat is also proceeding to implement a severance reporting form, which will be used to monitor employment termination outcomes and ETS compliance. Where severances are inconsistent with the ETS and the ETS apply, steps will be taken to bring the severance arrangements into compliance with the ETS. PSEC Secretariat will also follow-up with employers on contracts that predate the ETS but have been found to be inconsistent with the standards.

Keeping The Legislative Assembly and Government Informed

Informing the Legislative Assembly

In the original audit report we had noted:

Although Crown corporations were required to report similar information to the ministers to which they are responsible and to PSERC under the Financial Information Act, they were not required to report such information to the Legislative Assembly.

We had recommended:

Where severance arrangements are not covered under any collective agreement, Crown corporations should be required to report annually to the Legislative Assembly the number of severance arrangements negotiated in the previous year and the range of equivalent months' gross salaries such arrangements represents.

Council Response

This recommendation has been addressed.

CCEA is not aware of specific details as to whether this is done or not done by individual Crowns, or how such information may be disseminated. CCEA is only aware of one executive severance that has occurred since the Auditor General's report and that severance fell within the parameters of the ETS.

Section 4.1 (4) of the Public Sector Employers Amendment Act requires employers to provide PSEC with copies of employment contracts and other information that PSEC requests for the purpose of monitoring compliance with the standards or assisting PSEC in the development and revision of employment standards. PSEC's ETS implementation plan envisions regular production and publication of aggregate employment termination data collected from contracts and severance reports. As mentioned, PSEC Secretariat is collecting Crown contracts and severance data to do this. PSEC employment termination data could be made available to the Legislative Assembly upon request.

Informing Government

In the original audit report we had noted:

Crown corporations participated as CCEA members in the development of broad severance and other compensation guidelines designed to meet PSEC's framework of standards. Although all corporations we surveyed, at the time of our review, agreed with these guidelines, several did not view them as compulsory. In this regard, we noted no clear requirement within the Public Sector Employers Act for individual Crown corporations to report instances in which CCEA guidelines were not followed.

In our opinion, the guidelines were not meant to be intrusive and were purposely expressed in general terms to give each corporation the flexibility to develop its own specific standards. It was also recognized by CCEA and PSEC that exceptions to guidelines may occur to meet specific recruiting or termination objectives. We thought, however, that Crown corporation employers should, as a minimum, be required to explain any exceptions.

We had recommended:

Crown corporation severance arrangements exceeding sector guidelines should require approval by the Public Sector Employers' Council before finalization.

Council Response

This recommendation has been addressed.

The ETS goes beyond this recommendation by setting maximum standards that reflect common law. Moreover, the ETS supersede the CCEA guidelines.

While the ETS permit council to approve an employment termination plan, which provides severance beyond an amount equal to the remaining term of the contract or an amount provided under common law, the ETS limit maximum severance to 24 months salary and benefits. To date, no such plans have been brought forward to PSEC.

Section 2 of the ETS permits an employer to provide severance or notice to an employee that would otherwise not be eligible. However, this is only permissible under a labour adjustment policy or program approved by PSEC. A labour adjustment subcommittee of PSEC has been established to review and approve labour adjustment policies and programs. Policies and programs are reviewed and approved in accordance with the following principles:

1. Employers should agree to labour adjustment provisions only in the context of an agreement, which is realistic with respect to compensation and adaptation. In other words, labour adjustment must be part of a program of on-going cost effectiveness and adaptation, not an obstacle to achieving it.
2. Every labour adjustment provision must have a demonstrable relationship to its intended purpose.
3. Where parties agree to a number of labour adjustment options, the options must be prioritized such that eligible employees are obliged to accept the most cost effective option.
4. The total cost of labour adjustment provisions must be reasonable in relation to the budget for the employer or group of employers whose employees are covered by the provisions. Even where the medium or long-term savings are significant, the short-term costs of labour adjustment are important because they come from current budgets and are not “new money.”
5. No labour adjustment provision shall provide salary continuation for any person who is not usefully employed or being retrained.

6. Where employers establish labour adjustment provisions for non-union groups, they should apply the above guidelines with the changes necessary to reflect the non-union circumstances.

To date, the PSEC Labour Adjustment Sub-Committee has approved labour adjustment plans for BC Hydro and WCB, which are designed to deal with labour adjustment issues arising from downsizing, business process improvement, and technological change.



BC Transit: managing operator productivity



BC Transit: managing operator productivity

One of the goals of BC Transit (Transit) is to excel in providing cost-efficient public transportation systems. Since the cost of the time of its bus operators accounts for about 32% of its total operating budget, Transit must manage this time well if it is to achieve that goal. This means seeking ways to minimize the cost of the time which it needs from its operators, while respecting the constraints imposed by the National Safety Code, the collective agreement with the operators, and other factors. It is a complex and challenging task.



summary of original audit report

Audit Purpose

The purpose of the audit was to assess Transit's degree of success in maximizing the productivity of its bus operators and in measuring the results which it has achieved. Our audit included bus operations in both Vancouver and Victoria transit regions.

Our audit looked for answers to the following questions:

- How well did Transit use the time of its operators?
- Did Transit set expectations for operator efficiency and had it assigned responsibility for attaining them?
- Was Transit measuring the right things to determine if it was making progress towards its goals for operator efficiency?
- Did Transit schedule its operators' work efficiently?
- Was Transit managing attendance of the operators well?
- Was Transit managing daily dispatch operations well?
- Was Transit adequately prepared for collective bargaining?
- Did Transit appropriately inform its stakeholders about its efficiency in using the operators' time?

Overall Conclusion

The Vancouver region needed to improve the productivity of its bus operators. Overall productivity was not satisfactory and absenteeism in particular continued to be a problem. Vancouver region lacked goals for operator productivity and related performance areas, and did not yet have a proper information system to monitor and manage productivity. The scheduling function in Vancouver, which had a major impact on productivity, had been under-resourced, and only recently had begun to get the technology needed to help achieve productivity gains targeted in the long-term plans for the organization.

In the Victoria region, Transit had been comparatively successful in maintaining a consistent level of operator productivity. The scheduling function was well-organized and focused, and levels of absenteeism, although high in comparison with many other transit organizations, were significantly lower than those in the Vancouver regions.

We also concluded that Transit needed to develop a stronger approach to collective bargaining, and to link its bargaining strategy to its long-term goals.

We recognized that most of these problems had evolved over many years, and that correcting them would take a high degree of commitment and cooperation from management, labour, and the governance of the organization. Solutions to many of these issues were neither easy to find, nor speedy to implement. Current management had made some progress in a number of areas, and we encouraged the continuation of these efforts.



follow-up

Office of the Auditor General Comments

The information provided by BC Transit regarding progress in implementing the recommendations included in our 1997 audit report is set out below (in colour). The 1997 audit report primarily addressed the Vancouver operations of BC Transit. Because these operations are now devolved to the Greater Vancouver Transportation Authority, we have not reviewed this information to determine whether it is fairly stated.

BC Transit Progress Report

Setting Expectations and Measuring Performance

In the original audit report we had noted:

Transit had been given a long-term goal of operating cost-efficiently, and in its long and medium-term planning, it had set out graduated productivity goals. The goals, however, had not been translated into measurable objectives.

Transit had developed a number of key performance indicators. Two of these indicate operator efficiency: service hours per operator and operating cost per service hour. Both of these indicators, because they were not linked to objectives, did not show whether the rate at which performance was improving would enable Transit to achieve its long-term goals.

Transit set annual targets for its key performance indicators, but these were outcomes of the budgetary process and were not designed to stimulate improved performance. There was little attempt to relate the target to what might have been achieved by managing the processes well.

Vancouver region had not developed supporting measures for the key performance indicators. As a result, accountability for the success of some key processes, such as attendance management, was not clear and may have been reflected in the region's high rates of absenteeism. The Victoria region had developed some supporting indicators and assigned them to individual units in the organization.

... continued

Continued . . .

We had recommended:

Transit needs to translate its overall goal for the Vancouver region of a yearly 1% improvement in productivity into measurable objectives for each of the major activities in Transit. Further, Transit needs to ensure that the key performance indicators it uses can be clearly seen to measure progress towards attaining those objectives.

In the Vancouver region, Transit needs to assign responsibility clearly for the attainment of objectives, by setting sub-objectives and targets for individual business units and staff throughout the organization.

*Corporation Response
Vancouver Region*

BC Transit has developed detailed performance indicators to measure the individual constituents of workforce productivity including absenteeism management, spareboard administration and manpower allocation. Where possible, we use detailed performance indicators to isolate the impact of specific productivity initiatives. However, in many cases these components are so interrelated that they cannot be measured in isolation. Consequently, we rely primarily on the global performance measure of service hours per operator. In doing so, we ensure that interrelated productivity initiatives are achieving the desired result.

Based on this measure, we have achieved significant productivity improvements. Since the audit was completed, Vancouver Bus has achieved a 3.8% improvement in operator productivity. The 1998/99 forecast of 1,369 service hours per operator compared with the 1996/97 figure of 1,319 service hours of operator equates to an improvement of 6.7 days per operator. Improvements have been realized through reduced absenteeism and the implementation of operational efficiencies.

Since 1996/97, average operator absenteeism (STD and WCB) has declined from 23.2 days to 18.6 days, a reduction of 20%. The 1999/00 budget anticipates a further reduction of 8% in operator absenteeism. Overall, we are projecting a 28% reduction in absenteeism by March 31, 2000.

Operational efficiencies have been found in spareboard work assignment by changing the operators' day off rotation as well as changing the way blocks of holiday relief work are

calculated. In addition, we now allocate holidays to balance manpower and minimize overtime and non-productive time. Since December 1996, the number of spareboard operators has decreased by 45% despite significant increases to service levels. This equates to annualized savings of \$4.4 million. Improved attendance will further reduce spareboard requirements and overtime costs.

Currently, the spareboards are running at an average of 12.8% of total manpower, compared with contractual requirements of 12% and the 1996/97 average of 18.6%. Therefore, 1998/99 targets effectively place manpower targets at the minimum defined in the collective agreement. As such, future improvements must be realized through the collective bargaining process.

Other current and pending improvements in scheduling and manpower allocation are discussed later in this progress report. The 1999/2000 operating budget reflects further improvements in operator productivity primarily in reduced absenteeism. The budget is based on 1380 service hours per operator. This is an increase of 11 hours over the 1998/99 forecast.

Divisional Performance Indicators 1998/99 Progress

The process to develop a set of indicators within Customer Service which accommodates the recommendations of the Auditor General has been initiated. The measures have been clearly identified and agreed upon by operational management. The final step is to tie these indicators into individual performance evaluations and develop the reporting infrastructure.

1999/2000 Implementation Process

This process is still being defined and is expected to be iterative with input from various key players. A brief outline of the preliminary process is as follows:

- Define the Objectives of each Business unit—Each unit's short term and long term plans should be consistent with that of the Corporate Strategic Goals. The Corporate objectives are outlined in the Five-Year Plan and the Ten-Year Plan.
- Identify Key Elements—These elements have to be meaningful and measurable to be effective. They are the keys to instilling the concept of efficiency, effectiveness and economies of scale within the corporation.

- **Historical Trend**—The analysis of a trend is vital in ensuring that targets are made challenging and achievable.
- **Evaluation Process**—The timing and depth of this process has still to be established. The cost versus benefit concept would be the driving force for determining the frequency and volume of measurement.
- **Action Plan**—An implementation plan would have to be formulated, by each individual business unit to ensure that they remain on route to achieve the targets set by themselves.

Managing the Scheduling Process

Clearer Goals and Objectives are Needed

In the original audit report we had noted:

Because schedulers design the work of the operators, their activities not only have a major effect on efficiency, but also have more potential to affect labor relations than any other single function of transit. Clear goals and objectives are therefore essential. However, the Vancouver region had set no long-term goals for efficiency to be delivered by the scheduling process, nor had it used target setting consistently as part of the planning phase for each run-cut.

Management's ability to pursue its efficiency goals depended largely on the extent to which its goals, and strategies to achieve them, were supported by the Board and within the organization. There was some uncertainty about the rate at which management should pursue scheduling efficiencies within the existing work rules. As long as this uncertainty continued to exist, there would have been little chance of establishing reasonable expectations of performance for the scheduling function.

We had recommended:

Transit should provide the scheduling function in the Vancouver region with clear performance expectations, and support the function in meeting these expectations. This support should come from the Board and other key stakeholders, as well as from management.

Corporation Response
Vancouver Region

The process over the last two years focused on better integration and communication within the division to ensure schedulers are aware of objectives. Issues with service reliability and overcrowding underscored the need to balance paper scheduling efficiencies with the reality of driving in the Vancouver region. Solutions have been achieved through the co-ordinated efforts of operators, operations front line staff, planners, and schedulers and has led to a greater understanding among schedulers of the other factors affecting operator productivity, specifically how their actions can impact the spareboard requirements. Productivity improvements through improved scheduling have been reflected in the increased service hours per operator noted above.

On an ongoing basis we will continue to emphasize proper communication and co-ordination between planning, scheduling, manpower planning, divisional finance, and service delivery. In particular, emphasis will be placed on assigning peak service work to minimize overtime and non-productive time.

Since the audit, we have attempted to develop key performance indicators to measure the performance of scheduling. However, discussions with other transit properties and CUTA indicate that there is no commonly accepted key performance indicator for scheduling. With the introduction of the TRAPEZE upgrade, performance measurement standards and management reporting will be developed to measure the performance of scheduling.

*Information Support is Weak**In the original audit report we had noted:*

The scheduling function in Vancouver was going through significant change. There were many demands on the time of the schedulers. As well as dealing with day-to-day scheduling issues for the transit centers for which they were responsible, the schedulers took part in system planning. They were also implementing a new, sophisticated scheduling technology.

These activities improved the visibility of scheduling within the organization, and helped ensure that the impact on scheduling of many service planning and resourcing issues was considered at the right time. However, the demands they placed on the schedulers were great and might have jeopardized the schedulers' ability to deliver the levels of efficiency that Transit expected.

The resources which Vancouver schedulers needed to develop accurate and efficient schedules had at times been reduced to levels which made it difficult for them to succeed. Specifically, three important elements of the scheduling process lacked adequate resources: collection of passenger load data, the analysis of the data, and determination of vehicle running times.

We had recommended:

Transit should determine the additional resources needed to enable the scheduling function in the Vancouver region to meet the expectations for its performance. These resources should be directed to the determination of vehicle running times and passenger load counts, among other things.

*Corporation Response
Vancouver Region*

Three additional schedulers were included in the 1998/99 Business Plan and operating budget. Because of the specific skills required to do this job, recruitment has proven to be very difficult and time consuming. To date, two of the three positions have been filled. The third position is on hold pending review of the bus company structure. The learning curve is extensive and it is expected to take up to 12 months for these new schedulers to become conversant with the requirements of their position and the complexities of the Trapeze FX scheduling software.

An Automatic Vehicle Locator (AVL) pilot project is being introduced on a New Westminster to Vancouver route, and is expected to be used on the Richmond Rapid Bus. Global

positioning systems will be used to track the exact vehicle location at all times so that in addition to enhanced customer information and service, planners and schedulers will be provided with detailed, reliable data regarding the service.

Electronic fareboxes have the potential to provide information on route revenue and ridership. Installation has been delayed and will now begin at the Oakridge Transit Centre in the summer of 2000.

More Information on Results Needed to be Retained

In the original audit report we had noted:

Assessing how well schedulers are doing their job is usually based on the “pay-to-platform” ratio for the run-cuts they produce. This indicates how many hours of an operator’s time the transit organization needs to buy to obtain one hour of driving time.

To demonstrate how well they have responded to expectations of performance, schedulers should maintain records of previously adopted run-cuts. In the Vancouver region, such records were available up to 1994 but after that the information was not organized. In particular, the results of run-cuts which were not adopted but which demonstrated superior efficiency to the one that was adopted, were not retained. The lack of such data impaired management’s ability to assess whether or not the scheduling process was achieving efficiency gains.

We had recommended:

To help it evaluate the effectiveness of scheduling, Transit should retain records of run-cuts prepared as part of the scheduling process—both those adopted and those that were not—with explanatory notes about the basis of selection.

*Corporation Response
Vancouver Region*

The final versions of a run-cut that explore different budget scenarios or other initiatives are retained. However, iterations leading up to the final version are not retained. The nature of the scheduling process with the TRAPEZE software is such that, as a single run-cut is developed, and as inefficiencies materialize, an alternate strategy is employed, and the inefficient run-cut is never fully developed. For this reason, it is not practical to retain it on file. Fully developed run-cuts that are presented to the review committee can and will be retained, along with the modified and adopted final version.

Victoria Region

The preparation of runcuts for service implementation is an interactive and evolving process. There is not a separate “final” state, which can be stored for a runcut, which is not implemented. The Scheduling Supervisor does prepare a summary document at the end of a runcut process, which is distributed to management. This document provides statistical detail regarding the cut and notes any environmental, contract or service changes or new runcut initiatives that have affected the cut. This statistical and contextual information is tracking for historical comparison or trend analysis.

Managing Daily Dispatch Operations

Current Information Systems Make it Difficult to Manage

In the original audit report we had noted:

Transit center managers need information systems that enable them to evaluate the cost-effectiveness of different dispatch options, while at the same time capturing and retaining information about how efficiently the spareboard is being operated. Systems in place at the time of our audit failed to meet both these objectives.

Although there was a computerized system for recording the total work time of each operator, other processes which were manually-based relied significantly on the experience and intuition of depot staff and produced huge quantities of paper—all of which made it difficult and time-consuming to assess performance.

We had recommended:

Transit should implement a transit center operations system that supports decision-making, eliminates duplication of records, and reports on the efficiency of operations.

Corporation Response

Vancouver Region

BC Transit received approval in the 1998/99 Capital Budget for a Daily Operations Management System (DOMS). Full implementation is scheduled for April 2002. This project had been delayed due to delays in the provincial approval process. DOMS will replace the current manual systems with a commercially available software package customized to

BC Transit's needs. Major components of the system include management of human resource files, rostering, daily dispatching, timekeeping, and critical management information necessary to efficiently manage the operator workforce. It will also facilitate National Safety Code compliance that is very difficult and time consuming under the existing manual system.

Victoria Region

As part of the corporate restructuring underway with respect to the Greater Vancouver Transportation Authority, BC Transit is developing payroll systems for Victoria. These systems merge with current operational tracking systems and will provide the necessary information for more detailed analysis of operator efficiency, particularly with respect to spareboard management. The system will remove most manual record keeping and report duplication.

Opportunities for Further Efficiency Should be Explored

In the original audit report we had noted:

Major efficiencies in spareboard management could have been achieved from fundamental changes in the way in which the spareboard was designed and maintained. Some changes could have been made within the existing work rules; others would have had to have been negotiated.

We had recommended:

Transit should explore whether or not there are opportunities for further efficiencies in the way in which daily work is assigned.

Corporation Response

Vancouver Region

As stated earlier, operator productivity has improved by 3.8% since the audit was completed. This improvement can be attributed to success in a number of areas including improvements in attendance management, scheduling, spareboard administration and work assignment. Specific improvements in work assignment include the following:

- The overall decrease in spareboard operators is due in part to a change in day off rotations for spareboard operators which not only reduced the number of operators, it also ensured the maximum number of operators were available weekdays when they were most needed. This change reduced overtime and Sunday premium.

- As well, there has been a change in the way that holiday assignment is calculated which has resulted in an equivalent savings of about 9 operators.
- Automation and streamlining of the Guarantee Productivity Report assists depots with the day-to-day management of their workforce. By reviewing daily usage of standby, guarantee, and overtime, management can adjust work in order to optimize efficiency.

Future improvements will be realized as planned programs and systems, including DOMS, are implemented to further reduce absenteeism and enhance operational efficiency.

Victoria Region

Planning and scheduling activities are continually focused on improving the utilization of manpower and vehicle resources. The integrated department structure ensures the necessary feedback between planning and implementation activities to address efficiency.

A primary restriction to significant improvement in this area is restrictions posed by the collective agreement between transit operators and BC Transit. In the initiation of bargaining this year, management reviewed efficiency issues and has made several proposals to the operators union regarding efficiency in both regular and spareboard work categories.

Complying with the National Safety Code

In the original audit report we had noted:

In October 1993, inspectors of the Motor Vehicle Branch carried out a review of the processes that Transit used in the Vancouver region to monitor driver hours of service. The inspectors noted that the Vancouver region “cannot, due to the size of its operation, effectively monitor or control driver hours of service by manual means. As noted earlier, a comprehensive computer program is the only viable option.” Since the inspectors’ report, Transit had spent considerable time developing proposals to restructure the daily operations systems. However, no major changes had been made since the 1993 review.

We had recommended:

Transit should implement a more effective system for monitoring compliance with the National Safety Code in the Vancouver region.

Corporation Response

Vancouver Region

As stated earlier, the Daily Dispatching System, an infrastructure component for DOMS, has been fully funded in the 1998/99 Capital Budget. This system will facilitate compliance with the National Safety Code.

Victoria Region

BC Transit—Victoria has developed systems, which enable monitoring for National Safety Code compliance.

Managing Operator Attendance

Clear Objectives and Strategies Need to be Established

In the original audit report we had noted:

We found that Transit had not successfully developed a comprehensive attendance management strategy. In our discussions with Transit managers, we found little evidence of a commonly held view of the objectives of Transit's attendance management program (other than that of improving attendance). Managers were also uncertain as to whether or not they had met the expectations of the corporation. Except in Victoria, no explicit annual attendance targets had been set by senior operations management.

We had recommended:

Transit should implement a comprehensive strategy for attendance management. It should also define more clearly the goals and priorities of the attendance management process, and ensure that these are understood throughout the organization.

Corporation Response

Vancouver Region

BC Transit has implemented a comprehensive attendance management program that includes the key elements of successful plans implemented at other transit authorities. The attendance management program emphasizes case management including an increased focus on return to work programs. The goal is to create heightened awareness of the requirement to promote and maintain high standards of attendance for all employees. Deliverables include a training session for supervisors and managers to improve skills used in attendance interviews and development of a process to implement attendance goals as key performance indicators for managers and supervisors.

Recently, BC Transit engaged a risk management company to work on our behalf in managing Workers Compensation claims. The company reviews all the protested claims and ensures all the facts related to the case are properly gathered and compiled for the WCB. In addition, the company represents BC Transit at appeals to ensure legitimate claims are processed expeditiously and questionable claims are flagged for further investigation.

Since the audit, Corporate Safety has developed a written safety program that is proactive in its approach to minimizing the risk of future claims.

Attendance is monitored on an ongoing basis and incorporates a process of continuous improvement. As information on absenteeism improves, new attendance management initiatives are developed in response to emerging trends.

Victoria Region

The current short term disability plan is designed in such a way that it doesn't discourage staff from taking up to 5 days off sick, on the first 2 occurrences. Management has tabled proposals at collective bargaining with the transit operator's union designed to improve this situation.

In addition to this we currently have a comprehensive strategy for attendance management at Victoria. This strategy however, must be managed within the bounds of the collective agreement.

The strategy is one of managing absenteeism by setting targets and identifying those persons who exceed what is considered to be the "norm". This is done by ongoing daily and weekly reviews of the attendance records. Once an employee is identified to have exceeded the norm, steps are taken to further monitor or in some cases make direct contact with the employee.

In all cases when we deal with the employee we attempt to determine if their work aggravates their disability, whether their doctor can provide a prognosis for regular return to work and if the condition is chronic. Over the past year we have initiated a number of more aggressive approaches to "work hardening" through graduated back to work programs.

Attendance is monitored on an ongoing basis and incorporates a process of continuous improvement. As information on absenteeism improves, new attendance management initiatives are developed in response to emerging trends.

*Factors Affecting Attendance Need to be Identified**In the original audit report we had noted:*

Transit management needs to know the factors that most significantly affect attendance at each of the transit centers. Some factors are directly related to the nature of the work itself. Other factors influencing attendance are not directly associated with the nature of the tasks, but reflect what the operators see as being acceptable types and levels of organizational behaviour. A further factor, which can influence attendance, is the structure and terms of the disability plans. The design of the plans should not penalize operators for being sick. On the other hand, they should not inadvertently reward excessive absenteeism.

We expected Transit to have analyzed the current balance of incentives and disincentives in the design of the disability plans and the way in which the plans were administered to see if the balance was appropriate. However, Transit had not recently made such a formal analysis. Transit had had some success in addressing certain of the health factors associated with absenteeism. However, it had not done as well in identifying the main attitudinal issues associated with attendance in the organization. Surveys are the most usual means of gathering this kind of information.

We had recommended:

Transit should conduct a review of operator attitudes to identify the factors most significantly affecting the levels of operator attendance in the organization. Every effort should be made to enlist the support of the union for the survey. On completion, the key results should be shared with all the interested stakeholders. As well, Transit should analyze the current balance of incentives and disincentives in the disability plan to see if the balance is appropriate.

Corporation Response
Vancouver Region

We agree with this recommendation. Currently, fiscal restraints and labour relations considerations preclude the performance of this survey. Consideration will be given to conducting this survey in subsequent years.

Victoria Region

Management and Union officials have met to discuss the issues surrounding absenteeism. Several meetings were held focusing on the issues raised by the Auditor General’s report and on factors affecting absenteeism. However, the commencement of bargaining has resulted in the suspension of these discussions and the removal of these issues to the arena of collective agreement negotiations.

Roles and Responsibilities Should be More Clearly Communicated

In the original audit report we had noted:

In Vancouver, we found that the assignment of roles and responsibilities for attendance management was not clear. Customer Services management, at headquarters and at the transit centers, and Human Resources management were both involved in the attendance management process—the former more directly and the latter in a more functional role. However, for many years and under many different administrations, there had been a tendency for the Board (and particularly the Chair) to involve itself in labor issues when continuity of service to the public had been at risk. This involvement had sometimes led to the perception that middle management decisions on attendance may not always have received support from senior levels in the organization and from the Board.

We had recommended:

The roles, functions, and values associated with the attendance management program should be articulated more clearly and communicated to managers and supervisors who administer the program.

Corporation Response

Vancouver Region

The company has created an attendance management resource team dedicated to co-ordinating all aspects of attendance management with a focus on assisting line management in the application of the various components of the program. The direct involvement of line management has contributed to the success of the program to date.

On completion of the current negotiations, Labour Relations will develop training programs for line management to explain changes to the collective agreements and how best

to manage them. With this, and other initiatives, the Labour Relations department is working to establish closer ties with line management.

Victoria Region

Management at BC Transit Victoria remains very much aware of the value of a consistent and comprehensive attendance management program. The importance of this issue is discussed on ongoing basis with those managers and supervisors involved in the administration of the program. Absenteeism rates are a performance indicator presented to senior management and trends are questioned and analyzed on an ongoing basis. Managers and supervisors administering the attendance management program are well aware of the importance attached to this area by senior management.

Managing the Collective Bargaining Process

Goals for Collective Bargaining are Needed

In the original audit report we had noted:

Transit needs to routinely assess the effect of work rules on how efficiently it can deliver current and future service plans. It also needs to be more strategic in its approach to collective bargaining, and must set goals for the process which reflect corporate objectives and plans to expand the system.

We thought that Transit should have been analyzing future trends in service delivery, and using this information to determine the type of work rule structure that would allow it to respond to these trends most efficiently. This way Transit could have planned proposed revisions for contract negotiations over a number of collective agreements. In fact, we found that Transit had not completed such an analysis, nor had it developed a regime of proposed contract issues to serve its long-term plans and objectives.

We had recommended:

Transit should establish long-term goals for collective bargaining, and strategies for achieving them. The goals and strategies should reflect the proposed development of the transit system as contemplated in the medium- and long-term service plans. Bargaining strategies must be linked to the budget process and to the overall mandate for negotiations.

Corporation Response
Vancouver Region

Labour Relations strategies and collective bargaining objectives have been incorporated in the long-term business plans. Benchmarking undertaken during 1997/98 has assisted in identifying gaps in work rules and business practices. This has provided input into setting longer-term collective bargaining goals.

With the pending transition to the Greater Vancouver Transportation Authority, it is reasonable to assume that the new owners will guide future strategies.

Victoria Region

In bargaining recently initiated with the transit operator's union management prepared a series of proposals relating to five-year service and market plans and operator efficiency. The initiatives are linked to budget, service priorities and the overall mandate of the bargaining team.

A Contract Costing Model is Desirable

In the original audit report we had noted:

To make the right decisions in preparing for, and during, labor negotiations, management should know what it wants to achieve during negotiations, have a strategy to achieve it, and have timely and accurate information about the estimated costs and potential benefits of contract proposals. We found that Transit was improving the capability of its information systems, but was not taking full advantage of available technology to improve the timeliness of its evaluation of the costs and benefits of contract proposals.

A solution, we thought, was the use of a contract costing model. A contract costing model is essentially a template that captures the terms and values of the collective agreement, and is able to project the financial impact of changing those terms. In 1994, Transit explored the potential for using a contract costing model, but ultimately decided not to acquire one. We believed that this decision should be reviewed.

We had recommended:

Transit should acquire a contract costing model to assist it in evaluating the impact of proposed contract revisions.

*Corporation Response**Vancouver Region*

BC Transit agrees with this recommendation. Issues related to scheduling represent one of the largest components of labour costs. With the full implementation of TRAPEZE and associated training now underway, scheduling-related costs can be calculated. In addition, the implementation of DOMS will allow for the calculation of spareboard costs. Overall, the corporation's ability to cost provisions of the collective agreement will be significantly enhanced.

Victoria Region

BC Transit has developed a series of models to cost contract revisions involving financial models, schedule analysis and planning forecasts. There is on-going work to improve these models to provide better decision-support analysis. New systems developed for local operator time-keeping and payroll will provide more detailed data and will allow for further refinement and extension of these models.

*Evaluation of Contract Initiatives Needs to be More Conclusive**In the original audit report we had noted:*

We had expected Transit management to measure whether or not changes to the work rules had achieved the intended effect and, if they had not, to exercise its rights under the agreement. We found that Transit did not always ensure that expected performance was clearly defined in contract provisions and letters of understanding.

In general, we found that Transit tried to evaluate the effect which some contract provisions had achieved. But without clearly defined criteria or measures of success, it had often been difficult to determine what the effect had actually been.

We had recommended:

In future contract negotiations, Transit should ensure that the basis of measuring the success of the contract provisions be defined adequately and be capable of being measured accurately. For provisions, which may be canceled by either party, success and measurement criteria should be set out clearly in the contract language.

Corporation Response
Vancouver Region

The implementation of the systems noted in the response to recommendation 13, regarding acquisition of a contract costing model, will provide a tool for measuring the impact of contract provisions.

Reporting on Performance

In the original audit report we had noted:

Transit's accountability reporting on operator productivity was generally at an appropriate level for the needs of the Board of Directors, the regional transit commissions and the Legislative Assembly. However, lacking in some reports was a meaningful level of contextual information, including analysis of the performance measures and what they suggested about the overall level of performance.

We had recommended:

Transit should ensure that performance information provided to different groups of stakeholders is accompanied by analysis that is consistent in content and relevant to the interests of the groups concerned.

Corporation Response
Vancouver Region

BC Transit agrees with this recommendation, and will provide more consistent and relevant commentary in the future. To date, fiscal restraints and provincial government reporting requirements have precluded a more analytical approach to reporting.

The 1998/99 Annual Service Plan and Program Plan-Transport 99 provided operating statistics and performance indicators that summarized information for five years. Commentary was also provided, focusing on Revenue Ridership and Cost Efficiency.

It is anticipated that with the transition to the GVTA, there will be a requirement to provide more detailed performance information to its stakeholders.



BC Transit: its success as a market-focused organization



BC Transit: its success as a market-focused organization

Like many other organizations, BC Transit (Transit) faces an increasingly demanding marketplace. In particular, automobile commuters—one of Transit’s strategic target markets—are accustomed to choice, flexibility, and comfort. Transit cannot take for granted that it is supplying what its customers want. It must regularly check to see how well its products and services are working, adjust what is not working, and develop new products and services where needed.



summary of original audit report

Audit Purpose

The purpose of our audit was to assess how well Transit is succeeding at being market-focused.

Our audit looked for answers to the following questions:

- Did Transit have appropriate strategies to guide its market-related activities?
- Were Transit's market-related functions appropriately organized?
- Did Transit systematically determine what its targeted customers wanted, assess how well its existing products and services addressed those wants, and make necessary changes to better address them?
- Did Transit appropriately inform its stakeholders about its market-related performance?

Overall Conclusion

Overall, we concluded that Transit, particularly in Vancouver, had not yet succeeded in becoming a market-focused organization.

Both the Vancouver and Victoria regions had developed high-level plans which defined their target markets and set out goals for market share that were clear, challenging, and broadly consistent with the expectations of Transit's government stakeholders. However, Vancouver needed to translate its market goals into well-developed action plans, revise its organizational structure, improve the way it developed new products, and regularly evaluate the attractiveness of its existing products. Above all, it needed to develop a customer-centered approach through-out the organization.

Victoria was further along the way to becoming market-focused than is Vancouver. However, it still needed to refine its use of market information for product development, and to regularly examine its existing products from the customer point of view.

To ensure that its stakeholders supported and understood its efforts to become market-focused, Transit needed to tell the Legislative Assembly and public more about its marketing goals, and explain its results.

In offering this conclusion, we acknowledged that Transit was accountable to multiple stakeholders (including the Province, the regional and municipal governments) with objectives that may have competed or conflicted with Transit's ability to be fully responsive to the market. To become fully market-focused would not only require large-scale cultural change within Transit, but also the confidence and support that Transit had to earn from its stakeholders.



follow-up

Office of the Auditor General Comments

The information provided by BC Transit regarding progress in implementing the recommendations included in our 1997 audit report is set out below (in colour). The 1997 audit report primarily addressed the Vancouver operations of BC Transit. Because these operations are now devolved to the Greater Vancouver Transportation Authority, we have not reviewed this information to determine whether it is fairly stated.

BC Transit Progress Report

Developing Strategies to Guide Market-related Activities

Longer-term Goals Are Not Congruent

In the original audit report we had noted:

The goals set in longer-term plans were considerably more ambitious than those in Transit's five-year plans. For example, the Transport 2021 plan jointly developed by the provincial government and the Greater Vancouver Regional District called for Transit to attain an 18% market share by 2021. Achieving this would have required more than doubling the market share growth rate over that called for in the five-year plan.

We had recommended:

Transit should work with its regional transit commissions and the provincial government so that the various long-term plans and marketing goals are consistent and attainable.

Corporation Response

Vancouver Region

The negotiated agreement between the Province and the GVRD to hand responsibility for transit in the Vancouver region to the GVTA effectively ensures consistency in goals and the availability of resources to meet them. Since the new entity has “total” responsibility and control over both the corporation’s strategic direction and its financial resources it is better equipped to ensure congruence in its plans.

Victoria Region

BC Transit has developed its Five-Year Plans in conjunction with both the Provincial government and the Transit Commission. Commission members have met with management and Government to ensure that service plans are financially viable.

BC Transit provides the Transit Commission with regular updates to medium term financial forecasts based on the latest service plan and market response information.

Vancouver Transit's Action Plans Are Not Yet Aligned With Its Goals

In the original audit report we had noted:

The Vancouver region developed yearly action plans called "annual service plans," but these did not reflect the overall strategic directions of Transit articulated in the five-year plan. For example, despite the strategic priority given commuter service, only six of Vancouver's 14 service development projects under way at the beginning of our study period focused clearly on commuters. Similarly, the 1996/97 annual service plan specified criteria for new service improvements, but of the 11 criteria only two focused on commuters directly.

We had recommended:

The Vancouver region should ensure that its action plans for service improvements clearly support its market goals.

Corporation Response

Vancouver Region

The Vancouver Regional Transit System's Five-Year Plan, approved in 1997, outlined strategic initiatives intended to support regional transportation and development goals and provided a blueprint for the development of subsequent Annual Service Plans. The Annual Service Plans now clearly reflect, and are consistent with, the goals and objectives of the Five-Year Plan.

In prior years, BC Transit has had difficulty aligning its operational activities with its marketing strategy due to capacity constraints. Since the audit, BC Transit and the regional transit commission have devoted considerable time and effort to ensuring that new marketing initiatives do not exceed BC Transit's ability to deliver the related service.

As noted previously, the change in transit governance in the Vancouver region will now allow for greater consistency between long-term strategic goals and action plans.

Organizing to be Market-focused

Key Indicators Need to be Expanded and Responsibility for Performance Against the Indicators Needs to be Clearly Assigned in Vancouver

In the original audit report we had noted:

Only two key performance indicators pertained to service elements that were within management control and contributed directly to achievement of market goals. These addressed service reliability and safety. These two elements, however, are not the only ones that affect the consumer decisions that lead to market success. For example, although Transit always asked customers in its regular surveying process to indicate how important different service elements were to them, most of these elements did not have a corresponding key performance indicator.

Responsibility for successful performance was assigned at the mode level (that is, Vancouver bus, Victoria bus, SkyTrain, Seabus, and West Coast Express). However, this approach did not provide sufficient focus for Vancouver bus operations, where there was no individual assignment of responsibility to ensure specific standards were met.

We had recommended:

Transit should address in its key performance indicators all elements of service that are of importance to customers.

Transit should assign responsibility for market-related key performance indicators to business units and individuals, in order to promote a stronger focus on customers and on marketing goals.

Corporation Response

Vancouver Region

While the Key Performance Indicators have not yet been expanded and specific responsibility assigned, performance on other key customer service attributes, from the Rider Satisfaction survey, is reported quarterly to the Senior Management Team and relevant Operations staff.

Victoria Region

The Victoria Regional Transit System has implemented monthly tracking of public attitudes towards transit. This provides on-going indication of transit's performance relative to issues of importance to customers. Key in these are attitudes towards driver courtesy, safety and reliability and market share. Quarterly tracking reports and an annual segmentation analysis supplement the raw data which is provided to planners monthly. This survey provides indicators on most measures of importance to customers.

BC Transit's organization is directed at achievement of key market goals. The Planning and Marketing Division brings the business units responsible for product design, development, implementation and marketing under one management focus.

The Operations and Maintenance Division is focused on customer satisfaction and through annual operator workshop addresses key goals and initiatives to address the concerns of passengers with the service delivery.

Vancouver Transit Devotes Insufficient Resources to Market-focused Activities

In the original audit report we had noted:

We found many indications that too few resources were being applied to market-focused activities in Vancouver Transit. For example, there was only one product development team—made up of about half a dozen specialists in planning, scheduling, marketing, and other disciplines—responsible for planning and developing all the Transit-initiated services changes within the Vancouver service area. The effectiveness of the resources available may also have been diminished by the “turbulence” resulting from repeated reorganizations within a short time.

Another organizational difficulty in Vancouver region was the relatively low ranking within the organization of product and service development staff.

We had recommended:

Transit should provide units responsible for market-focused activities in Vancouver with organizational stability, resources adequate for the tasks assigned them, and sufficient ranking within the organization to clearly signal that Transit intends to be market-focused.

Corporation Response
Vancouver Region

The Corporation seconded a Marketing consultant for a one-year period to develop a strategic marketing plan, as a complementary document to the Five-Year Service Plan and Funding Strategy. The plan was developed in consultation with a number of internal stakeholders, all of whom have critical roles to play in delivering customer service. The BC Transit Board of Directors approved a strategic marketing plan and recommendations, consistent with those approved by the Vancouver Regional Transit Commission in the Five-Year Plan, including specific measurable objectives, as follows:

- Increase share of peak period commuters to 13% from 12.5% (specific targets for regional centres were identified in the Five-Year Plan);
- Increase revenue recovery ratio to 35% from 30% and;
- Increase overall customer satisfaction rating to 8.0 from 7.6 out of 10.

In order to meet these objectives, action plans were developed in each of the following areas:

- Expanded access to information
- Enhanced value of service
- Community partnerships

Specific initiatives were then identified as priorities for funding, including detailed schedules on the Internet, signage at bus loops and exchanges and the development of an automated customer feedback management system.

Transit Needs A “Voice of the Customer”—A Senior Executive Whose Primary Job is to Help Focus the Organization on Meeting Customer Needs

In the original audit report we had noted:

A successful market-focused organization sees satisfying customer needs as its raison d'être. This focus permeates the organization. The weak performance measures, unclear responsibility, and insufficient market-related resources in Vancouver Transit were symptoms of a culture that did not have the “voice of the customer” present throughout the organization.

To become market-focused, Vancouver Transit would have had to adopt significant changes at all levels within the organization—changes in focus, expectations, and accountability. Change is always uncomfortable, for organizations and individuals alike, and is often resisted. Transit needed a senior level executive whose primary responsibility would be to act as a change agent—someone to facilitate the cultural shift required if Vancouver Transit were to become truly market-focused.

We had recommended:

Transit should appoint a senior executive whose primary responsibility is developing, maintaining, and advocating market focus throughout the organization.

*Corporation Response
Vancouver Region*

A marketing committee, with representation from Strategic Planning, Customer Information, Corporate Communications and Marketing was established to manage and review the implementation of the plan, and update as required. The new organizational structure developed by the GVTA includes a Vice-President Customer Service and Marketing position.

Providing Market-Focused Products and Services

Transit Needs to Listen Better to its Dissatisfied Customers

In the original audit report we had noted:

Market-focused companies put great effort into learning from customers who have complaints, and customers who stop using their service. Transit did not have formal mechanisms in place for measuring customer dissatisfaction and attrition or determining the causes.

We had recommended:

Transit should develop cost-effective methods of measuring, understanding, and addressing customer dissatisfaction and attrition, and consider including such measures in its key performance indicators.

Corporation Response

Vancouver Region

The Corporation has approved capital funding for Customer feedback management software, which will facilitate analysis and tracking of customer complaints and commendations. This will further supplement the data collected on service attributes with which customers have expressed dissatisfaction, through the on-going Customer satisfaction survey. In addition, the Corporation has aggressively expanded its public consultation efforts (e.g., Richmond/Vancouver RapidBus) in order to proactively identify potential customer concerns before project and program plans are significantly advanced.

Victoria Region

The Victoria Regional Transit System has implemented monthly tracking of public attitudes towards transit. This provides on-going indication of transit's performance relative to issues of importance to customers. Key in these are attitudes towards driver courtesy, safety and reliability.

In addition, BC Transit Victoria has implemented a new in-house system for tracking customer complaints and supervisory follow-up. The database allows for planners and schedulers to review complaints related to specific routes and services to ensure that customers' comments are addressed in schedule and service amendments.

Transit has Examined the Effectiveness of its Telephone Information Service, but Not Yet Given Similar Attention to its Printed Information

In the original audit report we had noted:

Transit's telephone information services had been examined prior to our audit and improvements made. However, less attention had been paid to evaluating print information. Our own observations, and comments made to us by Transit staff, suggested that print information should be assessed and revised. Another indication of this need was that Vancouver customers, in open-ended questions on the rider satisfaction survey, not infrequently complained about difficulties in obtaining print information.

We had recommended:

Transit should ensure that its print information is effective.

*Corporation Response
Vancouver Region*

Subsequent to the Auditor General's report an Information Sources Evaluation was conducted of both printed and telephone information provided by the corporation. The report concluded that the current information sources were generally easy to use, but not particularly easy to find. In order to enhance information distribution, a number of initiatives have been launched, including:

- Upgrades and further automation of call centre (IVR & faxback).
- Enhancement of website to provide schedules.
- Installation of Information racks on all new orders of buses, as well as an update of interior information signage (including route maps on B-Line buses).
- Plans for aggressive expansion of infotube network (Five-Year Plan called for an increase of 150% to 1,000 by the Year 2002) and development of a pilot public Internet kiosk. Since the audit, the infotube network expansion has been directed primarily at B-line.

Since the audit, 43% more customers are getting direct access to information via telephone, talking yellow pages or the website. Website hits per month increased from 5000 in July 98 to 50,000 in February 99.

Victoria Region

BC Transit recently conducted a series of focus groups with its customers regarding printed schedule information. The recommendations of customers lead to design changes in the printed products to improve effectiveness. In addition, alternate publication methods through automated telephone information and the Internet were improved to provide further information to the public.

*Transit has Little Information About, or Control Over, Its Bus Stops and Shelters**In the original audit report we had noted:*

From a new customer's point of view (especially on a rainy November day), the place where the bus is boarded can be either a welcoming entry to the system or a barrier to using it. Surprisingly, these important parts of Transit's service were not regularly evaluated. In fact, Vancouver had only recently been able to develop an inventory and map of the bus stops it uses.

Of course, making sure that stops and shelters meet customer needs would have been easier if Transit had had more control over them. At the time of our audit, most of the bus stops and shelters Transit used belong to municipalities. Transit had some say in deciding their location and condition, but could not, for example, direct municipalities to use a consistent design and graphic treatment for shelters.

We had recommended:

Transit should work with its regional partners to ensure that decisions about bus stops and shelters maximize customer appeal.

*Corporation Response**Vancouver Region*

BC Transit has no legal jurisdiction over bus stops or shelters and, consequently, little direct control over their location/placement. However, building on the spirit of cooperation fostered with the establishment of dedicated #99 B-line shelters on the Broadway/Lougheed corridor, BC Transit, based on input solicited from customers and staff, have identified several new locations for bus shelters. The identified stops have been passed on to the Municipalities, and their advertising agents, for consideration. It is anticipated that the change in governance will lead to improved coordination and communication with the municipalities.

Victoria Region

Transit works on a daily basis with its regional partners to improve customer satisfaction with bus stop locations and facilities. BC Transit for example worked with the City of Victoria in their most recent tender of bus stop shelters and advertising which resulted in an increase in the number, size and amenities associated with shelters in that jurisdiction.

Vancouver Fare Decisions Are Not Primarily Market-focused

In the original audit report we had noted:

For market-focused organizations, pricing—how much the customer pays and how that payment has to be made—is an important marketing tool, and one that can help attract customers or drive them away. In Transit’s Vancouver operations, however, we found that the focus of fare-related decisions was operational rather than market-oriented.

We concluded that the fare-setting process in both Vancouver and Victoria would have benefited from further research related to fares, especially on price elasticity. Elasticity quantifies the consumer’s normal reaction to a change in price—that is, buying less of a product or service when the price goes up and more when it goes down. Knowing the likely response to price change is critical when setting fares, yet we found that Transit had no recent data on actual elasticity in its own markets.

We had recommended:

Transit should make full use of customer research in designing its fare structure, including research on price elasticity in the markets it serves.

Corporation Response

Vancouver Region

In the Spring of 1997, a telephone survey of a random sample of transit customers in Greater Vancouver was carried out to determine their sensitivity to fare changes. In addition, the survey obtained information on customers’ preferences regarding potential fare concepts and policies, and methods of payment. The survey results were used to develop separate fare elasticity values for various market segments, such as adult and concession customers and peak period and off-peak customers.

These fare elasticities were applied to estimate the potential ridership and fare revenue impacts of alternative

fare structures proposed for the Vancouver system. The results of this quantitative analysis formed a major input in the selection of the new fare structure approved by the Vancouver Regional Transit Commission and introduced on October 1, 1997. Subsequent analysis of the impacts of this fare change, reported to the BC Transit Board, has indicated that the fare elasticity values used were reasonably accurate and that the fare change has supported strategic marketing objectives such as increasing the use of monthly passes.

Victoria Region

Since the Auditor General's report, there has not been a fare increase in Victoria. However, in the analysis of past fare strategies, market research including elasticities has been an integral part of the analysis presented to the Transit Commission.

Transit Does Not Examine How the Type, Design, and Appearance of its Vehicles Contribute to its Marketing Objectives

In the original audit report we had noted:

In both Vancouver and Victoria, new vehicles were selected by committees that include drivers and mechanics but not customers or their representatives. The external appearance of Transit's vehicles had developed over several years, with little input from market research or other information about customer preferences.

We had recommended:

Transit should develop appropriate mechanisms for making decisions about vehicle type, design, and appearance, that maximize customer appeal.

Corporation Response Vancouver Region

The Bus Specification Committee now has ongoing Marketing/marketing research representation. A number of customer focus groups and quantitative studies have been conducted to determine preferences with respect to interior signage, seating configuration and livery. In response to the feedback received from customers a new interior signage package was developed, a revised seating configuration established for low-floor buses and a unique paint scheme developed for the #99 B-line articulated low-floor buses.

Victoria Region

BC Transit Victoria has undertaken extensive work on the development of its newest vehicles. The DART buses to be introduced this year have been developed through international design teams, employee input and are designed to provide service more attuned to the needs of local neighbourhoods. Exterior and interior appearance has been updated to maximize customer appeal, accessibility and operational characteristics.

Double-deck buses under construction for Victoria are also the product of international design. The Double-deck program is specifically designed to attract a long-distance commuting market in an appealing and cost-efficient manner.

Transit has Information on Customer Satisfaction with Individual Bus Routes, but Cost-effectiveness Information is Weak

In the original audit report we had noted:

Being market-focused means more than just attracting more customers; the key is to do so cost-effectively. Thus, to gauge its success, Transit had to be able to measure whether its various services were attracting customers at a sufficiently low cost per ride or per rider. Unfortunately, Transit was handicapped in its ability to measure this, because of deficiencies in both cost and ridership information.

We had recommended:

Transit should regularly examine the relative cost-effectiveness of its various services (including specific routes) in attracting targeted markets such as car-driving commuters.

Corporation Response

Vancouver Region

In 1997, BC Transit conducted a critical route review to identify the least cost-effective routes. Based on this review, certain routes were eliminated. The public response to these service changes was negative. Since then, the regional transit commission has directed BC Transit to focus primarily on the reliability of service delivery. At this point, there are no plans to conduct further critical route reviews.

Victoria Region

A major review of route performance was undertaken in the Victoria Regional Transit System in 1998/99. The analysis provides ridership and cost-effectiveness analysis of all bus routes in the system for different time periods of the week. The analysis is used to provide recommendations on resource allocation to the Transit Commission.

Information on Customer Attitudes and Behaviour Trends to be Used to Confirm Current Choices Rather than to Find New Opportunities

In the original audit report we had noted:

Transit used customer satisfaction surveys to get confirmation that its broad strategy for improvement was correct. That is, the surveys showed that Transit and its customers generally agreed on what was most important in good transit service. For example, both gave high priority to speed and frequency of service.

These satisfaction surveys presented Transit staff with an impasse: customers and staff agreed on what the most important issues were, but staff realized how difficult it would be in the short run to deal with them. We believed that recognition of this impasse should not have prevented Transit staff from gleaning more practical and immediate information from their surveys—information that might have pointed to niches where Transit could cost-effectively increase its market share.

We had recommended:

Transit should extract maximum value from its existing market research.

Corporation Response

Vancouver Region

The reporting format of Rider Satisfaction research has been altered to facilitate ease of access and use of the information. The Rider Satisfaction database has been moved in-house at transit, and is updated on a continuous monthly basis. Marketing research representatives regularly attend the weekly planning meeting to suggest ways in which research can assist in identifying service changes that meet customer needs.

Specifically, this research has recently been used to identify routes where customers tell us overcrowding is a serious and ongoing problem, so that new service hours can

be targeted to those routes. Larger scale area reviews have been completed on the North Shore, in Central Vancouver and in Richmond in order to identify emerging opportunities from the customer's perspective. These have provided direction to the development of new services, for example, the recent announcement of the North Shore cross-route, from Dundarave to Lonsdale Town Centre and Lynn Valley.

Victoria Region

Transit works with its consultants and professional staff to ensure that market research work is targeted to transit's problems. Additional effort is made to ensure that the results of this research and its analysis is made available throughout the corporation.

Carrying Out More Detailed Customer Research is Not Common

In the original audit report we had noted:

Using market research to improve services was not the norm in the Vancouver bus system. Existing market research was little used in decision-making on specific projects and we found no examples of formal test marketing. We concluded that the problem was one of perspective, not information. Transit staff looked to their market research for confirmation that their strategic focus was correct. A market-focused perspective would go beyond this, to look for information that might hint at unexpected ways to attract more customers.

We had recommended:

Transit's development or modification of products and services should be supported by sufficient market research to give reasonable assurance that the products or services will meet customer expectations.

Corporation Response Vancouver Region

Transit regularly conducts both qualitative and quantitative research to identify opportunities from the perspective of customers. A number of initiatives have been undertaken, including a recent evaluation of per capita ridership and population sizes in various municipalities, which assisted Strategic Planning in the allocation of bus service hours to areas where the service is under-developed. Earlier reference has also been made of the Customer Information Sources

Evaluation, which as identified customer priorities for improvement in this area.

Any proposed major route, or service modifications are first tested with the customer, in order to determine which option would generate the largest ridership, and providing both riders and non-riders opportunities to put forward their ideas for service enhancements.

Victoria Region

Extensive market analysis is conducted prior to major service changes. Ongoing market and attitudinal surveys provide generalized information regarding the characteristics passengers value in transit service. Specific area or route related surveys, supplemented by extensive public input address the more local scale options and service improvement proposals.

Transit Needs to Improve Its Ability to Differentiate Its Customers In An Action-oriented Way

In the original audit report we had noted:

Transit made little use of the concept of market segmentation as a way to extract action-oriented ideas from its survey information. Vancouver and Victoria Transit classified their customers on a demographic basis, by characteristics such as age, gender, and location of residence. We believed these classifications should be supplemented by a more effective market segmentation method, one that groups customers by their needs and wants—characteristics that Transit can use to target its services and products. We noted that the Vancouver region had received similar advice from its market research consultants.

We had recommended:

Transit should work with its marketing research consultants to improve its ability to differentiate its customers in an action-oriented way.

Corporation Response Vancouver Region

The segmentation model used for the 1999/2000 Usage and Attitude survey will be revised to examine the market by transit service usage, as well as use of major roads, and attitudes toward Air Care and TDM measures, to reflect the mandate of the new GVTA.

Victoria Region

Through market analysis, customers are identified by demographic, geographic and behavioural characteristics in order to identify the primary markets for improved market share and ridership. Information regarding customer needs is also addressed through this segmentation of data.

Programs have been developed to address the particular needs of specialized markets—for example the UPASS proposal with UVIC and Camosun College Students.

Reporting on Performance

Key Indicators for the Board and Commission Need To Be Supplemented

In the original audit report we had noted:

The information given to the board and commissions provided only two high level indicators that directly measured progress towards market goals: revenue passengers (a measure of ridership) and cost per boarded passenger. Ridership can grow without necessarily resulting in a change in market share. Accordingly, we felt that ridership alone would not be a sufficient measure of marketing achievement—market share should also be reported.

We had recommended:

Transit should include market share as one of its key performance indicators.

Corporation Response

Vancouver Region

Transit market share objectives are defined in the Five-Year Service Plan, BC Transit’s Marketing Plan and other regional transportation planning documents. Both BC Transit and the GVRD currently conduct assessments of transportation market share in the region - transit through its biannual Usage and Attitude telephone survey and the GVRD through a trip diary survey. However, the different methodologies employed and inconsistencies in the measurement parameters results in different estimates of market share. It is anticipated that the change in governance will create an opportunity to determine a standard measure of market share and result in a meaningful and consistent KPI.

Victoria Region

The most precise measures of market share involve extensive travel survey data collection which are beyond the financial means of BC Transit by itself. These data are addressed through the federal census and through regional travel surveys in which BC Transit participates.

In order to provide more current market share information, BC Transit has initiated an ongoing monthly tracking survey of public use and attitudes towards transit.

Annual Reports Should Include Information on How Major Projects and Other New Services Contribute to Marketing Goals

In the original audit report we had noted:

Annual reports gave no sense that market focus was a high-ranking goal. For example, there was as much space devoted to internal matters, such as records management and insurance, as to market-focused activities. Quantification of market success in the annual report was confined to ridership numbers; no measures of changes in market share were presented. Since ridership can increase simply because of population growth, it can be a flawed measure of what Transit has actually achieved through its own efforts.

Showing how particular initiatives have contributed to results (or how proposed initiatives are expected to do so) is essential in establishing an effective accountability relationship between Transit and the Legislative Assembly. This is especially true for large projects requiring significant public funds. Transit had launched two such projects (Rapid Bus and LRT), which were expected to affect ridership and market share substantially in the next few years. It was therefore a particularly appropriate time for Transit to improve its reporting on the market impacts of its efforts.

We had recommended:

Transit should improve its external reporting through its annual reports by:

- stating clearly that being market-focused is a major goal of the organization;
- stating clearly its marketing goals, including what market segments it will focus on and how it will measure its success;

... continued

Continued . . .

- reporting on progress towards marketing goals;
- reporting on how new products or services are contributing to the achievement of marketing goals; and
- reporting on how proposed new products or services are expected to contribute to the achievement of marketing goals.

*Corporation Response
Vancouver Region*

BC Transit’s 1997/98 annual report highlights, as the first of seven strategic objectives, its intent to “provide leadership in the planning of effective public transit systems that responds to market and community needs.” The report also highlights the corporation’s mission statement, which notes the corporation’s intent to excel in the provision of “market-focused” transportation systems.

BC Transit’s marketing goals provide the framework for the development of its strategic objectives, which are highlighted throughout the report. In addition, specific marketing objectives and achievements are highlighted throughout the report. Each is linked to the strategic objective it supports.

Progress toward marketing goals and, where possible and appropriate, measures of success, are highlighted throughout the annual report, including updates on:

- Achievement of system-wide ridership increases;
- Achievement of targeted service delivery;
- Completion of Five-Year Vancouver Regional Transit Plan;
- Rapid Transit Community Consultation process;
- Proposal to Expand Customer Service Initiatives; and
- Customer Information Centre Standards Program.

In several cases, updates feature reports on how new products and services are contributing to the achievement of marketing goals and how proposed new products or services are expected to contribute to the achievement of marketing goals.



The Ministry of Attorney
General, Provincial
Emergency Program:
earthquake preparedness



The Ministry of Attorney General, Provincial Emergency Program: earthquake preparedness

Southwestern British Columbia lies over the active Cascadia subduction zone in an earthquake environment comparable to that existing along the coasts of Japan, Alaska, and Central and South America. There is considerable earthquake activity along the fault lines of three plates lying to the west of the North American continent. Records show that major damaging earthquakes have occurred over this zone in 8 of the last 100 years, and that a catastrophic earthquake is likely once every 300 to 800 years.

Given these risks, it is incumbent upon governments to take steps to prepare for a major earthquake. In British Columbia, local governments are the first responders, with the provincial government and, ultimately, the federal government providing assistance as required. However, it is the provincial government that has an overall leadership and coordination role in emergency management, and it has assigned responsibility for this role to the Provincial Emergency Program, an agency within the Ministry of Attorney.

In December 1997, we reported the results of our audit which assessed the adequacy of the state of earthquake preparedness of British Columbia's provincial and local governments. We carried out the audit between February and November, 1997.

The audit report contained 60 recommendations. Nine were described as strategic issues and dealt with issues which, in our opinion, are fundamental to the achievement of significant improvement in the overall state of earthquake preparedness in British Columbia. Of the other recommendations—operational—38 were directed to provincial government agencies and 13 to local governments.

In December 1998, we asked the ministry to provide us with a report on its progress in implementing the strategic recommendations arising from the audit. The ministry's response and our review comments follow.

In December 1999, we intend to ask government to provide us with a report on its progress in implementing the 38 operational recommendations. We do not consider it practical for us to follow-up on the 13 recommendations directed to local governments.



summary of original audit report

Audit Purpose

The purpose of the audit was twofold: to assess the degree to which governments in British Columbia are prepared for a major earthquake in high hazard areas of the Province; and to determine what actions, if any, are needed to raise the level of preparedness to an adequate standard.

Our audit focused on the critical elements of earthquake preparedness. These are:

- understanding the hazards, risks and vulnerabilities;
- mitigating the potential impacts of a major earthquake;
- planning for response to a major earthquake; and
- planning for recovery from a major earthquake.

Specifically, we were interested in examining how well all of these elements are being handled by the provincial government and local governments (although one important segment of the work examined the relationship between the provincial and federal governments in emergency planning). This included examining the governments' roles in mitigating the potential impacts of a major earthquake through, for example, the appropriate design and enforcement of building codes and the fostering of public awareness. We also studied the extent to which current, tested plans are in place to respond in the immediate aftermath of a major earthquake. As well, we looked at the capability of governments to carry on providing essential services to the public through proper continuation and recovery plans. Our examination focused on the plans and procedures in place during the period April to July 1997.

Finally, although it was not part of the audit, we also carried out a limited review of the "Blizzard of '96" to determine which features of the emergency management system did and did not work well, and to assess the implications of this for earthquake preparedness in the Province.

Overall Conclusion

We concluded that governments in British Columbia were not yet adequately prepared for a major earthquake. However, we were impressed by the amount of earthquake planning that has taken place in recent years. The federal government, agencies such as the Provincial Emergency Program, and emergency planning officials in many local government organizations had been working hard to further the preparedness of the Province for such an event.

The provincial government and local governments were, in a general sense, aware of the hazards, risks and vulnerabilities associated with a major earthquake. However, they would be likely to experience difficulty (albeit to varying degrees) in planning mitigation, response and recovery programs effectively because they had not yet developed specific, comprehensive scenarios for all high hazard, high risk areas of the Province. Through these scenarios, governments would be able to assess the likely impacts of a major earthquake on citizens, critical facilities, lifelines and economies—information that would better focus planning and public awareness programs.

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Governments also had a general understanding of the importance of mitigation. However, it was unclear whether resources invested by provincial and municipal governments to upgrade infrastructure (such as bridges and dams) were being targeted to the highest priorities because a coordinated approach and a long-term strategy had not been developed. Furthermore, there was no assurance that all critical response facilities (such as fire and ambulance halls, and police stations) would remain operational after an earthquake, or that damage to hazardous buildings would not cause avoidable injury or death. Public apathy about preparing for an earthquake remained high, despite a number of public awareness programs having been implemented.

It would be unlikely that all key aspects of the government response efforts for a major earthquake would work as intended. The Provincial Emergency Program, and most provincial government organizations and local governments, had developed response plans that deal with key response functions, and some testing of those plans had been carried out. However, the provincial response plan, while sound in concept, was still in interim form after five years, and needed updating and finalizing. Some provincial government response functions, such as emergency social services, appeared well prepared; others, such as the medical and heavy urban search and rescue functions, did not.

We believed that local governments were not yet adequately prepared to respond. The quality of local government earthquake planning varied widely. Some jurisdictions had taken the earthquake threat very seriously and were continuing to improve their response plans. Other jurisdictions had given less attention to developing sound plans. Nearly 20% of the local governments who answered our survey reported that there was no earthquake preparedness plan in their jurisdiction.

At all levels, testing of response plans was insufficient, and there were indications that more training was required. The ability of responders to communicate with each other and with different levels of government continued to be a concern, although steps were being taken to improve the situation.

Both the provincial and local governments were not prepared to manage the recovery that would be necessary after a major earthquake. Business continuation planning—critical to effective short-term recovery—was almost non-existent at the provincial level. It was also generally lacking at the local level, although some municipalities were developing such plans. Procedures for inspecting and posting unsafe buildings did not exist, and little thought had been given to how the debris resulting from a major earthquake would be dealt with. Also, few governments had plans for expediting the repairs and rebuilding that would be necessary, and none had analyzed the financial options for funding a rebuilding program.



follow-up

Office of the Auditor General Review Comments

Information provided by the Ministry of Attorney General regarding progress in implementing the strategic recommendations included in our 1997 audit report is set out below (in colour). We reviewed this information to see if it is fairly stated, in all significant respects.

We carried out the review in February and March 1999. The review was made in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted primarily of enquiry, document review and discussion.

Based on our review, nothing has come to our attention to cause us to believe that the ministry's progress report does not present fairly, in all significant respects, the progress made in implementing the strategic recommendations reported in our 1997 audit report.

Ministry of Attorney General Progress Report

Strategic Planning for Earthquake Preparedness

In the original audit report we had noted:

Most of the effort to date in the field of earthquake preparedness had gone into planning for response; planning and establishing mitigation and recovery programs had been slower to develop.

Strategic planning—setting long-term goals and objectives, and implementing a plan designed to achieve them—had not been carried out. Lack of strategic direction reduced the likelihood of a consistent effort toward mitigation and recovery activities. Tangible progress in improving overall preparedness was only likely to happen if it responded to an explicit statement of what government wanted to achieve.

We had recommended:

The provincial government should:

- establish a Seismic Safety Commission;
- develop long-term goals for earthquake preparedness; and
- provide more focus to its earthquake preparedness program.

Ministry Response

The ministry concurs with the intent of the recommendation in “bringing together the experts” to “provide advice to all stakeholders and make specific policy recommendations to the minister responsible.” A more cost-efficient yet equally effective method was sought as it was felt that the American model of a commission format was not the best alternative.

The 1998 Disaster Preparedness Symposium: Towards an Earthquake Strategy for British Columbia took place on November 26-28, 1998 as the initial stage to developing a long-term strategy. The symposium was conducted by the University of British Columbia (UBC) Disaster Preparedness Resources Centre, and was sponsored by the Provincial Emergency Program and Emergency Preparedness Canada. A number of goals and objectives were considered and recommendations made by a panel of experts from business, industry, academia and all three levels of government. The recommendations are currently being consolidated and formatted by the symposium facilitator, Disaster Preparedness Resource Centre of UBC, and will be presented to PEP by March 15, 1999.

PEP, in consultation with the other stakeholders, will then develop a long-term earthquake strategy for the province in response to the Auditor General’s 1997 report on British Columbia earthquake preparedness. This strategy will enable the provincial government to provide a focused earthquake preparedness program, as it will clearly delineate the course of action over both the short and long term.

The provincial government has established a Deputy Ministers’ Committee on Emergency Preparedness with specific responsibility for bringing focus and providing direction to all emergency preparedness initiatives, including earthquake preparedness.

Earthquake Planning Scenarios

In the original audit report we had noted:

The absence of specific and comprehensive earthquake planning scenarios had reduced the incentive to plan effectively. Such scenarios could be powerful tools in: helping elected officials visualize the threat and commit themselves to leadership in mitigating the hazard and planning for response; helping provincial and local government officials focus their decision-making for emergency planning; helping private sector managers understand the scope of the hazard and consider it in their business decisions process; helping educators and journalists ensure that the public is correctly informed about the character of the threat and the importance of being prepared to mitigate its effects; and helping the general public appreciate the extent of their vulnerability, and support public mitigation efforts and develop personal strategies for earthquake preparedness.

We had recommended:

The Provincial Emergency Program, regional and local governments should extend the development of earthquake planning scenarios.

Ministry Response

The Ministry of Energy and Mines has begun work on a geological hazard mapping of some parts of southwestern British Columbia, but this is only a first step. Consideration will be given to expanding this work commencing in the fiscal year 1999/2000 and beginning the development of earthquake planning scenarios. Scenario development beyond the hazard mapping will be included in the earthquake strategy, as it will take 5-7 years to complete the high-risk earthquake areas.

Positioning the Provincial Emergency Program

In the original audit report we had noted:

The positioning of the Provincial Emergency Program in government did not give it a sufficient profile to be effective.

We had recommended:

The provincial government should reposition the Provincial Emergency Program.

Ministry Response

At the current time, PEP will remain within the Ministry of Attorney General, where it will be given additional support to ensure that earthquake initiatives proceed. The earthquake strategy will put PEP in the leadership role in earthquake preparedness, response and recovery planning.

Funding for the Provincial Emergency Program

In the original audit report we had noted:

PEP had not had the resources to carry out many of the tasks its staff knew should be done. In its headquarters in Victoria, it had two planners, one of whom spent a considerable part of his time on earthquake preparedness. Around the Province it had six regional offices, each staffed with just one professional and one administrative assistant (apart from the southwestern region, which had two full-time professionals and one full-time and one half-time administrative assistant) who had to deal with all aspects of disaster management in the Province, not just earthquake preparedness. This meant that much of staff's time was taken up handling day-to-day crises.

We had recommended:

The provincial government should increase funding for the Provincial Emergency Program.

Ministry Response

We do not believe that additional funding is the only answer to enhanced emergency preparedness. An earthquake strategy and more focus by all stakeholders will help achieve the goals.

The ministry intends to enhance the planning cell of PEP with additional resources dedicated to provincial planning and regional coordination. It is planned to phase in these additional resources over the next two years.

Annual Report on the State of Earthquake Preparedness in British Columbia

In the original audit report we had noted:

No agency had been charged with the responsibility of monitoring compliance with the Emergency Program Act and associated regulations. Nor had any agency been given the responsibility of monitoring the overall state of earthquake preparedness in the Province. As a result, government may not have had full information to support its policy decisions regarding the direction and funding of emergency preparedness activities.

We had recommended:

The Provincial Emergency Program should report annually on the state of earthquake preparedness in British Columbia.

Ministry Response

The Ministry of Attorney General will provide a comprehensive report annually to the Deputy Ministers' Committee on Emergency Preparedness on the state of emergency preparedness in general and on earthquake preparedness specifically.

The Inter-Agency Emergency Preparedness Council

In the original audit report we had noted:

The Inter-Agency Emergency Preparedness Council—established by legislation to facilitate the coordination of ministry and Crown corporation emergency planning and procedures—had not been as effective as it could have been, although it did have some positive achievements to its credit (for example, introducing the British Columbia Emergency Response Management System).

We had recommended:

The provincial government should raise the profile of the Inter-Agency Emergency Preparedness Council.

Ministry Response

The Deputy Ministers' Committee on Emergency Preparedness (DMCEP) has been formed to which the Inter-Agency Emergency Preparedness Council (IEPC) will report. DMCEP will review membership levels of IEPC delegates to ensure that ministries are appropriately represented by senior staff.

IEPC will take direction from DMCEP and will become the working level of that group.

Regional Emergency Planning and Coordination

In the original audit report we had noted:

The need for regional coordination had not been given sufficient emphasis. Existing legislation enabled regional districts to assume emergency planning responsibility for a region, but only where the member jurisdictions wanted this shift to take place. Where this had not happened, regional coordination depended on voluntary participation of municipalities.

The provincial government clearly had an interest in the overall success of regional planning initiatives, but this interest had not been articulated either in existing legislation or in any other formal way. Nor had a way been set out for the provincial government to ensure that lack of consensus and non-participation did not jeopardize a region's ability to deal with key emergency planning issues.

We had recommended:

The provincial government should strengthen regional emergency planning and coordination.

Ministry Response

The Joint Emergency Liaison Committee of the Greater Vancouver Regional District (GVRD) has been provided with additional funding on a three-year-forward-rolling term to continue its mandate of dealing with emergency planning issues which affect local and provincial governments. This committee is made up of GVRD member municipalities and senior staff from various ministries dealing with specific emergency planning matters.

PEP also continues to assist in resolving emergency planning issues with the Greater Victoria Emergency Planning Committee made up of Capital Region District member municipalities.

PEP has obtained a seat in the Regional Emergency Co-ordination Centre (RECC) located in the E-Comm Building in Vancouver, and has agreed to fund a co-ordinator for the Centre. This Co-ordinator will assist RECC members in training and operational procedures, and will co-ordinate activities in the Centre during emergencies. The RECC is designed to function as a central clearing house for disaster information. Its membership includes most GVRD municipalities, ports, hospitals, railways, police, BC Ambulance, utilities and the Coast Guard.



further follow-up
of 1996 reports



British Columbia
Ferry Corporation:
fleet and terminal
maintenance management



British Columbia Ferry Corporation: fleet and terminal maintenance management

The British Columbia Ferry Corporation has 40 vessels and 43 terminals that have to be properly maintained in order to provide a safe and reliable service. To be able to provide a service that is not only safe and reliable, but also cost-effective, the corporation needs an asset maintenance program that is both effective and efficient.

In February 1996, we reported the results of our audit which assessed the adequacy of the corporation's maintenance program and the extent to which it measured the achievement of intended results, including obtaining value for money. We carried out the audit between October 1994 and January 1995.

In December 1997, we asked the corporation to provide us with a report on its progress in implementing the recommendations arising from the audit. At that time, most of the recommendations had been partially implemented. The corporation's response and our review were included in our *1998/99 Report 1: Follow-up of 1996 Performance Audits/Studies* issued in June 1998.

In January 1999, we again asked the corporation to provide us with an update on its progress in implementing those recommendations that had not been implemented at the time of the previous follow-up review. The corporation's response and our review comments follow.



summary of original audit report

Audit Purpose

The purpose of this audit was to assess the adequacy of the corporation's maintenance program and the extent to which the corporation measured achievement of the program's intended results, including obtaining value for money.

We defined maintenance as those activities that are required to ensure that capital assets—vessels and terminals—are safe and reliable from an operational point of view, and reasonably protected from loss of value resulting from “wear and tear” associated with use. We looked at the preventive maintenance, repair, refit and minor rehabilitation components of the corporation's maintenance program.

Overall Conclusion

We concluded that the corporation's vessels, related equipment, and terminal assets—specifically, marine structures—were maintained so that they were operationally safe and reliable. However, we could not determine whether the corporation's maintenance activities were cost-effective because the corporation did not have the information necessary to permit such an assessment.

The corporation's maintenance program lacked several elements required to enable the corporation to ensure that vessels and terminals were being maintained in a cost-effective manner. The corporation needed to define clearly the objectives for its maintenance program, and to establish standards for asset condition, cost, and maintenance practices. In addition, the corporation did not have an adequate information system by which the costs and results of maintenance activities could be measured.

The corporation recognized the need for better information about its maintenance program and had been developing a maintenance management system to address the problem. In view of the corporation's commitment to implement such a system, we planned to follow-up the results of this undertaking.



follow-up

Office of the Auditor General Review Comments

Information provided by the British Columbia Ferry Corporation regarding progress in implementing the recommendations included in our 1996 audit report is set out below (in colour). We reviewed this information to see if it is fairly stated, in all significant respects.

We carried out our second review during February and March 1999. The review was made in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted primarily of enquiry, document review and discussion.

Based on our review, nothing has come to our attention to cause us to believe that the corporation's progress report does not present fairly, in all significant respects, the progress made in implementing the recommendations reported in our 1996 audit report.

British Columbia Ferry Corporation Progress Report Maintenance Objectives and Performance Standards

In the original audit report we had noted:

To be able to assess the effectiveness of its maintenance program, the corporation must determine what it hopes to achieve from that program.

Until shortly before our audit, cost-effectiveness of maintenance had not been a major issue for the corporation. The dominant goal of all maintenance activities had been to maintain service and to ensure that assets were safe and functional.

In general, we found a culture in the organization that was geared towards adequate maintenance of assets. Nevertheless, to ensure that maintenance activities were better focused and that value for money was obtained, we believed the corporation should more specifically define its maintenance objectives. First, the general objectives of safety, reliability, and value for money needed to be translated into measurable objectives. Second, standards needed to be developed to translate these into measurable indicators of success or failure.

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Standards translate the broad statements describing the objectives of the corporation's maintenance program into clear and measurable indicators of success or failure. They describe what the characteristics of a successful maintenance program are, how those characteristics will be measured, and what the minimum acceptable level of performance will be. Maintenance standards could be expressed in terms of optimum operating status and acceptable variances, responses to equipment failure, or other performance-related criteria.

Because the corporation had not adequately defined its maintenance objectives, it had been unable to establish standards or benchmarks of performance in terms of asset condition, cost, or maintenance process. For example, although the corporation values safety, reliability, and efficiency, it was not clear as to how these attributes would be measured or what the minimum levels of acceptable performance would be.

We had recommended:

The corporation should establish clear, measurable results-based objectives for its maintenance program, and include performance standards relating to those objectives.

In January 1998, the Corporation responded:

The following are the results-based objectives of the Maintenance Management Project (MMP):

- One common and standardized maintenance management system
- Establishment of a “business management system” to provide total maintenance accountability
- Further develop personnel skills and improve employee motivation through education and skills enhancement
- Focus on “fundamental maintenance practices” that will facilitate achieving the maintenance management mission.
- Enhance the execution of maintenance tasks and improve management's ability to evaluate performance through the implementation of modern information management technologies

Maintenance performance measures that reflect these objectives have been developed and are currently under review by the MMP Steering Committee. They include indices related to:

- Cost
- Work Order
- Planning and Scheduling
- Stores/Material Control
- Staffing
- Contractors
- Equipment

In January 1999, the Corporation responded:

This recommendation has been partially implemented.

Standards for Terminal Maintenance have been revised to conform to Corporate format and are ready for issue by Documentation and Control. Standards for electrical work are being developed.

Detailed measurements are being taken on the following indices:

- Work Orders – i.e., Total Work Orders Completed/Total Work Orders Created
- Total number of Work Orders in backlog during a given period.
- Life cycle costs are being tracked for each new addition to the fleet.

Business Managers and Maintenance Planners are now in place in every region.

Maintenance Information

In the original audit report we had noted:

The corporation did not have the information that would enable it to ensure that its maintenance activities were carried out cost-effectively.

The corporation's financial information system was primarily a budget-expenditure tracking system. It did not provide the type of information that senior management needs to manage a maintenance program. Several recent reviews conducted by the corporation had concluded that the corporation's information systems did not effectively support operations. Missing were data collection and analysis processes that it needs to determine whether its maintenance program is effective, economical, or efficient. The corporation recognized this as a critical management issue and had launched the Maintenance Management Project to address it.

The primary goal of the Maintenance Management Project was to create a corporate system that would achieve the optimum amount of maintenance at the appropriate value, in order to maximize cost-effectiveness. A second goal of the project was to provide the foundation for an effective and efficient asset management program.

The corporation had earmarked \$10 million for the development of this system over three years. Implementation of the system was targeted for completion by mid-1997.

We had recommended:

The corporation should continue its efforts to develop an adequate maintenance management system—one that is capable of providing appropriate information to operational managers in the Corporation, as well as information required for accountability reporting.

In January 1998, the Corporation responded:

The Maintenance Management Project has been significantly delayed due to financial restraints but is still seen as a priority within the Corporation.

The following summarizes the status of tasks to date:

A stand-alone computerized maintenance management system (CMMS) database was developed for the Skeena Queen during its construction phase. The application software has

been operating on the vessel since June 1997. System functionality is limited to the work order module at present.

Development of the central database for all fleet vessels was initiated in May 1997 with base profiles for each vessel in the equipment module. As of January 1998, the surveyable equipment for 15 major vessels has been registered.

The Corporate networked CMMS is installed at the Deas Dock Refit Complex. The work order module has been operating since June 1997. The CMMS materials and purchasing modules replaced the existing Materials Management Information System (MMIS) in December 1997.

The CMMS electronically interfaces with the existing corporate financial system.

The CMMS has been installed in the Area Engineering Manager's office at Tsawwassen. This system will also be installed in the Area Engineering Manager's office at Horseshoe Bay before the end of the 1998 fiscal year.

A wireless ship to shore communication system was successfully tested in January 1998. The CMMS will be operating on the Queen of Cowichan before the end of the 1998 fiscal year. The remaining 'C' class vessels will receive the system during the 1999 fiscal year. Conversion of the stand-alone CMMS on the Skeena Queen to the corporate networked CMMS will be done when the wireless communication system is available in that area. The Fast Ferry will receive the system at the appropriate time during its construction schedule.

Replacement of the existing maintenance management systems in the Terminal Maintenance areas is scheduled to begin during the 1999 fiscal year.

In January 1999, the Corporation responded:

This recommendation has been partially implemented.

The purpose of the CMMS is to provide activity based costing in order that we optimize the efficiency of our maintenance program. The CMMS is now in place at Deas Dock and individual modules are on four ships. All Mainland Services vessels are in the database and will be connected by an electronic interface (radio) by December, 1999. Terminal Maintenance comes on line in 1999, starting with Nanaimo. CMMS is installed on High Speed Ferry #1 and is planned for installation on High Speed Ferries #2 and #3 as they are completed.

Inventory Management

In the original audit report we had noted:

To ensure that necessary repairs could be made to the corporation's equipment, the corporation maintained an inventory of spares and replacement parts. In total, these inventories represented a significant investment.

Most of the corporation's inventory was held at Deas Dock and included capital spares (items of high value that normally have low turnover ratios, and items repaired and serviced by the trades as part of the repair/exchange program), and consumables (items that must be replaced on an ongoing basis). The Materials Management Department had a computerized inventory system that tracked quantity, location, and cost of inventory at Deas Dock. At the time of our audit, approximately \$10 million in capital spares and \$5.4 million in consumables were located there. A further \$5–7million of inventory was held on board the 40 vessels, and \$1.2 million was held at the five terminal maintenance yards. These values for inventories held on board the vessels and at the terminal yards were only estimates because there were no complete records and they were not included in the financial statements of the corporation.

Each vessel was expected to have the correct spares on board for all propulsion and energy systems, as required for the effective operation of the vessel and as required by the Canadian Coast Guard and the classification societies. We found that each vessel had an inventory of parts and consumables on board but better inventory records were needed to properly manage these inventories.

Similarly, inventory held by Terminal Maintenance was neither tracked nor controlled, and no comprehensive inventory management system or inventory records existed. Instead, each area had a different and informal process for tracking inventory, with most using simple generic organization of inventory and a visual survey.

We concluded, therefore, that the corporation's inventory management system needed improvement. At the time of our audit, the corporation could not ensure that its inventories were managed effectively or efficiently.

We had recommended:

The corporation should develop an appropriate inventory management process, and implement it throughout the organization.

In January 1998, the Corporation responded:

More comprehensive records coupled with each site and vessel having access to the information will give the Corporation a better ability to reduce onboard and individual terminal inventories.

This requires the establishment of satellite stores both physically and in the Computerized Maintenance Management System (CMMS). It also requires the development of reliable ship-to-shore communication.

A new inventory management process has been implemented at Deas Dock and it is planned to use this system to manage the inventories of every vessel in the fleet. This initiative will be rolled out progressively.

In January 1999, the Corporation responded:

This recommendation has been partially implemented.

An inventory management module is fully activated at Materials Management, Deas Dock. A plan to activate the inventory management module at all other sites is currently being developed. On board storekeeping will eventually be via CMMS.

Evaluating Performance

In the original audit report we had noted:

Since the corporation did not collect the necessary information, it could not carry out formal evaluations of fleet or terminal maintenance performance. The corporation informally assessed its performance by noting how often a vessel was unable to sail at its scheduled time because of mechanical failure or a ferry was unable to load or unload as a result of a ramp breakdown.

The corporation also relied on outside evaluations of its vessels by Canadian Coast Guard and classification societies. These organizations regularly inspect the vessels and report any concerns to the corporation.

The corporation's Operational Safety and Standards Division carried out audits of vessels about three times a year. As part of these audits it reviewed the condition of equipment on board the vessels. The audit of major vessels during August 1994 showed the vessels to be "generally in good mechanical condition," and that maintenance to be "carried out well and in a timely manner."

Although the results of the corporation's maintenance program—no significant recent failures—reflected the adequacy of maintenance work, we believed that, without evaluating the performance of the maintenance program against standards and benchmarks, the corporation had no assurance that maintenance objectives or value for money were achieved.

We had recommended:

The corporation should periodically evaluate its maintenance program to determine if it is achieving its intended results and if the corporation is obtaining value for money from its maintenance.

In January 1998, the Corporation responded:

The Corporation has developed specific performance criteria to measure the effectiveness of its maintenance program. They provide indices in the following areas:

- Cost
- Workorder
- Planning and Scheduling
- Stores/Material Control
- Staffing
- Contractors
- Equipment

Data is being captured this refit season at the Deas Dock facility which will establish a reliable base for use in future analysis.

In January 1999, the Corporation responded:

This recommendation has been partially implemented.

As part of the strategic plan, the following Maintenance Performance Measures have been identified and evaluated:

- Total Maintenance and Support Costs as a Percentage of Total Asset Value
- Cancelled or Delayed Utilization Due to Mechanical Failure
- Overall Refit and Maintenance Costs Per Ship By Operating Day
- Available Ship Operating Days

The data for these types of measures is obtained using the Corporate Maintenance Management System. Performance Measures are reported quarterly and will help the Corporation optimize the efficiency of its maintenance program.

Reporting to the Board

In the original audit report we had noted:

At the time of our audit there was limited accountability information provided to the board about the corporation's maintenance program. Maintenance program information was related mainly to budget compliance.

Although confirmation that the maintenance program is operating within defined financial limits is important to management and the Board of Directors, it does not reveal much about the extent to which the program is achieving its intended results, nor does it facilitate comparison of the effectiveness of the program relative to past performance or other benchmarks.

We had recommended:

The corporation should regularly report to the Board of Directors on the extent to which it is achieving the intended results of its management program.

In January 1998, the Corporation responded:

Management's Capital Program & Budget Committee reports the status of the Maintenance Management Project periodically to the Board of Directors. Once sufficient maintenance data has been collected and analyzed, performance criteria will also be reported.

In January 1999, the Corporation responded:

This recommendation has been partially implemented.

Performance measures, including several measures related to Maintenance Management, are reported quarterly to the Board of Directors in the Corporate Performance Measures Report.

As well, periodic reports on the progress of the Maintenance Management Project are provided to the Board of Directors.



Insurance Corporation
of British Columbia:
trucking safety



Insurance Corporation of British Columbia: trucking safety (formerly the responsibility of the ministry of transportation and highways: motor vehicle branch)

The Motor Vehicle Branch (the “branch”), an agency in the Insurance Corporation of British Columbia (the “corporation”); formerly an agency in the Ministry of Transportation and Highways; has the primary responsibility for achieving the government’s goals relating to trucking safety. In general, they are pursued through education and enforcement activities. The branch’s vision is that “travel on British Columbia roads will be the safest in North America.”

In December 1996, we reported the results of our audit of how the branch’s three trucking safety enforcement programs—fixed weigh scales, portable weigh scales, and carrier safety audits—were designed and implemented to achieve trucking safety in a cost-effective manner; and to assess the extent to which the branch had examined whether its three enforcement programs were the most effective alternatives in achieving trucking safety. We focused our audit on the period from January to June 1996.

In December 1997, we asked the corporation to provide us with a report on its progress in implementing the recommendations arising from the audit. The corporation’s response and our review were included in our *1998/1999: Report 1 Follow-up of 1996 Performance Audits/Studies* issued in June 1998.

In December 1998, we again asked the corporation to provide us with a report on its progress in implementing those recommendations that had not been implemented at the time of the previous follow-up review. The corporation’s response and our review comments follow.



summary of original audit report

Audit Purpose

The purpose of this audit was two-fold: 1) to assess the extent to which the branch's three trucking safety enforcement programs—fixed weigh scales, portable weigh scales, and carrier safety audits—were designed and implemented to achieve trucking safety in a cost-effective manner; and 2) to assess the extent to which the branch had examined whether its three enforcement programs were the most effective alternatives in achieving trucking safety.

Overall Conclusion

We concluded that there were serious issues related to the state of trucking safety in British Columbia. The severity of accidents was increasing and, if inspected, about one in five commercial vehicles would be taken out-of-service for a range of defects, the most significant being faulty brakes. We also concluded that the three trucking safety enforcement programs were neither well designed nor well implemented by management, and that the branch had not determined whether its enforcement programs were the most effective alternatives in achieving trucking safety. This made it difficult for the Motor Vehicle Branch to provide assurance that these programs were cost-effective and that they were meeting the objective of safer roads.



follow-up

Office of the Auditor General Review Comments

Information provided by the Insurance Corporation of British Columbia regarding progress in implementing the recommendations included in our 1996 report is set out below (in colour). We reviewed this information to see if it is fairly stated, in all significant respects.

We carried out our second review between February and March 1999. The review was made in accordance with standards for assurance engagements established by the Canadian Institute of Chartered Accountants, and accordingly consisted primarily of enquiry, document review and discussion.

Based on our review, nothing has come to our attention to cause us to believe that the corporation's progress report does not present fairly, in all significant respects, the progress made in dealing with the issues reported in our 1996 audit.

Insurance Corporation of British Columbia Progress Report

General Comments

In a period of growing public concern about truck safety in British Columbia, the last two years have seen a number of significant developments in this area. In December 1996 the Auditor General presented a series of recommendations following their performance audit of the state of trucking safety; in April 1997, the Task Force on Commercial Vehicle Safety (the "Task Force") issued its report; and in December 1997, with the completion of the merger between the Motor Vehicle Branch (the "branch"), and the Insurance Corporation of British Columbia (the "corporation"), the corporation assumed responsibility for achieving the government's goals relating to trucking safety.

The Recommendations of the Auditor General and the Task Force

The Auditor General's examination of the three enforcement programs—fixed weigh scales, portable weigh scales, and carrier safety audits—resulted in twenty-three recommendations under five main headings: *Measuring and Evaluating Program Results; Establishing Trucking Safety Standards; Training Staff to Identify Unsafe Trucks and Drivers; Removing Unsafe Trucks and Drivers from the Road; and Looking for Better Ways to Achieve Trucking Safety.* The joint government-

industry Task Force was established by the Minister of Transportation and Highways, and was given the broad mandate to recommend strategies to improve heavy commercial vehicle safety in the province. The Task Force considered the Auditor General’s work as part of its deliberations. The Task Force report made thirty two recommendations under seven main headings: *Driver Licensing Standards; Driver Licensing Sanctions; Enforcement of Safety Regulations; Carrier Incentives; Monitoring and Evaluating Carriers; Commercial Vehicle Inspection Programs; and Shipper Standards*. (For further information on the Task Force and their recommendations, see Auditor General of British Columbia, “Follow-up of 1996 Performance Audits,” *Trucking Safety*, March 1998).

Action Plans

The corporation and the branch developed a comprehensive action plan to address the Task Force recommendations, and this was endorsed by the Task Force in June 1997. In preparation for the imminent merger with the branch, the corporation established project teams to take these plans forward. The Commercial Vehicle Project was formed in October 1997, with the objective of implementing thirty one of the thirty two Task Force recommendations (the remaining recommendation—to establish a motor carrier recognition program—is being undertaken by the BC Trucking Association). As the Task Force recommendations, and the subsequent action plans, address similar issues to some sixteen of the Auditor General’s recommendations, the work of the Commercial Vehicle Project is the focus of the corporation’s efforts to improve the state of trucking safety. Further work is underway within the corporation’s Compliance Operations: the area responsible for the regulation and direction of commercial carriers through the operation of the enforcement programs.

The Commercial Vehicle Project is a multi-year project, with many sub-projects:

Task Force Recommendations	Planned Completion Dates
Driver Licensing Standards	Completion 2000
Driver Licensing Sanctions	Phase 1 Completion 1999 Phase 2 Completion 2000
Enforcement of Safety Regulations	Phase 1 Completion 1999 Phase 2 Completion 2000
Monitoring and Evaluating Carriers	Completion 1999
Commercial Vehicle Inspection Programs	Completion 2000
Shipper Standards (feasibility study)	Completion 1998

The recommendations made by the Auditor General and the Task Force have major impacts on a significant number of stakeholders. The commercial vehicle fleet that the corporation is responsible for is vast, with approximately 80,000 truck drivers, an equal number of vehicles, and 26,000 carriers. These figures do not include those commercial vehicles that operate in British Columbia but are registered in other jurisdictions. Many of the recommendations require significant legislative, operational and systems changes prior to implementation, and delays have been experienced due both to the demands of the Year 2000 issue on systems resources, and the limited time available within the legislative calendar. The implementation of all of the recommendations is a long-term project.

Latest Developments

As reported to the Auditor General in December 1997, work within the Commercial Vehicle Project began in earnest in its first year. Their work has been continuing throughout 1998. At the regular meetings throughout the year of the Commercial Vehicle Stakeholders Committee (comprising many of the Task Force members), priorities for achieving commercial vehicle safety improvements were reassessed. This led to the preparation of a package of initiatives for priority implementation. This package was approved by the Minister responsible for ICBC in November 1998, and several initiatives were implemented immediately. These include a twelve month focused commercial vehicle safety inspection campaign. As of November 30, 1998, "Flying Squads" of mobile commercial transport inspectors began focusing on specific areas of trucking safety concern. In the first two weeks, for example, inspectors targeted commercial vehicles that travel on urban roads without fixed weigh scales. The focus of future two-week periods will include dump trucks, logging trucks and brakes. In another priority initiative, December 1998 marked the final month during which commercial vehicle road tests could be conducted by driving schools. From January 1, 1999, all tests are being performed by the corporation's provincial driver examiners.

Outside of the project, and following on from the completion of the merger, Compliance Operations has continued to assess and develop their resources and functions. During 1998, for example, a BC Provincial Weigh Scale Strategy was developed. This represents a detailed review of the current weigh scale program (both fixed and portable), including the coverage provided, the truck volumes on the highways targeted, and the numbers of permits issued

and vehicle inspections performed. The implementation of the plan's recommendations on the most effective distribution of the corporation's resources will extend over a five year period, beginning in 1999, and will include the hiring of a large number of new compliance staff and a sizeable capital program.

Measuring and Evaluating Program Results

In the original audit report we had noted:

The branch had not defined what it meant by "trucking safety" nor had it established a clear relationship between the impact of its trucking safety enforcement programs and the state of trucking safety. Further, the branch had not developed performance indicators and realistic targets to achieve trucking safety.

The branch had not developed an evaluation framework to measure how well its enforcement programs were operating.

We had recommended:

The branch should:

- define "trucking safety," develop performance measures and set targets with respect to the desired level of safety; and
- institute a program evaluation framework to provide managers with regular and accurate performance reports on its enforcement programs and, in the longer term, determine the relationship between its enforcement programs and trucking safety.

Corporation Response

Work to address these two recommendations is in progress.

"Trucking Safety" is being defined using key operational outcome-based measures. Compliance Operations is to base their performance measures on the Police Traffic Services performance measures developed for the National Highway Traffic Safety Administration, US Department of Transportation. Work is continuing, however, to establish ways of measuring performance against these. Once this has been completed, operational targets will be included within the accountabilities of the Assistant Vice Presidents for the corporation's newly established regional operating areas.

Establishing Trucking Safety Standards

In the original audit report we had noted:

The objectives and standards for the three enforcement programs were consistent with relevant legislation and commercial vehicle safety standards. However, the lack of clear communication of program priorities leads to inconsistent regulation of the industry. Furthermore, the branch could not provide assurance that safety standards were applied consistently and uniformly throughout the Province in that there was no system-wide monitoring of the standards.

We had recommended:

The branch should:

- clearly communicate the relative emphasis that inspectors should place on educating the trucking industry about its responsibilities for safety versus strict enforcement of the regulations;
- develop clear guidelines as to when and how specific National Safety Code sanctions relating to carriers with poor safety records are to be applied; and
- institute a centralized monitoring function to ensure uniformity and consistency in the application of safety standards.

Corporation Response

Work to address two of these recommendations is well underway. The remaining recommendation has not been accepted, although alternative work is continuing.

Inspectors have been provided with information on the issue of education and enforcement. The Enforcement Guidelines Procedures Manual explains that enforcement is just one of many ways to achieve their objectives, and that they have an “obligation to educate...and promote the benefits of safe practices.” In addition, a newly developed training curriculum for compliance staff will include training in the exercise of discretion, and discussion of the range of options available to inspectors.

The corporation does not accept directly the specific recommendation concerning the development of clear guidelines for applying National Safety Code (“NSC”) sanctions. However, the issue of sanctions will be examined within the Commercial Vehicle Project’s broader NSC initiative. The project’s work is continuing on the development of a

comprehensive, enhanced NSC registration system, including entry-re-entry criteria, monitoring, cancellation, suspension, auditing, compliance measurement criteria, and a method for measuring the success of the program.

Work to establish a centralized monitoring function is in progress. A random sample of Commercial Vehicle Safety Alliance (CVSA) standard inspection reports are reviewed for consistency, as part of a low cost monitoring program initiated by the branch prior to the merger. Further work will be undertaken to improve this process.

Training Staff to Identify Unsafe Trucks and Drivers

In the original audit report we had noted:

Overall, enforcement officers were properly trained and met certification requirements. Nevertheless, some improvements could be made.

We had recommended:

The branch should:

- review its curriculum to ensure it reflects current and future position requirements including a clear understanding and interpretation of regulations, case preparation, court prosecution, and interpersonal relations with trucking industry personnel.

Corporation Response

This recommendation has been addressed.

The Justice Institute of British Columbia was contracted by the corporation to review all enforcement and compliance operations and to recommend a structured and accountable training and development program for employees. The program developed includes training on the requirements of the court process, customer relations skills and how to deal with hostility. Once endorsed by the Ministry of the Attorney General—Police Services, the new curriculum will be the basis for all future compliance staff training. Elements of the program are being incorporated into hiring and training already underway.

Removing Unsafe Trucks and Drivers from the Road

In the original audit report we had noted:

The branch had not undertaken a comprehensive needs assessment so it could not be assured that it was adequately regulating the trucking industry. Fixed and portable weigh scales were not deployed to maximize their coverage by time and geographic location, and therefore the branch could not provide assurance that safety in the industry was being regulated in a uniform and consistent manner throughout the Province. Similarly, the branch could not provide assurance that, with current carrier audit resources, all carriers would be audited for adherence to safety standards within an acceptable time period. In addition, some sanctions did not appear to “suit the offense” or provide an effective deterrent.

We had recommended:

The branch should:

- identify the trucking universe it has responsibility to regulate in order to determine an optimal level of resources to achieve the desired level of trucking safety and, at an operational level, to maximize its use of current resources;
- develop a comprehensive human resource plan to: determine the number, type, and location of staff needed in the future to provide services; and ensure that existing and new staff have the knowledge, skills, and abilities to meet ministry expectations;
- undertake a comprehensive review of previous facilities studies, and implement relevant and cost-effective recommendations;
- find ways to monitor key border entry points such as by constructing fixed facilities or introducing regular random deployment of portable weigh scales to increase the probability of intercepting a larger number of unsafe trucks and drivers;
- find ways to operate key fixed weigh scales on a 24-hour, 7-day-a-week basis or, barring this, have regular random openings of key scales during off-hours to increase the probability of intercepting a larger number of unsafe trucks and drivers;
- develop greater flexibility in the hours of operation of portable weigh scales, thereby reducing the present pattern of mostly concurrent hours of service with fixed weigh scales;
- ensure that all carriers are subject to regular safety audits, such as once every three years; and
- consider whether fines for significant safety violations should be extended to the shipper or trucking company.

Corporation Response

Two of these recommendations have been addressed fully; and work on a further five is underway. The remaining recommendation has not been accepted, although alternative work is continuing.

The development of a BC Provincial Weigh Scale Strategy addresses a number of the recommendations concerning “removing unsafe trucks and drivers from the road.” It represents a detailed review of the current weigh scale program, including the condition and location of weigh scale facilities (recommendation 3) and the truck types and volumes operating on the provincial highway system (recommendation 1). The implementation of the Strategic Plan’s recommendations to improve program effectiveness, will result in a redistribution of enforcement resources: focusing a reduced number of fixed weigh scales on major routes and ports of entry, and migrating towards a more portable environment (recommendation 4). With the future of the weigh scale program now determined and future staffing requirements identified, a comprehensive staffing model (recommendation 2) will be defined in 1999.

The fifth recommendation, concerning 24-hour operation of key fixed weigh scales, is being addressed, as this was one of the priority initiatives approved by the Minister responsible for ICBC in November 1998. From April 1999 there will be a phased implementation, by site, of 24-hour, 7-day-a-week opening for six key weigh scales: at Pacific Highway; Golden; Kamloops; and the three at Hope (Haig, Hunter Creek; and Laidlaw). Extending the hours of operation of portable scales, to provide more coverage off-hours, as advocated in recommendation six, raises a number of important workplace safety issues. The Justice Institute of BC has made some recommendations on strategies to mitigate these risks, including personal safety training. However, at the present time, in the interests of safety, portable scales will only operate when a nearby fixed facility is open. This does mean that as fixed locations move to 24-hour operation, portable scales in these areas will also extend their operating hours.

The corporation does not accept the seventh recommendation concerning the frequency of National Safety Code carrier safety audits. However, the broader NSC initiative being taken forward by the Commercial Vehicle Project, includes a redesign of the carrier profile rating and selection systems.

On the final recommendation, the Commercial Vehicle Project team is examining this issue. For example, they are

monitoring the Shipper Standards court case in Ontario, where problems have been experienced in applying such a fining system. The outcome there will influence any further work in this area. A number of alternative steps have been taken to address the problem of shippers overloading containers and logging trucks. Compliance Operations has been talking to, and trying to educate, the Port Authorities at Vancouver and Delta, and the logging industry. Some improvements in weight compliance have since been identified.

Looking for Better Ways to Achieve Trucking Safety

In the original audit report we had noted:

The branch had not given adequate thought to factors, besides its own enforcement programs, that might contribute significantly to trucking safety. Similarly, it had not modified existing programs or designed new programs consistent with more cost-effective alternatives, or re-allocated program budgets to these alternatives. It had, however, begun to consider the redesign and reallocation of resources in two program areas; enforcement of moving violations and using third parties to conduct carrier safety audits. Finally, the branch was not taking full advantage of technological innovations aimed at improving efficiency and effectiveness.

We had recommended:

The branch should:

- identify the most significant factors affecting trucking safety with a view to ensuring its enforcement resources are deployed in the most effective manner;
- make fixed and portable weigh scale personnel aware of the probability of detecting additional safety violations through innovative targeting of work sites, and truckers who are not wearing seat belts or who are operating overweight vehicles;
- determine the feasibility of third party audits as a means to increase coverage of the trucking industry;
- as part of a development review, consider the issue of how best to shift the focus of enforcement to moving violations. It is further recommended that serious attention be paid to the U.S. model in which this function and responsibility resides with law enforcement and police agencies; and
- conduct a cost-benefit analysis of various brake testing and weigh-in-motion technologies as a means to screen commercial vehicles at selected sites throughout the Province.

Corporation Response

Three of these recommendations have been addressed; and while two have not been accepted by the corporation, alternative work to address one of these issues is continuing.

The corporation's Road Safety Research Department has prepared a report presenting statistics on heavy commercial vehicles in collisions. Their work has identified the main contributing factors for truck crashes, including the role of moving violations as well as vehicle defects. Resources are being re-distributed and enhanced in response to both this work and the recommendations of the Strategic Plan for Weigh Scales. Key trucking safety issues will be the focus of the year-long commercial vehicle inspection campaign that began in November 1998. Flying squads of mobile inspectors are targeting different industry sectors (such as dump trucks or logging trucks) or different mechanical concerns (such as brakes, tires and load security) every two weeks. Such innovative targeting methods will help inspectors to detect additional safety violations.

The corporation does not accept the third recommendation concerning the feasibility of third party audits. However, the broader National Safety Code initiative being taken forward by the Commercial Vehicle Project, includes a redesign of the audit process. The NSC is a federal program, and this does place some restrictions on the actions that can be taken at the provincial level. For example, regarding the Auditor General's specific suggestion, the national body of the Canadian Council of Motor Transport Administrators has decided that all provincial jurisdictions other than Ontario will not adopt third party audits.

The corporation does not accept the fourth recommendation, concerning the focus shift to moving violations. The compliance inspectors are restricted by operational policy from enforcing moving violations, such as speeding. The authority to enforce such violations rests with the Attorney General and, through him, with the police. The corporation considers it unlikely that the current balance of enforcement responsibilities held by the corporation and the police will change.

In response to the recommendation concerning the analysis of brake testing and weigh-in-motion technologies, the corporation has already assessed one particular infrared system designed to identify brake problems. In this case it was concluded that the cost outweighed the benefits. However, the evaluation of technologies with the potential to improve or automate enforcement functions is an ongoing task.



appendix



appendix

Office of the Auditor General: Performance Audit Follow-up Objectives and Methodology

Purpose of Following Up Performance Audits

The Office conducts performance audit follow-ups in order to provide the Legislative Assembly and the public with information on the progress being made by government organizations in implementing the recommendations arising from the original work.

Performance audits are undertaken to assess how government organizations have given attention to economy, efficiency and effectiveness.

The concept of performance audits is based on two principles. The first is that public business should be conducted in a way that makes the best possible use of public funds. The second is that people who conduct public business should be held accountable for the prudent and effective management of the resources entrusted to them.

The Nature of Performance Audit Follow-ups

A follow-up of a performance audit comprises:

1. requesting management to report the actions taken and to assess the extent to which recommendations identified in the original audit report have been implemented;
2. reviewing management's response to ascertain whether it presents fairly, in all significant respects, the progress being made in dealing with the recommendations;
3. determining if further action by management is required and, consequently, whether further follow-up work by the Office will be necessary in subsequent years; and
4. reporting to the Legislative Assembly and the public the responses of management and the results of our reviews of those responses.

The Nature of a Review

A review is distinguishable from an audit in that it provides a moderate rather than a high level of assurance. In our audits, we provide a high, though not absolute, level of assurance by designing procedures so that the risk of an inappropriate

conclusion is reduced to a low level. These procedures include inspection, observation, enquiry, confirmation, analysis and discussion. Use of the term “high level of assurance” refers to the highest reasonable level of assurance auditors provide on a subject. Absolute assurance is not attainable since an audit involves such factors as the use of judgement, the use of testing, the inherent limitations of control and the fact that much of the evidence available to us is persuasive rather than conclusive.

In a review, we provide a moderate level of assurance by limiting procedures to enquiry, document review and discussion, so that the risk of an inappropriate conclusion is reduced to a moderate level and the evidence obtained enables us to conclude the matter is plausible in the circumstances.

Scope of Performance Audit Follow-ups

The follow-ups focus primarily on those recommendations that are agreed to by management at the time of the original audit or study. Where management does not accept our original recommendations, this is reported in managements’ responses to the original audit reports. Since our reports are referred to the Legislative Assembly’s Select Standing Committee on Public Accounts, management’s concerns with our recommendations in some cases are discussed by the committee, which may also make recommendations for future action. If the committee endorses our recommendations, we include them in a follow-up. We also include any other recommendations made directly by the committee.

Frequency of Reporting on Performance Audit Follow-ups

We follow up our recommendations approximately one and a half years after the reporting date of the original work. For example, the status of recommendations included in performance audit reports released in the year ended December 31, 1998 will be reported in the spring of 2000. Where observations have critical implications for areas such as health or public safety, however, we may decide to request a status report sooner. However, some prior audits may have their follow-up review deferred to a later date because of such factors as program reorganization. Some work may not require a follow-up as no recommendations arose.

We also do further follow-up reviews in subsequent years on significant recommendations that have not been substantially implemented at the time of our initial follow up.

Review Standards

We carry out our follow-up reviews in accordance with the standards for assurance engagements established by the Canadian Institute of Chartered Accountants.

Methods of Obtaining Evidence

Our reviews involve primarily enquiry, document review and discussion.

Enquiry consists of seeking appropriate information of knowledgeable persons within or outside the entity being audited. Types of enquiries include formal written enquiries addressed to third parties and informal oral enquiries addressed to persons within the entity. Consistent responses from different sources provide an increased degree of assurance, especially when the sources that provide the information are independent of each other.

Document review consists of examining documents such as minutes of senior management meetings, management plans, and manuals and policy statements to support assertions made in management's written report.

Discussion consists primarily of interviews with key management and staff, as necessary, for further verification and explanation.



Compiled and typeset by the Office of the Auditor General of British Columbia
and published by the Queen's Printer for British Columbia®
Victoria 1999

