

## BACKGROUND

- 8.1** The Public Safety Communications Program Office is a branch of the Department of Transportation and Public Works. The primary function of the Program Office is the administration, management and support of two Province-wide mobile radio communications networks, as well as a radio operations center in Shubenacadie, Colchester County.
- 8.2** The two networks are the Trunked Mobile Radio network and the Nova Scotia Integrated Mobile Radio System. The networks are used to provide field communication services to approximately 14,000 public safety and public works users. Users include Provincial departments and agencies, Emergency Health Services, the RCMP, emergency measures organizations and volunteer emergency service providers.
- 8.3** The Trunked Mobile Radio (TMR) network is the primary mobile radio communication system for the majority of public safety and public works users. The TMR network became operational in May 2000, and is operated by Aliant Inc., a commercial provider of telecommunication services. The Province purchases airtime from the company and has priority user access to the network. Much of the TMR network is owned or leased by Aliant, but it also includes capital equipment owned and leased by the Province. The term of the Aliant agreement expires May 31, 2010.
- 8.4** When the Province planned for the development of the TMR network in 1999, costs were estimated to be approximately \$8.9 million per year (\$89 million over the ten-year agreement period), not including implementation costs. To March 31, 2004, the Province has incurred TMR costs totaling \$46.4 million. At the time of this Report, costs are estimated to total \$98.4 million to May 31, 2010, exclusive of implementation costs.
- 8.5** The second system used to provide mobile radio communication services is the Nova Scotia Integrated Mobile Radio System (NSIMRS). The system is owned and operated by the Province and is over twenty years old. It supplied most of the Province's emergency communications requirements before the TMR network was implemented. Its primary users now are volunteer organizations such as fire departments and ground search and rescue groups which use the system for local communications. However, the system also has some commercial users which pay fees for its use.
- 8.6** The TMR network agreement with Aliant had provided for the dismantling of the older system, provided a mutually agreeable solution to fill the needs of the

volunteer sector could be reached. A solution was not reached and, as a result, the old system was maintained to service the needs of the volunteer sector.

- 8.7** The Shubenacadie Radio Operations Center provides dispatch services for the Departments of Natural Resources and Service Nova Scotia and Municipal Relations, as well as other government agencies. The Center also provides call notification services to volunteer fire departments and after-hours call answer services for the Nova Scotia Emergency Measures Organization.
- 8.8** Total operating costs of the Public Safety Communications Program Office for the year ended March 31, 2004 totaled \$11.1 million. Recoveries totaled \$3.0 million.

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## RESULTS IN BRIEF

- 8.9** The following are our principal observations from this audit.
- The Public Safety Communications Program Office has an appropriate capital asset acquisition process in place. However, the acquisition of the Trunked Mobile Radio network occurred before the formation of the Program Office. Upon examining the acquisition of this network, we noted that a central government directive required that it be acquired by way of an operating lease. This was not supported by a comprehensive analysis of the costs and benefits or risks and rewards of an operating lease versus other procurement alternatives.
  - The Public Safety Communications Program Office conducted technical assessments and implemented performance monitoring procedures after the implementation of the TMR network. We recommended a more formal post-implementation evaluation process for major systems to determine the extent to which benefits have been realized and to compare financial and operational results to original plans.
  - Records relating to commercial users of the Nova Scotia Integrated Mobile Radio System were inherited from another Provincial department and are incomplete. The largest user of the system was not charged for its use for approximately ten years, until the situation was corrected in 2003. There are limited formal agreements with some other commercial users and rates charged to these users are below market rates.
  - The Public Safety Communications Program Office has appropriate asset management practices to control the performance and safekeeping of its equipment. However, we observed weaknesses in its asset inventory listing for the Nova Scotia Integrated Mobile Radio System.

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## AUDIT SCOPE

- 8.10** In March 2004, we completed a broad scope audit of the Public Safety Communications Program Office of the Department of Transportation and Public Works. The audit was conducted in accordance with Section 8 of the Auditor General Act and auditing standards established by the Canadian Institute of Chartered Accountants, and included such tests and procedures we considered necessary in the circumstances.
- 8.11** The objective of the assignment was to assess the adequacy of policies, procedures and practices in place to ensure capital assets are acquired based on assessed needs, in an economical manner, and are protected and managed with due regard for economy and efficiency.
- 8.12** Audit criteria were developed to assist in the planning and performance of the audit. The criteria were discussed with and accepted as appropriate by senior management of the Public Safety Communications Program Office.

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## PRINCIPAL FINDINGS

### Capital Acquisition

- 8.13** The Public Safety Communications Program Office has a process in place for the acquisition of capital assets. The process is comprehensive and includes assessment of user needs, identification of alternatives, cost-benefit analysis, development of selection criteria, and a defined approval process.
- 8.14** We examined the acquisition of the TMR network, and found that it was acquired before the formation of the Program Office. The network was planned and acquired by the former Technology and Science Secretariat. We concluded that reasonable processes were followed in the original planning for the new system. However, the acquisition process was significantly altered by a directive from the then Priorities and Planning Secretariat (now Treasury and Policy Board). This directive required the procurement to meet guidelines of the Canadian Institute of Chartered Accountants to allow the transaction to be classified as an operating lease. The stated purpose of this directive was to ensure the costs of the system were not added to the debt of the Province.
- 8.15** The accounting treatment became a primary factor in the negotiations with the private-sector service and equipment providers. The decision to negotiate an operating lease was not supported by any consideration of the long-term costs and benefits or risks and rewards of an operating lease versus other procurement alternatives. The requirement to negotiate an operating lease restricted the ability of the negotiating team to pursue options that could have potentially led to better value-for-money for the Province in both the short and long term.

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**Recommendation 8.1**

**We recommend that the acquisition of capital assets be supported by comprehensive analysis of the costs and benefits and risks and rewards of identified alternatives. The most economical alternative which meets user needs should be selected. The accounting treatment of the transaction should not be a determinant in negotiating capital acquisitions.**

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- 8.16** Because of the requirement that the new network not add to the debt of the Province, there could be no up front capital contributions from the Province. The proposal by Aliant included up front capital contributions by the Province. To meet this requirement without purchasing any equipment, the Province arranged to lease the equipment from a financial services company (the lessor). The lessor purchased the equipment (consisting of towers, electronic equipment and other infrastructure) and leased it to the Province over various lease terms, with options to renew. The lease arrangement provided Aliant with operational control over the assets, while the Province remained responsible for all associated costs.
- 8.17** The lease agreements with the lessor are currently in dispute and have been since the receipt of the first invoice from the company. Invoices from the company were approximately 15% higher than expected. As a result, certain equipment to be acquired under the leases was bought outright by the Province and the ultimate cost of the TMR network has been uncertain for over four years. The lessor's receivable from Nova Scotia has been sold on two separate occasions. A life insurance company currently holds the receivable. The Province formed a dispute-resolution team and assigned responsibility for the matter to the Office of Economic Development, but no settlement has yet been reached. We advised that the Province attempt to settle the dispute in a timely manner in order to remove the uncertainty surrounding the ongoing costs of the TMR network.
- 8.18** Assessments of the Aliant proposal were performed before the network was acquired and resulted in the following conclusions.
- Capital contributions provided sufficient funding to build the TMR network and, as a result, there was no risk to Aliant.
  - Costs for repair and other services not covered by the maintenance agreements are in the high end of the industry spectrum for such work. (The Program Office has initiated actions to reduce these costs.)
  - The net present value of the lease payments by the Province to the lessor over the initial lease terms represents approximately 88% to 89% of the TMR network equipment costs of the lessor.
- 8.19** The Program Office implemented performance monitoring procedures and conducted some technical assessments after the implementation of the TMR network. For example,

- The TMR network agreement defines performance standards. Regular monitoring and reporting of system performance against these standards is conducted by the Public Safety Communications Program Office. The standards are currently being met, as a result of Aliant adding additional equipment to the network.
- A meeting of the service provider and users indicated satisfactory network performance and a high degree of user satisfaction.

**8.20** However, we believe there should be a more formal post-implementation evaluation for major systems or assets to determine the extent to which benefits have been realized and to compare results to original plans. We reviewed the cost of the TMR network and noted that, by May 31, 2010, the Province will have spent an estimated \$98.4 million on TMR communications. This is \$9.4 million (10.6%) over the original budget. However, there has been no formal comparison of actual system costs incurred to costs estimated by the initial plans. Based on our enquiries, cost overruns were related to unexpected mobile radio equipment purchases as a result of the dispute with the lessor, and network upgrades necessary to mitigate service interruption risks. In addition, costs related to trying to settle the contract dispute are being incurred by the Office of Economic Development.

**8.21** Also, there have been additions to the system subsequent to its implementation, but no reporting of whether or not the initial plan required the extra equipment. We believe a comprehensive post-implementation evaluation is especially valuable when the long-term operation of an important system will need to be negotiated with service and equipment providers on a regular basis, as is the case with the TMR network.

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**Recommendation 8.2**

**We recommend that the Public Safety Communications Program Office's processes include a requirement for a formal post-implementation evaluation for major systems.**

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**Long-term Plans**

**8.22** The Aliant agreement expires on May 31, 2010. The terms of the equipment leases range from five to ten years. There are provisions in the TMR network agreement which require Aliant to provide TMR services to Nova Scotia for a period of up to one year subsequent to the expiry date if the agreement is not renewed. There are also provisions in the equipment leases for continuance of the lease arrangement. If the Province does not renew a lease, Aliant has the first option to purchase the capital assets of the TMR network. Nova Scotia has a second right to purchase the leased assets. The assets can be purchased at fair market value, as estimated when the lease agreement was first negotiated (10% of the original equipment costs).

- 8.23** In accordance with the TMR network agreement, the Province must decide by November 30, 2007 how it will maintain its mobile radio communications service capacity beyond May 31, 2010. The Province must decide whether or not it will renew the TMR network agreement and equipment leases, or pursue another option.
- 8.24** The Public Safety Communications Program Office has started a planning process to address the long-term mobile communication needs of the Province. The plan has two components. Phase I is a process to address the needs of the volunteer sector and Phase II will address the needs of the current TMR users. The proposed solution to address the needs of the volunteer sector will also mitigate some of the risks and threats noted in a TMR Threat Risk Assessment performed for the Program Office. The proposed volunteer-sector solution is currently awaiting approval by Executive Council. Management has indicated that Phase II will begin upon completion of Phase I and will be completed prior to May 2006. The Program Office will then be in a position to decide on the future of the TMR network agreement and the equipment leases.

### **The Nova Scotia Integrated Mobile Radio System**

- 8.25** The second network used to provide mobile radio communications is the Nova Scotia Integrated Mobile Radio System. This system is used to provide mobile radio communications for volunteer organizations such as volunteer fire departments and ground search and rescue groups. The system is also used by commercial users which pay fees to the Province for use of the system. Along with responsibility for operating the system, fee collection was transferred from the Department of Natural Resources to the Department of Transportation and Public Works in November 2002.
- 8.26** An internal review by Transportation and Public Works noted weaknesses in the collection of fee revenues. It noted that an oversight resulted in the system's largest commercial user, Nova Scotia Power Inc., not being charged fees after it was privatized in 1992. An agreement effective January 1, 2003 was negotiated with the company in which annual fees of \$75,000 will be paid to the Province and the company will forgive annual revenues estimated at \$25,000 that would otherwise be payable by the Province for electricity used by the system. The agreement was not retroactively applied so the Province did not receive such revenues or associated cost savings for a period of approximately ten years.
- 8.27** The internal review also noted that contracts with other commercial users were out-of-date, incomplete or non-existent. An independent evaluation of the system noted that rates charged by the Province were below market rates. The Department recognizes the need to improve control over revenue collection and has developed a policy to address these issues. The agreement with Nova Scotia Power Inc. now reflects market rates, and the Department plans to implement this policy for other commercial users in 2004-05.

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### Recommendation 8.3

We recommend that Transportation and Public Works implement a process to ensure there are formal agreements with all commercial users which are reviewed on a regular basis. The process should ensure rates charged are appropriate and all revenues due to the Province are collected on a timely basis.

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## Capital Asset Management System

- 8.28** The Province has a significant investment in mobile radio communications. This investment provides both public safety and public works service providers with mobile radio communication capabilities which are critical to the performance of their designated functions. As such, the investment in both leased and owned assets needs to be carefully managed on an ongoing basis.
- 8.29** Our audit noted that the Public Safety Communications Program Office has a capital asset management system. The Program Office has maintenance schedules and processes to safeguard assets. There are standards for the services provided by Aliant, and the Program Office receives regular reports on the performance of the TMR network.
- 8.30** However, we observed that the Program Office's capital asset listing for the Nova Scotia Integrated Mobile Radio System is incomplete. Complete listings are important for the ongoing management of capital assets.

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### Recommendation 8.4

We recommend that the capital asset management system of the Public Safety Communications Program Office include complete lists of capital assets under its control.

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## CONCLUDING REMARKS

- 8.31** The Public Safety Communications Program Office has adequate systems for acquiring, maintaining and protecting its capital assets. However, due to a lack of documented analysis to support the directive to pursue an operating lease, the absence of a settlement of the contract dispute and the lack of a formal post-implementation evaluation, we are unable to conclude whether or not the TMR network represents value-for-money in both the short and long term for the Province.
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