

Transportation Safety Board of Canada

2014–15

Departmental Performance Report

Kathleen Fox
Chair
Transportation Safety Board of Canada

Dominic LeBlanc
Leader of the Government in the
House of Commons

© Her Majesty the Queen in Right of Canada, represented by the Chair of the
Transportation Safety Board of Canada, 2015

Departmental performance report (Transportation Safety Board of Canada)

Catalogue No. TU1-9/E-PDF
ISSN 2368-5204

This document is available on the website of the Transportation Safety Board of Canada
at <http://www.bst-tsb.gc.ca>

This document is available in alternative formats upon request.

Table of Contents

Chair’s Message	1
Section I: Organizational Expenditure Overview	3
Organizational Profile	3
Organizational Context.....	3
Raison d’être	3
Responsibilities	3
Strategic Outcome and Program Alignment Architecture	4
Organizational Priorities	4
Risk Analysis	7
Actual Expenditures	10
Alignment of Spending With the Whole-of-Government Framework ..	12
Departmental Spending Trend	13
Expenditures by Vote	14
Section II: Analysis of Programs by Strategic Outcome	15
Strategic Outcome.....	15
Program 1.1 Air Investigations	15
Program 1.2 Marine Investigations	17
Program 1.3 Rail Investigations.....	19
Program 1.4 Pipeline Investigations	21
Internal Services	23
Section III: Supplementary Information.....	25
Financial Statements Highlights.....	25
Supplementary Information Table.....	27
Section IV: Organizational Contact Information.....	29
Appendix: Definitions	30
Endnotes	33

Chair's Message

At the Transportation Safety Board of Canada (TSB), we know that openness and transparency are key elements to maintaining the public's trust. That's why we make every investigation report public—and why we do the same for our plans as an organization. The Departmental Performance Report is our report card for 2014-15. It identifies how we have used our resources, the results achieved, and the progress we have made on our corporate priorities.

Broadly speaking, the TSB continues its work helping to advance transportation safety from coast to coast to coast, even as we strive for continuous improvement. The investigation of the Lac-Mégantic tragedy was completed and the final report released in a little over a year, resulting in a broad range of safety actions by both the regulator and industry. While we consistently meet timelines for completing investigations in our Marine Program, we remain short of achieving the timeliness targets in our other three programs. However, efforts continue to be made on various continuous improvement initiatives.

As an organization, we must also address the challenge of achieving safety actions on our outstanding recommendations—and here, too, we have had mixed results. In the Air Program, the slow pace of risk reduction is troubling. Although the Board continues to press industry and the regulator for change, too many investigations reveal the same causes and contributing factors, year after year. Fortunately, the other programs fared significantly better, with the vast majority of Marine, Rail, and all Pipeline recommendations having now received our highest rating of Fully Satisfactory.

At the corporate level, meanwhile, the TSB made good progress in several areas: we implemented new tools for e-mail and digital records, updated some accident investigator trainings, and modernized the database that manages information on Air occurrences. Our Outreach program also saw total activities rise to an all-time high. More work, however, is still required with respect to information management within the organization.

In 2015-16, we will use employee feedback received from the 2014 Public Service Employee Survey and feedback received from our stakeholders' survey to revise our corporate priorities and make adjustments to our program delivery to ensure that the TSB continues to deliver its mandate in an efficient and effective manner.

In summary, there's much to be proud of, but also some room for further improvement. We will continue our efforts to improve our efficiency and effectiveness so that Canadians can continue to count on a transportation system that is as safe as possible.

Section I: Organizational Expenditure Overview

Organizational Profile

Minister: Dominic LeBlanc

Deputy Head: Kathleen Fox

Ministerial portfolio: Privy Council

Year established: 1990

Main legislative authorities:

[Canadian Transportation Accident Investigation and Safety Board Act](#)ⁱ, S.C. 1989, c. 3

Organizational Context

Raison d'être

The Canadian Transportation Accident Investigation and Safety Board is referred to as the Transportation Safety Board of Canada (TSB) in its day-to-day activities. The TSB is an independent agency created in 1990 by an Act of Parliament. It operates at arm's length from other government departments and agencies to ensure that there are no real or perceived conflicts of interest. TSB's sole objective is to advance air, marine, rail and pipeline transportation safety. This mandate is fulfilled by conducting independent investigations into selected transportation occurrences to identify the causes and contributing factors, and the safety deficiencies evidenced by an occurrence. The TSB then makes recommendations to reduce or eliminate any such safety deficiencies and reports publicly on its investigations.

The Leader of the Government in the House of Commons is the designated minister for the purposes of tabling the TSB's administrative reports in Parliament, such as the *Report on Plans and Priorities* and the *Departmental Performance Report*. The TSB is part of the Privy Council portfolio of departments and agencies.

Responsibilities

The TSB exists as an independent investigation body with the sole goal of advancing transportation safety. Since its inception in 1990, the TSB has conducted thousands of investigations across the modes for which it is responsible.

The TSB is one of many Canadian and foreign organizations involved in improving transportation safety nationally and internationally. Because it has no formal authority to regulate, direct or enforce specific actions, the TSB can only succeed in fulfilling its strategic outcome through the

actions of others. Operating at arm’s length from other federal departments involved in the transportation field, the Board must present its findings and recommendations in such a manner that compels others to act. This implies ongoing dialogue, information sharing and strategic coordination with organizations such as Transport Canada, the National Energy Board and the Canadian Coast Guard. The TSB must engage industry and foreign regulatory organizations in a similar fashion. Through various means, the TSB must present compelling arguments that will convince these “agents of change” to take action in response to identified safety deficiencies.

As one of the world leaders in its field, the TSB regularly shares its investigation techniques, methodologies and tools with foreign safety organizations by inviting them to participate in in-house training programs in the areas of investigation methodology and human and organizational factors. Under the terms of international agreements, the TSB also provides investigation assistance to foreign safety organizations, such as decoding and analyzing flight recorder data or overseeing engine tear-downs. The TSB also shares data and reports with sister organizations, in addition to participating in international working groups and studies to advance transportation safety.

For more details on the TSB investigation process or the links between the TSB and other federal organizations visit the TSB [website](#)ⁱⁱ.

Strategic Outcome and Program Alignment Architecture

The structure below illustrates the program activities framework that contributes to the achievement of the TSB strategic outcome.

- 1. Strategic Outcome:** The risks to the safety of the transportation system are reduced
 - 1.1 Program:** Air Investigations
 - 1.2 Program:** Marine Investigations
 - 1.3 Program:** Rail Investigations
 - 1.4 Program:** Pipeline Investigations
- Internal Services**

During 2014-15, the TSB completed a review of its performance measurement framework. The wording of TSB’s strategic outcome, as well as the titles and descriptions of its programs have consequently been updated for the 2015-16 reporting period.

Organizational Priorities

The [TSB Strategic Plan](#)ⁱⁱⁱ outlines the four strategic objectives and associated priorities that have been identified by senior management for the period of 2011–12 to 2015–16 in order to achieve its strategic outcome. This plan provides the framework that guides the identification of key activities and the TSB’s investment decision-making.

The following table shows the progress achieved against the priorities identified in our 2014-15 Report on Plans and Priorities.

Priority	Type ¹	Programs
Responding - Strengthened organizational readiness	Ongoing	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations
Summary of Progress		
<p>In 2014-15 the TSB continued to focus on strategic human resources management by investing in the training and development of its employees.</p> <ul style="list-style-type: none"> ▶ The TSB Investigator Training Program was updated to include a new Course on Managing Critical Incident Stress and most employees were trained during the fiscal year. ▶ The TSB continued to review and convert traditional classroom training into eLearning modules and other learning products for a blended and more efficient learning approach. Courses were delivered through eLearning (TSB and its Act. Biohazard Awareness, Transportation of Dangerous Goods) and in the classroom (Investigating for Human and Organizational Factors, Integrated Safety Investigation Methodology, Failure Analysis, Interviewing Skills, Critical Incident Stress Management, and Wilderness First Aid). ▶ Facilitation training was provided for course presenters to help improve the quality of training. ▶ Needs assessment focus groups were carried out to determine the content of a new course on report writing. ▶ Amendments were made to further refine the Integrated Safety Investigation Methodology Course. <p>Work has continued on the modernization of the Manual of Investigations, various guidance documents and work tools. New directives and revised training are in various stages of development on the investigative interviewing procedures, documenting investigation activities, assessing responses to safety recommendations and the management of multimedia products.</p>		

Priority	Type	Programs
Managing - Improved information and data management	Ongoing	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations
Summary of Progress		
<p>Progress was made on planned projects to improve information management.</p> <ul style="list-style-type: none"> ▶ A new TSB Policy on Information Management was issued as well as detailed guidance on the identification and filing of information resources of business value for investigations. Additional, work is needed to update and finalize the formal identification of records of business value for all TSB records. ▶ The TSB has adopted a digital-only approach to information management to the extent possible. The records room has stopped accepting paper records for investigations in favor of digital storage in a corporate repository. ▶ A secure file transfer application was implemented to enable protected documents to be e-mailed, rather than sending paper documents. ▶ As planned, the TSB completed the modernization of the database that manages information on Aviation occurrences. 		

¹ Type in the tables on pp 5 and 6 is defined as follows: ongoing: committed to at least three fiscal years prior to the subject year of the Report on Plans and Priorities.

- ▶ Development of a multi-modal safety communications tracking tool to track and monitor safety issues was initiated in 2014-15; its development and implementation were deferred to 2015-16 due to challenges in finalizing clear user requirements agreeable to all four programs.
- ▶ In 2014-15, the TSB increased public access to occurrence data by augmenting its monthly and annual statistics with data files consisting of selected fields from the Rail and Pipeline databases. These datasets were posted to TSB website and are available through the Open government portal. In 2015-16, Marine and Air datasets will become available online.

Priority	Type	Programs
Communicating - Increased awareness of the TSB	Ongoing	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations
Summary of Progress		
<p>The TSB Communications Branch continues to leverage traditional and social media, and the TSB website to improve awareness of its products and services. The successful launch into social media a couple of years ago has helped to steadily raise the profile of the organization.</p> <p>A suite of products and tools are used to communicate TSB messages throughout an investigation. These include deployment notices, news releases, active investigation webpages, videos, and photos – to name a few. Major report releases include a news conference to effectively communicate TSB findings and recommendations to a broad audience. Overall, the TSB received more than 6700 mentions in radio, television, web and print media over the past year. The website had approximately 435,500 page views.</p> <p>A planned stakeholder consultation was deferred to 2015-16. Results will be used to take stock of existing products and determine potential changes to ensure TSB messages are reaching target audiences in the most effective and efficient manner.</p>		

Priority	Type	Programs
Advocating - Increased effectiveness of TSB products and services	Ongoing	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations
Summary of Progress		
<p>Delivering on the objectives of year three of the TSB’s strategic communications framework, the TSB continued to push for timely action in response to its safety recommendations through outreach activities and the release of the 2014 Watchlist.</p> <p>The annual outreach strategy was evaluated and updated during the year. The main objective of TSB outreach is to affect change. It supports the TSB’s mandate by promoting safety messages and encouraging action and cooperation by the regulator and industry to advance transportation safety—and in particular to address outstanding recommendations. This past year, the percentage of Fully Satisfactory recommendations increased from 74% to 76%. This result demonstrates progress towards achievement of the TSB’s goal that 80% of recommendations be assessed as Fully Satisfactory by March 2017.</p> <p>In 2014-15, TSB employees participated in 106 outreach activities and events. Members of the Board, and senior management meanwhile, took part in an additional 58 activities, for a total of 164 activities. This represents a 60% increase from the previous year.</p>		

In November 2014, the TSB released the latest version of the Watchlist—which identifies the top issues posing the greatest risk to Canada’s transportation system. These eight issues pertaining to the marine, rail, and aviation sectors, affect Canadians from coast to coast and are supported by hundreds of accident investigations, thousands of hours of research, and dozens of TSB recommendations. A news conference and video accompanied the release of the new Watchlist. Subsequent videos and communications such as ongoing Tweets have sustained the message. The Watchlist was also the topic of numerous outreach opportunities.

The TSB continued to communicate regularly through traditional and social media, and through its website with a view to reaching those regulators and transportation industry officials who can best effect change.

Risk Analysis

The TSB operates within the context of a very large and complex Canadian and international transportation system. The following strategic risks were identified for 2014–15. Each of these risks represents a potential threat to the achievement of the department’s strategic objectives.

Key Risks

Safeguarding, Retention and Retrieval of Information

Risk	Risk Response Strategy	Link to Program Alignment Architecture
Gaps in the safeguarding, retention and retrieval of information could have a negative impact on the TSB’s ability to deliver its mandate in a timely and effective manner.	The TSB will increase its monitoring of information management practices with respect to the classification, storage and retention of occurrence information with the objective of ensuring a consistent application. The TSB will also examine options for improving the tools for storing information in the Investigation Management System to ensure compliance with information management policy requirements.	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations

The TSB’s work is fundamentally reliant on the collection, retention, management and analysis of occurrence information. The TSB must therefore ensure that information is current, appropriately stored and readily accessible to employees. Ineffective safeguarding, retention and retrieval of information pose a risk to the achievement of the TSB mandate. The TSB must continue to enhance the processes, tools and technology in support of the management of its information resources to mitigate the risk of losing critical information and corporate knowledge.

Recruitment, Development and Maintenance of a Knowledgeable Workforce

Risk	Risk Response Strategy	Link to Program Alignment Architecture
<p>Inadequate human resources capacity could impact the TSB’s ability to meet operational requirements and public expectations for responsiveness. The on-going attrition due to employee retirements, the loss of expertise and knowledge may pose a significant risk to the TSB’s success.</p>	<p>The TSB is increasing its efforts to maintain its knowledge base and technical expertise through effective recruitment, training and development in order to mitigate this risk.</p> <p>The TSB Executive Committee monitors staffing, turnover, training and other relevant human resources statistics to monitor for possible workforce issues and implement corrective action as required.</p>	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations

The success of the TSB and its credibility depend largely on the expertise, professionalism and competence of its employees. Certain key positions at the TSB are “one deep” which means that there is only one person responsible for a specific task, with limited back-up. In addition, some of these key positions also require strong managerial and technical skills. The TSB must be ready to respond to occurrences. Inadequate human resources or inexperienced personnel could impact the department's ability to meet urgent operational requirements and public expectations. An ineffective response could result in negative public perceptions of the TSB's effectiveness which could seriously impact the TSB's credibility. The TSB is increasing its efforts to maintain its knowledge base and technical expertise through effective recruitment, training and development in order to mitigate this risk.

Operational Surge Readiness

Risk	Risk Response Strategy	Link to Program Alignment Architecture
<p>A surge in transportation occurrences could impact the TSB’s ability to effectively respond to investigation demands.</p>	<p>Contingency plans and major occurrence check lists are maintained current and tested.</p> <p>Senior management closely monitors the workload and adjusts priorities as required.</p> <p>Staff is being cross-trained in several key areas to reduce reliance on one-of specialists and opportunities for outsourcing various capabilities have also been identified.</p>	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations

The TSB must be ready to respond to occurrences. Inadequate human resources or inexperienced personnel and unclear procedures when a sudden workload surge occurs could impact the department’s ability to meet urgent operational requirements and public expectations. An ineffective and/or delayed response could result in negative public perceptions of the TSB’s effectiveness which could seriously impact the TSB’s credibility. To the extent possible, the TSB has established measures to respond to a sudden surge in occurrences such as establishing partnerships and working relationships with various government agencies and industry to access emergency assistance when required, and putting in place an alumni program that can be used to acquire short term expertise.

Limited Financial Resources

Risk	Risk Response Strategy	Link to Program Alignment Architecture
<p>Progressive budget freezes and reductions in funding reduce the flexibility in the TSB’s budget. Limited financial resources could impact TSB’s investigation operations model if faced with a significant transportation accident or flurry of smaller size occurrences.</p>	<p>The TSB Executive Committee will continue to monitor spending on a monthly basis and review budget allocations on a quarterly basis. The TSB will continue to look for opportunities where spending can be minimized in order to provide financial flexibility to respond to priorities that may occur in the year.</p> <p>The TSB has provisions in place to seek incremental funding from Parliament for major occurrence investigations. Additional funding was sought and received to cover expenditures for the Lac-Mégantic investigation.</p>	<ul style="list-style-type: none"> ▶ Air Investigations ▶ Marine Investigations ▶ Rail Investigations ▶ Pipeline Investigations

The TSB’s expenditures are influenced by the number and complexity of transportation occurrences. A significant transportation accident or flurry of smaller size occurrences could significantly increase expenditures and result in resource pressures beyond the TSB’s available funding. Another risk to TSB’s financial resources is progressive reductions in funding announced as a result of government-wide fiscal restraint measures, which reduce the flexibility in the TSB’s budget. There is a risk that further budget reductions and/or significant increases in operating costs will impact the delivery of the TSB’s mandate. The TSB will continue to closely monitor its financial situation and take any necessary actions to ensure that it can continue to effectively deliver on its mandate of advancing transportation safety.

Actual Expenditures

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	Difference (actual minus planned)
29,042,391	30,378,928	32,303,508	32,219,331	84,177

Human Resources (Full-Time Equivalents [FTEs])

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
225	208	17

Budgetary Performance Summary for Strategic Outcome and Programs (dollars)

Strategic Outcome, Programs and Internal Services	2014–15 Main Estimates	2014-15 Planned Spending	2015–16 Planned Spending	2016–17 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2013-14 Actual Spending (authorities used)	2012-13 Actual Spending (authorities used)
Strategic Outcome: The risks to the safety of the transportation system are reduced								
Air Investigations	12,778,652	13,340,998	12,789,410	12,653,184	15,029,520	14,990,356	14,671,477	13,670,313
Marine Investigations	4,646,782	4,999,311	5,000,768	4,947,503	4,947,248	4,934,356	5,457,349	5,831,259
Rail Investigations	4,646,783	4,955,098	5,439,912	5,381,969	6,162,835	6,146,776	6,883,816	4,703,146
Pipeline Investigations	580,848	590,019	612,623	606,097	284,458	283,717	353,442	457,077
Strategic Outcome Subtotal	22,653,065	23,885,426	23,842,713	23,588,753	26,424,061	26,355,205	27,366,084	24,661,795
Internal Services	6,389,326	6,493,502	6,485,499	6,416,419	5,879,447	5,864,126	5,937,110	6,994,482
Total	29,042,391	30,378,928	30,328,212	30,005,172	32,303,508	32,219,331	33,303,194	31,656,277

The TSB is financed by the Government of Canada through Parliamentary authorities. *Canada's Economic Action Plan 2012* (Budget 2012) called upon the TSB to permanently reduce its operating expenditures by \$1.3 million by 2014–15. Gradual reductions began in 2012-13 and full reductions were achieved by 2014-15. Other permanent reductions beginning in 2014-15 included government-wide initiatives for the Canada School of Public Service renewal and the Service Canada web renewal. These reductions were recorded as frozen funds in 2014-15 and are removed permanently from TSB's authority levels effective 2015-16.

During 2014-15, the TSB completed a review of its performance measurement framework. As part of this review, the allocation of funding for specialized activities in support of all four programs (e.g. engineering and technical, human factors) has been modified to better align with the proportion of active investigations in each mode at the time of preparation of the Main Estimates. The new allocation process explains the relative differences in funding by program starting in 2015-16.

The significant increase between 2014-15 planned spending and 2014-15 total authorities (available for use) is primarily explained by the following factors:

- Incremental funding of \$340,000 in for the final stages of the investigation of the rail accident in Lac-Mégantic through Supplementary Estimates C;
- Funding of \$726,000 through TBS vote transfers related to the transition charge for conversion of employee payroll to salary in arrears implemented by the Government of Canada;
- Funding of \$511,000 through TBS vote transfers for salary-related expenditures (severance and parental benefits); and
- Higher than estimated funding through lapsed funds carried forward from the 2013-14 fiscal year.

During 2014-15, the TSB did not request its full entitlement for salary-related expenditures (severance and parental benefits) as it anticipated having a lapse under its operating vote. The resulting carry forward is estimated at \$789,000 for the 2015-16 fiscal year. As a result of the Budget 2014 operating budget freeze, departments are required to fund 2014-15 and 2015-16 salary increments from their existing authorities. A portion of the TSB's carry forward has therefore been earmarked for the anticipated payment of retroactive salaries for expired collective agreements.

Alignment of Spending With the Whole-of-Government Framework

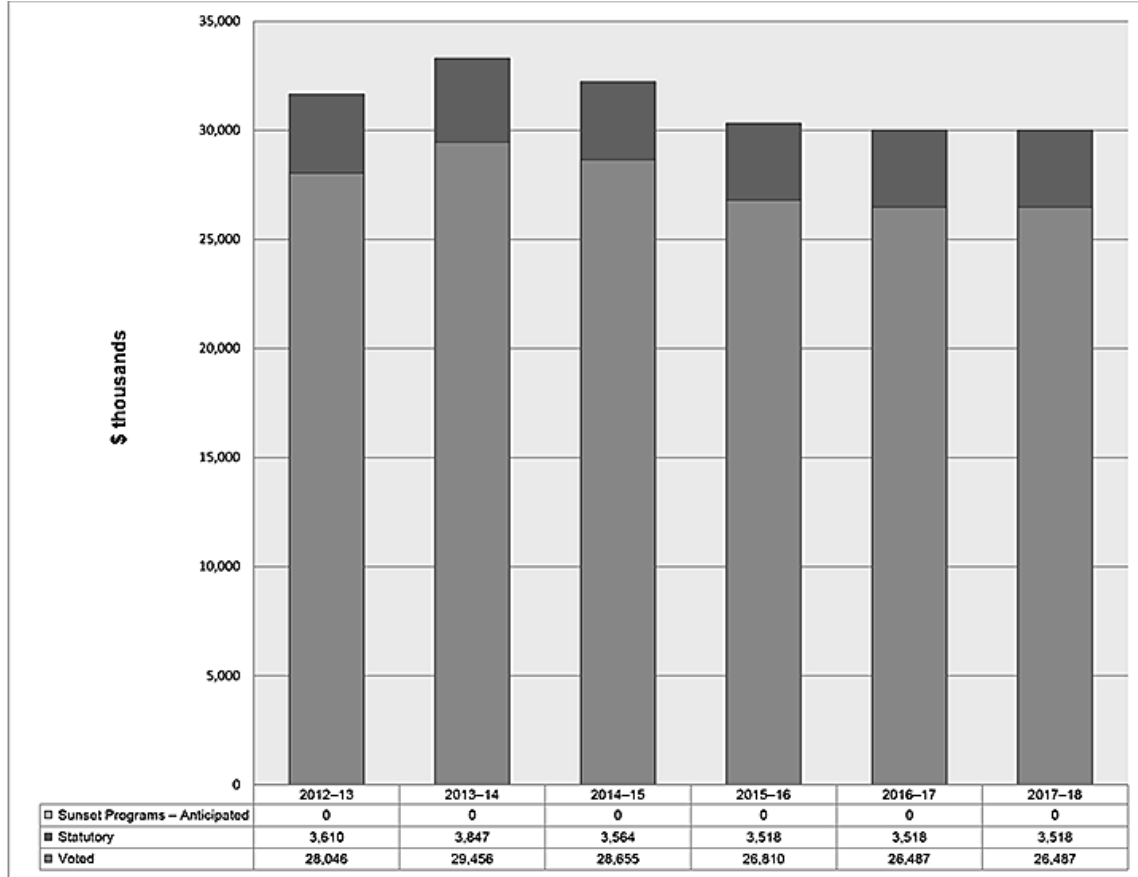
Alignment of 2014–15 Actual Spending with the [Whole-of-Government-Framework](#)^{iv} (dollars)

Strategic Outcome	Program	Spending Area	Government of Canada Outcome	2014–15 Actual Spending
Risks to the safety of the transportation system are reduced	1.1 Air Investigation	Social Affairs	A safe and secure Canada	14,990,356
Risks to the safety of the transportation system are reduced	1.2 Marine Investigation	Social Affairs	A safe and secure Canada	4,934,356
Risks to the safety of the transportation system are reduced	1.3 Rail Investigation	Social Affairs	A safe and secure Canada	6,146,776
Risks to the safety of the transportation system are reduced	1.4 Pipeline Investigation	Social Affairs	A safe and secure Canada	283,717

Total Spending by Spending Area (dollars)

Spending Area	Total Planned Spending	Total Actual Spending
Social Affairs	23,885,426	26,355,205

Departmental Spending Trend



The 2012-13 to 2014-15 actual spending presented above are actual expenditures as presented in the Public Accounts of Canada. Although Budget 2012 operating budget reduction measures were implemented during these fiscal years, they were offset by increased spending in 2013-14 and 2014-15, attributable to the following significant factors:

- Investigation of the rail accident in Lac-Mégantic, Quebec (\$1.1 million in 2013-14 and \$0.3 million in 2014-15);
- Retroactive payments for previous year for salary increments as a result of the last round of signed collective agreements (\$0.5 million in 2013-14)
- Payouts for liquidation of accumulated severance benefits as per the last round of signed collective agreements (\$1.1 million in 2013-14 and \$0.4 million in 2014-15)
- Transition charge for conversion of employee payroll to salary in arrears implemented by the Government of Canada (\$0.7 million in 2014-15)
- Purchase of X-Ray Computed Tomography System (\$0.6 million in 2014-15)

Planned spending for 2015-16 to 2017-18 is expected to remain constant; however a significant transportation accident or a flurry of smaller size occurrences could significantly increase expenditures unexpectedly. Currently, planned spending for these years is based on funding anticipated to be received through Main Estimates plus estimated amounts for compensation adjustments for terminable allowances. Planned spending for 2015-16 also includes an estimated amount for the carry-forward of unused funding from the previous year, which was based on the information available at the time of production of the Report on Plans and Priorities.

Expenditures by Vote

For information on the TSB's votes and statutory expenditures, consult the [*Public Accounts of Canada 2015*](#),^v which is available on the [Public Works and Government Services Canada website](#).^{vi}

Section II: Analysis of Programs by Strategic Outcome

Strategic Outcome: The risks to the safety of the transportation system are reduced.

Programs

As shown in the 2014–15 Main Estimates, the TSB has the following four key programs:

- ▶ Air Investigations
- ▶ Marine Investigations
- ▶ Rail Investigations
- ▶ Pipeline Investigations

Program 1.1 Air Investigations

Description

Under the Air Investigations program, the TSB conducts independent investigations into selected air transportation occurrences in or over Canada and in certain circumstances internationally, to identify causes and contributing factors. This program includes the publication of investigation reports, the formulation of recommendations to improve safety, the communication of safety information, the conduct of outreach activities to advocate for changes, and the follow-up on responses to recommendations and other safety communications. The Air Investigations program also includes the fulfillment of Canada's obligations related to transportation safety as required by the International Civil Aviation Organization. This program is governed by the *Canadian Transportation Accident Investigation and Safety Board Act*, the Transportation Safety Board Regulations, and Annex 13 of the Convention on International Civil Aviation.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2014-15 Difference (actual minus planned)
12,778,652	13,340,998	15,029,520	14,990,356	1,649,358

Human Resources (Full-Time Equivalents [FTEs])

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
102	87	(15)

Performance Results

Expected Results	Performance Indicators	Targets	Actual Results
Air investigations are efficient	Average time for completing investigation reports	450 days by March 31, 2015	Not met: 546 days
	Percentage of investigations completed within the published target time	75% by March 31, 2015	Not met: 32%
Safety deficiencies in the aviation industry are addressed	Percentage of responses to recommendations assessed as Fully Satisfactory (since TSB's creation)	65% by March 31, 2015	Not met: 62%
	Percentage of safety advisories on which safety actions have been taken	60% by March 31, 2015	Not met: 50%

Performance Analysis and Lessons Learned

The performance results for the efficiency of investigations improved in 2014-15 compared to 2013-14; however the current year targets were not achieved. A total of 22 air investigations were started in 2014-2015 (20 in 2013–2014), and 22 investigations were completed (42 in 2013-2014). The average duration of completed investigations was 548 days, an improvement from the 2013-2014 average of 639 days. The percentage of investigations completed within the target time increased from 14% in 2013-14 to 32% in 2014-15. As expected, only modest progress was achieved in 2014-15 while various changes were being implemented.

The TSB continues to face challenges in achieving its performance targets in the Air Investigations Program. The main challenges include: staff turnover – which requires time to staff vacant positions and train new investigators, gaps in investigator skills and training, bottlenecks in the business process, the high level of effort required to complete complex investigations, and the need to catch-up on a small backlog of older cases.

During the year, the Air Investigations Branch initiated changes in its organizational structure and its key business processes. These changes were aimed at addressing the major challenges and improving performance. Technical writers were hired to provide report writing assistance to investigation teams. Training was provided to investigators and managers. Changes were also made to the draft report review process. The Operational Services Branch and the Communications Branch have also reviewed their business processes in order to identify opportunities for efficiency. Efforts are also being made to minimize the number of vacant positions in future by initiating staffing processes earlier and creating pools of prequalified candidates. Although only modest progress has been achieved to date, it is expected that these measures will lead to performance improvements in future years. Additional measures will also be taken in 2015-16 to

overcome resistance to change and ensure a more aggressive implementation of actions needed to improve performance.

Limited progress was also made on addressing safety deficiencies. In 2014-15, the status of 3 recommendations has changed to Fully Satisfactory and positive responses were received to only 50% of TSB safety advisories. This slow pace of safety actions to reduce risk in the aviation industry is a troubling recurring theme. However, the TSB will continue to press hard for improvement in the uptake of its recommendations. Targeted efforts will be also made with Transport Canada to review and update the responses to a number of old recommendations.

The Air Investigations Program’s actual authorities and spending were higher than planned as a result of higher than anticipated expenditures for severance benefits, the transition charge to pay in arrears and the purchase of the X-ray CT system. The program utilized only 87 FTEs compared to the planned human resources of 102 FTE. The difference of 15 FTEs is due to 5 vacancies in Air investigator positions and 10 vacancies in specialized support service areas that support all 4 programs within the TSB (e.g. human factors, laboratory analysis, and report production). As the largest program, the Air Investigations Program is allocated the largest share of specialized support services for reporting purposes.

Program 1.2 Marine Investigations

Description

Under the Marine Investigations program, the TSB conducts independent investigations into selected marine transportation occurrences in Canada, and in certain circumstances internationally to identify causes and contributing factors. This program includes the publication of investigation reports, the formulation of recommendations to improve safety, the communication of safety information, outreach activities to advocate for change, and the follow-up on responses to recommendations and other safety communications. The Marine Investigations program also includes the fulfillment of some of Canada’s obligations related to transportation safety as required by the International Maritime Organization. This program is governed by the *Canadian Transportation Accident Investigation and Safety Board Act*, the Transportation Safety Board Regulations, and the Casualty Investigation Code of the International Maritime Organization.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2014-15 Difference (actual minus planned)
4,646,782	4,999,311	4,947,248	4,934,356	(64,955)

Human Resources (Full-Time Equivalent [FTEs])

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
36	36	0

Performance Results

Expected Results	Performance Indicators	Targets	Actual Results
Marine investigations are efficient	Average time for completing investigation reports	450 days by March 31, 2015	Exceeded: 435 days
	Percentage of investigations completed within the published target time	75% by March 31, 2015	Not met: 58%
Safety deficiencies in the marine industry are addressed	Percentage of responses to recommendations assessed as Fully Satisfactory (since TSB's creation)	85% by March 31, 2015	Mostly met: 83%
	Percentage of safety advisories on which safety actions have been taken	70% by March 31, 2015	Not met: 43%

Performance Analysis and Lessons Learned

In 2014-15, the TSB was well positioned to achieve the expected results and meet the agreed upon targets given the re-organization of the Marine Investigations Branch that was completed in the previous year. In 2014-15, 12 marine investigations were started (11 in 2013-14) and 12 were completed (13 in 2013-14). The timeliness for completing Marine investigation reports exceeded the target by 15 days (435 days average) and improved from the previous year (458 days).

The overall timeliness target for the completion of investigations reports was exceeded. Furthermore, the percentage of investigations completed within the target time increased to 58% in the current year compared to 31% in 2013-14. Although the TSB did not achieve the target of 75%, good progress was made. Employee turnover in recent years has resulted in an inflow of new investigators, such that 20% of Marine investigators have less than 2 years' experience with the TSB. The learning curve of new investigators and the time requirements for training and development contributed to some delays in the investigation process.

For 2014-15, the target for the percentage of responses to recommendations assessed as Fully Satisfactory was increased from 80% to 85% in anticipation that Transport

Canada's new Fishing Vessel Safety Regulations would address a number of outstanding recommendations. Unfortunately, these regulations were not issued during the year, leaving a gap in the results for this performance measure. Continued efforts will be made to encourage the regulator and industry to focus on the remaining recommendations and to take appropriate safety actions. It is expected that all performance targets will be completely met in future years.

The Marine Investigations Program's actual authorities and spending were generally aligned with planned spending. In addition, the Marine program's actual human resources utilization was consistent with planned utilization.

Program 1.3 Rail Investigations

Description

Under the Rail Investigations program, the TSB conducts independent investigations into selected rail transportation occurrences to identify causes and contributing factors. This program includes the publication of investigation reports, the formulation of recommendations to improve safety, the communication of safety information, undertaking outreach activities to advocate for change, and the follow-up on responses to recommendations and other safety communications. The Rail Investigations program also includes the provision of assistance, upon request, to the provinces for the investigation of short-line railway occurrences under provincial jurisdiction. This program is governed by the *Canadian Transportation Accident Investigation and Safety Board Act* and the Transportation Safety Board Regulations.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2014-15 Difference (actual minus planned)
4,646,783	4,955,098	6,162,835	6,146,776	1,191,678

Human Resources (Full-Time Equivalent [FTEs])

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
36	39	3

 Performance Results

Expected Results	Performance Indicators	Targets	Actual Results
Rail investigations are efficient	Average time for completing investigation reports	450 days by March 31, 2015	Not met: 494 days
	Percentage of investigations completed within the published target time	75% by March 31, 2015	Not met: 31%
Safety deficiencies in the rail industry are addressed	Percentage of responses to recommendations assessed as Fully Satisfactory (since TSB's creation)	89% by March 31, 2015	Exceeded: 90%
	Percentage of safety advisories on which safety actions have been taken	75% by March 31, 2015	Exceeded: 85% 16 safety advisories were issued during the year

Performance Analysis and Lessons Learned

A total of 16 rail investigations were started in 2014–15 (17 in 2013-14), and 16 investigations were completed (12 in 2013-14). Fiscal year 2014-15 was very challenging for the Rail Investigations Program. Significant resources were assigned to the Lac-Mégantic investigation during the first 6 months of the fiscal year in order to ensure the timely completion of this high profile investigation. Furthermore, the TSB had to contend with a higher than usual workload arising from the high public interest in rail safety. This translated into a higher number of deployments, higher number of media calls, higher number of requests for information and higher number of communications with individual citizens and local organizations.

Notwithstanding the heavy workload, the TSB focused on ensuring that safety communications were issued in a timely manner and that safety actions by the Regulator and industry were tracked and assessed. By ensuring that change agents were promptly made aware of any safety deficiencies, direct safety actions were taken in a timely manner and risks were reduced, resulting in two of the performance measures being exceeded. Notably, although 5 new recommendations were issued in the past two years, the target for the number of Fully Satisfactory recommendations was exceeded. The very complex Lac-Mégantic investigation was completed in 410 days – well below the target for Rail investigations. However, these dedicated efforts and the heavy overall workload have impaired the TSB's ability to meet the two efficiency performance targets.

Although there was progress on the number of safety actions taken, there was push back on some of the outstanding recommendations due to the costs involved, the capacity of the industry to accommodate changes, and the lack of perceived benefits to the industry. In particular, continued efforts are required to work with industry to address their

concerns with the implementation of on-board voice and video recorders in locomotives and the implementation of additional physical defences to prevent runaways.

In fiscal year 2014-15, the Rail Investigations Program's actual authorities and spending were higher than planned as a result of the Lac-Mégantic investigation. Additionally, the increase in the number of Rail investigations underway resulted in higher costs in areas such as overtime and travel, as well as the increased need for specialized support services (e.g., human factors, laboratory analysis, report production). Due to these factors, the Rail Investigations Program exceeded its planned human resources by 3 FTE. As the high workload in the Rail Investigations Program is expected to continue for the near future, some resources have been reallocated internally and other measures are being considered to ensure that performance targets can be met in 2015-16 and 2016-17.

Program 1.4 Pipeline Investigations

Description

Under the Pipeline Investigations program, the TSB conducts independent investigations into selected pipeline occurrences under federal jurisdiction within Canada to identify causes and contributing factors. This program also includes the publication of investigation reports, the formulation of recommendations to improve safety, the communication of safety information, undertaking outreach activities to advocate for change, and the follow-up on responses to recommendations and other safety communications. This program is governed by the *Canadian Transportation Accident Investigation and Safety Board Act* and the Transportation Safety Board Regulations.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2014-15 Difference (actual minus planned)
580,848	590,019	284,458	283,717	(306,302)

Human Resources (Full-Time Equivalent [FTEs])

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
3	2	(1)

Performance Results

Expected Results	Performance Indicators	Targets	Actual Results
Pipeline investigations are efficient	Average time for completing investigation reports	450 days by March 31, 2015	Not met: 665 days
	Percentage of investigations completed within the published target time	100% by March 31, 2015	Not met: 0%
Safety deficiencies in the pipeline industry are addressed	Percentage of responses to recommendations assessed as Fully Satisfactory (since TSB's creation)	100% by March 31, 2015	Met: 100%
	Percentage of safety advisories on which safety actions have been taken	75% by March 31, 2015	Not Applicable: No safety advisories were issued during the year

Performance Analysis and Lessons Learned

In fiscal year 2014-15, no new pipeline investigations were started (2 in 2013-14). One (1) investigation was completed (2 in 2013-14) in 665 days, which resulted in the two efficiency performance targets not being met. At this time, there are no outstanding active Pipeline recommendations - all have been assessed as Fully Satisfactory.

There were a number of challenges for the Pipeline Investigations Program in the past year. In particular, during the first 6 months of the year, pipeline investigators were assigned to assist with the high workload in the Rail Investigations Program, including the Lac-Mégantic investigation. This resulted in delays to the one completed investigation and in the 2 on-going investigations. Furthermore, despite efforts to recruit new staff, a pipeline investigation position remained vacant throughout the year. However, a new on-line occurrence reporting system was implemented in partnership with the National Energy Board, resulting in a more efficient mechanism for industry to report occurrences to both organizations.

The Pipeline Investigations Program's financial and human resources utilization was lower than planned due to the assignment of some staff to the Rail Investigations Program and due to the continued vacant position which is expected to be filled in 2015-16. The recruitment of qualified pipeline investigators continues to be challenging given the limited number of suitable candidates in the industry combined with compensation differences and the necessity to be independent from pipeline industry stakeholders.

Internal Services

Description

Internal Services are groups of related activities and resources that are administered to support the needs of programs and other corporate obligations of an organization. These groups are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; Acquisition Services; and Other Administrative Services. Internal Services include only those activities and resources that apply across an organization and not to those provided specifically to a program.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2014-15 Total Authorities Available for use	2014-15 Actual Spending (authorities used)	2014-15 Difference (actual minus planned)
6,389,326	6,493,502	5,879,447	5,864,126	(629,376)

Human Resources (FTEs)

2014–15 Planned	2014–15 Actual	2014–15 Difference (actual minus planned)
48	44	(4)

Performance Analysis and Lessons Learned

In 2014-15, the Internal Services program achieved progress on most of its 2014-15 priorities. It continued to effectively deliver programs and services in support of the four investigation programs while at the same time achieving reductions in its resources.

Significant progress was made with respect to the department's information management priorities. Advances were made in formally identifying and documenting information resources of business value and the related repositories, and consequently updating information management policies and practices. The TSB also transitioned to a digital-only approach for information management where feasible, and implemented monitoring tools for e-mail and digital records. It will continue to review its investigation management system to ensure that requirements for electronic records management are fully met. The TSB also finalized its work on the modernization of the transportation occurrence databases, with the modernization of the Air database.

Internal Services provided support to the recruitment and development of investigators as the TSB continues to face a period of high turnover due to employee retirements. Strategic human resources management was improved with investments in training and development of TSB employees. Improvements were made in the timeliness of staffing vacant positions. The new government-wide employee performance management application was implemented which provides a standardized approach for collecting information on training, objectives and results. Preparation work was also initiated for the implementation of the government-wide HR systems.

During 2014-15, the TSB completed a planned review of its performance measurement framework. The titles and descriptions of its programs were subsequently updated for the 2015-16 Report on Plans and Priorities, as well as the program performance indicators. However, the development of a risk-based internal audit plan was deferred to 2015-16.

As reported in the TSB's 2014-15 Annual Report to Parliament on the Application of the *Access to Information Act*, the department continued to experience a significant increase in requests for information during the year, primarily attributed to an increased level of interest in rail safety. The TSB increased the human resources dedicated to ATIP in 2014–15 to address this increase in workload. The department also improved its processes and guidance to ensure that appropriate exemptions and exclusions are applied more consistently.

Section III: Supplementary Information

Financial Statements Highlights

The TSB prepares annual financial statements on an accrual accounting basis. The unaudited financial statements of the TSB for the year ended March 31, 2015, can be found on the TSB website at <http://www.bst-tsb.gc.ca/eng/publications/rmr-dpr/2015/efp-ffs-2015.asp>.

Condensed Statement of Operations (Unaudited)
For the Year Ended March 31, 2015 (\$ thousands)

Financial information	2014-15 Planned Results	2014-15 Actual	2013-14 Actual	Difference (2014-15 actual minus 2014-15 planned)	Difference (2014-15 actual minus 2013-14 actual)
Total expenses	34,510	34,864	35,921	354	(1,057)
Total revenues	46	33	65	(13)	(32)
Net cost of operations before government funding and transfers	34,464	34,831	35,856	367	(1,025)

The 2014–15 Planned Results are based on estimates known at the time of the Report on Plans and Priorities (RPP). The difference between total expenses for 2014–15 Planned Results and 2014–15 Actual is mainly due to events not known during the RPP planning phase. Planned expenses for 2014-15 were estimated at \$34.5 million while actual expenses are higher at \$34.9 million. The difference is primarily explained by additional funding of \$0.3 million received for the Lac-Mégantic investigation.

TSB total operating expenses for 2014-2015 are \$34.9 million, a decrease of \$1.0 million when compared to the previous fiscal year. The decrease is primarily attributed to salary expense, which decreased by the same amount, and results from lower salaries and benefits relating to Lac-Mégantic (\$0.6 million) and severance benefits (\$0.4 million) than were paid in 2013-14.

The TSB's revenues are incidental and result from cost recovery activities from training or investigation activities, proceeds from the disposal of assets that are no longer being used, and fees generated by requests under the *Access to Information Act*.

Condensed Statement of Financial Position (Unaudited)
As at March 31, 2015
(\$ thousands)

Financial information	2014–15	2013–14	Difference (2014-15 minus 2013-14)
Total net liabilities	5,522	5,629	(107)
Total net financial assets	2,703	2,732	(29)
Departmental net debt	2,819	2,897	(78)
Total non-financial assets	6,274	5,952	322
Departmental net financial position	3,455	3,055	400

The TSB's total net liabilities consist primarily of accounts payable and accrued liabilities relating to operations which account for \$2.8 million and 51% (43% in 2013-14) of total liabilities. The liability for employee future benefits pertaining to severance pay represents \$1.5 million and 27% (36% in 2013-14) of total liabilities, while the liability for vacation pay and compensatory leave accumulated by employees but not taken at year-end represents \$1.2 million and 22% (21% in 2013-14). The reduction in total liabilities between years is attributed to employee future benefits, now that all signed collective agreements reflect an end to the accumulation of severance benefits for each year of service.

Total net financial assets consist of accounts receivable, advances, and amounts due from the Consolidated Revenue Fund (CRF) of the Government of Canada. The amount due from the CRF represents 96% or \$2.6 million (97% in 2013-14) of the year-end balance. This represents the amount of net cash that the TSB is entitled to draw from the CRF in the future to discharge its current liabilities, without further appropriations. The amount and composition of TSB's net financial assets have remained consistent between years.

Total non-financial assets consist primarily of tangible capital assets, which makes up \$6.1 million or 97% of the balance (98% in 2013-14), with inventory and prepaid expense accounting for the remainder. The increase of \$0.3 million in non-financial assets between years is due to the acquisition of assets, including an X-Ray Computed Tomography System and the capitalization of development work on the modernization of the Air occurrences database. These acquisitions are offset by the annual amortization of assets.

Supplementary Information Table

The supplementary information tables listed below can be found on the [TSB website](#)^{vii} at the following URLs:

- ▶ Departmental Sustainable Development Strategy: <http://www.bst-tsb.gc.ca/eng/publications/rmr-dpr/2015/eog-ggo-2015.asp>
- ▶ User Fees Reporting: <http://www.bst-tsb.gc.ca/eng/publications/rmr-dpr/2015/furr-ufrc-2015.asp>

Section IV: Organizational Contact Information

Additional information about the Transportation Safety Board of Canada and its activities is available on the TSB [website](#)^{viii} or by contacting us at:

Transportation Safety Board of Canada
Place du Centre
200 Promenade du Portage, 4th Floor
Gatineau, Quebec K1A 1K8

E-mail: communications@bst-tsb.gc.ca
Social media: SocialMedia-Mediassociaux@bst-tsb.gc.ca
Toll Free: 1-800-387-3557
Fax: 819-997-2239

Appendix: Definitions

appropriation (*crédit*): Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (*dépenses budgétaires*): Includes operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Departmental Performance Report (*rapport ministériel sur le rendement*): Reports on an appropriated organization's actual accomplishments against the plans, priorities and expected results set out in the corresponding Report on Plans and Priorities. These reports are tabled in Parliament in the fall.

full-time equivalent (*équivalent temps plein*): Is a measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

Government of Canada outcomes (*résultats du gouvernement du Canada*): A set of 16 high-level objectives defined for the government as a whole, grouped in four spending areas: economic affairs, social affairs, international affairs and government affairs.

Management, Resources and Results Structure (*Structure de la gestion, des ressources et des résultats*): A comprehensive framework that consists of an organization's inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures (*dépenses non budgétaires*): Includes net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (*rendement*): What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve and how well lessons learned have been identified.

performance indicator (*indicateur de rendement*): A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting (*production de rapports sur le rendement*): The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

planned spending (*dépenses prévues*): For Reports on Plans and Priorities (RPPs) and Departmental Performance Reports (DPRs), planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their RPPs and DPRs.

plan (*plan*): The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

priorities (*priorité*): Plans or projects that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s).

program (*programme*): A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture (*architecture d'alignement des programmes*): A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

Report on Plans and Priorities (*rapport sur les plans et les priorités*): Provides information on the plans and expected performance of appropriated organizations over a three-year period. These reports are tabled in Parliament each spring.

result (*résultat*): An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

statutory expenditures (*dépenses législatives*): Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

Strategic Outcome (*résultat stratégique*): A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision and core functions.

sunset program (*programme temporisé*): A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target (*cible*): A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (*dépenses votées*): Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

whole-of-government framework (*cadre pangouvernemental*): Maps the financial contributions of federal organizations receiving appropriations by aligning their Programs to a set of 16 government-wide, high-level outcome areas, grouped under four spending areas.

Endnotes

- i Canadian Transportation Accident Investigation and Safety Board Act, <http://laws-lois.justice.gc.ca/eng/acts/C-23.4/index.html>
- ii Transportation Safety Board of Canada, <http://www.tsb.gc.ca/eng/index.asp>
- iii Transportation Safety Board of Canada, <http://www.bst-tsb.gc.ca/eng/publications/strat/strat-1112-1516.asp>
- iv Whole-of-Government Framework, <http://www.tbs-sct.gc.ca/ppg-cpr/frame-cadre-eng.aspx>
- v. *Public Accounts of Canada 2015*, <http://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html>
- vi. Public Works and Government Services Canada website, <http://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html>
- vii Transportation Safety Board of Canada (corporate publications), <http://www.tsb.gc.ca/eng/publications/index.asp>
- viii Transportation Safety Board of Canada, <http://www.bst-tsb.gc.ca/eng/>