ESTIMATES

Transportation Safety Board of Canada

2001-2002
Estimates

Part III – Report on Plans and Priorities

Canada

The Estimates Documents

Each year, the government prepares Estimates in support of its request to Parliament for authority to spend public monies. This request is formalized through the tabling of appropriation bills in Parliament. The Estimates, which are tabled in the House of Commons by the President of the Treasury Board, consist of three parts:

Part I – The Government Expenditure Plan provides an overview of federal spending and summarizes both the relationship of the key elements of the Main Estimates to the Expenditure Plan (as set out in the Budget).

Part II – The Main Estimates directly support the *Appropriation Act*. The Main Estimates identify the spending authorities (votes) and amounts to be included in subsequent appropriation bills. Parliament will be asked to approve these votes to enable the government to proceed with its spending plans. Parts I and II of the Estimates are tabled concurrently on or before 1 March.

Part III – Departmental Expenditure Plans which is divided into two components:

(1) **Reports on Plans and Priorities (RPPs)** are individual expenditure plans for each department and agency (excluding Crown corporations). These reports provide increased levels of detail on a business line basis and contain information on objectives, initiatives and planned results, including links to related resource requirements over a three-year period. The RPPs also provide details on human resource requirements, major capital projects, grants and contributions, and net program costs. They are tabled in Parliament by the President of the Treasury Board on behalf of the ministers who preside over the departments and agencies identified in Schedules I, I.1 and II of the *Financial Administration Act*. These documents are to be tabled on or before 31 March and referred to committees, which then report back to the House of Commons pursuant to Standing Order 81(4).

(2) **Departmental Performance Reports (DPRs)** are individual department and agency accounts of accomplishments achieved against planned performance expectations as set out in respective RPPs. These Performance Reports, which cover the most recently completed fiscal year, are tabled in Parliament in the fall by the President of the Treasury Board on behalf of the ministers who preside over the departments and agencies identified in Schedules I, I.1 and II of the *Financial Administration Act*.

The Estimates, along with the Minister of Finance's Budget, reflect the government's annual budget planning and resource allocation priorities. In combination with the subsequent reporting of financial results in the Public Accounts and of accomplishments achieved in Departmental Performance Reports, this material helps Parliament hold the government to account for the allocation and management of public funds.

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Transportation Safety Board of Canada

2001-2002
Estimates

A Report on Plans and Priorities

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Transportation Safety Board of Canada

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Queen's Privy Council for Canada

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Section I: Chairman's Message

I believe the Transportation Safety Board of Canada (TSB) has been very successful in identifying safety deficiencies and in conveying key safety messages to the public, industry and regulators. The TSB enjoys an excellent reputation as an independent and competent professional organization both in Canada and abroad. Numerous safety actions have been taken by regulators and industry to reduce risks over the past 10 years, in part as a result of the work of the TSB. The years ahead will, however, continue to present on-going and new challenges for the TSB.

The transportation industry continues to evolve at a very rapid pace. The TSB has taken many steps to keep up with rapid technological changes, industry consolidation and globalization, the emergence of Canada as a major exporter of regional jets and rail cars, the growing demands for information, the increased level of litigation, the evolving needs of families of victims, and the very competitive marketplace for highly skilled personnel. All these demands combine to create significant pressures on the TSB's financial and human resources. Initiatives are currently underway to seek some relief from these pressures.

The TSB has also undertaken a number of initiatives to strengthen its management framework and to implement effective performance measurement. For example, the TSB is committed to implementing systematic quality assurance processes, the new human resources management framework and modern comptrollership practices. The TSB values its personnel as its most important resource and will continue to invest significantly in employee training and development. Plans are also being developed to rejuvenate the workforce. Sustained investments in the on-going review and improvement of work methodologies will also remain a priority for the organization.

Over the past few years I have personally participated in the presentation to the public of a number of the Board's final reports. I believe that this public presence has enhanced Canadians' understanding of the work of the TSB in addressing transportation safety issues. Over the coming year I intend to continue participating in such events, while professional personnel continue their efforts to respond to the enormous thirst for information from many quarters, including the media and next-of-kin.

The TSB faces many challenges and pressures in the year ahead. However, I have full confidence that with the competence and dedication of its personnel, the TSB is up to the task of providing Canadians with further advancements in transportation safety.

MANAGEMENT REPRESENTATION

Report on Plans and Priorities 2001-2002

I submit, for tabling in Parliament, the 2001-2002 Report on Plans and Priorities (RPP) for the Transportation Safety Board of Canada.

To the best of my knowledge the information:

- Accurately portrays the department's mandate, priorities, strategies and planned results of the organization.
- Is consistent with the disclosure principles contained in the *Guidelines for Preparing a Report on Plans and Priorities.*
- Is comprehensive and accurate.
- Is based on sound underlying departmental information and management systems.

I am satisfied as to the quality assurance processes and procedures used for the RPP's production.

The Planning and Reporting Accountability Structure (PRAS) on which this document is based has been approved by Treasury Board Ministers and is the basis for accountability for the results achieved with the resources and authorities provided.

_____

Executive Director

_____

Date

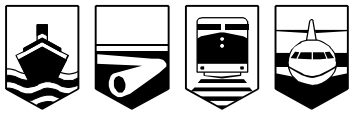
Section II: Departmental Overview

2.1 Mandate, Roles and Responsibilities

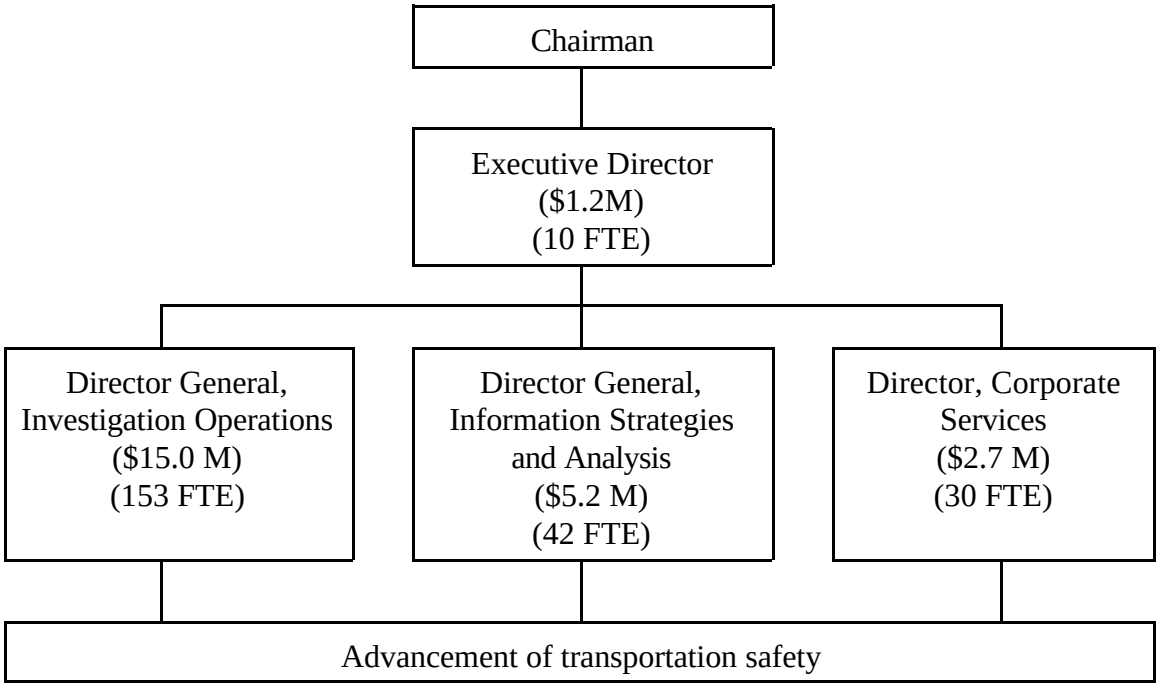
The Transportation Safety Board of Canada (TSB) is an independent agency created in 1990 by an Act of Parliament (*Canadian Transportation Accident Investigation and Safety Board Act*). It operates at arm's length from other government departments and agencies such as Transport Canada , the Canadian Transportation Agency and the National Energy Board to ensure that there are no real or perceived conflicts of interest. Under the legislation, the TSB's only object is the advancement of transportation safety in the federally regulated elements of the marine, rail, pipeline, and air transportation systems. This mandate is fulfilled by conducting independent investigations including, when necessary, public inquiries into transportation occurrences. The purpose of these investigations and inquiries is to make findings as to the causes and contributing factors of the occurrences and to identify safety deficiencies which in turn may result in recommendations designed to improve safety and reduce or eliminate risks to people, to property and to the environment. The TSB has the exclusive authority to make findings as to causes and contributing factors when it investigates a transportation occurrence.

The jurisdiction of the TSB includes all transportation occurrences in or over Canada. The Board may also represent Canadian interests in foreign investigations of transportation accidents involving Canadian registered, licensed, or manufactured ships, railway rolling stock, or aircraft. In addition, the Board carries out some of Canada's obligations related to transportation safety at the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO).

A transportation occurrence is any accident or incident associated with the operation of an aircraft, ship, railway rolling stock, or pipeline. It also includes any hazard that could, in the Board's judgement, induce an accident or incident if left unattended.



The TSB has only one business line: the advancement of transportation safety. The Chairman, assisted by the Executive Director and three senior managers, is responsible for all activities associated with this business line.



2.2 Departmental / Program Objective

To advance transportation safety.

2.3 Planning Context

The TSB operates within the context of the very large and complex Canadian transportation system. This system is very dynamic and in a constant state of change.

The marine mode involves approximately 46,000 Canadian-registered vessels and many foreign commercial ships which complete some 38,000 trips in Canadian waters annually. Commercial trade produces over 17 million vessel-kilometres in Canadian waters. Marine traffic in Canada includes the transportation of about 40 million passengers annually and over 350 million tons of cargo for domestic and international markets representing 38% of all cargo carried in Canada by all modes of transportation. In addition, about 25,000 Canadian fishing vessels were licensed to take part in various commercial fisheries last year. Approximately two thirds of these vessels were Canadian-registered.

There are some 30 federally regulated railways, operating close to 65,000 kilometres of track. The system generates over 579 billion ton-kilometres of output, produces close to 121 million freight train-kilometres of work and over 1.4 billion passenger-kilometres of service. The railways operate over 3,000 locomotives and approximately 110,000 freight and passenger rail cars, and employ over 45,000 people.

The national pipeline system under federal jurisdiction comprises about 100 oil and gas companies. These companies operate approximately 40,000 kilometres of pipelines. Over 145 million cubic metres of crude oil and 141 billion cubic metres of natural gas are moved by pipeline under federal jurisdiction in Canada annually.

The civil air transportation system processes over 70 million enplaned and deplaned passengers annually through over 600 Canadian airports. About 1,000 Canadian air carriers and an almost equal number of foreign carriers operate in Canada. There are over 70,000 licensed aviation personnel and nearly 28,000 registered aircraft. The Canadian aerospace industry and the airline industry employ about 88,000 people.

This context results in particular challenges for the TSB:

Public Interest in Transportation Safety: Transportation safety has always been a matter of public concern in Canada. This is largely due to the essential social and economic role that the transportation system plays in this country. New information demands have evolved in the aftermath of such accidents as: the crash of Swissair Flight 111 near Peggy's Cove, the train derailment in Mont St. Hilaire, the sinking of the True North near Tobermory, and the pipeline incident involving the spill of petroleum products near Prince George. News media expect real-time, round-the-clock, on-site coverage. The expectations of the next-of-kin for support from the investigating agencies have also increased. They have an enormous thirst for up-to-date factual information; most wish to follow closely the progress of the investigation. Given the loss they have suffered, great care must be exercised in communicating with them. The TSB also faces increasing demands for information through the Access to Information program. Fulfilling these evolving needs is proving to be a major challenge with existing resource levels.

Government Policy and Industry Environment: In recent years, partly as a result of government initiatives and partly in response to commercial imperatives, various changes have occurred that may influence transportation safety. Among the changes are the privatization of Crown corporations, the commercialization of many Transport Canada operations in all modes, and the increasing consolidation and globalization of companies. The highly competitive environment in all elements of the transportation industry and the demands by the public and shippers for an almost accident-free transportation system are also significant considerations.

Impact of Technology on Transportation: Over the last 30 years, the rate of technological change in the transportation industry has been very rapid. This is largely due to significant advances in computer and electronics technology, the development of new materials, and their application to the transportation industry. These advances affect all modes of transportation, and while many of them enable investigators to perform their work more effectively, they also make the job of investigation and safety analysis increasingly complex and specialized. The increased reliance on automation poses particular problems for analysing failures at the human-machine interface.

Level of Activity: More than 3,000 transportation occurrences are reported each year in accordance with federal reporting requirements. The TSB bases its decision to investigate on its Occurrence Classification Policy (see TSB web site at www.tsb.gc.ca for details). The prime criterion for deciding to investigate is whether an investigation is likely to lead to a reduction in risk to persons, property or the environment. Due to resource constraints, the TSB has withdrawn from investigating some accidents less likely to result in safety actions, even when they involve fatalities. This has resulted in some adverse public reaction and the TSB has come under increased public scrutiny. The TSB is also carrying a backlog of investigations in progress. Approximately 170 investigations are currently in progress, of which close to half are more than one year old. The management of this backlog, combined with the sustained uptake of new cases, presents an on-going challenge due to the limited resources available.

Recruitment and Retention of Personnel: The recruitment and retention of personnel represents a major challenge for the TSB. The TSB operates within a very competitive market place where there is limited availability of skilled personnel. The TSB competes in hiring those people, mostly from outside the public service, who bring the required technical skills and knowledge in a given mode and then spends at least two years training them to become investigators. This training, which is not available in traditional institutions of learning, combined with the experience in investigating makes our investigators in all occupational groups, at all levels, very attractive to other government departments and to industry. Factoring in that the government is generally unable to compete with the salaries and benefits offered by the industry adds another dimension to the problem. The TSB must also contend with employee disruption and insecurity resulting from limited resources and increasing workloads over the past number of years, perceived internal pay inequities, and the planned implementation of the Universal Classification System.

Swissair Flight 111 Accident Investigation: The crash of Swissair Flight 111 near Peggy's Cove in Nova Scotia on September 2, 1998 severely tested the resources of the TSB. This was the most complex transportation accident in Canadian history, requiring the mobilization of the majority of the TSB resources thereby creating backlogs in other work. On-going efforts to complete this investigation continue to consume considerable TSB resources and only limited progress has been achieved in catching up on the backlogs. This investigation has shown how vulnerable the TSB is should one major occurrence happen in any given year.

2.4 Departmental Planned Spending

(thousands of dollars)	Forecast Spending 2000-2001*	**Planned Spending 2001-2002**	Planned Spending 2002-2003	Planned Spending 2003-2004
Budgetary Main Estimates (gross)	24,086	**24,121**	24,121	24,156
Adjustments **	6,290	**-**	-	-
Net Planned Spending	30,376	**24,121**	24,121	24,156
Plus: Cost of services received without charge	2,392	**2,795**	2,795	2,795
Net Cost of Program	32,768	**26,916**	26,916	26,951

Full-Time Equivalents	230	**235**	235	235

* Reflects best forecast of total planned spending to the end of the fiscal year and includes incremental costs of $4,425,000 for the investigation of the Swissair flight 111 accident.

** Adjustments are to accommodate approvals obtained since the Main Estimates, and include transfers from Treasury Board Votes and Supplementary Estimates.

Section III: Departmental Plans, Results, Activities and Resources

3.1 Business Line Details

The TSB's Planning, Reporting and Accountability Structure identifies a single business line: the advancement of transportation safety.

The business line objective is to advance transportation safety by the independent investigation, analysis, study, and public reporting of transportation accidents, incidents or hazardous situations/conditions involving the operation of an aircraft, ship, railway rolling stock, or pipeline in the federally-regulated elements of Canada's air, marine, rail and pipeline transportation systems for the purposes of: making findings as to their causes and contributing factors, identifying safety deficiencies and, making safety recommendations designed to eliminate or reduce those transportation safety deficiencies identified.

3.2 Key Results Commitment, Planned Results, Related Activities and Resources

Key Results Commitment

The TSB is committed to provide Canadians with advancements in safety through independent, objective and timely analysis of safety failures in the federally regulated transportation system.

Planned Results

1) Identification of safety failures in the marine, rail, pipeline and air transportation systems.

2) Reduction in risks to persons, property and the environment through the use of investigation findings by governments and industry.

3) Public access to safety information and recommendations.

4) Satisfaction with quality and timeliness of findings and recommendations.

5) Awareness by Canadians of the Board's role in advancing transportation safety.

6) National and international recognition of the Board as an authoritative and independent resource in the area of transportation safety.

Related Activities

Operational Readiness (linked to planned results 1, 2, 3, 4 and 5)

The Swissair flight 111 investigation has demonstrated that the TSB human resources are very thinly spread. The TSB will have to recruit additional personnel in the coming years to ensure that sufficient trained personnel is available to respond to a major occurrence while maintaining a reasonable level of day-to-day activity. Since newly recruited personnel need approximately two years of training and on-the-job experience to perform as full-fledged investigators, this problem will only be alleviated with time.

The TSB will begin recruiting more personnel who have the knowledge, skills and abilities, and the capacity to learn in an ever-changing environment; using a competencies based approach. This is particularly important as changes occur at an accelerated pace and as technology plays a more and more important role in the transportation industry. TSB investigators must constantly keep abreast of changes. The TSB current aging workforce faces an increasingly important challenge in this regard. Rejuvenation of the workforce is therefore essential in the next few years if the TSB is to remain capable of effectively fulfilling its mandate.

As we move closer to the completion of the Swissair flight 111 investigation, the TSB will undertake a review of lessons learned during this investigation. The results of this review will then be used to develop a comprehensive strategy on how to deal with major occurrences, while minimizing impact on on-going operations. This will also include the review and update of working tools and operating procedures.

Report Timeliness (linked to planned results 2, 3, 4, 5 and 6)

The TSB's one year standard to publish a final investigation report has not yet been achieved for the majority of investigations. A stakeholder survey in 1999 confirmed the TSB management view that there is a problem with report timeliness. During this planning period work will be undertaken to develop and implement a strategy to reduce the existing backlog of cases and to take measures to ensure the backlog does not recur. A review of resources required to cope with this workload is currently underway (see *Resourcing Strategies* on the next page). Business process analysis will be conducted to ensure that bottlenecks in the report production process are quickly identified and rectified. New or improved work tools will be acquired or developed. The TSB will also develop and implement an integrated information management strategy to collect, organize, use, disseminate, and manage transportation safety data and information in support of its operational and business objectives.

Quality assurance has been identified as a key element essential to the success of the TSB. The TSB will therefore implement a structured and systemic approach to quality assurance. A detailed concept of operations has been developed and implementation has started. Designated managerial and staff positions have been assigned primary responsibility for quality assurance and performance measurement. Benchmarks against which performance can be monitored will be established. Quality audit processes and systems will be defined and implemented.

The TSB will continue its work with key government and industry partners on the reciprocal exchange of data. The TSB plans to consolidate its role as the official Canadian repository of transportation accident/incident data by ensuring that this data can be made available to others when and as required. Effective use of technology and telecommunications systems will be key in improving accessibility to this data. The TSB also has on-going initiatives to ensure data quality and data integrity. These initiatives will be integrated into the systematic quality assurance program.

The TSB will make greater use of various communication tools such as: interim recommendations, safety advisories, communiqués, safety digests, and information letters to convey important safety information on a timely basis. While final investigation reports will continue to be the TSB's most apparent product, these other means of communication will be used more effectively to inform the public, industry and regulators and incite them to undertake safety actions as quickly as possible.

Resourcing Strategies (linked to planned results 1, 3, 4 and 6)

In recent years the TSB has had difficulty fully meeting its operational requirements, largely due to an increasing workload, coupled with a diminishing human and financial resource-base. As stated elsewhere in these strategic objectives, the TSB continues to make efforts to devise and implement more efficient and effective work methods and processes, and to promote and develop a more productive workforce.

The TSB will develop a national recruitment campaign, combined with a developmental program, for specialized investigator positions. The TSB wants to attract new employees that can ensure the rejuvenation of its workforce and an adequate supply of fully skilled professionals that can meet the operational requirements of the organization. Steps will also be taken to create a work environment responsive to the needs of employees so that the TSB can be perceived as an employer of choice thereby improving employee retention rates.

The TSB will review its human resources, financial and administrative management frameworks and adopt a more business-like approach to the management of resources. Work is underway on the implementation of the government's financial information strategy, the human resources management framework, the new staffing delegations, the universal classification system, the materiel management framework and the modernization of the comptrollership function. Together these initiatives will help in establishing a solid management framework that can help the organization balance its workload and manage its resources in a more effective and consistent manner.

A review of the TSB's resource base is also underway. Resources will be allocated to areas where they can be most efficiently used to fulfill the legislated mandate. Over this planning period the TSB will be reviewing its resource requirements and will be discussing various options with the Treasury Board Secretariat. Key questions will have to be addressed to confirm what is expected of the TSB and to ensure that the TSB is appropriately resourced to effectively fulfill these expectations.

The development of a comprehensive performance measurement framework is well on its way. The TSB will link performance measurement to the internal quality assurance functions and will integrate performance measurement into the on-going management of operations. The TSB wants to ensure that performance measurement will first assist in the planning and management of operations, and secondly satisfy government-wide reporting requirements. Work will continue towards the definition of meaningful qualitative and quantifiable performance indicators. However, the TSB has some difficulty in defining good performance measurement indicators as no two investigations are identical. Some lead to significant safety improvements, and some do not. Furthermore, it is virtually impossible to measure accurately the direct or even indirect impact of the TSB on transportation safety due to the fact that it is but a single (small) player amongst many with responsibilities for advancing transportation safety.

Surveys will be conducted to measure the degree of satisfaction with the TSB's work by specific segments of the public and industry. These surveys will be targeted to persons with a direct interest in the work of the TSB and others such as: the media, other levels of government, persons associated with accidents not investigated by the TSB, unions, industry associations, etc.

Resources ($000)

Related Activities	2001-2002	2002-2003	2003-2004
Investigations	$ 18,034	$ 18,034	$ 18,069
Communication and Report Production	$ 1,346	$ 1,346	$ 1,346
Training	$ 1,077	$ 1,077	$ 1,077
Other Activities	$ 6,459	$ 6,459	$ 6,459
Total	$ 26,916	$ 26,916	$ 26,951

Section IV: Financial Information

Net Cost of Program for the Estimates Year

(thousands of dollars)	**Total**
Net Planned Spending	24,121
Plus: Services Received without Charge	
Accommodation provided by Public Works and Government Services Canada	1,556
Contributions covering employers' share of employees' insurance premiums and expenditures paid by Treasury Board Secretariat	1,186
Workers' compensation coverage provided by Human Resources Development Canada	21
Audit services provided by the Office of the Auditor General	32
	2,795
2001-2002 Net Cost of Program	26,916

Section V: Other Information

Additional information about the Transportation Safety Board of Canada and its activities is available on the TSB's Internet site at http://tsb.gc.ca or by contacting us at:

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