

Transportation Safety Board
of Canada



Bureau de la sécurité des transports
du Canada



T S B

BUSINESS PLAN

2009-2010



Canada

© Minister of Public Works and Government Services 2009
Cat. No. TU1-7/2009
ISBN 978-0-662-06522

Table of Contents

1.0	Introduction.....	1
2.0	Risks and Challenges	2
2.1	External Risks and Challenges.....	2
2.1.1	Slowdown of the Global Economy and Impact on TSB Activities	2
2.1.2	Government Approach to Managing Departments and Agencies	3
2.2	Internal Risks and Challenges.....	3
2.2.1	Repercussions of Organizational Changes.....	3
2.2.2	Maintaining a Competent Workforce	3
3.0	Management Plans and Priorities.....	4
3.1	Productivity and Efficiency of Safety Communications	4
3.2	Information Technology Infrastructure and Information Management.....	5
3.3	Workforce Renewal and Maintenance.....	5
3.4	Financial Management.....	5
4.0	Detailed Action Plans for Priority Projects	6
4.1	Productivity and Efficiency of Safety Communications	6
4.1.1	Implementing Program Evaluation and Performance Measurement	6
4.1.2	Chair’s Challenge – Part 2 and Enhanced Website Use	7
4.2	Information Technology Infrastructure and Information Management.....	11
4.2.1	Applications Infrastructure Upgrade.....	11
4.2.2	Electronic Records Management System	14
4.2.3	Reduction and Management of Information Technology Assets Infrastructure.....	15
4.3	Workforce Renewal and Maintenance.....	17
4.3.1	Establishing a Multi-Modal Training and Standards Division	17
4.3.2	Knowledge Transfer Strategy and Program.....	18
4.3.3	Follow-Up to 2008 Public Service Employee Survey Results	20
4.3.4	Review of Stand-by System.....	21
4.4	Financial Management.....	22
4.4.1	Review of Budget Allocation and Revision Processes	22
4.4.2	Review of Salary Forecasting Processes.....	23
4.4.3	Costing Tools for Major Investigations and Projects	24
5.0	Branch and Directorate Priorities	26
5.1	Board.....	26
5.2	Executive Director	26
5.3	Air Investigations Branch	26
5.4	Marine Investigations Branch.....	27

5.5	Rail/Pipeline Investigations Branch.....	27
5.6	Operational Services Branch.....	28
5.7	Corporate Services Directorate.....	28
6.0	Human Resources Plan.....	29
6.1	Human Resources Profile and Demographics	29
6.1.1	Age Distribution.....	31
6.1.2	Staff Turnover.....	32
6.1.3	Upcoming Retirements	35
6.1.4	Employment Equity	38
6.1.5	Linguistic Profile and Capacity	38
6.2	Key Human Resources Gaps	39
6.3	Human Resources Strategies and Priorities Action Plan	40
7.0	2009–2010 Resource Allocation.....	41
8.0	Performance Measurement	43
8.1	Results Chain	44
8.2	Performance Measurement Framework.....	44

1.0 Introduction

The Transportation Safety Board of Canada's (TSB) Strategic Plan for 2005 to 2011 has four strategic objectives that we must pursue in all aspects of our business to realize our Vision and serve our Mission. These objectives are:

- **Safety Products and Services**

To sustain and continuously improve the TSB's operational capability to identify safety deficiencies, and to produce safety products and services that most effectively advance safety change.

- **Organizational Effectiveness**

To invest in and organize the human, financial, and physical resources required to deliver quality safety products in a timely manner.

- **Alliances and Partnerships**

To leverage external and internal alliances and partnerships that enhance the TSB's effectiveness and productivity without risk to its independence.

- **Awareness**

To address risk in the transportation system through effective communication, particularly with key primary safety change agents, to enhance their understanding of TSB findings and to increase the implementation of TSB recommendations.

The 2009–2010 Business Plan contributes to achieving these objectives by defining our corporate, directorate, and branch priorities and by identifying key initiatives or projects that support these priorities. The Business Plan also includes the performance measurement framework that we will use to report on our results. Section 6.0 is dedicated to human resources (HR) planning. It contains our workforce profile and demographics, HR challenges and opportunities, as well as core HR priorities and the specific activities that management will undertake to address them.

Once again, the Executive Committee has streamlined activities to reflect our available financial and human resources. It has approved investments in projects that will increase our productivity and the effectiveness of our safety communications. These include evaluating our program activities, measuring our organizational performance, and enhancing our website. It has also earmarked funds to continue implementing an electronic records management system, upgrading our applications infrastructure, as well as reducing and managing our information technology (IT) assets infrastructure.

Resources have also been put aside to complete the implementation of the recommendations formulated during the A-base budget review for improving the management of our financial resources.

From an HR management perspective, the TSB will focus on developing a knowledge transfer strategy, while continuing to fund support for succession planning. We will complete the review and update of the CAI and TI job descriptions, establish a new Multi-Modal Training and Standards Division, modify the structure of the Air Investigations Branch, if deemed necessary, and undertake the review of the stand-by system.

2.0 Risks and Challenges

Section 2.0 describes key external and internal risks and challenges that could have an impact on TSB's operations and management over the next three years.

2.1 External Risks and Challenges

2.1.1 Slowdown of the Global Economy and Impact on TSB Activities

The deterioration of the global economy since last fall has started to have an impact on the transportation sector.

According to Statistics Canada, although the number of Canadians travelling abroad and the number of overseas visitors to Canada continued to rise in the second quarter of 2008,¹ the airline industry suffered losses, which can be attributed primarily to soaring fuel prices.² Up until last October, Canadian aircraft exports were experiencing growth. However, in November, China announced that it would have to delay buying new aircraft from Canada because of the unfavourable global economic climate.³

Between September 2007 and 2008, rail carriers' intermodal shipments declined because of reductions in containerized freight shipments, and non-intermodal shipments hit lows not seen since 2004. Only rail freight traffic coming from the United States continued to increase.⁴

¹ Statistics Canada, "Characteristics of International Travellers," *The Daily*, November 27, 2008.

² Statistics Canada, *Canadian Economic Observer*, October 2008, Catalogue No. 11-010-XIB, Vol. 21, No. 10.

³ "C-Series de Bombardier," *La Presse Affaires*, November 28, 2008.

⁴ Statistics Canada, *Monthly Railway Carloadings*, September 2008 (<http://www.statcan.gc.ca/pub/52-001-x/52-001-x2008009-eng.htm>).

During a recently held United Nations conference, it was noted that an increase in world marine tonnage has come at a time when demand is waning. In addition, the World Trade Organization notes that the credit crisis has paralyzed international maritime traffic. For now, the Port of Montréal seems to be relatively unscathed by the crisis. However, the Port of Vancouver, by mid-2008, had already seen a 5% drop in the total volume of cargo handled compared with the previous year.⁵

It is too early to predict what kind of adjustments leaders from the different transportation sectors will make to their services and infrastructures to adapt to this situation. The TSB is monitoring the situation closely and is analyzing reported occurrences for any trends that may increase safety risks.

2.1.2 Government Approach to Managing Departments and Agencies

The Government is implementing measures aimed to rationalize its operations. The TSB may be affected by a Government review of departmental assets and appropriations, and the agencies' obligations to rigorously manage spending in certain sectors.

2.2 Internal Risks and Challenges

2.2.1 Repercussions of Organizational Changes

Over the last fiscal year, the TSB completed the projects associated with the review of its A-base budget. This review has helped tighten the organizational structure of its management, realign its governance committees, and ensure stringent follow-up on product quality and productivity. This fiscal year, we will establish a Multi-Modal Training and Standards Division, and may modify the regional structure of the Air Investigations Branch. In addition, modifications will be made to improve management of our IT infrastructure, our financial management processes, and our procedures for producing reports and documents. Undergoing numerous internal changes in a time of rationalized government spending may affect not only morale and productivity of TSB employees, but also our ability to manage these changes. Therefore, every initiative must include an appropriate change-management framework to minimize any negative repercussions.

2.2.2 Maintaining a Competent Workforce

The credibility and success of the TSB depend on its ability to develop and maintain a competent and diverse professional workforce that ensures operational continuity. The main challenges identified by management for this fiscal year are described in the following paragraphs.

⁵ "Transport maritime, une industrie qui prend l'eau," *La Presse Affaires*, November 29, 2008.

An increasing number of Public Service employees who provide internal services are eligible for retirement at a time when Canada's labour market is experiencing a shortage of workers qualified to replace them. The result is fierce competition among federal government departments and agencies for these workers. Consequently, the TSB must often take on contract workers to meet its needs. Not only is this approach costly, it also creates instability, which can negatively affect operations and expose the organization to administrative errors.

A large number of experienced personnel will be retiring from the TSB. We must ensure that their knowledge and experience are not lost. This is particularly important within the TSB because many positions are one deep.

Finally, the TSB does not have formal mechanisms in place for quickly obtaining the additional human resources required to fulfil its mandate in extenuating circumstances, such as the need to investigate more than one major occurrence at a time. This situation may impede our ability to respond.

3.0 Management Plans and Priorities

After examining the TSB's external and internal environments and the risks and challenges that they present, senior management has identified four priorities for 2009–2010. All require strategic investments to enhance the TSB's contribution to transportation safety in Canada and abroad and to strengthen our internal management. Section 3.0 summarizes these priorities.

3.1 Productivity and Efficiency of Safety Communications

The quality and reliability of our products and services have established and helped maintain TSB's good reputation among its stakeholders, the general public, and victims' families. To maintain this reputation, our products and services must remain relevant for our target clientele and the general public.

Therefore, we will implement our performance measurement framework and a new program evaluation framework to ensure that our activities and products achieve the desired results and represent good value for money.

We will also continue to pursue ideas generated by the Chair's Challenge to help influence change within the transportation sector and to increase the uptake of TSB recommendations.

Furthermore, we will undertake a process to optimize the use of our website and networking technology to obtain and share information and communicate more effectively with our external and internal audiences.

Finally, the directors of investigations will continue to implement measures to improve the efficiency of safety communications and to achieve their assigned productivity performance objectives.

3.2 Information Technology Infrastructure and Information Management

We will finish assessing options for minimizing the cost of managing our IT infrastructure and for reducing its components.

We will continue to upgrade our applications infrastructure and will begin developing and implementing a comprehensive electronic records management system.

3.3 Workforce Renewal and Maintenance

Senior management has identified the following corporate human resources initiatives as priorities for this year:

- establishing a Multi-Modal Training and Standards Division;
- changing the organizational structure of the Air Investigations Branch, if necessary;
- setting up a program to ensure the transfer of essential knowledge;
- following up on the results of the 2008 Public Service Employee Survey; and
- reviewing the stand-by system.

3.4 Financial Management

This year, the TSB will continue to improve its financial management processes for budget allocation and revisions, salary forecasting, and costing of major investigations and Business Plan projects.

4.0 Detailed Action Plans for Priority Projects

Section 4.0 contains a summary and the action plans for all the projects that were approved by the Executive Committee in support of TSB corporate priorities.

Priority Projects
Productivity and Efficiency of Safety Communications
1. Implementing program evaluation and performance measurement
2. Chair's Challenge – Part 2 and enhanced website use
Information Technology Infrastructure and Information Management
3. Applications infrastructure upgrade
4. Electronic records management system
5. Reduction and management of information technology assets infrastructure
Workforce Renewal and Maintenance
6. Establishing a Multi-Modal Training and Standards Division
7. Knowledge transfer strategy and program
8. Follow-up to 2008 Public Service Employee Survey results
9. Review of stand-by system
Financial Management
10. Review of budget allocation and revision processes
11. Review of salary forecasting processes
12. Costing tools for major investigations and projects

4.1 Productivity and Efficiency of Safety Communications

4.1.1 Implementing Program Evaluation and Performance Measurement

The TSB needs to implement formal processes to evaluate its program activities and to measure organizational performance in accordance with Treasury Board (TB) requirements. These processes can also provide valuable information for management decision making. This fiscal year, we will fully implement our performance measurement framework, which will include a management dashboard. We will also develop and implement a new program evaluation framework to more systematically and regularly evaluate our activities and products, thus ensuring that they continue to achieve the desired results and represent good value for money.

Project Title: Implementing Program Evaluation and Performance Measurement		
Project Manager		Resources Allocated
Director General, Corporate Services		\$25,000
Overall Project Goals and Objectives		
Development and implementation of formal processes to evaluate the TSB program activities and to measure organizational performance		
Benefits of Project Once Implemented		
<ul style="list-style-type: none"> • New and better information to support management decision making • Missing components of the Management Accountability Framework (MAF) in place • Current MAF gap addressed and sound foundation for the next MAF assessment established • Compliance with TB policy requirements 		
2009–2010 Project Action Plan		
Activities	Deliverables	Timeline
Finalize the development of the performance measurement framework	Complete set of performance indicators Performance measurement methodology	October 2009
Review and improve our business planning process to fully integrate with all annual planning activities	Updated business planning process and cycle	October 2009
Develop a management dashboard to track results against key indicators	Management dashboard	March 2010
Develop a program evaluation framework	Program evaluation framework and methodology	March 2010

4.1.2 Chair’s Challenge – Part 2 and Enhanced Website Use

Because the TSB continually strives to increase acceptance and awareness of its investigative work and findings, 12 ideas stemming from the Chair’s Challenge were selected in 2007 to help influence change within the transportation sector and increase the uptake of TSB recommendations.

This ongoing initiative will provide the TSB with an opportunity to fix existing problems and enhance the TSB’s overall effectiveness as a safety organization. The ideas from the Chair’s Challenge are being implemented in a phased approach spanning several years.

Ideas undertaken and implemented in 2008–2009 will be adopted as standard business practices and will continue to be reviewed and refined in 2009–2010. These include:

- developing a list of key safety issues;
- offering training to Transport Canada and to TSB staff to foster mutual understanding of processes;
- improving procedures for developing recommendations;
- making recommendations easier to find in final TSB reports; and
- improving the location and accessibility of recommendations and safety communications on our website.

In 2009–2010, we will continue to focus on achieving critical “buy-in” by the regulators and key industry stakeholders and on building awareness of the TSB by the public and media.

To this end, five new ideas will be undertaken and assigned to project leaders. These initiatives include:

- developing processes to liaise more closely with Transport Canada before receiving Transport Canada’s responses to our recommendations and assessing them as unsatisfactory;
- improving internal processes for the issuance of stand-alone recommendations;
- using more “plain language” in TSB reports;
- improving documentation and capturing all relevant safety actions as part of standard TSB investigations; and
- increasing the use of research and recommendations from foreign investigative bodies.

At the end of this fiscal year, progress on the initiatives will be assessed to review overall effectiveness and address any adjustments required to the ongoing business practices.

Over the next two to three years, the TSB will explore options, develop a strategy, and implement changes to more efficiently use its website and other networking technology to obtain and share information. We will explore four possibilities.

First, we will focus on enhancing the content and functionality of the current TSB website. We will define and implement a content management protocol and web governance structure. Safety communications and safety recommendations will be made more visible and easier to access. Some of the recommendations identified in the Chair’s Challenge will be incorporated as part of this project. We will also review and modify internal processes and tools to make it easier to populate the website and reduce dependence on Informatics support.

Second, we will explore different means of communication, and implement new methods of providing TSB safety information to our audiences and of improving internal information sharing. This will include examining of social networking tools and identifying tools that could help respond to our business needs. We will also consider the migration of exiting tools and platforms to a more modern environment.

Third, we will examine ways to implement two-way dialogue and information sharing with key stakeholders through further enhancements of our tools and active use of the available functionality. We will also explore the feasibility of implementing both formal and informal feedback mechanisms through which stakeholders and the public could provide us with their views.

Finally, we will explore ways to allow selected stakeholders or partners to securely access TSB databases. We will also explore the feasibility of implementing on-line occurrence reporting with key transportation industry organizations.

Project Title: Chair’s Challenge and Enhanced Website Use	
<i>Project Manager</i>	<i>Resources Allocated</i>
Manager, Communications, with the participation of the Directors of Investigations and the Manager, Informatics	(*)
<i>Overall Project Goals and Objectives</i>	
<ul style="list-style-type: none"> • Completion and implementation of the next five Chair’s Challenge ideas • Completion of a final assessment of overall effectiveness of the Chair’s Challenge ideas • Development of a governance structure for the TSB website • Development of a plan that examines the potential use of social media within the TSB on-line environment • Development of on-line prototype for sharing information with the International Civil Aviation Organization and the International Maritime Organization • Preparation of a plan with recommendations for the migration of existing tools and platforms (Listserv) 	
<i>Benefits of Project Once Implemented</i>	
<ul style="list-style-type: none"> • TSB communications tools and partnerships evaluated and improved • More interactive and targeted communication of safety information to diverse audiences • Public profile and audience base broadened through social media applications • Internal procedures documented and streamlined to facilitate external communications and business practices • Harmonized software toolset for both Internet and Intranet development • Increased uptake of TSB recommendations • Reduced dependence by other divisions on IT support for posting documents on the website 	

Project Title: Chair's Challenge and Enhanced Website Use		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
<p>Five new Chair's Challenge ideas will be assigned to project leaders and will be completed in 2009–2010</p> <p>The first five Chair's Challenge ideas undertaken and completed in 2008–2009 will be adopted and carried forward as standard business practices</p>	<p>Completion and implementation of the next five Chair's Challenge ideas. The deliverables include:</p> <ul style="list-style-type: none"> • new processes to handle unsatisfactory responses developed • new processes established for issuing recommendations more often and in advance of the final TSB reports being published • plainer language and writing style adopted in TSB reports • documentation and capture of all relevant safety action improved as part of standard TSB investigations • increased use of research and recommendations from other foreign investigative bodies 	March 2010
<p>Examine the overall effectiveness of the Chair's Challenge</p> <p>Determine feasibility of undertaking two additional Chair's Challenges ideas in 2010–2011 (safety issues conference and tracking of safety deficiency assessments)</p>	Final assessment of Chair's Challenge	March 2010
<p>Identify the stakeholders</p> <p>Define the working group and roles within it</p> <p>Recommend content management protocols for the website</p> <p>Delineate roles and responsibilities for posting content on the website</p> <p>Identify who reviews sites and site plans to ensure compliance</p>	<p>Governance structure and statement of governance developed and presented to senior management for approval. The governance structure will:</p> <ul style="list-style-type: none"> • justify the initiative and ongoing senior management support • provide continued guidance for Internet presence and opportunities • determine what roles/teams are involved in day-to-day operations 	March 2010
<p>Explore existing social media options that could be added to the website to establish a more interactive presence and expand the reach of TSB communications</p> <p>Examine the potential use of social media technology for other business lines and needs (for example, creation of secure dialogue or information</p>	Plan that examines social media applications and options, developed and presented to senior management	March 2010

Project Title: Chair's Challenge and Enhanced Website Use		
exchange with stakeholders, designated reviewer comments on-line, development of feedback mechanisms, and potential HR and recruitment applications)		
Finalize prototype for on-line rail occurrences reporting Complete consultation with Marine and Air Investigations branches to determine potential applications or benefits of prototype to their existing practices	Consistent approach to interacting on-line with stakeholders, industry, media, and the general public developed	March 2010
Assess current development environment (for example, software, skill set) Determine fit with governance requirements	Plan developed containing recommendations for the migration of existing tools and content to a standard platform	March 2010

(*) No additional resources allocated as of April 1, 2009.

4.2 Information Technology Infrastructure and Information Management

4.2.1 Applications Infrastructure Upgrade

During the latter part of 2007, we conducted an assessment of the TSB Investigations and Information Management System to close off the project and transition it to the IT core functions. This assessment was valuable as it identified several critical factors that needed attention before moving forward with any further functional requirement development. A number of application enhancement projects were launched to address the following factors:

- expand the use of IT core processes in IT service delivery and IT operations support and application development;
- create an environment for further development activities to be performed within the framework of a proper integrated system design that meet design specifications;
- document and assess the TSB application architecture to guide the development process;
- build the skill set of key developers who have programming skills with little experience or knowledge in integrated lifecycle system solution development and design;

- enhance product knowledge in terms of capabilities and product design limitations to perform the proper customization work; and
- create design documentation pertaining to acceptable performance objectives.

During the 2008–2009 fiscal year, all of the above were addressed to varying degrees and a continuous improvement program was put in place. For 2009–2010, Informatics will continue to build on this work and improve the application infrastructure, by

- introducing a new system architecture for the TSB Investigations and Information Management System;
- continuing with the data architecture activities to eventually migrate modal data off the existing database infrastructure;
- investigating how to best sunset and replace the modal applications;
- determining how to best leverage the application infrastructure for other TSB initiatives.

Project Title: Applications Infrastructure Upgrade	
<i>Project Manager</i>	Resources Allocated
Manager, Informatics	\$160,790
<i>Overall Project Goals and Objectives</i>	
<ul style="list-style-type: none"> • Optimization of the existing TSB applications infrastructure, development of environments, and processes by: <ul style="list-style-type: none"> ○ implementing the established TSB-wide data architecture, including the Data Stewardship Policy and Program, the approved TSB-wide Data Quality Framework and the long-term data design solution to enable the migration of the modal databases; ○ continuously improving the TSB Investigations and Information Management System (SharePoint) application development activities, including the implementation of Icefire, the full leverage of Microsoft 2007 suite and the upgrade of the database to SQL Server 2008; ○ executing the migration of the modal databases from the Oracle platform to the SQL technology. 	
<i>Benefits of Project Once Implemented</i>	
<ul style="list-style-type: none"> • Established processes and governance Established processes and governance in the effective/efficient management of information to support the TSB business mandates while formalizing the appropriate operational key performance indicators (KPIs) to position the TSB for KPIs and dashboard reporting, while ensuring data accuracy, completeness, consistency, integrity, and timeliness. • Defined roles and responsibilities Defined roles and responsibilities at senior levels to secure the quality of data, and to clearly communicate what is expected from staff in terms of the standards of data quality. This will also put in place systems, policies and procedures to enable the highest possible data quality, data quality audit processes, and help ensure that the right resources and, in particular, the right people with the right skills, are in place to provide timely and accurate information. • Established roadmap for future IT requirements Established roadmap for TSB's future IT requirements and reduction of the complexity of the IT platform. This will allow the Informatics Division to reduce and concentrate the overall required skill set on the development frameworks and tools, align the TSB infrastructure costs to the industry best practice/benchmark, and minimize the risk of maintaining the modal applications. 	

Project Title: Applications Infrastructure Upgrade		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
<p>Acquire Icefire translation module</p> <p>Complete the required application development activities to install the translation module</p>	Icefire translation module implemented	May 2009
<p>Adopt a data element naming standard</p> <p>Implement the TSB Investigations and Information Management System data structures such that there is no redundancy</p> <p>Work with various stakeholders to establish social links and to achieve alignment of the roles and responsibilities for the TSB Data Quality Framework</p>	<p>TSB–wide data architecture implemented:</p> <ul style="list-style-type: none"> • Data Stewardship Policy and the corresponding Data Stewardship Program with mandates/ accountabilities, roles and responsibilities identified • Data Quality Framework 	August 2009
<p>Identify and document data anomaly/integrity issues</p> <p>Consolidate to current/correct/complete normalized as-is logical data model</p> <p>Map business names for logical entities and attributes based on to-be semantic data model</p> <p>Develop to-be conceptual data model</p> <p>Develop phased to-be logical data models</p>	TSB–wide data architecture implemented: a long-term data design solution to enable the migration of the modal databases	October 2009
<p>Execute migration of the modal databases to SQL</p> <ul style="list-style-type: none"> • Identify tasks, sequence of activities, test plans and migration success factors • Work with clients to validate business requirements and rules • Database application development to replace the existing modal data applications (Centura) 	<p>Migration of the modal databases from the Oracle platform to SQL technology completed:</p> <ul style="list-style-type: none"> • Accuracy of existing business requirements validated • Existing modal data applications replaced • Legacy databases removed and data onto newer virtualized database system consolidated 	August 2010
<p>Upgrade current TSB Investigations and Information Management System database</p> <p>Upgrade database server platform</p>	Database migrated to SQL Server 2008, and its server platform to Windows Server 2008	August 2010

4.2.2 Electronic Records Management System

Over the past several years, we have significantly improved our records management: the Microsoft SharePoint–based TSB Investigations and Information Management System introduced investigation workspaces allowing effective organization and sharing of electronic investigation records; much work has been done on developing an enterprise file plan for the efficient organization of all other TSB records; and the implementation of an interim strategy for managing electronic records (until a full electronic records management system [ERMS] can be implemented) is under way.

In 2009–2010, we will begin a multi-year project of developing and implementing an ERMS across the TSB. Our focus in the first year will be on establishing and validating requirements, assessing available alternatives against those requirements to identify and select the most cost-effective solution, proceeding with any necessary software and hardware acquisition in the last half of the year, and developing an implementation plan. Our objective will be to build on the foundation already established with SharePoint and, as required, to examine the following alternative solutions against the functional requirements:

- SharePoint working with Documentum (the software now used by IM staff to manage TSB records holdings);
- SharePoint working with other records management software sanctioned under the Records, Document and Information Management System (RDIMS) initiative.

In 2010–2011, remaining start-up activities will be completed. These will include software and hardware installation and configuration, data migration, and user and system administration/operations training. Depending on the chosen solution, it is anticipated that the project will be completed and the system will be operational by the end of that fiscal year.

Project Title: Electronic Records Management System	
<i>Project Manager</i>	<i>Resources allocated</i>
<i>Manager, Information Management</i>	\$130,000
<i>Overall Project Goals and Objectives</i>	
Development and implementation of an electronic records management system (ERMS) across the TSB by the end of 2010–2011	
<i>Benefits of Project Once Implemented</i>	
<ul style="list-style-type: none"> • Once implemented, an ERMS will support the TSB in meeting its operational, accountability, policy and regulatory records management requirements throughout the full lifecycle, from creation to disposition. • It will also result in greater efficiency, in that it will be predicated on the use of the enterprise file plan, and improve access to and reliability of information. 	

Project Title: Electronic Records Management System		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Validate and document functional electronic records management requirements	Final functional requirements	June 2009
Develop and document technical requirements	Final technical requirements	June 2009
Undertake and complete contracting process to procure consulting resources	Consultant selected and contract in place	June 2009
Identify and assess options against requirements, develop and document the recommended solution, including estimated software and other costs and a proposed implementation plan	Costed options and draft recommendations for review and approval	August 2009
Seek review and approval of the recommendations by governance committees and finalize implementation plan and cost estimates	Finalized and approved recommendations	October 2009
Obtain funding for software and hardware acquisition via mid-year budget review and reallocation process	Funding for acquisitions	November 2009
Acquire software and hardware	Acquisition of software and hardware	March 2010

4.2.3 Reduction and Management of Information Technology Assets Infrastructure

In the past year, two studies (Benchmarking and Distributed Computing Environment Rationalization) examined TSB’s IT infrastructure and identified strategies and best practices to manage this infrastructure in a sustainable manner over the long term. These observations have led to a two-part course of action:

- rationalize and reduce the amount of IT assets;
- conduct further analysis on options for managing the IT infrastructure.

Work began during 2008–2009 on both these fronts, with the focus on the rationalization piece. The rationalization plan for end-user assets will be fully implemented in early 2009–2010. A detailed plan for rationalizing computer room assets will be developed for implementation over the next few years. Within the context of this newly rationalized infrastructure, the TSB will finalize the assessment of the options available for managing it.

Project Title: Reduction and Management of Information Technology Assets Infrastructure		
Project Manager		Resources Allocated
Manager, Informatics		\$120,000
Overall Project Goals and Objectives		
Reduction of the number and cost of assets being managed by Informatics, for example, printers, desktops/laptops and servers.		
Assessment of the options available for managing the helpdesk and desk side support.		
Benefits of Project Once Implemented		
<ul style="list-style-type: none"> • Roadmap of anticipated costs The TSB will be able to create a roadmap of costs associated with helpdesk/desktop support. • Enhanced performance measurement tools and metrics Enhanced and expanded use of tools to capture relevant Informatics performance data and formalizing the appropriate Informatics key performance indicators (KPIs) to improve the TSB readiness for KPIs and dashboard reporting, while ensuring data accuracy, completeness, consistency, integrity, and timeliness. • Improved data backup and recovery times 		
2009–2010 Project Action Plan		
Activities	Deliverables	Timeline
Complete removal/replacement of printers identified in rationalization plan	Printer rationalization across the TSB	May 2009
Document desktop/laptop rationalization options and implement complete server virtualization/consolidation	EC decision on use of desktops and laptops within the TSB Complete virtualized server environment with new data backup and recovery capabilities	May 2009 November 2009
Research, test, recommend, and acquire backup software		
Determine organizational objectives for any potential IT outsourcing	Documented set of objectives that establishes expectations internally and articulates the intent and anticipated outcomes of outsourcing	May 2009
Assign priority and importance to each objective		
Establish baseline metrics for helpdesk and desktop support	Consolidated internal environmental scan of infrastructure support and its relationship with the business and the end-users	June 2009
Determine degree of platform standardization		
Establish degree of alignment with the needs of business and end-users		

Project Title: Reduction and Management of Information Technology Assets Infrastructure		
Compare current operations with market capabilities: <ul style="list-style-type: none"> • Maturity • Variety of options Risk analysis	Documented overview of scenarios available to the TSB and identified risks	July 2009
Evaluate option	Sourcing scenario identified	August 2009
Present conclusions at TSB's Managers Conference	Feedback from management across the TSB	October 2009

4.3 Workforce Renewal and Maintenance

4.3.1 Establishing a Multi-Modal Training and Standards Division

There is an ongoing requirement to manage the operational elements of the TSB Investigations and Information Management System, in particular, training on the system, identification of business requirements, and standardization of use. In addition to system training, there is a requirement to provide a broader coordination of all multi-modal and cross-TSB training. To meet this need, a stand-alone Multi-Modal Training and Standards Division will be established in 2009–2010. This Division will obtain guidance on training requirements from a Training Steering Committee that will report to the Executive Committee. The Division will be responsible for coordinating the common operational and corporate training. It will also ensure standardization of the investigative processes and tools and serve as the conduit to ensure that the operational requirements are appropriately integrated into the TSB Investigations and Information Management System.

Project Title: Establishing a Multi-Modal Training and Standards Division	
<i>Project Manager</i>	<i>Resources Allocated</i>
Director, Operational Services	(*)
<i>Overall Project Goals and Objectives</i>	
Once implemented, the Multi-Modal Training and Standards Division will be responsible for coordinating multi-modal training and cross-TSB training as well as for ensuring continuity of the operational business needs and processes associated with the TSB Investigations and Information Management System.	
<i>Benefits of Project Once Implemented</i>	
<ul style="list-style-type: none"> • Formalized standards and broader coordination of multi-modal and cross-TSB training • Ongoing management of the operational elements of the TSB Investigations and Information Management System, in particular, training on the system, identification of business requirements, and standardization of use 	

Project Title: Establishing a Multi-Modal Training and Standards Division		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Hire Staff	Four staff hired: <ul style="list-style-type: none"> • Manager • Training and Development Officer • Analyst • Administrative Support 	December 2009
Establish a Training Steering Committee	Signed terms of reference and initial meeting conducted	March 2010
Initiate a training needs analysis	Terms of reference for the training needs analysis approved at the TSB Managers' Conference	December 2009
Validate and formalize the Integrated Safety Investigations Methodology (ISIM), Investigating Human Factors and course standards	Formal training plans and standards	March 2010
Review the TSB Investigations and Information Management System standard practices	Report on current standardization of the system's usage and users feedback	March 2010

(*) will be funded within the Division's A-base budget

4.3.2 Knowledge Transfer Strategy and Program

As a knowledge-based organization, the TSB requires the effective transfer of knowledge between employees for continuity of efficient operations. The first step is to develop a robust HR plan that will cascade into detailed succession plans, learning plans, and knowledge transfer plans. Over the coming year, we will review our HR planning process to make planning templates and procedures more user-friendly for managers. We will develop a mechanism to facilitate identifying and capturing of essential knowledge for sharing and to assist managers in developing practical succession and learning plans.

Mechanisms will also be identified through which the essential knowledge can be captured from employees and stored in central repositories for future use. The knowledge transfer fund will continue to be used to make strategic investments to support the transfer of knowledge from experienced employees to newer employees.

Project Title: Knowledge Transfer Strategy and Program		
Project Manager		Resources Allocated
Manager, Human Resources		\$25,000
Overall Project Goals and Objectives		
Development of a mechanism to facilitate the identification and capture of essential knowledge for sharing and to identify the linkages to HR planning, succession planning and individual learning plans		
Benefits of Project Once Implemented		
<ul style="list-style-type: none"> • Will improve operational efficiency as essential knowledge will be captured into operating procedures and stored in a central repository readily accessible to the managers and employees • Will facilitate the development of succession plans as well as individual learning plans • Will facilitate discussion between managers and employees with respect to setting annual expectations and reviewing career plans • Will build capacity within the TSB by building employee skills and identifying opportunities for career advancement 		
2009–2010 Project Action Plan		
Activities	Deliverables	Timeline
Phase I – Initial Identification Improve the HR planning process to facilitate the identification of gaps and areas most at risk	Areas most at risk listed either by functions/modes or departures Information validated with the directors and the director general Each function broke down further and essential knowledge to be captured prioritized	June 2009 Revisit plans in the fall of 2009
Develop succession plans for the next three years and improve the staffing plans accordingly to cover longer term staffing	Priority positions to be filled over the next three years identified using the integrated HR Business Plan Knowledge to be transferred identified by managers and HR working in parallel with current incumbents	September 2009
Develop learning plan tools that will facilitate capturing employee interest in career development within the TSB	Identified essential knowledge transfer gaps to employee career development interests linked to the setting of performance goals and objectives	Spring 2009
Work with Information Management to ensure knowledge is captured in line with the new Enterprise File Plan for both paper and electronically kept files	Identified essential knowledge linked with the progress to date in the various work units Knowledge available for review and update identified	June 2009

Project Title: Knowledge Transfer Strategy and Program		
Phase II – Capturing Knowledge Contract a consultant to interview employees and managers to capture and document knowledge	Format in which to capture and document knowledge identified Those to be interviewed identified Information captured, validated, and saved for record and accessibility purposes	January 2010
Work with Information Management to ensure file plan requirements are met	Both paper and electronic file plans identified and ready to capture and hold information	January 2010
Phase III – Implementation Develop a communication plan	Project communicated at large within the TSB and linkages to HR planning, succession planning, and learning plans made Means/process to keep captured material up to date identified	Spring 2010

4.3.3 Follow-Up to 2008 Public Service Employee Survey Results

Results of the 2008 Public Service Employee Survey will be available early in May 2009. Once these results are available, they will be reviewed and communicated to managers and employees. The results will be analyzed in greater detail, key issues requiring attention will be identified, and an appropriate action plan will be developed. Individual senior managers will also review their organizational unit's results and develop their own local action plans to address issues of particular importance to their respective areas of responsibility. These action plans will then be implemented over the next few years.

Project Title: Follow-Up to 2008 Public Service Employee Survey Results		
<i>Project Managers</i>		<i>Resources Allocated</i>
Director General, Corporate Services and Manager, Human Resources		(*)
<i>Overall Project Goals and Objectives</i>		
Development and implementation of a detailed action plan to improve the TSB work place and thereby respond to key employee concerns		
<i>Benefits of Project Once Implemented</i>		
<ul style="list-style-type: none"> • Improvements in the TSB work place/work environment • Increased employee satisfaction and morale • Improved employee retention • Improved productivity 		
<i>2009- 2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Communicate the 2008 Public Service Employee Survey (PSES) results to all managers and employees	Senior management briefing Communiqué to all employees	May 2009

Project Title: Follow-Up to 2008 Public Service Employee Survey Results		
Analyze the 2008 PSES results to identify key strengths and issues	List of key strengths and key issues	June 2009
Analyze key issues in detail	Recommendations on potential actions to address the key issues	September 2009
Seek managers' input on recommendations at TSB's Annual Conference	Management feedback for consideration in the development of the action plan	October 2009
Develop a detailed action plan	Detailed action plan	November 2009
Implement the action plan	To be determined	To be determined

(*) none allocated as of April 1, 2009

4.3.4 Review of Stand-by System

The recent audit of overtime expenditures has raised a number of questions about the efficiency and cost effectiveness of the current stand-by system. The auditors have suggested that there may be better alternatives to fulfil our business needs. A detailed review will therefore be undertaken in the latter part of the fiscal year. The review will document the current practices, identify and assess options, as well as formulate recommendations. Upon completion of the review, a new or revised stand-by system will be implemented as may be deemed appropriate.

Project Title: Review of Stand-by System	
<i>Project Manager</i>	<i>Resources Allocated</i>
To be determined	\$40,000
Overall Project Goals and Objectives	
Review of the current stand-by practices and exploration of alternative options to identify the most efficient, effective and economic approach to meeting TSB's operational needs	
Benefits of Project Once Implemented	
<ul style="list-style-type: none"> • Improved efficiency and effectiveness • Improved management of stand-by expenses • Potentially reduced costs 	
2009–2010 Project Action Plan	
To be developed by Project Manager once appointed	

4.4 Financial Management

4.4.1 Review of Budget Allocation and Revision Processes

Further to the work completed in the context of the A-base budget review and the discussions at the managers' conference in October 2008, a new budget planning process is being introduced on a trial basis for the 2009–2010 fiscal year. Once the initial budget allocations are made, we will evaluate this new process. A review will also be done to explore how the activity-based costing framework developed during the A-base budget review can be integrated into the ongoing budget planning and management process. We will then develop a revised integrated financial, human resources, and business planning process to be implemented the following fiscal year.

New budget management tools will be developed and made available to responsibility centre managers during the upcoming year to assist them in the ongoing management of their budgets. Training will also be provided to managers and administrative officers.

Project Title: Review of Budget Allocation and Revision Processes		
<i>Project Manager</i>		Resources Allocated
Manager, Finance and Administration		(*)
<i>Overall Project Goals and Objectives</i>		
<ul style="list-style-type: none"> • Budget allocation and revision processes improved • Managers provided with useful tools to manage budgets and evaluate needs • Processes streamlined • Financial requirements standardized in terms of information required, frequency of updates, and deadlines 		
<i>Benefits of Project Once Implemented</i>		
<ul style="list-style-type: none"> • Once implemented, the budget allocation and review processes will provide a solid base for managers to establish, maintain, and plan future budget reviews. • The monthly scorecard will provide managers with an additional tool for displaying their results differently. It will help them to keep up with their budget and changing budget needs throughout the year. • The figures in GX will also benefit from an established process leading to a better understanding of the TSB financial situation throughout the year. 		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Evaluate the establishment of the 2009–2010 budget	Implementation report based on the review of the processes	June 2009
Build a budget review calendar for 2009–2010	Calendar with budget review deadlines Call letter issued Budget review conducted at mid-year and third quarter at a minimum	June 2009

Project Title: Review of Budget Allocation and Revision Processes		
Evaluate activity-based costing solution and determine how best to use it for financial planning over medium to long term	Recommended approach to senior management for the ongoing use of the activity-based costing tool	June 2009
Develop and implement tools for RC managers	Scorecard template available to managers Update process in place for regular financial reviews Integration with RC monthly-end process	September 2009
Review procedures for 2010–2011 cycle and ensure full alignment with other planning activities	Process reviewed and procedures issued	October 2009

(*) will be funded within existing budget

4.4.2 Review of Salary Forecasting Processes

Numerous concerns have been identified about our ability to produce precise and accurate salary forecasts. We will review the tools and processes used for salary forecasting and provide managers and administrative officers with new and/or improved tools and processes and appropriate training.

Project Title: Review of Salary Forecasting Processes		
<i>Project Manager</i>		<i>Resources Allocated</i>
Manager, Finance and Administration		\$8,400
<i>Overall Project Goals and Objectives</i>		
Tools and processes used for salary forecasting are reviewed and new and/or improved tools and processes are implemented		
<i>Benefits of Projects Once Implemented</i>		
<ul style="list-style-type: none"> • Improved accuracy of salary forecasts • Improved decision making • Improved efficiency 		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Meet three to five managers and administrative officers (AOs) to identify: <ul style="list-style-type: none"> • problems/concerns • information required 	List of requirements established	July 2009

Project Title: Review of Salary Forecasting Processes		
Meet Finance and Accounting to identify: <ul style="list-style-type: none"> • problems/concerns • information required 	List of requirements established	July 2009
Analyze findings and provide recommendations	Recommendations and action plan developed	August 2009
Present recommendations to Management Committee	Recommendations and action plan reviewed by Management Committee	September 2009
Present recommendations to Executive Committee	Recommendations and action plan approved by Executive Committee	September 2009
Implement approved recommendations	New process New guidelines, procedures, or policy Managers and AOs trained	To be determined

4.4.3 Costing Tools for Major Investigations and Projects

The costing of major investigations and major Business Plan projects continues to be a challenge for the TSB. We will review past practices to identify good practices that can be leveraged to develop and implement standardized templates and processes. A toolkit will then be compiled and made available to managers and project leaders.

Project Title: Costing Tools for Major Investigations and Projects		
<i>Project Manager</i>		<i>Resources Allocated</i>
Manager, Finance and Administration		\$10,500
<i>Overall Project Goals and Objectives</i>		
Development and implementation of standardized templates and processes for the costing of major investigations and Business Plan projects, and compilation of a toolkit for managers and project leaders		
<i>Benefits of Project Once Implemented</i>		
<ul style="list-style-type: none"> • Improved evaluation of the funds required to complete major investigations and projects • Improved accuracy of TSB Treasury Board submissions • Facilitated implementation of the new Treasury Board Investment Planning Policy 		
<i>2009–2010 Project Action Plan</i>		
<i>Activities</i>	<i>Deliverables</i>	<i>Timeline</i>
Major occurrences		
AOs/Managers/IIC Perspective		
Use operational flow charts (ISIM) for major events to: <ul style="list-style-type: none"> • determine cost drivers • sort all templates and associated checklists 	Drivers and related costing tools identified Best costing practice chosen	February 2010

Project Title: Costing Tools for Major Investigations and Projects		
<ul style="list-style-type: none"> Evaluate all flow chart steps to identify financial impact and requirement for financial evaluation 	Best practices reviewed, improved and documented	
Validate reviewed document with three or four AOs/ Managers/IICs	Feedback as to whether the improved tool covers all items	March 2010
Place tools on the TSB InfoGATEWAY and communicate the information to all employees	Documentation available to all New tools communicated	March 2010
Finance Perspective		
Identify all activities to be done for a major occurrence, regular financial needs, and for Treasury Board submission needs: <ul style="list-style-type: none"> What needs to be done? Who is responsible? What are the steps to follow? 	Documents with required steps	March 2010
Major Projects		
Gather all internal costing tools used to cost major projects	Inventory of all tools Best tool(s) identified	
Evaluate and compare in-house tools with Treasury Board Guide to Costing	Fit/gap analysis on tool used Best practices identified	
Review costing tools and improve them to meet TSB requirements	Costing templates developed Costing process developed Toolkit for managers or project leaders and checklist to establish project costs	
Validate reviewed document with three or four AOs/ managers/ past project managers	Feedback as to whether the improved tool covers all items	March 2010
Post toolkit, templates, procedures, and guidelines on the TSB InfoGATEWAY	All tools available on the TSB InfoGATEWAY	March 2010

In addition to the investment projects described in this section, funds were allocated for the completion of two projects started last year, namely the review and update of the TI and CAI job descriptions and the Head Office renovations.

5.0 Branch and Directorate Priorities

5.1 Board

The focus for the Board over the coming year will be to continue to uphold and advance the high standards of the organization through the production of timely and comprehensive accident investigation reports. Particular attention will be paid to the responses to the Board's safety communications to ascertain whether positive change is being achieved. The Board will continue to extend the reach of its safety messages through its Outreach Program and will seek to identify safety trends or concerns that may merit further attention.

5.2 Executive Director

In the coming year, the Executive Director will emphasize solidifying the various organizational changes resulting from the recently completed A-base review exercise. Particular attention will be placed on evaluating how the new governance structure is functioning. A continued focus will be report timeliness and ensuring the operational capacity of the organization.

The priority of the Communications Division will be to increase the effectiveness of communications and outreach planning by adopting new initiatives that improve the visibility, access and understanding of TSB's safety messages, and in turn, help strengthen the uptake of the Board's recommendations. To this end, the Communications Division will continue to seek opportunities to connect with the public, the media and key change agents, to maximize the impact of the Board Outreach Program, and to generate growing awareness of the TSB by Canadians.

The main priority of the Publishing and Linguistic Services Division will remain the timely and efficient production of all TSB public documents. The Division will also continue to implement the changes recommended in the 2007–2008 review of its workflow processes and practices and functional capacity. To that end, the Division will plan for proper backup, especially for positions that are one deep. Throughout the year, the Division will also aim to publish investigation reports on the TSB website in a timely manner and will keep the number of backlog reports to a minimum.

5.3 Air Investigations Branch

The key priority of the Air Investigations Branch will be to ensure that it maintains its investigation capabilities and productivity during a year that will see staff and management changeover, mostly due to retirements, both in Head Office and the regional offices. Its activities will include training new staff, transferring corporate knowledge from experienced employees, and training all staff on recent changes in the aviation industry.

The Air Investigations Branch will strive to ensure that the number of investigations started does not exceed the Branch's ability to produce investigation reports. It is currently able to produce approximately 60 investigation reports per year.

It will continue its efforts to issue more timely safety communications of validated safety deficiencies, and to keep the average time for completing investigation reports to less than 15 months.

The Branch will continue its efforts to establish and maintain professional external relationships, and will work collaboratively with its internal partners to increase productivity to make more effective use of resources.

It will continue to review its policies, procedures and manuals of investigations to ensure that they are up to date with the current international investigation standards.

5.4 Marine Investigations Branch

The priority of the Marine Investigations Branch will be to continue to improve the quality and timeliness of its investigation reports and safety communications. The Branch plans to publish the reports of all the investigations it started in 2008–2009 and to keep the average time for completing investigation reports to less than 15 months. To achieve this goal, it will continue to rigorously assess occurrences on which investigations will be undertaken to obtain maximum safety payoff while applying a project management approach to make effective use of its resources. Furthermore, the TSB investigation methodology will be reinforced in all steps of the investigation process for consistency and quality of investigations.

The Branch will also continue to implement a strategic-focused approach to HR planning to ensure the continuity and stability of service delivery. It will complete the staffing of vacant positions as identified in its staffing plan. The newly hired staff will then be equipped with requisite skill sets and competency by training and coaching in key areas of investigation.

Finally, the Branch will improve the effectiveness of Board safety recommendations by ensuring that staff consistently applies the recommendations development process, as identified by the Chair's Challenge, through strategic communication with key stakeholders.

5.5 Rail/Pipeline Investigations Branch

The priority of the Rail/Pipeline Investigations Branch will be to continue to focus on Branch productivity. This will be achieved, in part, by producing more concise investigation reports. To use its limited resources effectively, the Branch will work more closely with the Operational Services Branch. The goal is to complete 12 rail investigation reports during this fiscal year and to keep the average time for completing investigation reports to less than 18 months. For the Pipeline Section, the goal is to start

one Class 3 or one Class 2 report. In the latter case, the report will be completed within 18 months of the date of the occurrence; in the case of a Class 3 report, the deadline for completion will be within 15 months.

Another priority will be to provide training resources to newly hired investigative staff, as well as refresher training to other staff in various areas, including investigation methodology, technical analysis, hazardous materials and communications.

Finally, the Branch will improve its railway occurrences database to address the concerns raised by the *Railway Safety Act* Review Panel. The Branch will work with the three major rail companies to develop the technology to directly download occurrence reports into the statistical database.

5.6 Operational Services Branch

The Operational Services Branch supports TSB investigations by delivering of multi-modal training and providing specialist expertise, including transportation investigation data analysis and the identification of safety deficiencies related to engineering and human factors. Reports and data generated by the Branch play a key role in the timely and effective communication of TSB findings.

The priority of the Operational Services Branch this fiscal year is to fully realize its potential. As part of this effort, it will conduct a training needs analysis to help define the scope and depth of responsibilities and staffing requirements for the Multi-Modal Training and Standards Division. At the same time, the Branch will maximize the effectiveness of its contributions to the TSB objectives through close collaboration with internal clients and professional relationships with outside agencies. To continue to provide the TSB with access to required capabilities, it will foster the relevant independent specialist expertise and sustain the facilities required to effectively contribute to future investigations.

5.7 Corporate Services Directorate

In addition to ensuring the ongoing provision of quality services to its clients, the Corporate Services Directorate will focus its efforts on three key priorities in 2009–2010. First, the Directorate will continue its efforts to implement its own HR plan and to stabilize its workforce. Second, it will emphasize the Business Plan projects assigned to the Corporate Services Directorate. Finally, it will work to review, update, and streamline internal policies and procedures to reduce the administrative burden and improve efficiency.

6.0 Human Resources Plan

At the TSB, HR planning is an integral part of doing business. Senior management identifies key human resources issues, which are addressed in the corporate risks and priorities. Each branch or division has also developed its own HR plan based upon its operational business needs. The information contained in these plans has been analyzed and synthesized for integration into this Business Plan. Section 6.0 provides a brief profile of the TSB workforce, followed by additional information about the gaps that we face, and the strategies that have been identified to address these gaps.

6.1 Human Resources Profile and Demographics

As of March 31, 2009, the TSB workforce⁶ was composed of 218 indeterminate, 10 determinate, and 8 casual employees. The TSB workforce is located in the National Capital Region (Headquarters and Engineering Laboratory) and the following regions: Atlantic, Quebec, Ontario, Central, Western, and Pacific. The National Capital Region staff constitutes 69% of the workforce with the remaining 31% being located in the regions.

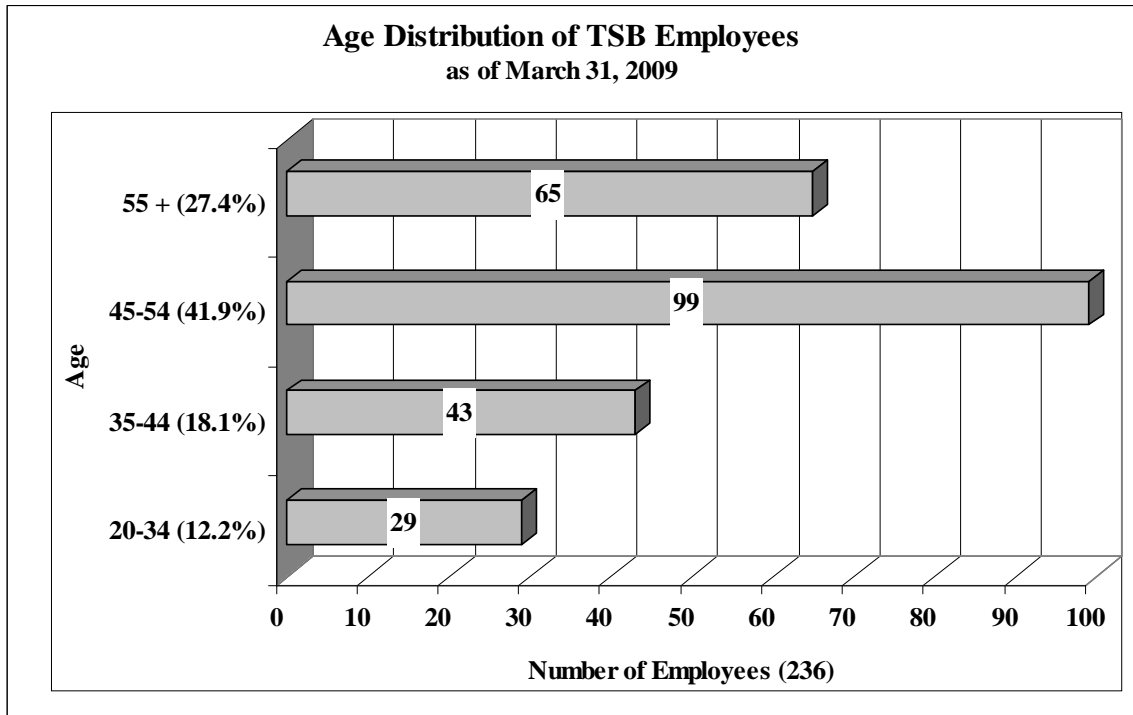
The workforce consists of employees in five occupational categories listed in the following table. The majority (55%) of our staff occupies positions in the Technical and the Scientific and Professional categories, which allows us to characterize our workforce as highly skilled and specialized. The remaining 42% of employees provide internal services either at the corporate level or as support services in the operational branches. The Executive category accounts for 3% of employees.

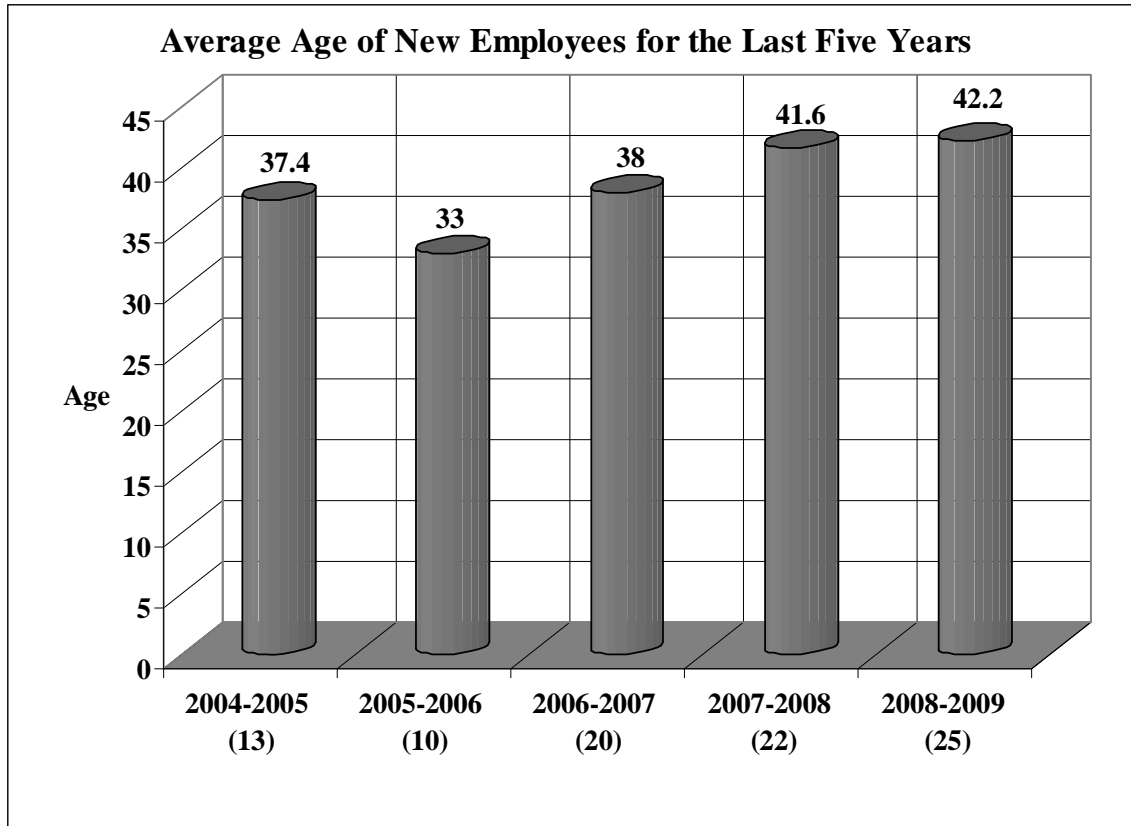
⁶ Population information is based upon data available in the Human Resources Information System (HRIS) on March 31, 2009.

Occupational Categories and Groups	Number of Employees by Group	Number of Employees by Category
EXECUTIVE		6
EX Executive	6	
SCIENTIFIC AND PROFESSIONAL		28
EN-ENG Engineering	18	
ES-LA Economic, Sociology, Statistics and Law	8	
LA Law Group	1	
LS Library Science	1	
TECHNICAL		106
AI-NOP Air Traffic Control	2	
AO-CAI Aircraft Operations	31	
EG Engineering and Scientific Support	4	
GT General Technical	5	
SI Social Science Support	4	
TI Technical Inspection	60	
ADMINISTRATIVE AND FOREIGN SERVICE		60
AS Administrative Services	26	
CS Computer Systems Administration	15	
FI Financial Administration	3	
IS Information Services	9	
PE Personnel Administration	3	
PG Purchasing Group	2	
PM Program Administration	2	
ADMINISTRATIVE SUPPORT		28
CR Clerical and Regulatory	28	
CASUAL		8
Casual	8	
TOTAL		236

6.1.1 Age Distribution

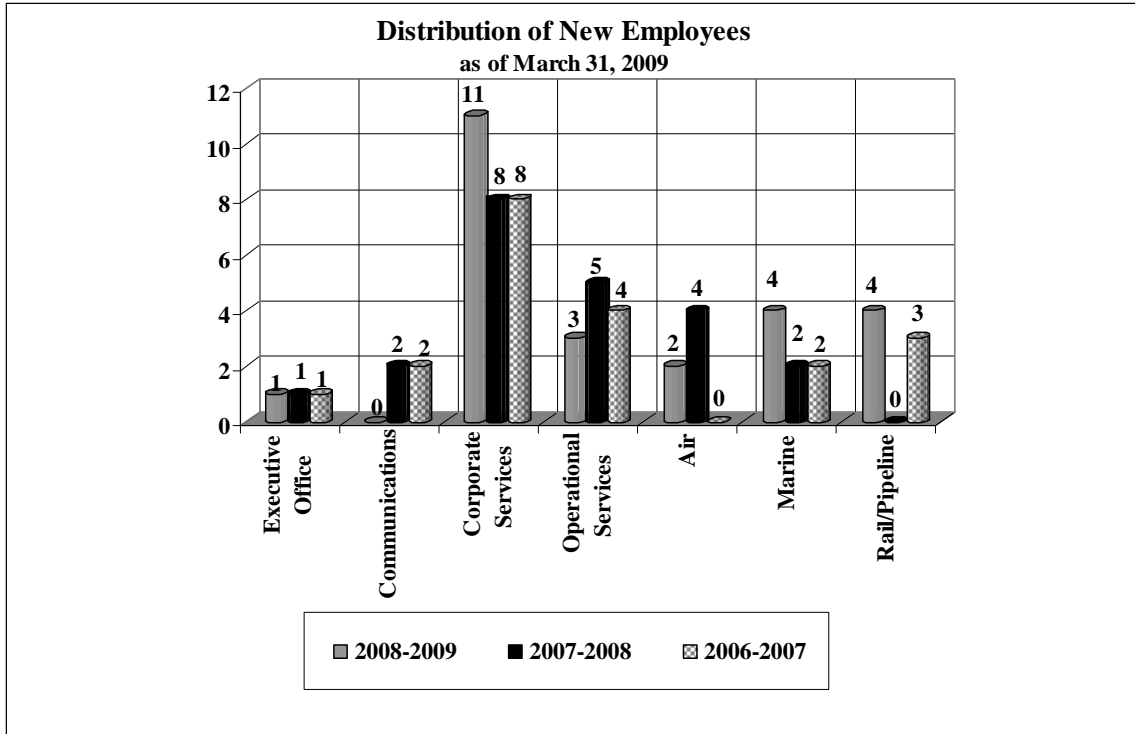
The following figure shows the age distribution of the TSB's population. Seventy percent of the employees are over the age of 45. In November 2007, this percentage was 72%. The average age of the indeterminate population is now 49 versus 44 for the Federal Public Service as a whole. The average age of TSB employees hired over the last five years is 38, which has brought the average age of our population below 50.





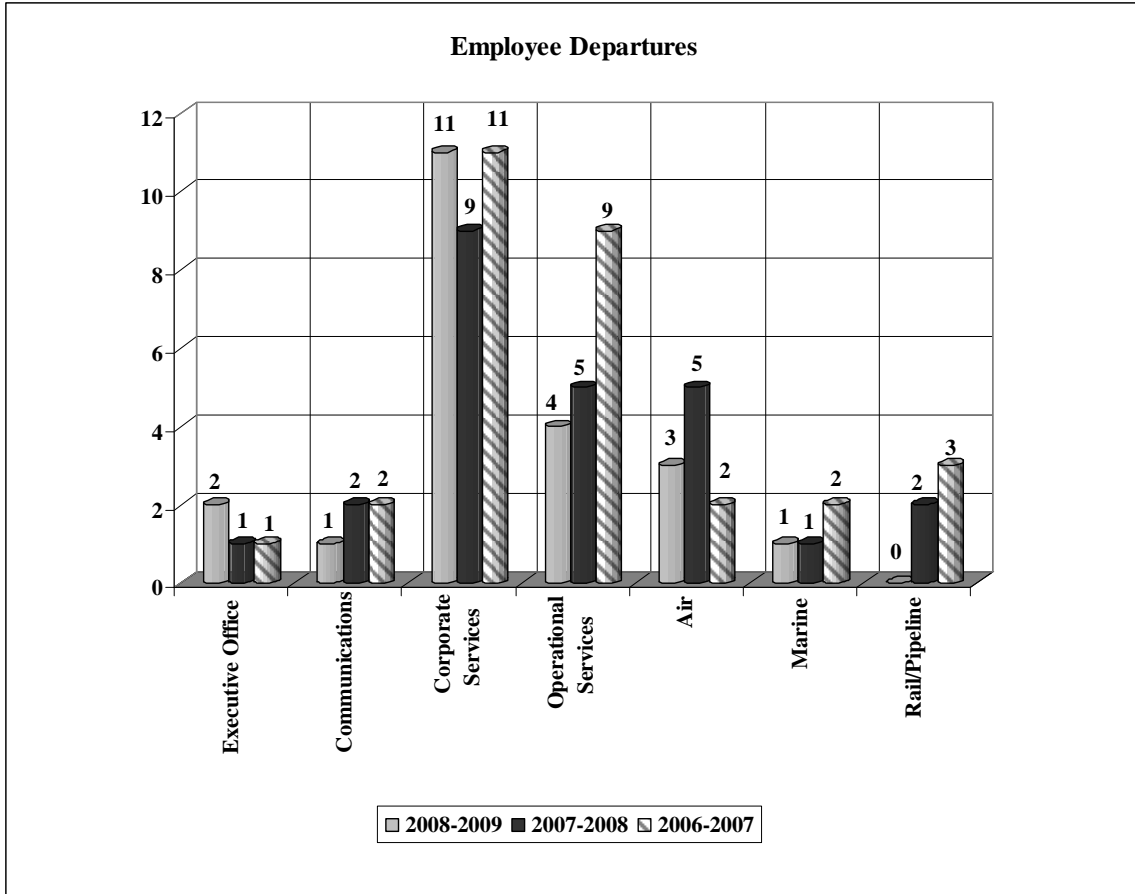
6.1.2 Staff Turnover

In a large measure driven by demographics, and to a certain degree by the growing prevalence of a knowledge-based economy, the demand for more educated and highly skilled workers continues to grow while the talent pool continues to shrink. These conditions lead to high rates of attrition as local, national, and international organizations and government struggle to attract similar talents and skills from a limited workforce.



Between April 1, 2008 and March 31, 2009, 25 new indeterminate and determinate employees joined the TSB. For the same period in 2007–2008, there were 22 new arrivals, and in 2006–2007, there were 20 new arrivals. Although there has been a steady increase in the number of new hires, the TSB must continue its efforts and develop new strategies to keep pace with employee turnover.

From April 1, 2008 to March 31, 2009, 22 employees left the TSB, a decrease from the previous two years. In 2007–2008, there were 25 departures and in 2006–2007 there were 30 departures. Employees departed to retire, to advance their careers, for opportunities in larger departments and organizations, or to obtain indeterminate employment.

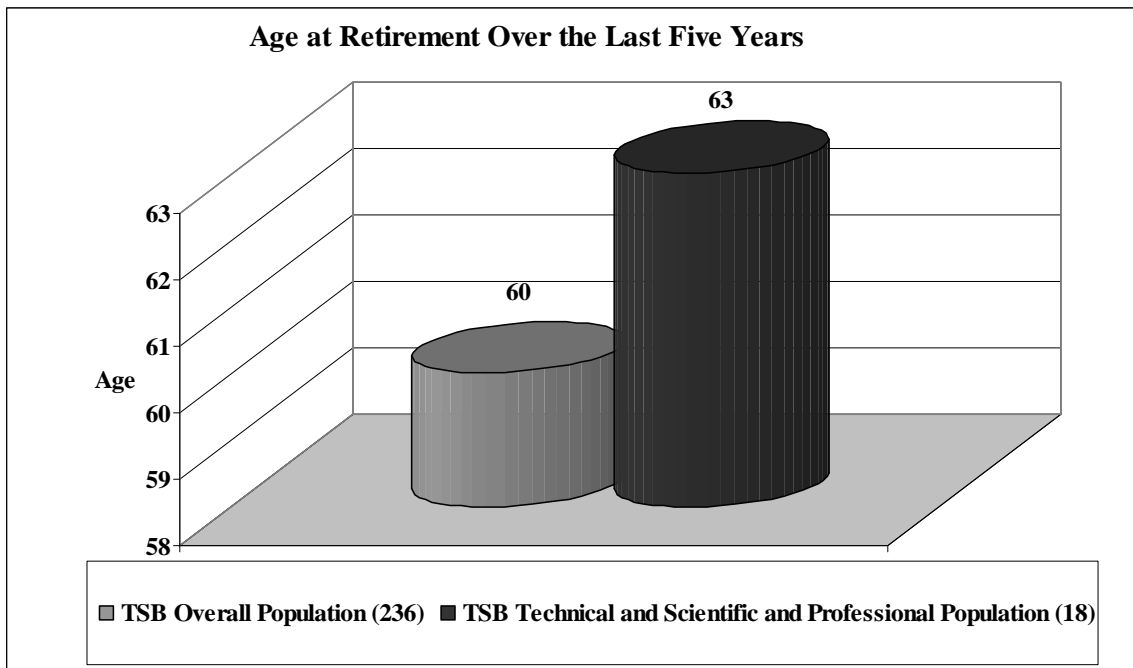


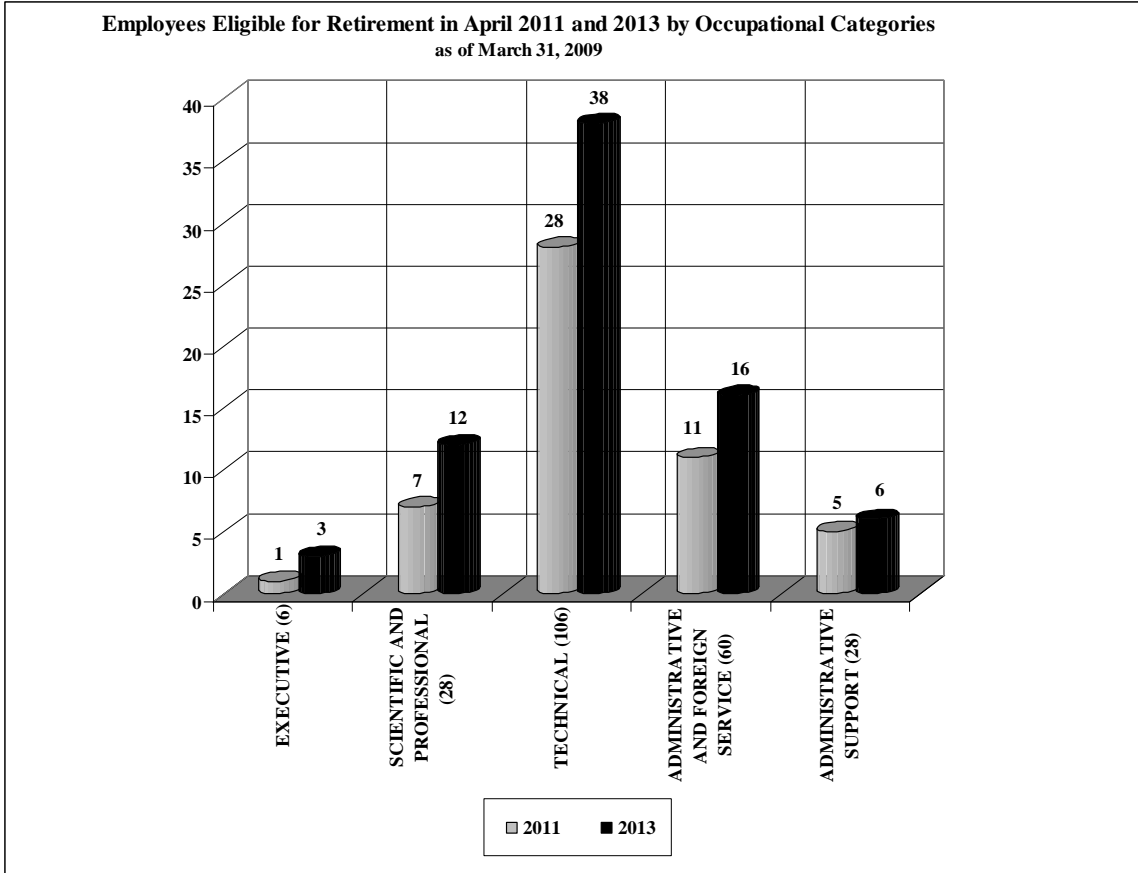
Over the last three years, although the TSB’s hiring has increased, it has not been able to backfill the departures. Still struggling to close the gap are the Corporate Services, Operational Services and Air Investigations Branches. The TSB has identified workforce renewal as a strategic priority and with the introduction of short- and long-term staffing plans and strategies, the TSB should be in a better position to deal with expected turnover and retirements over the next few years.

6.1.3 Upcoming Retirements

The following figures illustrate our retirement scenario for the next few years. There is an increase in potential retirements in some sectors and occupational groups. This trend is consistent with the forecasted rate of retirements for the entire Public Service, which is expected to peak in 2013 as noted in the Clerk's *Sixteenth Annual Report to the Prime Minister on the Public Service of Canada*.

Over the last five years, the average age at retirement of TSB employees is 60. However, among the Technical and Scientific and Professional categories, which comprise 55% of the TSB employees, the average age of retirement increases to 63. The average age of employees is 52 in the Technical category and 50 in the Scientific and Professional category.

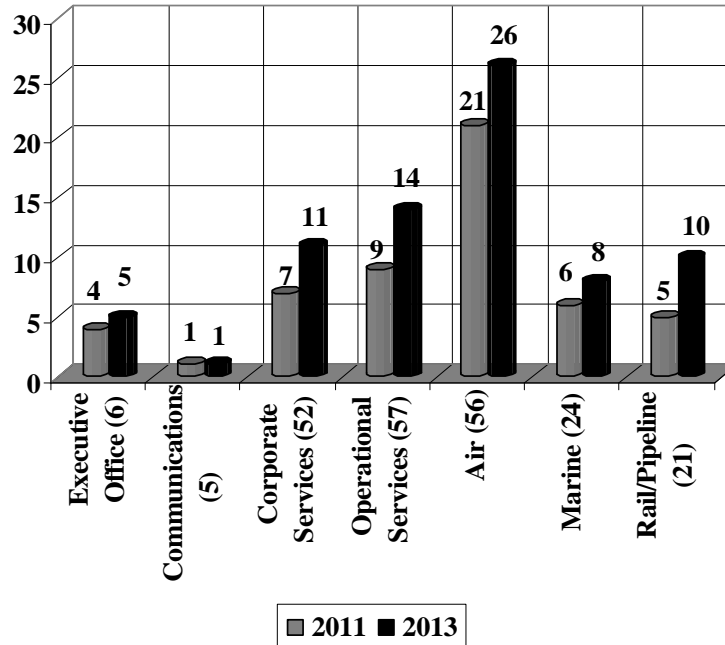




Two years from now, in April 2011, approximately 52 employees (22% of current TSB staff) will be eligible for retirement. By April 2013, that number will increase to approximately 75 employees (32% of current TSB staff), an increase of 10% in just two years. Based on an analysis of potential retirements by occupational category, the categories most vulnerable are the Executive, Scientific and Professional, and Technical. Departures in these particular categories could have an impact on the delivery of our mandate. Recognizing this, in addition to Workforce Renewal, the TSB has identified Knowledge Transfer as one of its strategic priorities, which will assist the TSB to not only intensify its efforts on recruitment by setting targets for particular groups but to set direction for learning, career development, and succession planning.

It is important to note that retirement eligibility is not necessarily a reliable predictor of retirements since an individual's decision to retire at a particular moment is influenced by many factors such as nature of work, marital status, family constraints.

**Employees Eligible for Retirement in April 2011 and 2013
by Branch and Division
as of March 31, 2009**



Among the branches and divisions, the groups we need to focus on are the Executive Office, Air and Rail/Pipeline workforce (83 % of the Executive Office, 46 % of Air and 48 % of Rail/Pipeline employees are eligible for retirement in 2013). Knowledge transfer and staffing plans and strategies, combined with talent management and succession planning, should address these vulnerabilities.

6.1.4 Employment Equity

As of March 31, 2009, there were a number of shortfalls in the representation⁷ of employment equity groups.

Employment Equity Group	Executive	Scientific and Professional	Technical	Administrative and Foreign Service	Administrative Support
Women	-2	-1	-4		
Aboriginal People					-1
Visible Minorities		-1	-4	-2	
Persons with Disabilities			-2		

Our comparative statistics over the last year are based on the 2001 assessment of the workforce market availability. However, more recent statistics taken from the 2006 Census of workforce availability in the Canadian population may show an increase in our gaps, particularly for women in the Executive Group, and visible minorities and persons with disabilities in the Technical Group.

Closing these gaps is particularly challenging because the TSB does not hire at the entry level for its major operational groups (AO, TI, and EN-ENG). Hiring for these groups is at a senior level, which precludes the TSB from participating in post-recruitment campaigns and job fairs. The TSB will be updating its employment equity statistics in 2009–2010 and will assess what action will be required to address the revised gaps that may be identified.

6.1.5 Linguistic Profile and Capacity

Sixty percent of TSB's employees occupy bilingual positions, 39.5% occupy English essential positions, and 0.5% occupy French essential positions with 37.5 % of our staff identifying French as their first official language. Of those occupying bilingual positions, five employees hired on a non-imperative basis do not meet the bilingual profile of their position, three are currently on language training, one is on part-time language training and one was recently hired and will be evaluated for training in the next year.

⁷ Representation figures are based upon the 2006 Census of workforce availability in the Canadian population.

6.2 Key Human Resources Gaps

Anticipated attrition levels continue to be of concern not only for the TSB but also for the broader Public Service employee population. While the increasing number of retirements affects the TSB as a whole, the Corporate Services Directorate's workforce situation is additionally stressed by the high demand and extreme competition for HR and Financial Advisor specialists throughout the federal government. The anticipated attrition will be addressed in the following two ways:

- Workforce renewal (accessing new resources with appropriate skills and competencies) will be addressed, both individually (by branch/directorate) in their HR plans, and collectively through efforts coordinated by HR. Such efforts include exploring the creation of partnerships with other federal government organizations that hire staff with similar skills and competencies, as well as exploring non-conventional staffing such as interchanges with other agencies/organizations. These staffing activities will also allow managers to consider hiring designated group members in categories in which there are representation gaps within the TSB.
- In developing HR planning priorities for 2009–2010, management has reinforced its commitment to meaningful succession planning based upon a revamped employee performance review process, and the development of individual learning plans. This will be supported wherever possible by providing staff with career development and personal growth opportunities that are aligned with future organizational requirements. These strategically focused efforts are aimed at creating a continuous learning environment. We will also optimize our use of the TSB Knowledge Transfer Fund by developing a knowledge transfer strategy.

The TSB faces significant gaps in employment equity, particularly when compared to the more recent workforce availability figures. The Human Resources Division will therefore put in place processes to review all proposed staffing actions to identify potential employees from underrepresented groups. Particular emphasis will be placed on recruiting visible minorities and women in the technical category, which has significant representation gaps compared to the external workforce market availability.

Although there are no gaps in our linguistic profiles and capacity, our succession planning must continue to provide part-time language training. Emphasis on strengthening second official languages skills in the development of individual learning plans will also ensure the TSB can continue to fully meet its official languages obligations.

6.3 Human Resources Strategies and Priorities Action Plan

The following Strategies and Priorities Action Plan summarizes the strategies to be implemented over the coming year. All elements are aimed at ensuring that our HR gaps are addressed, in both the short-term (one to two years) and long-term (three to five years) timeframes.

Strategic Initiatives			
Action Plan			
HRM Strategies	HRM Outcomes	OPI	Completion Date
1. Knowledge transfer strategy	Knowledge transfer strategy and action plan approved and implemented	Manager, HR	Spring 2010
2. Capacity building	Analyze capacity and build a staffing plan focusing on strategic operational goals	HR Advisors with managers	June 30, 2009
	Create partnering arrangements to build value	HR Advisors with managers	March 31, 2011
	Develop a succession plan	HR Advisors with managers	September 30, 2009
	Review work descriptions (TI and AO-CAI)	HR Advisors with managers	June 30, 2009
	SI and ES positions converted to the new EC occupational group	Manager, HR	June 30, 2009
3. Learning and training program review	A new approach to learning and training developed and implemented (management tracking process tools forms)	Director, Operational Services in collaboration with HR	March 31, 2010
	Implementation of a revamped employee orientation program	Manager, HR	September 30, 2009
4. Organizational structure	Any changes required by the Air Investigations Branch implemented	Director, Air Investigations Branch	TBD

Strategic Initiatives			
5. 2008 Public Service Employee Survey	Analysis and recommendations	Director General, Corporate Services and Manager, HR	TBD
	Plan formulation and communication	Director General, Corporate Services and Manager, HR	TBD
	Plan implemented	Director General, Corporate Services and Manager, HR	TBD
		Director General, Corporate Services and Manager, HR	
6. Review of the standby system	Review and analysis completed and recommendations implemented	TBD	TBD

7.0 2009–2010 Resource Allocation

Budgets for fiscal year 2009–2010 were approved by the Executive Director. The allocations approved for the Branches and the Directorate are shown in the table below.

Responsibility Centre	Salaries (\$)	Overtime (\$)	O+M (\$)	Totals (\$)
Executive and Board Members	1,418,489	8,240	462,856	1,889,585
Communications	478,112	17,300	223,404	718,816
Corporate Services	3,806,533	34,200	1,889,650	5,730,383
Operational Services	3,206,022	27,239	827,860	4,061,121
Investigations - Air	6,029,401	325,400	1,446,378	7,801,179
Investigations - Marine	2,624,689	274,558	482,336	3,381,583
Investigations – Rail and Pipeline	2,202,391	358,091	435,435	2,995,917

Responsibility Centre	Salaries (\$)	Overtime (\$)	O+M (\$)	Totals (\$)
Subtotals	19,765,637	1,045,028	5,767,919	26,578,584
Business Plan Projects				612,504
Capital Assets Investments				600,000
Costs Recoverable from Treasury Board ^(*)				323,000
			Totals^(**)	28,114,088

(*) These costs include severance pay, vacation pay for unused vacation leave on termination of employment and parental benefits.

(**) The total budget allocated includes the estimated lapse carry-forward from the previous year and a risk-based overprogramming.

Approved allocations for the Business Plan projects are shown in the following table.

Priorities	Projects	Resources Allocated (\$)
Productivity and Efficiency of Safety Communications	Implementing program evaluation and performance measurement	25,000
	Chair's Challenge – Part 2 and enhanced website use	
Information Technology Infrastructure and Information Management	Applications infrastructure upgrade	160,790
	Electronic records management system	130,000
	Reduction and management of information technology assets infrastructure	120,000
Workforce Renewal and Maintenance	Establishing a Multi-Modal Training and Standards Division	
	Knowledge transfer strategy and program	25,000
	Follow-up to 2008 Public Service Employee Survey results	
	Review of stand-by system	40,000
Financial Management	Review of budget allocation and revision processes	
	Review of salary forecasting processes	8,400
	Costing tools for major investigations and major projects	10,500
TOTAL for 2009–2010 Projects		519,690
2008-2009 Unfinished Projects		
	Review and update of TI and CAI work descriptions	64,814
	Head Office renovations	28,000
TOTAL		612,504

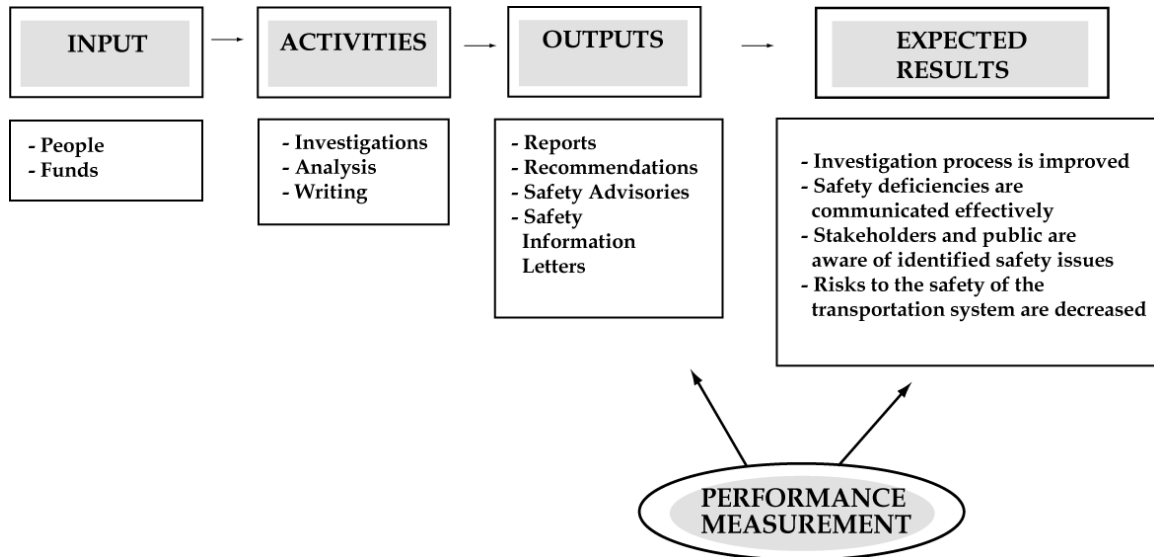
8.0 Performance Measurement

We have identified clear deliverables and timelines for each priority project in this Business Plan. This is important so that feedback can be provided to decision makers, and any necessary follow-up action can be taken to update or better manage activities. The ability to measure and communicate results focuses managers and employees on the critical drivers, and enables us to align our indicators and action plans throughout the entire organization.

8.1 Results Chain

To demonstrate how our activities and outputs are expected to lead to achieving our strategic outcome, we have developed a Results Chain. The Results Chain, as shown in the following diagram, provides an organizational “road map,” helping to ensure that we clearly link our resources, activities, and outputs to our strategic outcome. It enables us to connect our appropriations from Parliament to the ultimate result we strive to achieve.

TSB Results Chain Diagram



To ensure a common understanding, we define the key elements of performance measurement as follows:

Activities: actions used to produce outputs and results

Outputs: products or services provided to stakeholders

Expected Results: accomplishments of value to Canadians

Performance Indicators: measures of **what** will be tracked over time

Performance Measures: yardsticks used to judge **how well** we have done (includes target, data source, and frequency of measure)

8.2 Performance Measurement Framework

By combining the key components of our new program activity architecture with the Results Chain and by adding performance indicators to it, we have a global and coherent framework to measure our performance and to report on our results to Parliament and to

Canadians. The following table illustrates these linkages. Our draft performance measurement framework will be completed over the current fiscal year.

Program Activity Architecture	Definition	Results	Indicators
Strategic Outcome	The mitigation of risks to the safety of the transportation system through independent accident investigations	Decreased risks to the safety of the transportation system	<ul style="list-style-type: none"> • Level of public confidence in the security of the air, rail and marine sectors • Number of transportation occurrences by sector • Transportation accident rates by sector
		Increased awareness of safety issues identified by the TSB	<ul style="list-style-type: none"> • Level of stakeholder and public awareness of safety issues
	Name	Expected results of the four program activities	
Program Activity	<ol style="list-style-type: none"> 1. Air Investigations 2. Marine Investigations 3. Rail Investigations 4. Pipeline Investigations 	Improved effectiveness of communication of safety deficiencies identified during the investigations	<ul style="list-style-type: none"> • Results of Board assessment of responses to recommendations • Number of safety measures taken • Other safety measures taken
		Improved investigation process of transportation occurrences	<ul style="list-style-type: none"> • Number of investigations started, in progress and completed • Average time to complete an investigation • Cost of major investigations