National Transportation Safety Board

Strategic Plan

Fiscal Years 2007 through 2012



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Strategic Plan

National Transportation Safety Board Strategic Plan Fiscal Years 2007 Through 2012



National Transportation Safety Board 490 L'Enfant Plaza, S.W. Washington, D.C. 20594

Contents

Contents	ii
List of Tables and Figures	
Executive Summary	V
Introduction	
Mission	
Strategic Goals	
External Factors	
Annual Performance Goals	
Planning Process	
Mission	
Mission Statement	
Independence	
Investigations	
Other Important Mandates	
Scope of Responsibility	
Strategic Goals	
Strategic Goal #1 – Accomplish Objective Investigations	
of Transportation Accidents to Identify Issues and Actions	
that Improve Transportation Safety	
The Challenge	
Strategic Outcomes	
Strategic Objectives	
Performance Measures	
Strategic Goal #2 – Increase our Impact on the Safety of the	<u>,</u>
Transportation System	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
The Challenge	,
Strategic Outcomes	
Strategic Objectives	
Performance Measures	
Strategic Goal #3 – Outstanding Stewardship of Resources .	,
The Challenge	
Strategic Outcomes Strategic Objectives	
Performance Measures	10
Strategic Goal #4 – Organizational Excellence	1
The Challenge	
Strategic Outcomes	
Strategic Objectives	

Performance Measures	
External Factors	14
Major Transportation Disasters	14
New Technologies	
Significant Terrorist Incidents	
Change in Budgeting Priorities	
Annual Office Goal Relationship to Strategic Goals	15
Performance Goals	
Annual and Strategic Goal Relationship	
Planning Process	17
Development of this Strategic Plan	
Review of GAO Recommendations	
Team Alignment Process (TAP)	
Mission Statement and Strategic Goals Survey	
Review of Draft Strategic Plan	
Future Planning	

Index of Tables and Figures

1.	Table 1 – Investigative office performance targets	6
2.	Table 2 – Strategic plan development: employee survey summary	6
3.	Figure 1 – Relationship Between Annual and Strategic Goal	20

Executive Summary

Introduction

This National Transportation Safety Board [NTSB] Strategic Plan for Fiscal Years [FYs] 2007 through 2012 is a revision of our FYs 2006 through 2010 plan published in December 2005.

This plan and the effort that led to its development are indicative of the NTSB's commitment to strategic planning and its cascade throughout the agency. Accident investigations are the core of our mission, and the nature of this work requires that we be responsive and tactically proficient. To meet the challenges of growth in transportation activity and increasingly complex technical issues, we must think strategically and plan for the future. Our planning effort is intended to ensure that we can continue to improve the efficiency and effectiveness of the safety outcome we produce for the Nation's transportation system.

Our strategic planning will have a direct impact on the work done in all NTSB offices. Initiatives at the office level are inspired by and support the strategic goals defined at the agency-wide level. The broad descriptions of goals, objectives, and targets at the strategic plan level cascade throughout the agency. Long-range strategic goals are supported by annual performance goals, and all goals are outlined in detail in each office's annual operating plan.

Tracking our performance and results against these targets will allow us to gauge our progress towards meeting the evolving safety challenges in the U.S. transportation system.

Mission

The transportation industry accounted for 10 percent—more than \$1.2 trillion—of U. S. Gross Domestic Product [GDP] in 2005. We are proud to play a key role in maintaining the viability of this industry by investigating accidents and promoting safety.

Our mission is:

to promote transportation safety by

- maintaining our congressionally mandated independence and objectivity;
- conducting objective, precise accident investigations and safety studies;
- performing fair and objective airman and mariner certification appeals; and
- advocating and promoting NTSB safety recommendations. And

to assist victims of transportation accidents and their families.

Strategic Goals

Despite the significant improvement that has been made in the safety of our national transportation system, much work remains to be done. Our mission is to identify actions to improve the safety of the system and thereby reduce the transportation fatality rate. With this mission in mind, we have developed a revised Strategic Plan, adding four goals that represent our primary areas of strategic focus for Fiscal Years 2007 through 2012.

- Strategic Goal #1 Accomplish Objective Investigations of Transportation Accidents to Identify Issues and Actions that Improve Transportation Safety
- Strategic Goal #2 Increase our Impact on the Safety of the Transportation System
- Strategic Goal #3 Outstanding Stewardship of Resources
- Strategic Goal #4 Organizational Excellence

External Factors

Certain external factors could have a negative impact on the agency's ability to achieve its strategic goals. Among the most important are the following:

- Major Transportation Disasters
- New Technologies
- Significant Terrorist Incidents
- Changes in Budgeting Priorities

If and when these factors come into play, appropriate adjustments to performance objectives and standards and operating plans will be made.

Annual Performance Goals

Each NTSB office will set annual performance objectives designed to support one or more strategic goals described in this plan. Through this process, each of our long-term strategic goals is translated into annual short-term objectives that can be tracked and assessed as part of organizational and individual performance.

Planning Process

Four major components led to the development of this strategic plan.

Review of Government Accountability Office (GAO) Recommendations

At the request of Congress, the GAO conducted a study of management practices at the NTSB in 2006. At the conclusion of this effort, the GAO issued a number of recommendations to the NTSB, and the strategic plan was developed to be responsive to those recommendations. Among the GAO recommendations addressed are the following:

- 1. Develop an improved strategic plan
- 2. Develop a strategic training plan and a strategic human capital plan
- 3. Improve communications within the agency
- 4. Develop orders for determining which accidents to investigate
- 5. Use information technology [IT] to streamline the investigation/recommendation process
- 6. Implement a full cost accounting system
- 7. Maximize the value of the NTSB Training Center.

Team Alignment Process [TAP]

Another part of the process used to develop this revised strategic plan involved soliciting input from the NTSB leadership team. The centerpiece of this effort was a TAP, a daylong workshop held at the NTSB Training Center. With the help of a professional facilitator, 25 NTSB office directors, deputy office directors, and managers joined in a structured discussion about the NTSB planning process and this strategic plan.

Mission Statement and Strategic Goals Survey

We also invited all NTSB employees to provide input via a survey designed to gauge their opinions on key elements in the strategic plan. Respondents indicated their level of support for a revised NTSB mission statement and three proposed strategic goals.

Review of Draft Strategic Plan

Finally, we held six meetings to discuss the draft Strategic Plan and to agree on changes. Representatives from each NTSB office participated in these sessions, along with the agency's Managing Director. As a result of these meetings, we reached consensus on the strategic goals and objectives contained in this plan.

Mission

Mission Statement

The transportation industry accounted for 10 percent—more than \$1.2 trillion—of U. S. Gross Domestic Product [GDP] in 2005. The National Transportation Safety Board NTSB is proud to play a role in supporting our Nation's transportation system.

Our agency's mission is:

to promote transportation safety by

- maintaining our congressionally mandated independence and objectivity;
- conducting objective, precise accident investigations and safety studies;
- performing fair and objective airman and mariner certification appeals; and
- advocating and promoting NTSB safety recommendations. And

to assist victims of transportation accidents and their families."

Independence

The NTSB's status as an independent government agency makes it different from other stakeholders in the transportation industry. Transportation companies are motivated by financial gain and many are ultimately accountable to their shareholders. Other government agencies, for example, the Federal Aviation Administration [FAA], the Federal Railroad Administration [FRA], the Federal Highway Administration [FHWA], and the U.S. Coast Guard [USCG] have an official role in establishing and enforcing industry regulations. The NTSB has no such interests or obligations. Our most important stakeholder is the traveling public, and we are concerned with one thing, *promoting transportation safety for the traveling public*.

Investigations

NTSB staff take an unbiased approach to each accident that the Board investigates. Local authorities, industry representatives, and other agencies are frequently called upon to participate as parties to the Safety Board's investigations. Our only objective is to determine the probable cause of the accident and to extract lessons learned that will prevent similar accidents in the future. The NTSB's reputation as an honest broker is an important reason why State and local governments, Federal agencies, and even foreign countries welcome and encourage the NTSB to lead important accident investigations.

Actions to correct deficiencies that contribute to accidents are often identified early in the investigative process. The Board strongly supports and encourages voluntary efforts to effect safety changes and works with parties to implement such changes. In other

situations, the Board invokes a more formal process of issuing safety recommendations, which ask government agencies, parties to the investigation, or other entities to take action to improve safety. Some of these recommendations are made during the accident investigation. In other cases, the NTSB makes safety recommendations at the conclusion of the investigative process and incorporates them into the official accident reports adopted by the Board.

Other Important Mandates

In addition to our central role as accident investigators, we provide two other important functions.

First, we maintain the integrity of airman and mariner safety enforcement programs. We provide a fair and impartial adjudicatory process for appeal of FAA certificate actions and denials through proceedings before our Administrative Law Judges and appellate review of the judges' decisions. The full NTSB Board hears U.S. Coast Guard certificate actions.

Second, we have responsibility for coordinating communication with and assistance to the family members of accident victims.

Scope of Responsibility

The NTSB is the independent Federal agency charged by Congress to investigate every civil aviation accident in the United States and significant accidents in the other modes of transportation—highway, marine, pipeline, and railroad—and to issue safety recommendations intended to prevent future accidents. The Board derives its authority from Title 49 of the United States Code, Chapter 11, and is governed under 49 *Code of Federal Regulations*, Chapter VIII.

The Safety Board determines the probable cause of:

- all U.S. civil aviation accidents and certain public-use aircraft accidents;
- selected highway accidents;
- railroad accidents involving passenger trains or any train accident that results in at least one fatality or major property damage;
- major marine accidents and marine accidents involving a public and a nonpublic vessel;
- pipeline accidents involving a fatality or substantial property damage;
- releases of hazardous materials in all forms of transportation; and
- selected transportation accidents that involve problems of a recurring nature.

The NTSB is responsible for maintaining the government's official census of civil aviation accidents and also conducts special studies of transportation safety issues of national significance. In addition, the NTSB provides investigators to serve as U.S. Accredited Representatives, as specified in international treaties, for aviation accidents overseas involving U.S.-registered aircraft or involving aircraft or major components of U.S. manufacture.

Since its inception in 1967, the NTSB has investigated more than 124,000 aviation accidents and over 10,000 surface transportation accidents. In the process, the NTSB has become the world's premier accident investigation agency. On call 24 hours a day, 365 days a year, our investigators travel throughout the country and to every corner of the world to investigate significant accidents and to develop factual records and safety recommendations.

The NTSB has issued more than 12,500 recommendations to more than 2,200 recipients in all transportation modes. Since 1990, the NTSB has highlighted selected high-priority issues on a "Most Wanted" list of safety improvements. The NTSB does not regulate transportation equipment, personnel, or operations, and the agency does not conduct enforcement actions. Nonetheless, the strength of the NTSB's reputation for impartiality and thoroughness has led to 82 percent of its recommendations being adopted by those with authority to effect change. Many safety features currently incorporated into airplanes, automobiles, trains, pipelines, and marine vessels had their origin in NTSB recommendations.

Strategic Goals

Despite the significant improvement that has been made in the safety of our national transportation system, much work remains to be done. Our objective is to identify actions to improve the safety of the system and thereby reduce the transportation fatality rate. With this objective in mind, we have developed a revised Strategic Plan that replaces the four strategic goals in our December 2005 plan with four goals that represent our primary areas of strategic focus for Fiscal Years 2007 through 2012.

- Strategic Goal #1 Accomplish Objective Investigations of Transportation Accidents to Identify Issues and Actions that Improve Transportation Safety
- Strategic Goal #2 Increase our Impact on the Safety of the Transportation System
- Strategic Goal #3 Outstanding Stewardship of Resources
- Strategic Goal #4 Organizational Excellence

Strategic Goal #1 – Accomplish Objective Investigations of Transportation Accidents to Identify Issues and Actions that Improve Transportation Safety

The Challenge

The cost of transportation accidents to society is unacceptable, and growth in transportation activity in the United States will exacerbate the problem. Accompanying this growth are enormous increases in the system's complexity, which must be countered with techniques and methods of accident investigation that are equally sophisticated.

A key challenge for the NTSB is to identify those accidents in each transportation mode that represent the most important targets of investigative opportunity and to determine the appropriate scope and scale of such investigations. This selection process must balance the significance of the safety issues involved in these accidents against the limited investigative resources available to the Board and the depth of the investigation required to develop the safety issues.

Strategic Outcomes

- 1. Effective and efficient investigation of transportation accidents and incidents
- 2. Recommendations to remedy safety deficiencies
- 3. A transportation industry that is better prepared to address safety issues

Strategic Objectives

1. <u>Make Judicious Selections of Accidents to Investigate in Each Transportation</u>
Mode

The resources available to the Board do not permit us to investigate every accident in every mode. We will judiciously determine the significance of accidents and balance that against the level of investigative effort (including no investigation at all) that would be necessary in each case. This selection process requires careful monitoring of accident events in each mode and careful evaluation of safety issues by technical experts in each modal office.

2. Maintain a competent and effective investigative workforce

The investigative staff of the Safety Board has a well-deserved reputation as the world's premier cadre of transportation accident investigators. Attrition and declining resources have eroded this workforce and complicated efforts by remaining staff to take advantage of training and professional development opportunities. We will select well-qualified applicants to fill vacancies and expand the Board's technical capabilities. Hiring such individuals is crucial to accomplishing our investigative mission. We will also ensure that staff have regular opportunities to participate in the advanced technical training and professional development essential to maintaining and advancing their critical investigative skills.

3. Appropriately Scale the Investigative Response to Accidents

We will evaluate and refine our ability to establish the proper scope of investigative activity and to respond appropriately during both the on-scene and follow-up phases of accident investigations. Included in these assessments will be a determination of the level of documentation and report development, including expedited report formats, required for each case.

4. <u>Develop and Maintain State-of-the-Art Investigative, Analytic, and Scientific Tools for Accident Investigation.</u>

The nature of the NTSB's mission and mandate demands that the agency be operationally excellent and equipped to conduct the increasingly complex investigations that the 21st century transportation system requires. We will refine and enhance the techniques, procedures, and tools that are already in our accident investigation skill set. We also will ensure that our investigators and engineers are equipped with and trained to use new tools that will keep us on the cutting edge of science and technology.

5. <u>Constructively Affect the Transportation Industry.</u>

We will produce accident reports and safety recommendations based on thorough accident investigations that will lead to safety improvements within the transportation industry.

Performance Measures

We will use four metrics to track our progress towards Strategic Goal # 1—Accomplish Objective Investigation of Transportation Accidents to Identify Issues and Actions that Improve Transportation Safety.

- Number of accident investigations initiated
- Number of accident launches
- Timeliness of completion of investigations
- Development of Safety Issues list

The specific targets for each of these measures must be determined at the investigative office level. Table 1, below, presents performance targets for each investigative office

Table 1. Investigative office performance targets

	AS	RPH	MS	HS	RE
Number of investigations initiated	70% of mandated	10 per year	70% of major accidents	5 per year	2 studies/reports per year
Number of accident launches	10% of investigations	8 per year	10% of investigations	5 per year	As needed to support modal investigations
Investigations completed within plan period	50%	25%	50%	25%	50%
Contributions to Safety Issues list	Yes	Yes	Yes	Yes	Yes

AS = Office of Aviation Safety

RPH = Office of Rail, Pipeline & Hazardous Materials Investigations

HS = Office of Highway Safety

RE = Office of Research & Engineering

Strategic Goal #2 – Increase our Impact on the Safety of the Transportation System

The Challenge

The Nation's level of transportation activity, which has a high correlation to its level of economic activity, continues to increase. As our skies, highways, waterways, and rails become more congested, the potential for transportation accidents increases. Some accidents will be due to causes that are well known to us, and others will be due to new issues that have yet to be identified. Where appropriate, the NTSB makes recommendations to Federal Government regulators and industry regarding changes in manufacture, training, and procedure that will reduce the likelihood of future accidents due to known hazards.

Working with the Congress, other government agencies, and industry groups, the NTSB takes an active role in bringing about a safer transportation system. The challenge for the agency is to identify possible areas of future risk *before* such risks lead to a series of accidents.

Strategic Outcomes

- 1. Congress informed and involved in NTSB mission
- 2. Agreement on the most pressing safety issues in the transportation industry

Strategic Objectives

1. Mission Work with Congress

We will work with Congress and congressional staff to advance important issues related to the NTSB's transportation safety mission. This effort will focus exclusively on "core mission work," i.e., activities directly intended to move or influence understanding of and action on transportation safety issues.

2. Outreach

NTSB staff will be active members of the transportation community. We will continue to participate on technical committees and we will speak at industry conferences. We will take special care to ensure that our activities associated with this strategy do not undermine our reputation as a fair and honest broker in accident investigations.

3. List of Issues

To focus attention on important transportation safety issues, we will develop an *Emerging Issues List*. This list will be separate and apart from the existing *NTSB Most*

Wanted List of transportation safety improvements. It will track key safety issues, including those uncovered through accident investigations, outreach activities, and NTSB public forums. Each NTSB investigative office will contribute issues to the list. The Office of Research and Engineering will have responsibility for compiling and updating the list.

4. Advocacy

Our staff, through their advocacy activities at the Federal and State levels, will press for the adoption of those recommendations that the Board believes will have the most significant impact on improving transportation safety, including those on our *Most Wanted List* of safety improvements.

We will undertake an initiative to ensure that we take an efficient and effective approach to our transportation safety advocacy efforts. In particular, this planning effort will help us to do two things well.

First, it will help us select the most important safety issues—those with the greatest potential to save lives—to be the focus of our attention. This effort will require development of an objective approach to rating issues in terms of their potential impact on transportation safety.

Next, it will aid us in advocating for our high-priority issues using a formal, agency-wide methodology. We will develop an advocacy plan that outlines a mix of public, congressional, government agency, and industry activities that will increase the likelihood of positive change on a given safety issue.

Performance Measures

We will use two metrics to track our progress towards Strategic Goal #2--Increase our Impact on the Safety of the Transportation System.

- Assistance to Congress on NTSB Mission
- Development of an *Emerging Issues List*

Assistance to Congress on NTSB Mission

We will track the number of times that NTSB staff work with Congress or congressional staff on issues related to the agency's core mission.

Target Value = Establish baseline for future assessment

Development of an Emerging Issues List

We will track the development of an emerging issues list.

Target Value = List compiled and updated annually

Strategic Goal #3 – Outstanding Stewardship of Resources

The Challenge

Every agency of the U.S. Government has a duty to ensure that the resources appropriated to it by Congress are expended in an efficient, responsible, and results-oriented manner. At the NTSB, the scope of our responsibility is broad and our team of dedicated employees is relatively small.

We have been using our resources efficiently—doing more with less—and we are taking steps to ensure that we continue to make the most of our staff, budget, information technology [IT], and other resources.

Strategic Outcomes

- 1. Project planning for all major work efforts
- 2. Timely output of major work products
- 3. Increased Training Center profitability

Strategic Objectives

1. Project Planning

We will evaluate our major work product production processes to identify best practices and to eliminate inefficiencies. Major work products include accident investigation reports, as well as public hearings, and can also include complex administrative and IT projects. The centerpiece of this strategy will be project planning. Development of a project plan, coupled with post-project process evaluation against the plan, will become a standard part of every major work effort. This strategy will promote efficient deployment of the agency's personnel, budget, and other resources.

The NTSB relies on non-Federal public sector resources, as well as assistance from private sector stakeholders, to complete accident investigations. Ensuring the efficient use of these "Party System" resources will be part of the project planning initiative.

2. Understand and Control Costs

We will strengthen our ability to manage our expenses by developing a better understanding of how our staff are spending their time. This type of information will be particularly important for our major accident investigations, for which project durations can be 12 months or more. We will implement a time reporting system, a software solution that will allow tracking of staff time by project and activity.

3. <u>Deploy New Information Technology</u>

We will use IT to facilitate our work and enhance the quality of our analysis. Responding to the needs of our investigative offices, we will develop a prioritized list of IT initiatives and pursue them with the help of in-house staff and outside contractors. Within the next 5 years, handheld devices could streamline the collection of crash data in the field. Data from handheld units could be used to auto-populate reports and forms, eliminating manual processes and freeing investigator hours. Automated analysis of massive volumes of accident information—data mining—could significantly enhance our ability to identify transportation accident trends, allowing the NTSB to be more active in defining key safety issues.

4. Manage Training Center Profitability

We will continue to improve Training Center operating cost effectiveness. As part of this effort, we will make effective use of outside contractors to reduce the direct and indirect costs of delivering educational content.

We will pursue strategies aimed at growing Training Center revenues. We will increase the utilization of the facility by marketing the Training Center as a resource that other government agencies can use for their meeting and training purposes. We will also partner with educational institutions to develop and deliver commercial training and continuing education programs that are consistent with the NTSB mission and goals. We will conduct all of our revenue-enhancing activities in a manner that reinforces the reputation and status of the NTSB in the transportation industry.

Performance Measures

We will use two metrics to track our progress towards Strategic Goal #3 – Outstanding Stewardship of Resources.

Major Project Planning

We will measure the percentage of completed major work efforts that included a formal project plan and post-project assessment versus plan – [Planned Major Work Projects]/ [Total Major Work Projects].

Target Value = 100%

NTSB Training Center Revenue to Expense Ratio

We will measure the percentage of NTSB Training Center operating expenses that are covered by Training Center revenues.

Target Value = 70%

Strategic Goal #4 – Organizational Excellence

The Challenge

The NTSB has earned a reputation for thorough and independent investigation of transportation accidents. To maintain that reputation, we commit to the continuing development of our managerial, leadership, and workforce skills to levels that equal the quality of the accident investigations for which we are well known. This initiative includes the entire NTSB organization—investigative offices, business operations, and technical services.

The nature of our mission demands that we be excellent tacticians. Our agency has developed strong capabilities in evaluating transportation accidents, responding to high-priority accident scenes, and launching an investigative process that will result in robust, fact-based recommendations.

The challenge for our agency is to devote time and resources to thinking strategically and to developing our staff. To reach higher levels of achievement, we must do all of these things while maintaining our primary commitment to investigating transportation accidents.

Strategic Outcomes

- 1. An NTSB Strategic Plan, reviewed and updated regularly
- 2. NTSB leadership operating as a cohesive team
- 3. Development of a Strategic Human Capital Plan
- 4. Effective internal and external communications

Strategic Objectives

1. <u>Long-range Planning</u>

We will make strategic thinking and planning integral elements of how the NTSB conducts its business. Consistent with the requirements set out in the Government Performance Results Act of 1993 [GPRA], we will develop a comprehensive 6-year strategic plan and issue a revised plan every 3 years. In addition to our 3-year revisions, we will conduct annual reviews and updates of our strategic goals, focusing on selected performance goals during each year.

Annual Operating Plans, prepared at the office level, will support the Strategic Plan. The entire NTSB leadership team will participate in the planning process, and we will solicit input from every level of the organization.

2. Align and Improve the NTSB Management Team

We will ensure that the quality of our management and leadership is on par with the excellence of our accident investigations. In support of this initiative, we will develop a greater sense of focus and cohesion among our combined staff and line leadership. As part of this effort, the management team will meet regularly and will cooperate in setting cross-office goals. We will work as a team to achieve our goals.

3. <u>Develop a Strategic Human Capital Plan</u>

People are our most important and valuable asset. We will renew our commitment to investing in training, developing, and retaining employees at all levels and will take steps to enhance our recruitment and hiring processes. We will develop a Strategic Human Capital Plan that will guide the efforts of our Human Resources [HR] and management staff and represent the agency's commitment to investing in its people.

We will work to build our management and leadership skills for the long term. By doing so, we will ensure that we are prepared to renew the agency's leadership ranks. Our management team will ensure that all staff members have the opportunity to pursue training and project opportunities that will contribute to the development of their management, leadership, and work skills. We will make management and leadership development an integral part of annual performance plans.

At the same time, we will be vigorous in our efforts to develop NTSB's human capital. We will focus on building, maintaining, and retaining capable staff at all levels of the organization. We will develop the skill sets of current staff through training—both formal and informal—and we will invest in cross-training to build individual employee skills and to strengthen the NTSB's "bench."

Our Strategic Human Capital Plan will outline strategies for succession management and for sustaining critical knowledge and skills in the context of a rapidly changing U.S. workforce.

Good business practice suggests that diversity enhances organizational performance. The Strategic Human Capital Plan will provide for the continued recruitment and retention of a highly skilled diverse workforce.

Strategic management of human capital requires workforce planning that properly aligns people with mission-related core competencies. The plan must also take into account the recruitment and retention challenges created by our unique mission. Our work is geographically dispersed, including some remote locations, and we have round-the-clock operational responsibilities.

The HR division will raise the level of awareness of supervisory and management officials on the leadership and management practices that are assessed by the Office of Personnel Management [OPM] human capital survey.

4. Enhance Cross-Office Communications

We will pursue a comprehensive strategy aimed at improving the quality of communication and cooperation *across* NTSB office boundaries and *up and down* the entire organization. Communication and cooperation will be factors in management performance evaluations, and we will complement the NTSB's performance appraisal program with new training modules focused on managerial communications.

Performance Measures

We will use two metrics to track our progress towards Strategic Goal #4 – Organizational Excellence.

<u>Completion of the Fiscal Years 2007 through 2012 Strategic Plan, Revisions, and Updates</u>

Completion of the Fiscal Years 2007 through 2012 Strategic Plan—a revision of the Fiscal Years 2006 through 2010 Strategic Plan of December 2005—represents the achievement of one of our goals. Each year, we will review and update, as appropriate, parts of the plan. We will issue a full revision of the Strategic Plan at 3-year intervals.

Target = Annual update of strategic plan

Target = Strategic plan revision no later than September 2010

Quality of Communications

We will survey all NTSB employees to assess their satisfaction with the level and quality of communication within the agency. Equal emphasis will be placed on top-down and bottom-up communications, including Board Members to management; management to office directors; and Board, management, and director communication with NTSB staff at all levels.

Target = Establish baseline for future assessment

External Factors

The NTSB's ability to achieve its strategic goals may be influenced by the changing balance of industry operations, other Federal, State, and local government activities, national priorities, market forces, and the availability of resources. This section discusses significant external factors that could significantly impair the agency's ability to achieve its strategic goals.

Major Transportation Disasters

One or more catastrophic transportation accidents could severely affect the NTSB's ability to achieve its strategic goals. Catastrophic accidents focus a high level of industry, political, and public pressure. This pressure, combined with the complexity that often accompanies transportation disasters, will require the time and attention of a large number of the most skilled and experienced investigators at the agency.

In addition to catastrophic crashes, lower magnitude accidents may also prevent fulfillment of our goals. Government, industry, and the public may demand a highly intensive, resource-consuming investigation of an otherwise minor accident due to the special circumstances of the accident. We understand and accept our duty to our stakeholders in such instances.

New Technologies

Technological development in the transportation industry could pose a significant impediment to the achievement of our goals. As transportation companies innovate, the challenge to NTSB staff's investigative skills increases. Dramatic technological developments could outstrip our ability to train staff, redeploy resources, and leverage outside contractors.

Among the developments we expect are hydrogen-fueled automobiles, increased use of composite materials, complex avionics, and increased operations of ultralight jets and personal-use aircraft.

Significant Terrorist Incidents

A significant terrorist incident could alter the Nation's priorities and this, in turn, could have an impact on which accidents the NTSB would choose to investigate in depth. Subsequent policy decisions might impact the NTSB or agencies with which the NTSB typically cooperates. For example, State regulatory and enforcement authorities might have to limit their interaction with the NTSB to focus on other priorities. A significant, transportation-related terrorist incident anywhere in the world would quite likely have some effect on NTSB priorities.

Change in Budgeting Priorities

Any major decrease in resources devoted to the NTSB and accident investigation may have a negative impact on the agency's ability to achieve its goals for this planning period.

Annual Office Goal Relationship to Strategic Goals

Performance Goals

The annual performance goals for each NTSB office will indicate the output and efficiency targets that each group is to pursue as part of the agency's effort to achieve its strategic goals.

The performance goals will be ambitious. They will represent each office's commitment to improve or expand upon the output or efficiency of a particular activity. An exception may be those cases in which meaningful assessment of a goal requires the investment of a full year of measurement simply to establish a baseline for future improvements.

Types of performance goals include the following:

- Number of accident investigations initiated
- Number of accident launches
- Safety issues identified
- Training courses completed
- New IT initiatives launched

Annual and Strategic Goal Relationship

The directors and staff of each of the NTSB offices will execute the initiatives that underpin the strategic goals contained in this plan.

Each office will establish annual performance goals designed to support one or more strategic goals. Through this process, each long-range strategic goal will be linked to short-term operational goals that we can track and assess annually.



Figure 1. Relationship between annual and strategic goals

The annual performance goals will also contribute to the refinement and revision of our strategic plan. As the NTSB offices implement the broad strategies contained in this document, the challenges, successes, and failures they experience may indicate that our strategies need to be augmented, trimmed, or abandoned in favor of more promising efforts. Experiences with performance goals will lead to refinement of strategic goals. Refined strategic goals, in turn, will dictate enhancements to some annual performance goals and objectives – a "reinforcing loop."

Planning Process

Development of this Strategic Plan

The planning process for this strategic plan comprised four major components.

- 1. Review of GAO recommendations
- 2. Team alignment process
- 3. Mission statement and strategic goals survey
- 4. Review of draft strategic plan

Review of GAO Recommendations

The GAO was asked by Congress to examine the extent to which the NTSB follows leading management practices, how the NTSB carries out its transportation safety function, and the extent to which the NTSB's training center is cost effective.

In a preliminary report dated May 24, 2006, and in a November 2006 follow-up, the GAO issued a number of recommendations regarding NTSB management practices. The Fiscal Years 2007 through 2012 Strategic Plan addresses each of the following GAO recommendations.

1. Develop an improved strategic plan

The Fiscal Years 2007 through 2012 Strategic Plan is a comprehensive revision of the Fiscal Years 2005 through 2010 plan and includes measurable goals.

2. Develop a strategic training plan and a strategic human capital plan

One of our strategic objectives under Strategic Goal #4—Organizational Excellence—is to "Develop a strategic training plan and a strategic human capital plan". This objective addresses the development of skills through formal training, as well as project assignments.

3. Improve communications within the agency

Improved communications is one of the target outcomes for Strategic Goal #4—Organizational Excellence. We have a strategy intended to improve communications, and we plan to track our progress via employee surveys.

4. Develop orders for determining which accidents to investigate

To "make judicious selections of accidents to investigate in each transportation mode" is a strategic objective under Strategic Goal #1—Accomplish Objective Investigations of Transportation Accidents to Identify Issues and Actions that Improve Transportation Safety.

5. Use IT to streamline the investigation/recommendation process

Our strategic objective to "deploy new information technology," under Strategic Goal #3—Outstanding Stewardship of Resources—describes the deployment of timesaving technologies.

6. Implement a full cost accounting system

Our strategic objective to "understand and control costs," which supports Strategic Goal #3—Outstanding Stewardship of Resources—describes a plan for implementing an IT solution to facilitate process improvement and detailed cost accounting.

7. Maximize the value of the NTSB Training Center and increase its utilization

Our strategic objective to "manage Training Center profitability" details our plans for maximizing the value of the Training Center.

Team Alignment Process (TAP)

In developing this revised strategic plan, we solicited input from the NTSB leadership team and the entire NTSB staff. The centerpiece of this process was a daylong workshop held at the NTSB Training Center in August 2006. With the help of a professional facilitator, a group of 25 NTSB office directors, deputy office directors, and managers joined in a structured discussion about the NTSB planning process and the strategic plan for Fiscal Years 2007 through 2012. The purpose of the session was twofold: 1) to gather practical input for the planning process and 2) to begin creating the ideal leadership team.

To focus our discussion at the workshop, we addressed the following questions.

- Why do we exist? (The **Purpose** or **Mission** question)
- What do we want to create together? (The **Vision** question)
- What is the current reality we face? (The **Reality** question)
- What 3-5 **high-leverage initiatives** should we focus on over the next 6-12 months?
- Who will be **accountable** to achieve the results from those initiatives?
- How do we want to **operate together** as a leadership team?

The Purpose or Mission question deals with the identity of the enterprise. It typically describes the service performed and presents a description of the end result to be realized. Typically, an enterprise has only one Purpose or Mission, and all subunits within that enterprise have purposes that support it.

In the context of the enterprise's Purpose or Mission, the Vision question asks, "What organization would you create if anything were possible?" Multiple visions are acceptable, provided they are not mutually exclusive.

In answering the Reality question, the team seeks to develop a robust description of its current reality, without pressuring members to act immediately to 'fix' that reality. At a minimum, each element in the team's vision must have a counterpart in "current reality."

The high-leverage initiatives question recognizes that the team must take some critical actions to begin moving towards the vision. Prior NTSB management teams have developed well-intentioned action plans, only to see them fall by the wayside after returning to the daily work routine. Limiting the number of initiatives can help overcome this common frustration.

"Who will be accountable to achieve the results from those initiatives?" is the organization and commitment question. Each initiative should be assigned to one person who is fully accountable to ensure that the initiative is executed. Other team members typically support the responsible person.

"How do we want to operate together as a leadership team?" is critical to the leadership team conversation. Team members are asked to make promises to one another about their conduct as individual team members and as part of the team as a whole. This conversation typically results in a set of simple "guiding principles" or a "code of conduct" to which each member is willing to be held accountable by others on the team.

Mission Statement and Strategic Goals Survey

Upon completion of the draft strategic plan, all NTSB employees were asked to respond to a survey designed to gauge their opinions on key elements in the plan.

For example, respondents were asked to provide their opinions on the three strategic goals:

- Strategic Goal #1 Increase the Safety of the Transportation System;
- Strategic Goal #2 Stewardship of Public Resources; and
- Strategic Goal #3 Management Excellence

Approximately 50 percent of the agency's employees [210 individuals] responded to the survey. Using a scale of 1 through 5, in which 1 = Disagree Strongly and 5 = Agree Strongly, survey respondents indicated the degree to which they agreed with the Mission Statement and the three Strategic Objectives presented in the draft plan. The survey results are summarized below.

Table 2. Strategic plan development: employee survey summary

Strategic Plan	Disagree		Agree
Element	Scores = $1 \text{ or } 2$	Score = 3	Scores = 4 or 5
Mission Statement	8%	17%	75%
Strategic Goal #1	14%	9%	77%
Strategic Goal #2	17%	16%	67%
Strategic Goal #3	19%	18%	63%

Review of Draft Strategic Plan

We held six meetings to discuss the draft strategic plan and to agree on changes to it. The NTSB Managing Director attended each session, as did members of the NTSB management team representing each Office.

The first three meetings took place in October 2006. Each meeting focused on one of the three strategic goals in the draft plan. One outcome was that we modified our existing goals and added a new one, the current strategic goal #1. We followed up the first round of meetings and changes with three additional meetings, held in November and December 2006.

Future Planning

The NTSB's performance will be evaluated through regular program evaluations commissioned by the Office of Management and supplemented by the Board's annual financial audit. Each NTSB office has its own annual goals linked to the agency's strategic goals. All office directors' performance will be assessed on the basis of how well their office has met its goals and how well they have supported the agency's strategic goals.

We will hold quarterly senior management meetings. During these meetings, we will reevaluate our assessment of the current reality and update our list of high-leverage initiatives and the corresponding accountability assignments. We envision these meetings as an ongoing effort that we will integrate into the NTSB senior management team planning process.

We will audit annually the performance of each of the NTSB offices against their annual operating plan. During each review, we will ensure that the annual operating plans remain focused on supporting the NTSB strategic goals. The first of these audits will take place during the first half of FY 2008 and will be based on the FY 2007 operating plan goals and FY 2007 results.