



# PERFORMANCE SECTION



## INTRODUCTION TO THE PERFORMANCE SECTION

In fiscal year (FY) 2009, the Department accomplished its mission through three strategic goals and an overarching management integration goal that articulate long-term goals, as well as performance outcomes and objectives that represent shorter-term outcomes and priorities. Performance outcomes include specific targets designed to achieve specific performance results within a given fiscal year.

The Performance Section of the report comprises subsections for each of the strategic goals and is organized in the following manner:

SUBSECTION	PURPOSE
Strategic Goal	Overall summary of the strategic goal.
Strategic Objective	Overall summary of outcomes, program obligations, and performance outcomes that fall under each objective. The information contained in the objective provides the performance outcomes and the activities associated with them.
Performance Outcome	Performance Outcome Description, Achievements, and selected Program Evaluations. The information contained in each performance outcome is designed to provide the reader with the overall achievements of the performance outcome.

Within each strategic goal section there are summary charts that provide the historical trend data for financial obligations and full-time equivalents (FTE) resources, and overall performance results. At the beginning of each strategic goal section and each objective section is a table summarizing the performance outcomes. In the description of each performance outcome is a performance table (with shaded status cells) that shows the status of the performance measures associated with that outcome: exceeded (more than 125 percent of target), met (100-124 percent), slightly below target (95-99 percent) and not met (below 95 percent of target). Status cells for exceeded measures are shaded blue; met, green; slightly below, yellow; and not met, red. In addition, a new category, "improved, but not met," was added in FY 2008. Status cells for this category are shaded orange, with this category applying to any year in which the actuals for the given year are better than the previous year, but the target still was not met. All dollar amounts shown are in millions, unless otherwise indicated.

Historical details on each performance result are located in Appendix A, which provides individual measurement results.

Note that the FY 2009 targets were developed prior to having the FY 2008 actuals. Often the FY 2009 targets were made based on prior year trends. Therefore, in some cases it may be that the FY 2008 actuals exceed the FY 2009 targets, especially if they exceeded the original FY 2008 targets.

"Strategies, Plans, and Challenges for the Future" are no longer included in the Performance Section since they are more forward in nature as opposed to this Performance and Accountability Report (PAR) which reports on FY 2009 performance. Strategies, Plans, and Challenges for the Future are included in the Annual Performance Plans of the bureaus (part of the Budget Submission) and the Departmental Strategic Plan.

P E R F O R M A N C E   S E C T I O N



STRATEGIC  
GOAL 1

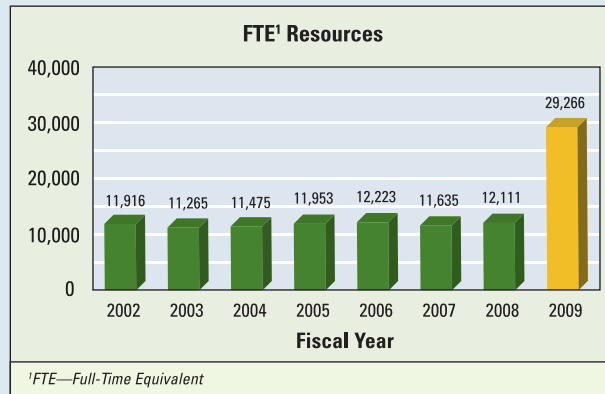
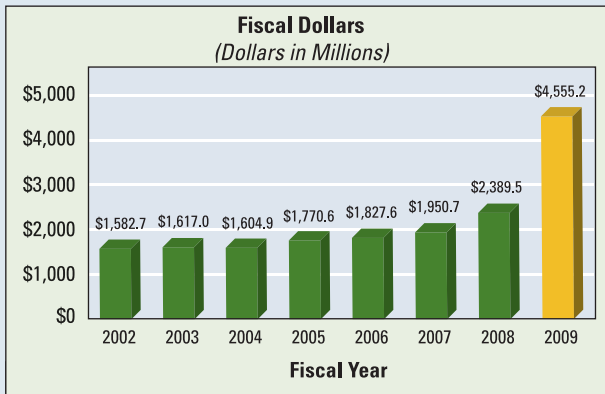
PERFORMANCE OUTCOME	TARGETS MET OR EXCEEDED
Promote private investment and job creation in economically distressed communities (EDA)	5 of 6
Improve community capacity to achieve and sustain economic growth (EDA)	2 of 6
Strengthen U.S. competitiveness in domestic and international markets (ITA)	3 of 4
Broaden and deepen U.S. exporter base (ITA)	4 of 5
Increase access to the marketplace and financing for minority-owned businesses (MBDA)	4 of 5
Identify and resolve unfair trade practices (ITA)	4 of 5
Maintain and strengthen an adaptable and effective U.S. export control and treaty compliance system (BIS)	7 of 7
Integrate non-U.S. actors to create a more effective global export control and treaty compliance system (BIS)	0 of 1
Ensure continued U.S. technology leadership in industries that are essential to national security (BIS)	1 of 1
Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)	2 of 3
Provide current measures of the U.S. population, economy, and governments (ESA/CENSUS)	2 of 2
Provide timely, relevant, and accurate economic statistics (ESA/BEA)	5 of 6
Increase the productivity, profitability, and competitiveness of manufacturers (NIST)	4 of 4



**STRATEGIC GOAL 1**

*Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers*

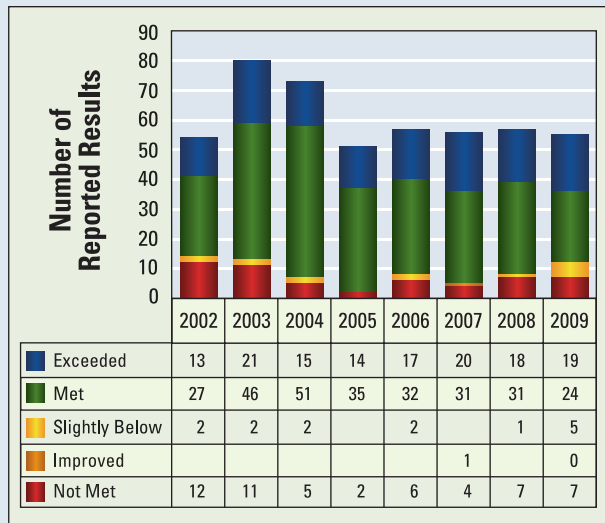
**STRATEGIC GOAL 1 TOTAL RESOURCES**



**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

The Department is committed to opening and expanding foreign markets for U.S. goods and services and improving the Nation's export performance. The International Trade Administration (ITA) promotes U.S. export growth through the implementation of the Trade Promotion Coordinating Committee's (TPCC) National Export Strategy, ensuring that policies and priorities are consistent with national security and U.S. foreign policy objectives. The Department enhances cooperation with its partnership organizations so that U.S. businesses can benefit from global business through free market trade negotiations and through identified priority markets. The Department continues to focus on fostering a level playing field for U.S. firms through development of trade policy positions, advancement of negotiating positions, and through effective execution of U.S. trade laws intended to curb and combat predatory trading practices.

**STRATEGIC GOAL 1 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

The Bureau of Industry and Security (BIS) ensures that export controls do not unduly disadvantage U.S. firms in world markets by eliminating outdated controls and streamlining the process for obtaining export licenses for products that remain under export controls. These continual improvements are being made while being mindful of the dual-use nature of some commercial technologies and the national security implications of those technologies.

The Economics and Statistics Administration (ESA), composed of the Census Bureau and the Bureau of Economic Analysis (BEA), provides decisionmakers with timely, relevant, and accurate economic and statistical information related to the U.S. economy and population with the Department at the forefront of national efforts to continually improve these statistics.

In support of disadvantaged individuals and communities, the Economic Development Administration (EDA) promotes private enterprise and job creation in economically distressed communities and regions by investing in projects that produce jobs and generate private capital investment. Likewise, the Minority Business Development Agency (MBDA) promotes private enterprise and investment within minority communities.

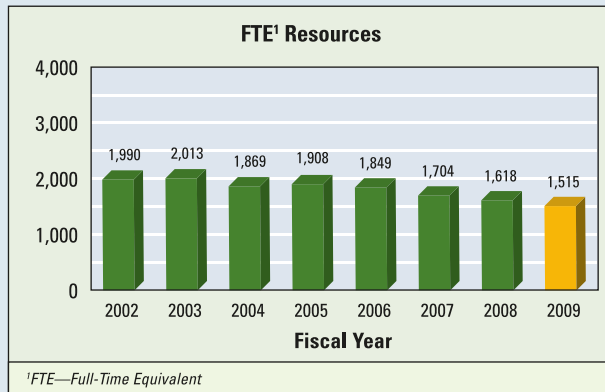
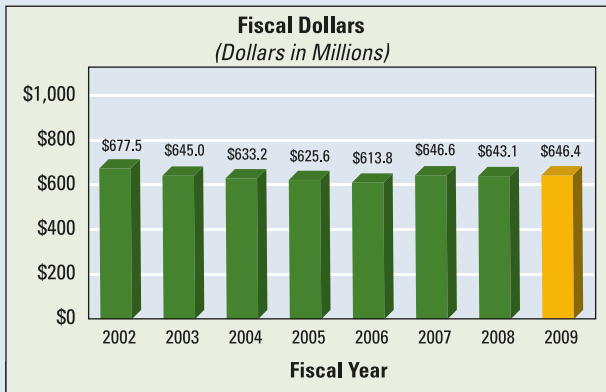
In support of manufacturing against a backdrop of coping with accelerating technological change and global competition, the National Institute of Standards and Technology (NIST), through the Hollings Manufacturing Extension Partnership (MEP) program's nationwide network of manufacturing centers, helps firms adopt new and advanced manufacturing and management technologies and innovative business practices to position them to compete in the global economy.

Overall performance within this goal has been fairly strong, meeting or exceeding targets on average 86 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 to FY 2009 with 74 percent of targets met or exceeded in FY 2002 to 78 percent met or exceeded in FY 2009.

**STRATEGIC OBJECTIVE 1.1**

*Foster domestic economic development as well as export opportunities*

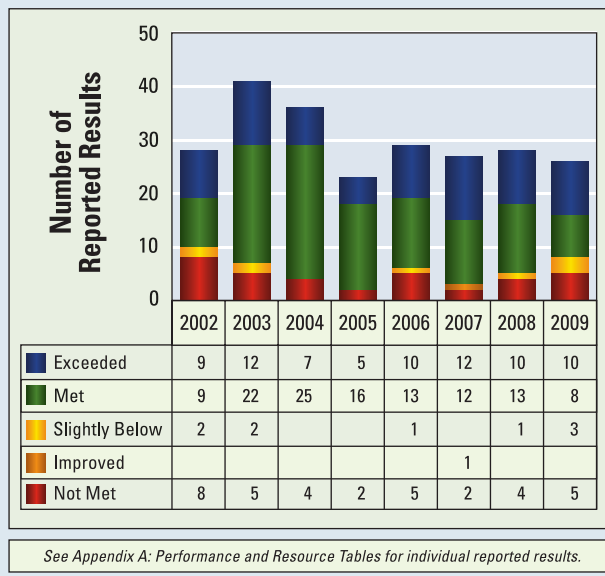
**STRATEGIC OBJECTIVE 1.1 TOTAL RESOURCES**



**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

This objective focuses on increasing private enterprise and job creation in economically distressed communities and regions, improving community capacity to achieve and sustain economic growth, increasing trade opportunities for U.S. firms to advance U.S. international commercial and strategic interests, expanding the U.S. exporter base, improving the U.S. competitive advantage through global e-commerce, and increasing opportunities and access for minority-owned businesses to the marketplace and financing. EDA, ITA, and MBDA all support this objective. Overall performance within this objective has been fairly strong, meeting or exceeding targets on average 83 percent of the time from FY 2002 to FY 2009. Performance improved slightly from FY 2002 to FY 2009 with 64 percent of targets met or exceeded in FY 2002 to 69 percent met or exceeded in FY 2009.

**STRATEGIC OBJECTIVE 1.1 PERFORMANCE RESULTS**



**Performance Outcome: Promote private investment and job creation in economically distressed communities (EDA)**

**FY 2009 Funding Level** **\$203.9M**

EDA tracks the amount of private investment generated and jobs created or retained as a result of EDA investments at three, six, and nine-year intervals. Preliminary data collected through the Government Performance and Results Act (GPRA) process for investments made in FY 2000, FY 2003, and FY 2006 indicate that these EDA investments have helped generate more than \$3.5 billion in private sector investment and create and retain 79,536 jobs.

The following table shows the targets and actuals for the amount of private investment generated and jobs created or retained for funding provided in FY 2000, FY 2003, and FY 2006.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
<b>EDA FY 2000 Funding</b>			
Private investment leveraged – 9 year totals (in millions)	\$2,040	\$2,210	Met
Jobs created/retained – 9 year totals	56,500	45,866	Not Met
<b>EDA FY 2003 Funding</b>			
Private investment leveraged – 6 year totals (in millions)	\$810	\$855	Met
Jobs created/retained – 6 year totals	22,900	24,533	Met
<b>EDA FY 2006 Funding</b>			
Private investment leveraged – 3 year totals (in millions)	\$265	\$484	Exceeded
Jobs created/retained – 3 year totals	7,019	9,137	Exceeded

**FY 2009 MISSED TARGETS**

MEASURE	JOBS CREATED/RETAINED – 9 YEAR TOTALS
<b>Explanation</b>	The low jobs created/retained figure appears to be an anomaly for this year. EDA met the 3-year and 6-year targets for these investments, in addition to meeting this year’s private-investment-leveraged target, indicating that this target was possibly missed for reasons outside of EDA’s control. More information as to why EDA did not meet this target will not be available until EDA conducts a review of investments made in the year 2000 to determine possible causes.
<b>Action</b>	EDA will conduct a review of investments made in the year 2000 and apply any lessons learned to its review and approval of future investments.

**HISTORICAL TRENDS**

EDA consistently exceeds its 3-year targets for private investment leveraged and jobs created/retained. These targets are currently equal to 20 percent of the 9 year targets set for EDA investments. Future targets could possibly be set higher.



**ACHIEVEMENTS**

A series of EDA planning and implementation investments are assisting the development of North Dakota State University's Research and Technology Park in Fargo, ND. The park hosts a wide range of innovative firms. In the incubator, Appareo Systems develops solutions that build on innovation in augmented reality and advanced electronics. Pedigree Technologies is a leader in the field of intelligent asset management systems that enable organizations to deliver remote, real-time product performance information, and post-sale support for serviceable machinery and equipment worldwide. The park also hosts the North Dakota State University's Center for Nanoscale Science and Engineering where 70 scientists, engineers, and support staff work in an environment that brings entrepreneurs and university researchers together to create globally competitive products and companies. The research park provides competitive positions and business opportunities that are stemming the exodus of young, educated people from the state.

In Flint, MI, EDA's investments are helping Kettering University's Fuel Cell Systems and Powertrain Integration Center build on the university's research and engineering assets to develop new products and services in the alternative energy market. The EDA investment is an example of federal-state-academic partnership; EDA's funds were matched by the state and Kettering University. The center is incubating three fuel-cell companies and is developing an agreement to commercially license technology developed in the center.

<b><i>Performance Outcome: Improve community capacity to achieve and sustain economic growth (EDA)</i></b>	
<b>FY 2009 Funding Level</b>	<b>\$75.0M</b>

EDA continues to build upon partnerships with local development officials: economic development districts (EDD); University Centers; faith-based and community-based organizations; and local, state, and federal agencies. Through these partnerships, EDA supports local planning and long-term partnerships with state and regional organizations that can assist distressed communities with strategic planning and investment activities. This process helps communities set priorities, determine the viability of projects, and leverage outside resources to improve the local economy to sustain long-term economic growth. EDD funding supports local officials to develop or revise and implement their comprehensive economic development strategy (CEDDS). The CEDDS is a long-term strategic plan for the economic growth of the region, and communities therein, that identifies projects that will attract private investment, and create and retain higher-skill, higher-wage jobs, particularly for the unemployed and underemployed in the Nation's most economically distressed regions. EDA's 11 Trade Adjustment Assistance Centers (TAAC) provide technical assistance to manufacturers and producers that have lost employment, sales, or production due to increased imports of competitive goods. The goal of the technical assistance is to assist these U.S. companies to become more competitive in the global economy.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percentage of economic development districts (EDD) and Indian tribes implementing economic development projects from the comprehensive economic development strategy (CEDs) that lead to private investment and jobs	95%	93%	Slightly Below
Percentage of sub-state jurisdiction members actively participating in the economic development district (EDD) program	89-93%	92%	Met
Percentage of University Center clients taking action as a result of the assistance facilitated by the University Center	75%	70%	Not Met
Percentage of those actions taken by University Center clients that achieved the expected results	80%	92%	Met
Percentage of Trade Adjustment Assistance Center (TAAC) clients taking action as a result of the assistance facilitated by the TAACs	90%	88%	Slightly Below
Percentage of those actions taken by Trade Adjustment Assistance Center clients that achieved the expected results	95%	93%	Slightly Below

**FY 2009 MISSED TARGETS**

<b>MEASURE</b>	<b>PERCENTAGE OF EDDS AND INDIAN TRIBES IMPLEMENTING ECONOMIC DEVELOPMENT PROJECTS FROM THE CEDS THAT LEAD TO PRIVATE INVESTMENT AND JOBS</b>
<b>Explanation</b>	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	See above. No remedial action taken.
<b>MEASURE</b>	<b>PERCENTAGE OF UNIVERSITY CENTER CLIENTS TAKING ACTION AS A RESULT OF THE ASSISTANCE FACILITATED BY THE UNIVERSITY CENTER</b>
<b>Explanation</b>	The annual target for University Center clients taking action as a result of the assistance facilitated by the University Center were impacted by four University Centers who each served more than four times the average number of clients served by other University Centers. Though these centers did not successfully get the same percentage of clients to take action, they did get significantly more clients to take action than other centers.
<b>Action</b>	EDA will work with these University Centers to determine if they need additional assistance to help them with the higher volume of clients coming to their centers.
<b>MEASURE</b>	<b>PERCENTAGE OF TAAC CLIENTS TAKING ACTION AS A RESULT OF THE ASSISTANCE FACILITATED BY THE TAACS</b>
<b>Explanation</b>	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	See above. No remedial action taken.
<b>MEASURE</b>	<b>PERCENTAGE OF THOSE ACTIONS TAKEN BY TAAC CLIENTS THAT ACHIEVED EXPECTED RESULTS</b>
<b>Explanation</b>	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	See above. No remedial action taken.

**HISTORICAL TRENDS**

Over several years, EDA has consistently met the targets for these measures.

**ACHIEVEMENTS**

Confronted with a significant decline in its traditional manufacturing and commodity-based industries over past decades, Maine's Governor Baldacci turned to the six EDA EDDs to facilitate and coordinate the state's response. Governor Baldacci believes that their leadership will "enable our distinctive regions to be proactive and to prepare and execute their own comprehensive development activities" and build a strong, growing, and sustainable knowledge-based economy for all of Maine.

<b><i>Performance Outcome: Strengthen U.S. competitiveness in domestic and international markets (ITA)</i></b>	
<b>FY 2009 Funding Level</b>	<b>\$51.7M</b>

ITA's Manufacturing and Services (MAS) program provides the Administration, Congress, and U.S. businesses the data and analysis needed to make informed decisions on issues impinging on U.S. competitiveness and employment. The data program is especially valuable to policymakers who require trade information at sub-national (state and metropolitan) and the small and medium exporters levels. By making these unique data sources available online to both the public and private sectors through user-friendly systems, MAS is also a key contributor to the Administration's data accessibility initiative. Information is power and MAS's data program continually strives to empower those interested in issues affecting U.S. business competitiveness in the ever-changing global market.

To be competitive in today's global economy, U.S. companies need to be able to move products and services securely, quickly, and efficiently within U.S. borders and beyond. MAS launched a national dialogue to explore supply chain infrastructure issues that cut across the broad range of national priorities. MAS is framing the issues and prioritizing what needs to be done to improve U.S. competitiveness, especially through developing a national intermodal/freight policy. The goal is to achieve a faster, safer, more environmentally sound, more efficient national intermodal network that will meet the needs of the Nation in the 21<sup>st</sup> century.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Annual cost savings resulting from the adoption of Manufacturing and Services (MAS) recommendations contained in MAS studies and analysis	\$350M	\$552M	Exceeded
Percent of industry-specific trade barriers addressed that were removed or prevented	20%	30%	Exceeded
Percent of industry-specific trade barrier milestones completed	55%	72%	Exceeded
Percent of agreement milestones completed	100%	23%	Not Met

**FY 2009 MISSED TARGETS**

MEASURE	PERCENT OF AGREEMENT MILESTONES COMPLETED
Explanation	MAS has completed fewer milestones due to external factors, which have placed a decreased emphasis on eliminating trade barriers.
Action	To be determined.

**ACHIEVEMENTS**

The MAS program expanded its key initiative on sustainable manufacturing to include sustainable supply chains. Sustainable manufacturing practices and supply chains, including energy sources, transportation, and components, have become increasingly important as companies look for ways to reduce operational costs while limiting greenhouse gas emissions and changing behaviors that negatively impact the environment. As the trend toward sustainable practices grows, so does its implications for U.S. global competitiveness and firm profitability.

In order to provide effective support to U.S. companies in their sustainable manufacturing and supply chain efforts, MAS expanded a Sustainable Manufacturing Initiative and Public-Private Dialogue that coordinates public and private sector efforts to address these challenges and provides tools for U.S. companies to identify and adopt sustainable and competitive practices.

MAS is focused on identifying domestic and export opportunities in the clean energy technology sector (smart grid, renewable, nuclear, clean coal). New more sustainable and efficient technologies will have a significant impact on the 100-year-old system by which energy is produced, transmitted, and consumed in the United States. Also there will be increasing export opportunities for U.S. technologies as other countries shift to greater reliance on clean energy. MAS is also examining the impact of various climate change policy options on energy-intensive, export-exposed industries. MAS is uniquely positioned to act as a clearinghouse for U.S. industry input into climate change policy and international negotiations.

***Performance Outcome: Broaden and deepen U.S. exporter base (ITA)***

<b>FY 2009 Funding Level</b>	<b>\$286.0M</b>
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The health of the U.S. economy depends on U.S. small and medium-sized enterprises (SME). ITA continues to focus on this base because 97 percent of all U.S. exporters are SMEs. Many of these firms have also been successful in doing business in countries that have recently negotiated free trade agreements (FTA) with the United States. The Commercial Service program seeks to create a supporting environment in which all U.S. firms, including SMEs, can flourish. In order to achieve this, the Commercial Service seeks to increase export opportunity awareness among U.S. companies by identifying potential exporters who need assistance; leveraging electronic and traditional media; enhancing relationships with customers; and developing alliances and partnerships with state, local, and private partners to deliver export assistance. The Commercial Service helps U.S. companies take advantage of world market conditions to find new buyers around the world. A growing list of FTAs provides price and market access benefits. ITA offers four ways to help U.S. firms grow their international sales by: (1) providing world-class market research, (2) organizing trade events that promote products or services to qualified overseas buyers, (3) arranging introduction to qualified buyers and distributors, and (4) offering counseling through every step of the export process.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Export success firms/active client firms (annual)	10.50%	23.3%	Exceeded
US&FCS small and medium-sized enterprises (SME) new-to-export (NTE)/total change in SME exporters (annual)	12.37%	15.22%	Exceeded
Number of SME new-to-market (NTM) firms/number of SME firms exporting to two to nine markets (annual)	3.81%	3.49%	Not Met
Commercial diplomacy success (cases) (annual)	162	196	Met
Increase in the percent of small and medium-sized firms that export	2.75%	4.69%	Exceeded

**FY 2009 MISSED TARGETS**

MEASURE	NUMBER OF SME NTM FIRMS/NUMBER OF SME FIRMS EXPORTING TO TWO TO NINE FOREIGN MARKETS
<b>Explanation</b>	Performance was close to the target. The global economic recession—credit crisis, market contractions, increased foreign competition for fewer opportunities—depressed NTM export opportunities. The Commercial Service increased the number of SME NTM firms by 31 percent (2,197 to 2,870) compared to FY 2008 even though the Commercial Service was not able to reach its target.
<b>Action</b>	To be determined.

**ACHIEVEMENTS**

The U.S. and Foreign Commercial Service (US&FCS) continues to help U.S. businesses maximize their export potential, enabling them to diversify their customer base, remain globally competitive, and maintain jobs for Americans. In 2009, US&FCS helped generate over 11,000 export successes worth billions of dollars in U.S. export sales, including firms that exported for the first time, entered a new market, or increased their market share in an existing market.

The focus of the US&FCS is on small businesses and so it continued its efforts to work with corporate and non-profit export promotion organizations to leverage more support for small business exporting. In 2009, US&FCS increased the number of corporate partners from 12 in 2008 to 19 in 2009, including AON Consulting, FITA Online, Gartner, Lufthansa, REED Exhibitions, ThinkGlobal Inc., Trade Center Management Associates, and TÜVRheinland. These partners join US&FCS's ongoing partnerships with Baker & McKenzie, City National Bank, Comerica Incorporated, Federal Express Corporation, Google, Inc., M&T Bank, PNC Bank, TD Bank, United Parcel Service, Inc., U.S. Postal Service, and Zions First National Bank.

**Performance Outcome: Increase access to the marketplace and financing for minority-owned businesses (MBDA)**

**FY 2009 Funding Level** **\$29.8M**

MBDA's strategic programs and management objectives have been aligned to successfully execute its tasks and assignments. A large measure of its continued success has been a result of the performance of its national network of funded projects and the support provided by its regional staff.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Dollar value of contract awards obtained (billions)	\$0.90	\$2.11	Exceeded
Dollar value of financial awards obtained (billions)	\$0.50	\$0.81	Exceeded
Number of new job opportunities created	3,000	3,024	Met
Percent increase in client gross receipts	6.0%	6.0%	Met
Satisfaction rating for the American Customer Satisfaction Index (ACSI)	75%	67%	Not Met

**FY 2009 MISSED TARGETS**

MEASURE	SATISFACTION RATING FOR THE AMERICAN CUSTOMER SATISFACTION INDEX (ACSI)
<b>Explanation</b>	The ACSI survey occurs every other year.
<b>Action</b>	MBDA is working with its federal partner, the Federal Consulting Group, to focus efforts on improved customer satisfaction. Specific focus will be paid to electronic tools; however, ratings associated with centers and direct client services were over 75 percent.

**HISTORICAL TRENDS**

Over several years, MBDA has consistently met or exceeded the targets for the "Number of new job opportunities created" measure. Historically, the targets appear to be stable or aggressive.

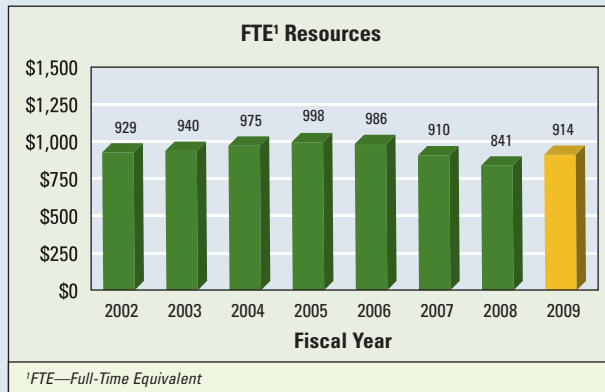
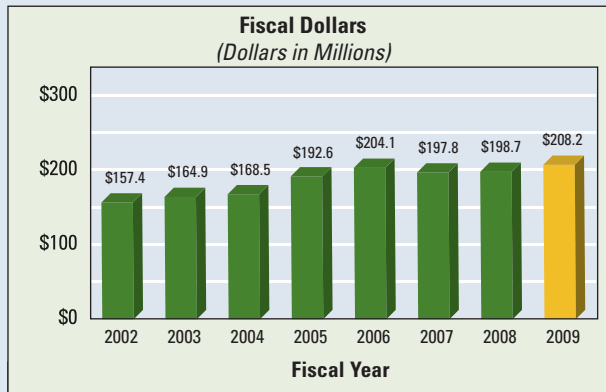
**ACHIEVEMENTS**

During the past year, MBDA was focused on ensuring minority business enterprises (MBE) had access to opportunities associated with the American Recovery and Reinvestment Act (ARRA) of 2009. MBDA immediately directed resources toward this effort and ensured that its funded network of centers and regional offices were working to assist MBEs in obtaining ARRA contracts. These entities met with state and local officials to discuss potential projects and matches with qualified and skilled MBEs in their area. MBDA also actively engaged with other Department bureaus and federal agencies, including Office of Small and Disadvantaged Business Utilization representatives to identify and potentially match ARRA opportunities with MBEs.

**STRATEGIC OBJECTIVE 1.2**

*Advance responsible economic growth and trade while protecting American security*

**STRATEGIC OBJECTIVE 1.2 TOTAL RESOURCES**

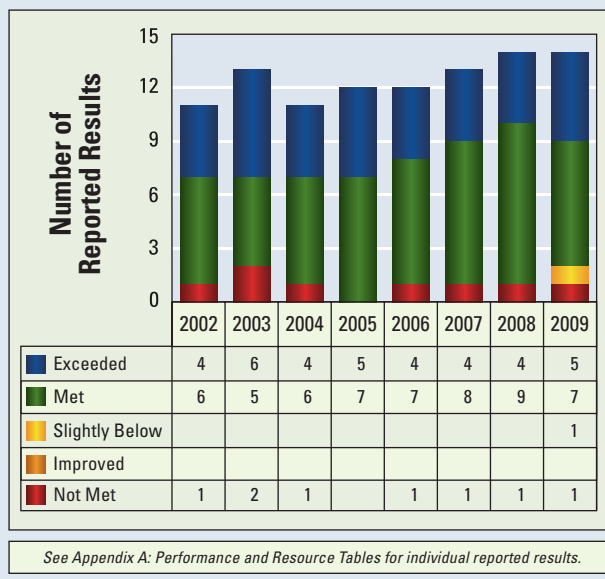


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

Supported by ITA and BIS, this objective focuses on the following tasks:

- Ensuring fair competition in international trade;
- Advancing U.S. national security and economic interests by enhancing the efficiency of the export control system;
- Preventing illegal exports;
- Identifying violators of export prohibitions and restrictions for prosecution;
- Enhancing the export and transit control systems of nations that lack effective control arrangements;
- Ensuring U.S. industry compliance with the Chemical Weapons Convention (CWC) Agreement; and
- Undertaking a variety of functions to support the viability of the U.S. defense industrial base.

**STRATEGIC OBJECTIVE 1.2 PERFORMANCE RESULTS**



ITA supports the President's foreign policy goals to promote freedom and liberty through free and fair trade, while expanding profitable markets for U.S. goods and services. ITA works extensively with U.S. businesses on a regular basis to help them understand U.S. trade laws related to dumping and foreign government subsidies. The Department takes appropriate actions against identified violations. The Unfair Trade Practices Team in ITA's Import Administration (IA) tracks, detects, and confronts unfair competition by monitoring economic data from U.S. global competitors and vigorously investigates evidence of unfair subsidization and production distortions.

Dual-use items, subject to the Department's regulatory jurisdiction, have predominantly civilian uses, but could also have conventional military, weapons of mass destruction (WMD), and terrorism-related applications. BIS administers the dual-use export control system by (1) writing and promulgating regulations, (2) processing license applications, (3) enforcing adherence to U.S. law and regulations, (4) conducting outreach to exporters, (5) strengthening the export control systems of other countries, (6) assessing the viability of key sectors of the defense industrial base, and (7) assuring the timely availability of industrial resources to meet national defense and emergency preparedness requirements. Further information on these tasks is available at [www.bis.doc.gov/news/index.htm#annual](http://www.bis.doc.gov/news/index.htm#annual). Overall performance within this objective has been strong, meeting or exceeding targets on average 91 percent of the time from FY 2002 to FY 2009.

<b><i>Performance Outcome: Identify and resolve unfair trade practices (ITA)</i></b>	
<b>FY 2009 Funding Level</b>	<b>\$123.6M</b>

U.S. industries are entitled to the benefits of trade agreements negotiated by the United States. They are also entitled to the aggressive investigation of unfair trade practices that undercut those agreements. Two program units in ITA, Market Access and Compliance (MAC) and IA, work to ensure that the U.S. firms receive those benefits and obtain prompt relief from unfair trade practices. Trade compliance with negotiated trade agreements and access to foreign markets are existing problems faced by U.S. businesses that choose to sell their products overseas.

IA is committed to the vigorous enforcement of U.S. trade laws. IA promotes free and fair trade by administering the U.S. antidumping (AD) and countervailing duty (CVD) laws in a transparent and impartial manner and by ensuring compliance by foreign governments and exporters with U.S. statutes and trade agreements dealing with trade remedies and unfair trade practices. AD/CVD laws provide domestic industries the opportunity to obtain relief from injury caused by imports of foreign products that are sold at less than fair value or that benefit from foreign government subsidies.

MAC seeks to obtain market access for U.S. firms and workers and to achieve full compliance by foreign nations with trade agreements they sign with the United States. MAC ensures market access for U.S. businesses; advances the rule of law internationally; and creates a fair, open, and predictable trading environment. MAC also conducts critical trade policy analysis and negotiation support for the Office of the U.S. Trade Representative (USTR) and represents the Department in trade-related dealings with other U.S. government agencies. Based on customer needs, MAC has a sizable caseload from U.S. firms that have encountered a trade barrier.



PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percent reduction in trade distorting foreign subsidy programs	>1%	1.8%	Exceeded
Percentage of AD/CVD determinations issued within statutory and/or regulatory deadlines	90%	86%	Slightly Below
Percent of ministerial errors in IA's dumping and subsidy calculations	< 11%	7%	Exceeded
Percentage of market access and compliance cases resolved successfully	35%	56%	Exceeded
Value of market access and compliance cases resolved successfully	\$2.0B	\$25.4B	Exceeded

### FY 2009 MISSED TARGETS

MEASURE	PERCENTAGE OF AD/CVD DETERMINATIONS ISSUED WITHIN STATUTORY AND/OR REGULATORY DEADLINES
<b>Explanation</b>	Although overall target was not met, 100 percent of statutory deadlines were met. The primary contributing factor to the inability to meet this goal pertains to scope determinations, of which IA received over 300 requests in FY 2009, in addition to IA's AD/CVD casework.
<b>Action</b>	Regarding regulatory deadlines, the importance of these deadlines has been communicated to staff and all efforts will be made to improve performance in FY 2010.

### ACHIEVEMENTS

Enforcement efforts in FY 2009 include the following: initiation of six CVD cases against China on a variety of products, including oil country tubular goods (covering several billion dollars in trade, the largest of any case from China to date); issuance of 120 determinations in AD and CVD cases; and application of the CVD law to Vietnam for the first time. IA's Antidumping Duty Enforcement Team also provided timely technical expertise and guidance to other agencies in their pursuit of criminal indictments to combat fraud among exporters and importers of fish fillets from Vietnam and honey from China. IA provided critical support to a U.S. Customs and Border Protection and Department of Justice (DOJ) investigation of the mislabeling of Vietnamese fish filets, resulting in a five-year prison sentence for the criminal party and \$12 million in duties and penalties. IA also provided specialized information in DOJ's May 2009 indictment of a Chinese honey exporter believed to have falsified the country of origin to avoid paying AD duties. The charges in the May 2009 indictment carry a maximum penalty of five years in prison and a \$250,000 fine, not including any retroactive duties and penalties on the honey imports.

IA actively assisted U.S. companies facing potential unfair trade problems arising from other countries' use of trade remedies and unfair trade practices. Working closely with USTR, IA helped resolve the World Trade Organization (WTO) dispute on over 70 prohibited Chinese subsidies. IA also coordinated the Department's efforts in the Interagency Working Group on Import Safety and worked closely with the U.S. Food and Drug Administration (FDA) and the U.S. Customs and Border Protection on risk assessment and trade trend analysis to respond to melamine-tainted dairy products from China.

IA was successful in resolving 81 percent of market access and trade compliance issues experienced by U.S. textile and apparel exporters. Extension of the highly praised Steel Import Monitoring and Analysis program provided the industry, government, and public with early and accurate data on steel imports in this trade-sensitive sector. Foreign-Trade Zones Board Staff processed 67 applications related to customs free zones, which can help improve U.S. facilities' international competitiveness.

MAC proposed, planned, and provided briefing materials for Secretary Locke's visit to Russia in July 2009 and in support of President Obama's participation in the summit with the Russian president. MAC also coordinated Secretary Locke's trip to China with Secretary of Energy Steven Chu and White House Cabinet Secretary Chris Lu. The joint visit highlighted potential for cooperation between China and the United States in clean energy and energy efficient technologies. Secretary Locke also traveled to Shanghai to break ground for the U.S. Pavilion at the Shanghai Expo 2010.

MAC's Afghanistan and Iraq Reconstruction Task Force is deeply involved with the Strategic Framework Agreement, which lays the groundwork for the new U.S.-Iraqi relationship in all non-security fields, including health, education, finance, and agriculture, and serves as the foundation for a long-term bilateral relationship. The Department's role includes promoting the expansion of bilateral trade through the U.S.-Iraq Business Dialogue, which the Secretary of Commerce co-chairs with the Iraqi Minister of Trade, and facilitating the U.S.-Iraq Business and Investment Conference.

MAC continued to work toward the elimination of non-tariff barriers in emerging markets, leveraging over \$1.1 million through partnerships with U.S. government agencies, foreign governments, and the private sector in support of 33 projects across the globe. Projects included a clean energy expansion program in Indonesia; a SME technology entrepreneur seminar in Malaysia; and an enhanced cooperation on standards, conformity assessment, and trade-related technical measures for the information technology sector in Korea and Taiwan. These programs also led to numerous market access and compliance case openings and resolutions.

***Performance Outcome: Maintain and strengthen an adaptable and effective U.S. export control and treaty compliance system (BIS)***

**FY 2009 Funding Level**

**\$73.9M**

The Department administers and enforces controls on exports of dual-use goods and technologies to counter proliferation of WMDs, combat terrorism, and pursue other national security policy goals. The Department also serves as the lead agency for ensuring U.S. industry compliance with CWC. The Department processes export license applications for controlled commodities of U.S. companies engaged in international trade in accordance with Export Administration Regulations (EAR). The Department engages in activities to prevent violations before they occur and to investigate and prosecute violators to dismantle illicit proliferation networks. Preventive activities include screening license applications for enforcement concerns; conducting end-use checks abroad to confirm the *bona fides* of parties to export transactions, confirm compliance with license conditions, and uncover diversions to unauthorized end-users/uses; and reviewing Shippers Export Declarations and foreign visitors' visa applications to identify potential export control issues. Outreach activities include educating U.S. businesses on export control requirements and identifying suspicious transactions leading to successful preventative and investigative actions. Investigation and prosecution activities involve Department Special Agents conducting cases focused on significant proliferation, terrorism, and military end-use export violations, and the vigorous pursuit of criminal and administrative sanctions. Finally, an integral part of BIS's mission is to facilitate compliance with U.S. export controls by keeping U.S. firms informed of export control regulations through an extensive domestic and foreign outreach program.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percent of licenses requiring interagency referral referred within 9 days	95%	99%	Met
Median processing time for new regime regulations (months)	3.0	2.0	Exceeded
Percent of attendees rating seminars highly	85%	93%	Met
Percent of declarations received from U.S. industry in accordance with CWC regulations (time lines) that are processed, certified, and submitted to the State Department in time so the United States can meet its treaty obligations	100%	100%	Met
Number of actions that result in a deterrence or prevention of a violation and cases which result in a criminal and/or administrative charge	850	876	Met
Percent of shipped transactions in compliance with the licensing requirements of the Export Administration Regulations (EAR)	95%	96%	Met
Percentage of post-shipment verifications completed and categorized above the “unfavorable” classification	260 PSVs/85%	314 PSVs/88%	Met

## HISTORICAL TRENDS

BIS has consistently met or exceeded the targets for this outcome.

## ACHIEVEMENTS

The Department continued to process export license applications in a timely manner, thereby benefiting exporting companies and industries, while protecting national security and foreign policy interests.

In FY 2009, the Department exceeded its target by completing 876 actions that resulted in a deterrence or prevention of a violation. The Department also ensured that its investigation case load was targeted on the priority areas of WMDs, terrorism, and military diversion.

In FY 2009, the Department successfully promulgated regulations that adapted export controls to the evolving national security and economic situation. Noteworthy regulations published include Federal Register notice modifying the list of approved end-users and eligible items for the People’s Republic of China (PRC) under Authorization Validated End-User (VEU). This final rule amends EAR to add a new entity to the list of end-users in the PRC approved to receive exports, re-exports, and transfers of certain items under Authorization VEU (Section 748.15 of EAR); and adds and revises eligible items and destinations for two existing VEU authorizations. As a result of this modification, there are six VEUs approved in the PRC and a total of 20 eligible facilities. Since October 2007, over \$19 million of high technology items have been shipped from the United States to the PRC under Authorization VEU. Additionally, General Electric India (GE India) was tapped in FY 2009 as the first Indian company to qualify as a VEU in India, allowing the company to enter a pre-approved, export express lane as a trusted end-user. After an

extensive background review, the VEU designation will allow GE India to receive certain controlled items from the United States, including civilian aircraft technology and explosive detection equipment, making the flow of trade more efficient between the countries. That the VEU program was opened for India is an indication of the increased importance of the U.S.-India bilateral and commercial relationship.

***Performance Outcome: Integrate non-U.S. actors to create a more effective global export control and treaty compliance system (BIS)***

**FY 2009 Funding Level** **\$5.1M**

The effectiveness of U.S. export controls is enhanced by strong controls in other nations that export or transship sensitive goods and technologies. BIS works to improve the participation and compliance of existing members of the multilateral export control regimes and cooperates with other countries to help them establish effective export control programs. The Department helps improve the effectiveness of the multilateral export control regimes (Australia Group for chemical and biological weapons items; Missile Control Regime, Nuclear Suppliers Group, and Wassenaar Arrangement for dual-use technologies and conventional weapons) by participating in U.S. efforts to update and adapt their control lists to the threats facing the United States.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Number of end-use checks completed	850	737	Not Met

**FY 2009 MISSED TARGETS**

MEASURE	NUMBER OF END-USE CHECKS COMPLETED
<b>Explanation</b>	FY 2009 total was approximately 87 percent of GPRA goal because of reduced number of Sentinel visits and personnel shortages due to funding constraints and hiring freeze throughout the year.
<b>Action</b>	To be determined.

**ACHIEVEMENTS**

In FY 2009, the Department continued its efforts with India and accelerated contacts with the United Arab Emirates. In addition, the Department assists in implementing its international activities by coordinating and managing BIS participation in the U.S. government's Export Control and Related Border Security Assistance (EXBS) program, which provides technical assistance to strengthen the export and transit control systems of nations lacking effective export control systems.

**Performance Outcome: Ensure continued U.S. technology leadership in industries that are essential to national security (BIS)**

**FY 2009 Funding Level** **\$5.6M**

The Department works to ensure that the United States remains competitive in industry sectors and sub-sectors critical to national security. To this end, it analyzes the impact of export controls and trade policies—including deemed export policy—on strategic U.S. industries, studies the impact of defense trade offsets, advocates for U.S. defense companies competing for international sales opportunities, and evaluates the security impact of certain proposed foreign investments in U.S. companies. The Department also administers the federal government’s Defense Priorities and Allocations System (DPAS), which assures the timely availability of industrial resources to meet national defense and emergency preparedness program requirements and provides an operating system to support rapid industrial response in a national emergency.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percent of industry assessments resulting in BIS determination, within three months of completion, on whether to revise export controls	100%	100%	Met

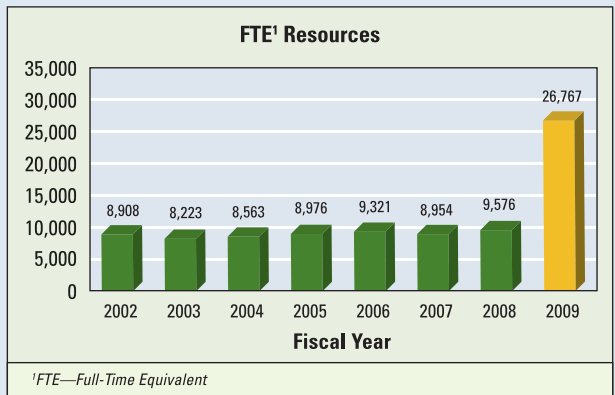
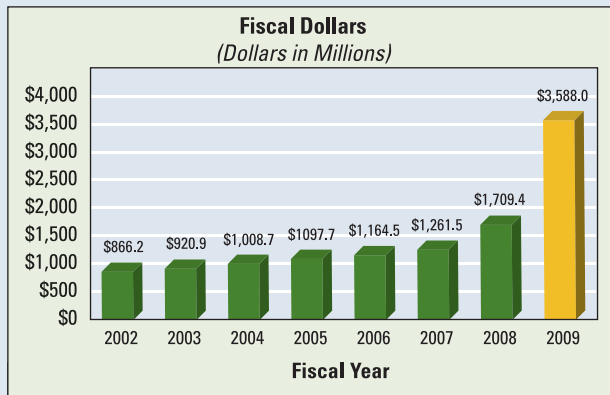
**ACHIEVEMENTS**

In FY 2009, the Department announced the results of an important study on the Critical Technology Assessment of Five Axis Simultaneous Control Machine Tools from data collected and analyzed by BIS. In addition, the Department supported administratively the Secretary’s Deemed Export Advisory Committee, which will continue to provide U.S. industry, academia, and research institutions with access to talented foreign researchers while ensuring that U.S. security requirements are met. The Department also issued its annual report on the impact of defense offsets on U.S. industry and actively participated in an interagency committee to develop and implement policies for mitigating the use of offsets by U.S. trading partners, and issued the Defense Industrial Base Study of U.S. Industry’s Capability to Design and Fabricate Integrated Circuits.

**STRATEGIC OBJECTIVE 1.3**

*Advance key economic and demographic data to support effective decision-making of policymakers, businesses, and the American public*

**STRATEGIC OBJECTIVE 1.3 TOTAL RESOURCES**

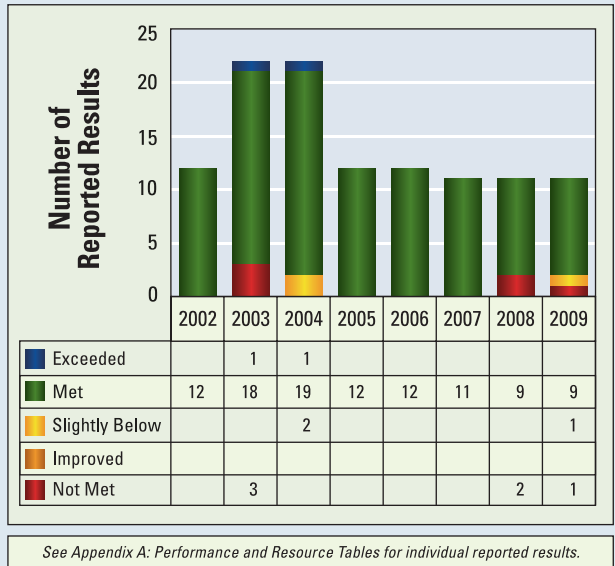


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

Current and benchmark measures of the U.S. population, economy, and governments play a vital role in the Nation's economic well being. This objective focuses on meeting the needs of policymakers, businesses and nonprofit organizations, and the public for this information while respecting individual privacy, ensuring confidentiality, and reducing respondent burden. The result of achieving this objective promotes a better understanding of the U.S. economy in that the activities involved provide timely, relevant, and accurate economic data in an objective and cost-effective manner.

The Department's statistical programs and services are widely used by policymakers, business leaders, and the U.S. public. As a primary source for measures of macroeconomic activity, the Department provides the Nation with the picture of its economic health.

**STRATEGIC OBJECTIVE 1.3 PERFORMANCE RESULTS**



The Economics and Statistics Administration (ESA), composed of the Census Bureau and the Bureau of Economic Analysis (BEA), provides decisionmakers with timely, relevant, and accurate economic and statistical information related to the U.S. economy and population with the Department at the forefront of national efforts to continually improve these statistics.

Through investments in the improvement of the accuracy and relevance of the Gross Domestic Product (GDP), international trade in goods and services, industry economic measures, and regional and metropolitan statistics by BEA, the Department can supply the economic statistics essential to sound business forecasting and monetary policy.

Overall performance within this objective has been strong, meeting or exceeding targets on average 93 percent of the time from FY 2002 to FY 2009. The number of performance measures dipped from a high of 22 in FY 2003 to 11 beginning in FY 2007.

***Performance Outcome: Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)***

<b>FY 2009 Funding Level</b>	<b>\$2,773.4M</b>
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The Census Bureau provides benchmark measures of the Nation's economy and population to help decisionmakers and the public make informed decisions. The Census Bureau's cyclical programs provide the foundation for critical national, state, and local data. These include the Economic Census and Census of Governments, which are conducted every five years, and the Decennial Census program, the Demographic Surveys Sample Redesign (DSSR) program, and the Intercensal Demographic Estimates program.

The decennial census is used to provide the official population counts for determining the allocation to states of seats in the U.S. House of Representatives and for determining how the districts are defined for those seats. The Census Bureau provides to each state the data necessary to determine Congressional, state, and local legislative boundaries. The decennial census provides comprehensive and useful demographic information about all people living in the United States, Puerto Rico, and the associated Island Areas. The program also provides data for small geographic areas and population groups that federal agencies need to implement legally mandated programs. Approximately \$300 billion a year is distributed to state and local governments using formulas that are based on data such as state population and personal income.

The Economic Census provides comprehensive, detailed, and authoritative facts about the structure of the U.S. economy ranging from the national to the local level. The Economic Census covers nearly 29 million business locations and 84 percent of the Nation's economic activity.

The Census of Governments is the only source of comprehensive and uniformly classified data on the economic activities of state and local governments. The Census of Governments covers about 90,000 local governments, 12 percent of GDP and nearly 16 percent of the U.S. workforce.

The DSSR program designs and selects samples for the major national household surveys. The Intercensal Demographic Estimates program provides updated estimates of the U.S. population for the country, states, counties, cities, and townships.

The Intercensal Demographic Estimates program provides updated estimates of the U.S. population for the country, states, counties, cities, and townships in the years between the decennial censuses. Based on population estimates stakeholders' meetings, the Census Bureau continued to review alternative population estimate methodologies and alternative data sets during FY 2009.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Correct street features in the TIGER (geographic) database (number of counties completed) to more effectively support Census Bureau censuses and surveys, facilitate the geographic partnerships between federal, state, local and tribal governments, and support the E-Government initiative in the President's Management Agenda	Complete updates to eligible counties in the United States, Puerto Rico, and Island Areas	Completed	Met
Complete key activities for cyclical census programs on time to support effective decision-making by policymakers, businesses, and the public and meet constitutional and legislative mandates	At least 90% of key prep activities completed on schedule	At least 90% of key prep activities completed on schedule	Met
Meet or exceed the overall federal score of customer satisfaction on the E-Government American Customer Satisfaction Index (ACSI) <i>(This measure applies to the second performance outcome in this objective as well)</i>	75.2	68.0	Not Met

**FY 2009 MISSED TARGETS**

MEASURE	MEET OR EXCEED THE OVERALL FEDERAL SCORE OF CUSTOMER SATISFACTION ON THE E-GOVERNMENT AMERICAN CUSTOMER SATISFACTION INDEX (ACSI)
<b>Explanation</b>	The Census Bureau has worked aggressively to strengthen three of its Web site's primary elements of customer satisfaction and key performance indicators: search, navigation, and look and feel. Working groups within the Web Governance Council are addressing standards and policies, information architecture, technology, and process improvement.
<b>Action</b>	The Census Bureau plans to launch a new 2010 Census Web site in late October 2009.

**ACHIEVEMENTS**

In FY 2009, the Census Bureau completed updates to street features in the Topologically Integrated Geographic Encoding and Referencing System (TIGER) database for eligible counties in the United States, Puerto Rico, and Island Areas.

The 2010 Decennial Census program completed opening early Local Census Offices, and completed the Address Canvassing operation where over 140,000 household addresses were verified across the country. The program began the group quarters validation operations, an activity in which Census verifies the type and location of group quarters housing units such as college dormitories and residential care facilities. The Census Bureau continued to conduct preparatory activities for the 2010 Decennial Census including began opening Local Census Offices to support 2010 field operations, completed integrated system testing, and key activities in support of the 2010 Census Communications campaign.



Key accomplishments of the Economic Census during FY 2009 included:

- Beginning tabulation and macrodata analysis;
- Achieving an 86.7 percent overall unit response rate compared to the target of 86 percent;
- Issuing the 2007 Economic Census Advance Report on March 17, 2009; and
- Completing Industry Series releases for 494 of 646 covered industries.

During FY 2009, principal activities of the Census of Governments program included the release of the individual state descriptions, completing the organization phase of the Census of Governments, release of data from the employment phase of the Census of Governments, release of the state government finances and data on state and local government public employee retirement systems, and the completion of data collecting and processing activities for the local government finance phase.

The DSSR program released documentation on the results of the final evaluation of the full National Evaluation Sample. Additionally, documentation on the final recommendation and decision on the acceptability of the Master Address File as the sampling frame was completed by the end of the fiscal year. This is one of the most crucial decisions for Sample Redesign as it will move the Census Bureau to a new universe and away from the four-part universe it has used since the 1960s.

***Performance Outcome: Provide current measures of the U.S. population, economy, and governments (ESA/Census)***

<b>FY 2009 Funding Level</b>	<b>\$715.9M</b>
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The Census Bureau collects and disseminates a wide range of current demographic and economic information to help decisionmakers and the public make informed decisions. The Census Bureau's current economic statistics program (as opposed to its cyclical programs) provides public and private data users with monthly, quarterly, and annual national statistical profiles of the U.S. economy. Agencies like the Federal Reserve Board and BEA are two of the major users of these data. These data are used to develop the GDP, production indexes, and Congressional economic projections. Also, these data allow users to gauge competition, calculate operating ratios, analyze changes in the Nation's economic structure, calculate market share, locate business markets, and design sales territories.

The Census Bureau's current demographic statistics program provides elected officials and government and business managers with reliable social and economic data to make informed and cost-effective decisions. Data from these programs are used to create official U.S. measures of employment, unemployment, and poverty, and widely used measures of income and health insurance coverage.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Achieve pre-determined collection rates for Census Bureau censuses and surveys in order to provide statistically reliable data to support effective decision-making of policymakers, businesses, and the public	At least 90% of key censuses and surveys meet/exceed collection rates/ levels of reliability	Met percentages	Met
Release data products for key Census Bureau programs on time to support effective decision-making of policymakers, businesses, and the public	1) 100 of Economic Indicators released on schedule 2) At least 90% of other key censuses and surveys data released on time	1) 100 of Economic Indicators released on schedule 2) At least 90% of other key censuses and surveys data released on time	Met

## HISTORICAL TRENDS

The Census Bureau has consistently met its percentage targets.

## ACHIEVEMENTS

In FY 2009, the Census Bureau released nearly 400 economic reports, including 118 principal economic indicators, providing information on retail and wholesale trade and selected service industries, construction activity, quantity and value of industrial output, capital expenditure information, e-commerce sales, foreign trade, and state and local government activities. All targeted current survey programs achieved their response rate goals for FY 2009.

During FY 2009, the Census Bureau began the process of expanding the annual and quarterly surveys of service industries. Prior to the 2009 services expansion, Service Annual Survey (SAS) coverage accounted for 30 percent of GDP and Quarterly Services Survey (QSS) coverage comprised 17 percent of GDP. The SAS and the QSS, as fully expanded, each will achieve matching coverage with the services portion of the Economic Census (55 percent of GDP) by early 2011. In FY 2009, the first wave of the QSS expansion reduced the gap in quarterly data coverage by 50 percent while, at the same time, the Census Bureau completed preparatory steps for completely eliminating the annual data coverage gap with next year's collection of the 2009 SAS.

Also, during FY 2009, the Census Bureau completed the first full year of data collection for a new Survey of Income and Program Participation (SIPP) Panel, and continued work on all four components of the SIPP re-engineering project.

The Census Bureau met its targets to achieve at least 90 percent of the planned response rates and dissemination targets for Census Bureau surveys. Response rates are a measure of the quality of survey data. Dissemination targets are a measure of timeliness of the data. By meeting these targets, the Bureau is providing its users with the high quality and timely data they need to make important policy decisions that help improve the Nation's social and economic conditions.

The American Community Survey (ACS), which collects and tabulates long-form data every year throughout the decade, exceeded the planned 92 percent weighted response rate by achieving a 98.1 weighted response rate, using three modes of data collection: mail-out, telephone, and personal interview. The ACS also released social and demographic data for all places with a population of 20,000 and larger for the third time.

<b><i>Performance Outcome: Provide timely, relevant, and accurate economic statistics (ESA/BEA)</i></b>	
<b>FY 2009 Funding Level</b>	<b>\$98.7M</b>

ESA's BEA produces some of the Nation's most important and closely-watched economic statistics, including the GDP, the broadest measure of economic activity. BEA produces economic statistics for four major program areas: National Economic Accounts, Industry Economic Accounts, Regional Economic Accounts, and International Economic Accounts. Greater descriptions of these accounts can be found on the BEA Web site at [www.bea.gov](http://www.bea.gov). To produce the Nation's economic accounts, BEA draws on the data collection and analyses conducted by the Census Bureau, Bureau of Labor Statistics (BLS), Internal Revenue Service (IRS), Federal Reserve, and others to produce over 50 public releases of economic statistics a year. These statistics provide a comprehensive, integrated, and consistent measure of U.S. economic activity and are used as critical ingredients in budget appropriations and forecasts, international trade and policy formulation, and business and personal financial strategies. ESA's economists interpret statistics from BEA and other sources to assist the Nation's leaders in formulating monetary and fiscal policy and understanding the recovery and sustainability of growth in the U.S. economy.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Timeliness: Reliability of delivery of economic data (number of scheduled releases issued on time)	57 of 57	56 of 57	Slightly Below
Relevance: Customer satisfaction with quality of products and services (mean rating on a 5-point scale)	> 4.0	4.2	Met
Accuracy: Percent of GDP estimates correct	> 85%	88%	Met
Improving GDP and the economic accounts	Completion of strategic plan milestones	Completed	Met
Meeting U.S. international obligations	Completion of strategic plan milestones	Completed	Met
Measuring the knowledge economy	Completion of strategic plan milestones	Completed	Met

**FY 2009 MISSED TARGETS**

MEASURE	TIMELINESS: RELIABILITY OF DELIVERY OF ECONOMIC DATA (NUMBER OF SCHEDULED RELEASES ISSUED ON TIME)
<b>Explanation</b>	For the first time in decades, BEA delayed a release because of concerns that the statistics did not meet BEA accuracy and best practices standards.
<b>Action</b>	BEA is reviewing the statistics and source data, and is currently taking steps to address the underlying statistical issues. The Regional Directorate staff are revising their best practices for updating methodologies to assure that any discrepancies are detected and resolved early in the production process. These updated methodologies will be in place by the end of calendar year 2009.

**HISTORICAL TRENDS**

BEA has consistently met its strategic plan milestones.

**ACHIEVEMENTS**

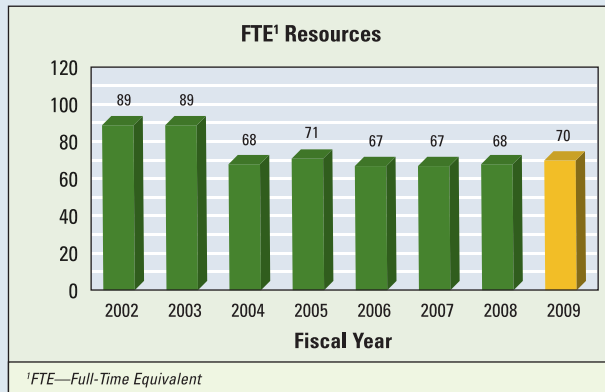
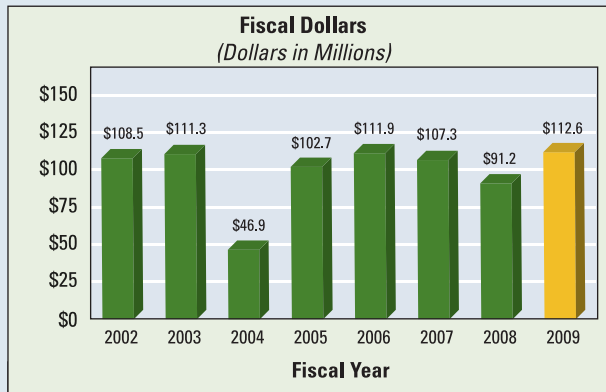
During FY 2009, BEA achieved a number of important data improvement and availability targets, including:

- Continued improvement of satellite accounts for innovation, including expansion of its research and development (R&D) satellite account to include investments in other intangibles;
- Continued development of a satellite account for healthcare that will provide a means to better assess the returns to various health treatments and the sources of changes in health care costs;
- Work on a national production account that is integrated with BLS measures of productivity;
- Improvements to the National Income and Product Accounts (NIPA) as a part of the 2009 Comprehensive Revision, including an improved treatment of disasters and a new classification system for personal consumption expenditures;
- The redesign of surveys of new foreign direct investments to improve their ability to capture important detail that allows better analysis of issues such as offshoring; and
- The expansion of the high-performance STATS-II processing system to further reduce statistical processing times and thus maximize the time available for analyzing results.

**STRATEGIC OBJECTIVE 1.4**

*Position manufacturers to compete in a global economy*

**STRATEGIC OBJECTIVE 1.4 TOTAL RESOURCES**

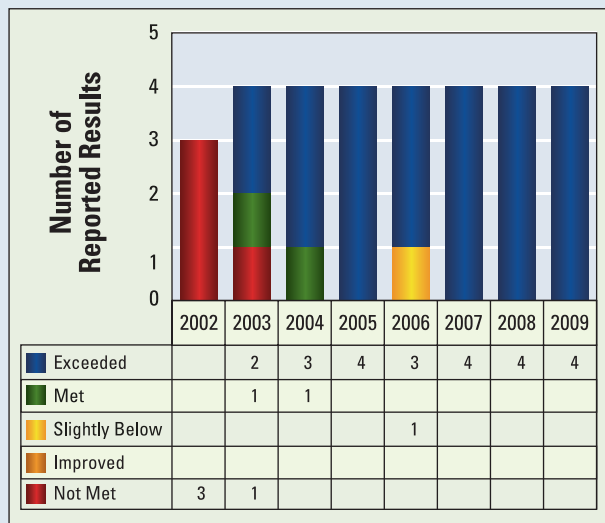


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

The Nation's approximately 330,000 manufacturers employ 11 million people in high-paying jobs. U.S. manufacturers represent roughly two-thirds of total U.S. R&D expenditures and account for almost 60 percent of all U.S. exports. A strong manufacturing base is critical to the economic strength and stability of the United States. Increased manufacturing productivity and competitiveness are essential for the survival of this crucial industrial base. Manufacturers must focus on improving efficiency, lowering costs, and implementing a culture of innovation that lead to new product ideas and opportunities.

Overall performance within this objective has been fairly strong, meeting or exceeding targets on average 81 percent of the time from FY 2002 to FY 2009, with the last three years exceeding the targets for all of the measures. Actual performance greatly improved from FY 2002 (0 percent of targets met or exceeded) to FY 2009 (100 percent of targets met or exceeded).

**STRATEGIC OBJECTIVE 1.4 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

**Performance Outcome: Increase the productivity, profitability, and competitiveness of manufacturers (NIST)**

**FY 2009 Funding Level**

**\$112.6M**

Manufacturers, particularly small and mid-sized firms, are facing new and significant challenges. While efficient shop floor operations are necessary to survive in today's economy, this alone is not enough to succeed in the global marketplace. Technology and globalization have fundamentally changed many manufacturing companies and products. The changes have resulted in an era of increased cost pressures, shortened product life cycles, rapidly diffusing technology, and production chains that involve a network of suppliers. Success in today's manufacturing environment requires not only an efficient production system but also developing business strategies that highlight the unique capabilities of a firm. Manufacturers must master innovative product design innovation, understand the benefits of adopting environmentally sustainable processes, invest in human and physical capital, leverage a range of financing options, realize international trade opportunities, and forecast future customer demands.

Through the Hollings Manufacturing Extension Partnership (MEP) program, manufacturers have access to a nationwide network of manufacturing experts available to assist in the adoption of new technologies, developing innovative products, and implementing process innovations to improve their productivity, profitability, and competitiveness. MEP, in collaboration with partners in all levels of the government, university, community college, and the private sector, is working to accelerate manufacturing's ongoing transformation into a more efficient and powerful engine of innovation that drives economic growth and job creation.

Each year, MEP transforms thousands of U. S. manufacturers by working one-on-one to implement the best combination of process improvements and growth services for each individual company. MEP is focused on providing the services that reduce manufacturer's bottom-line expenses, increase efficiencies, and build capacity. While process and quality improvements offer reduced expenses, growth services provide the tools to improve top-line sales by adopting new technologies and creating new sales, new markets, and new products. MEP centers serve as trusted advisors to their manufacturing clients offering a suite of services to keep manufacturers competing and thriving in today's global marketplace.

Through an annual client survey, the program obtains quantifiable impacts of MEP services on its clients' bottom line. MEP demonstrates the impact of its services on three key quantitative business indicators that, as a set, suggest the presence of business changes that are positively associated with productivity, revenue growth, and improved competitiveness. The measures include: (1) increased sales attributed to MEP assistance, (2) increased capital investment attributed to MEP assistance, and (3) cost savings attributed to MEP assistance.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Number of clients served by Hollings Manufacturing Extension Partnership (MEP) centers receiving federal funding	14,500 from FY 2008 funding	31,961 from FY 2008 funding	Exceeded
Increased sales attributed to Hollings MEP centers receiving federal funding	\$630M from FY 2008 funding	\$3,300M from FY 2008 funding	Exceeded
Capital investment attributed to Hollings MEP centers receiving federal funding	\$485M from FY 2008 funding	\$1,400M from FY 2008 funding	Exceeded
Cost savings attributed to Hollings MEP centers receiving federal funding	\$330M from FY 2008 funding	\$1,200M from FY 2008 funding	Exceeded

NOTE: Performance actuals for this outcome lagged at least six months. Therefore, beginning with the FY 2005 PAR, NIST shifted to a format in which NIST reports actuals one year later. This date lag, coupled with the time line for producing the PAR, precludes the reporting of actual FY 2009 data. With the exception of the number of clients, the data reported in the current year PAR are an estimate based on three-quarters of actual client reported impacts and one-quarter estimated client impacts.

## HISTORICAL TRENDS

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MEP has consistently exceeded its targets. Performance projections are based in part on past programmatic results but also on the current operating realities of the MEP centers and their manufacturing clients. The projections reflect a realization that any sort of forecast must be based on current economic and market conditions and also other contributing factors such as state funding uncertainties. Simply projecting past results into the future in a linear fashion does not take into account these other considerations. Data from the Federal Reserve Board, the Institute for Supply Management, BLS, and BEA are monitored and assessed on a regular basis to inform MEP's performance targets.

## ACHIEVEMENTS

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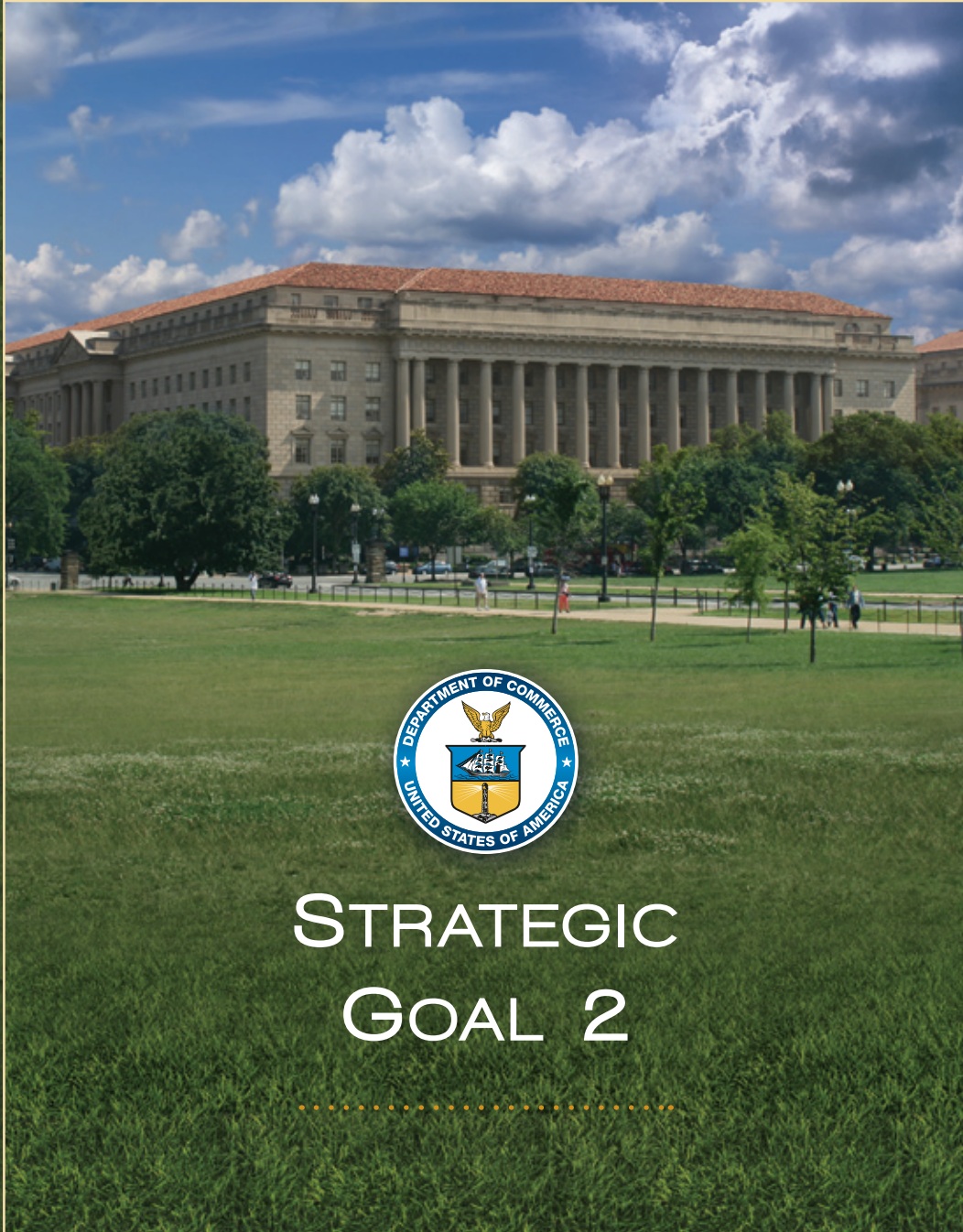
- **New Product Development:** Roper Pump, a supplier of industrial pumps, including pumping systems and solutions for the industrial, transport, power generation, and oil and gas industries, was interested in improving quality and reducing waste. Working with the Georgia MEP, the company adopted lean manufacturing practices that allowed it to reduce waste and build capacity. As a result, the company eliminated outsourcing a key heat treatment process, saving thousands of dollars. With the success of the continuous improvement work, Roper Pump used Georgia MEP to help with its product development program. The current process was resulting in too many projects ideas and lacked criteria for evaluating and prioritizing ideas. Working with the Georgia MEP, the company identified more than 150 ideas for new products involving new market entry, improved sales distribution channels, upgrading existing products and product processes, new technologies, and creative arrangements with potential partners. Decision guidelines were developed and more stringent evaluation criteria were adopted. As a result, Roper Pump is now pursuing a major product development for its main product line that will provide product sales for decades.
- **National Innovation Marketplace:** MEP, in collaboration with other organizations, is developing the National Innovation Marketplace (NIM) to facilitate manufacturers' connections to technology and business opportunities that can result in expansion into new markets and the development of new products necessary for success in the global marketplace. Secretary Locke and Vice President Biden announced support for expanding the NIM program in June 2009. NIM encourages the translation of emerging technologies first into business applications, second into market opportunities, and third into the adoption of new products. NIM provides opportunities for companies to access innovations, financing, distributors, or export opportunities. Once fully implemented, NIM combined with the MEP network of thousands of innovation experts will assist suppliers in connecting with opportunities and access a range of product development and commercialization assistance services to help rapidly move ideas from concept to investment, manufacturing, commercialization, and distribution.

STRATEGIC GOAL 1 PROGRAM EVALUATIONS

BUREAU	NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)
<b>Program</b>	Hollings Manufacturing Extension Partnership (MEP)
<b>Strategic Objective</b>	Position manufacturers to compete in a global economy
<b>Name</b>	MEP Non-Experimental Net Impact Evaluation
<b>Findings</b>	An external study is currently underway to evaluate the performance of MEP clients versus non-clients.
<b>Actions as a Result of Evaluation</b>	The study will be completed in early 2010 and MEP will assess the findings and implement any necessary actions.



PERFORMANCE SECTION



STRATEGIC  
GOAL 2



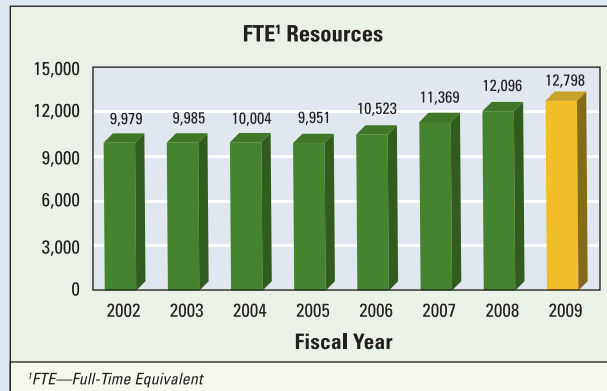
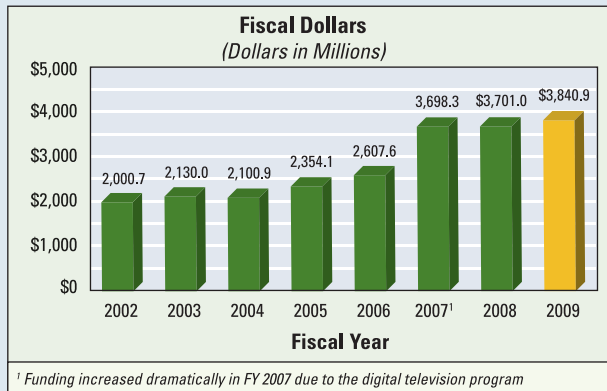
PERFORMANCE OUTCOME	TARGETS MET OR EXCEEDED
Promote innovation, facilitate trade, and ensure public safety and security by strengthening the Nation's measurements and standards infrastructure (NIST)	5 of 6
Promote U.S. competitiveness by directing federal investment and R&D into areas of critical national need that support, promote, and accelerate high-risk, high-reward research and innovation in the United States (NIST)	1 of 1
Increase public access to worldwide scientific and technical information through improved acquisition and dissemination activities (NTIS)	3 of 3
Optimize patent quality and timeliness (USPTO)	5 of 5
Optimize trademark quality and timeliness (USPTO)	5 of 5
Improve intellectual property and enforcement domestically and abroad (USPTO)	2 of 2
Ensure that the allocation of radio spectrum provides the greatest benefit to all people (NTIA)	5 of 5
Promote the availability, and support new sources, of advanced telecommunications and information services (NTIA)	2 of 2



**STRATEGIC GOAL 2**

*Promote U.S. innovation and industrial competitiveness*

**STRATEGIC GOAL 2 TOTAL RESOURCES**

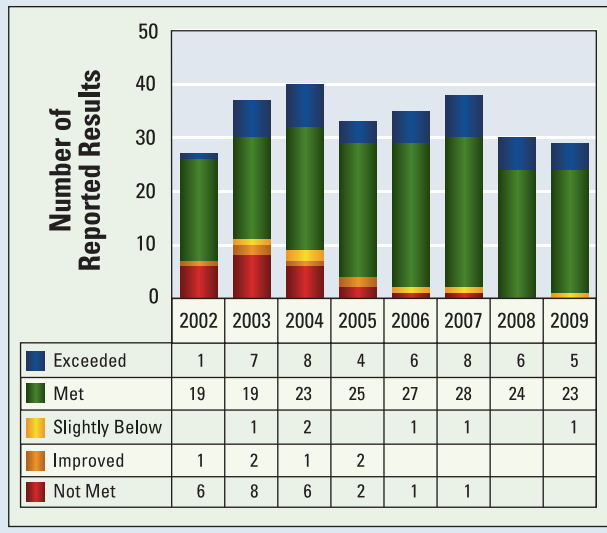


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

The Department seeks to promote U.S. innovation and industrial competitiveness through three primary areas: (1) the continued development of advanced measurement science and encouragement of high-risk, high-reward research; (2) the further advancement of intellectual property through the issuance of patents and trademarks; and (3) the continued advancement of telecommunications standards and technology.

Through the measurement science research at the National Institute of Standards and Technology (NIST), the Department provides the infrastructure that supports a modern technology-based economy, from the automotive to the biotechnology sector, and from basic materials and manufacturing to information technology. NIST provides the critical tools for these efforts through the sale of more than

**STRATEGIC GOAL 2 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

30,000 units of Standard Reference Materials (SRM) and 6,000 units of Standard Reference Databases annually, as well as the conduct of over 15,000 calibration tests each year.

Intellectual property (IP) is a potent force in, and a fundamental component of, the global economy. The Department strives to preserve the Nation's competitive edge by protecting IP and encouraging technological innovation. In market-driven economic systems, innovation provides a catalyst for economic prosperity through the accumulation of scientific knowledge; introduction of new products and services; and improvements in the productivity levels of land, labor, and capital resources.

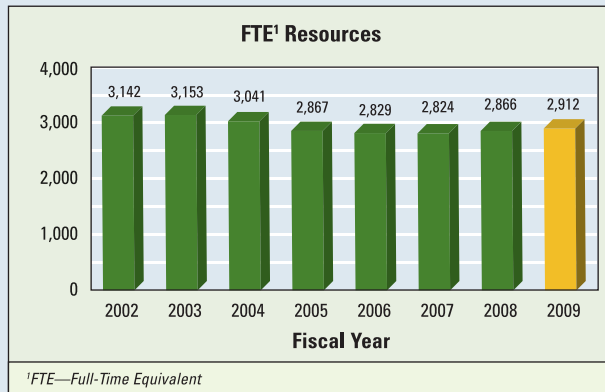
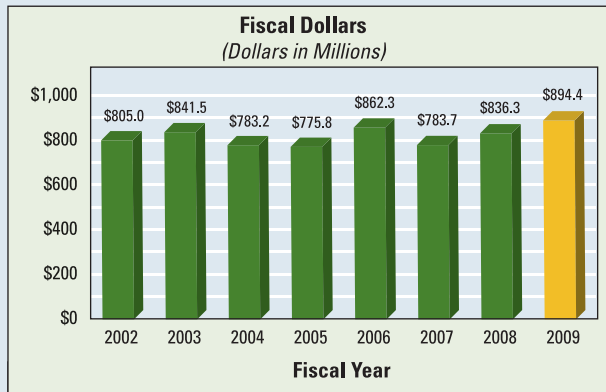
The Department through the National Telecommunications and Information Administration's (NTIA): (1) serves as the principal adviser to the President on domestic and international communications and information policy-making; (2) promotes access to telecommunications services for all Americans and competition in domestic and international markets; (3) manages all federal use of the electromagnetic spectrum and generally promotes efficient use of spectrum; and (4) conducts telecommunications technology research, including standards-setting in partnership with business and other federal agencies.

Overall performance within this goal has been fairly strong, meeting or exceeding targets on average 87 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 to FY 2009 with 74 percent of targets met or exceeded in FY 2002 to 97 percent met or exceeded in FY 2009.

**STRATEGIC OBJECTIVE 2.1**

*Advance measurement science and standards that drive technological change*

**STRATEGIC OBJECTIVE 2.1 TOTAL RESOURCES**



**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

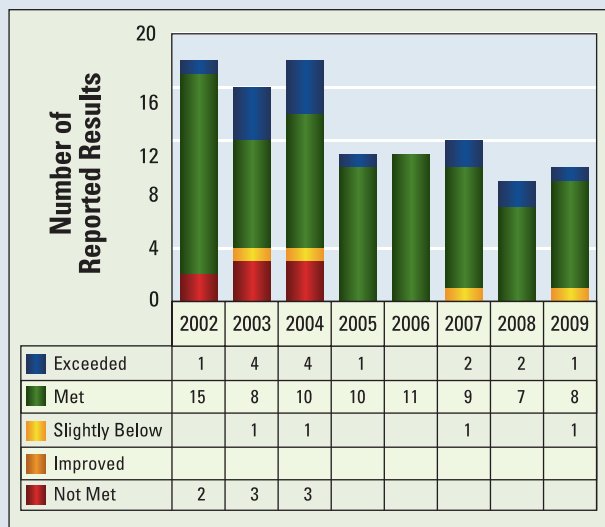
In its effort to achieve this objective, NIST works with U.S. industry and other stakeholders to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve quality of life. NIST leadership in measurement science research ensures that U.S. industry and universities will have the tools they need to remain at the leading edge of innovation and to secure “first-mover advantage” in bringing new technologies to market. NIST also invests in high-risk, innovative projects with the potential to produce transformational results in areas of critical national need.

As one of the agencies participating in the President’s Plan for Science and Innovation, NIST programs are recognized as critical to promoting U.S. innovation and competitiveness.

NIST’s laboratories and programs through their focus on measurement science, standards, and technology provided the tools and infrastructure critical to enable the innovation, development, and deployment of advanced technologies. The services and products provided by NIST are important to the manufacturing and service industry, and government institutions.

The Technology Innovation Program (TIP) at NIST supports, promotes, and accelerates innovation in the United States by making cost-shared awards for high-risk, high-reward research in areas of critical national need. These areas need government attention because the magnitude of the problem is large and societal challenges are not being sufficiently addressed. TIP complements and leverages—but does not duplicate—existing research and development (R&D) efforts by making targeted investments that are

**STRATEGIC OBJECTIVE 2.1 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

within NIST's areas of technical competence but that are not possible by other government agencies or programs. TIP supports rich teaming through making awards to individual small or medium companies or to joint ventures that may additionally include universities, non-profit research organizations, national laboratories, or other organizations. TIP funds projects that have strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technology knowledge base, and that may result in the creation of IP vesting in a U.S. entity.

The National Technical Information Service (NTIS) seeks to advance measurement science by bringing scientific and technical information to U.S. business and industry. NTIS promotes innovation and economic growth for U.S. business by (1) collecting, classifying, coordinating, integrating, recording, and cataloging scientific and technical information from a variety of sources, foreign and domestic; (2) disseminating this information to the public; and (3) providing information management services to other federal agencies that help them interact with and better serve the information needs of their own constituents, and to accomplish this without appropriated funds.

Overall performance within this objective has been strong, meeting or exceeding targets on average 90 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 (88 percent of targets met or exceeded) to FY 2009 (90 percent of targets met or exceeded).

***Performance Outcome: Promote innovation, facilitate trade, and ensure public safety and security by strengthening the Nation's measurements and standards infrastructure (NIST)***

**FY 2009 Funding Level**

**\$812.3M**

The Nation's ability to innovate and compete in a global economy depends on a robust scientific and technical infrastructure, including research, measurement tools, standards, data, and models. The NIST laboratories develop and disseminate measurement techniques, reference data, test methods, standards, and other infrastructural technologies and services required by U.S. industry to compete in the 21st century.

NIST evaluates progress on this outcome using an appropriate mix of specific output tracking and peer review. Together, these evaluation tools, combined with continual feedback from customers provide a comprehensive picture of performance toward this long-term goal. Additional information on these evaluation methods is available at [http://www.nist.gov/director/planning/impact\\_assessment.htm](http://www.nist.gov/director/planning/impact_assessment.htm).

Accomplishments and applicable quantitative data used to evaluate progress on this long-term performance outcome are reviewed quarterly. Quantitative data are collected and reported by NIST Technology Services. External and independent evaluation of the research and measurement standards work of the NIST laboratory programs is conducted regularly. This type of peer review, combined with quantitative evaluation metrics focused on dissemination of NIST's measurements and standards work, demonstrate the laboratories' contribution to the Nation's measurement and standards infrastructure.

In FY 2009, the National Research Council (NRC) continued with the assessment process initiated in FY 2007 in which approximately half of the NIST laboratory programs are reviewed each year by separate panels of independent experts. Their assessments attest to NIST's high quality programs, relevance of work in support of measurement science and standards needs, and impressive technical merit.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Qualitative assessment and review of technical quality and merit using peer review	Complete annual peer review	Completed	Met
Citation impact of NIST-authored publications	>1.1	>1.1 <sup>1</sup>	Met
Peer-reviewed technical publications produced	1,275	1,463	Met
Standard Reference Materials (SRM) sold	31,000	29,769	Slightly Below
NIST-maintained datasets downloaded	200,000,000	226,000,000	Met
Number of calibration tests performed	15,000	18,609	Met

<sup>1</sup> Actual for this measure lags nine months. The actual shown here is based on FY 2008 data.

### FY 2009 MISSED TARGETS

MEASURE	STANDARD REFERENCE MATERIALS (SRM) SOLD
<b>Explanation</b>	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	No action required.

### ACHIEVEMENTS

#### *Development of a Smart Grid Interoperability Standards Framework*

Working with industry, government, and other stakeholders, NIST is expediting the identification and development of interoperability standards critical to achieving a reliable and robust Smart Grid. Accelerating the development of the Smart Grid is among the top priorities of the Obama Administration. In recognition of this urgency, in March 2009 NIST identified one of its senior executives to serve as National Coordinator for Smart Grid Interoperability to provide visible leadership at the national level. In April 2009, NIST launched a three-phase plan to expedite the development and promote widespread adoption of Smart Grid interoperability standards. This plan includes further engaging stakeholders to achieve consensus on Smart Grid standards, launching a formal private/public partnership to facilitate development of additional standards, and developing a plan for testing and certification to ensure that Smart Grid equipment and systems conform to standards for security and interoperability. To augment NIST staff resources, NIST awarded the Electric Power Research Institute a short-term contract to engage stakeholders, facilitate public workshops, and provide technical assistance in assessing standards needs and developing a draft interim standards roadmap. NIST used this report and public input in drafting Release 1.0 of the NIST Smart Grid Interoperability Standards Framework, released on September 24, 2009. NIST's expanded role in Smart Grid interoperability standards is supported by the Energy Independence and Security Act of 2007, which charges NIST with "primary responsibility to coordinate development of a framework that includes protocols and model standards for information management to achieve interoperability of Smart Grid devices and systems..."

#### *NIST, DOD, Intelligence Agencies Join Forces to Secure U.S. Cyber Infrastructure*

NIST, in partnership with the Department of Defense (DOD), the Intelligence Community, and the Committee on National Security Systems (CNSS), has released the first installment of a three-year effort to build a unified information security framework for the entire federal government. Historically, information systems at civilian agencies have operated under

different security controls than military and intelligence information systems. This installment is titled "NIST Special Publication 800-53, Revision 3, *Recommended Security Controls for Federal Information Systems and Organizations*." This revised security control catalog provides the most state-of-the-practice set of safeguards and countermeasures for information systems ever developed. The updated security controls—many addressing advanced cyber threats—were developed by a joint task force that included NIST, DOD, the Intelligence Community, and CNSS with specific information from databases of known cyber attacks and threat information.

### ***JILA/NIST Scientists Get a Grip on Colliding Fermions to Enhance Atomic Clock Accuracy***

NIST physicists have measured and controlled seemingly forbidden collisions between neutral strontium atoms—a class of antisocial atoms known as fermions, which are not supposed to collide when in identical energy states. The advance makes possible a significant boost in the accuracy of atomic clocks based on hundreds or thousands of neutral atoms. Beyond atomic clocks, the high precision of JILA's experimental setup is expected to be useful in other applications requiring exquisite control of atoms, such as quantum computing—potentially ultra-powerful computers based on quantum physics—and simulations to improve understanding of other quantum phenomena such as superconductivity.

### ***New Building Code Revisions Adopt NIST Recommendations from World Trade Center Study***

Future buildings—especially tall structures—should be increasingly resistant to fire, more easily evacuated in emergencies, and safer overall thanks to 23 major and far-reaching building and fire code changes approved recently by the International Code Council based on recommendations from NIST. The recommendations were part of NIST's investigation of the collapses of New York City's World Trade Center towers on September 11, 2001. The new codes address areas such as increasing structural resistance to building collapse from fire and other incidents, requiring a third exit stairway for tall buildings, increasing the width of all stairways by 50 percent in new high-rises, and ensuring effective coverage throughout a building for emergency responder radio communications. NIST also released its final report on the September 11, 2001 collapse of the 47-story World Trade Center building 7 in New York City.

### ***Neutron Researchers Discover Widely Sought Property in Magnetic Semiconductor***

Researchers from NIST, Korea University, and the University of Notre Dame have confirmed theorists' hopes that thin magnetic layers of semiconductor material could exhibit a prized property known as antiferromagnetic coupling—in which one layer spontaneously aligns its magnetic pole in the opposite direction as the next magnetic layer. This discovery raises hopes for even smaller and faster gadgets that could result from magnetic data storage in a semiconductor material, which could then quickly process the data through built-in logic circuits controlled by electric fields. The team conducted their studies at the NIST Center for Neutron Research (NCNR) using a technique known as polarized neutron reflectometry.

### ***Performance Indicators***

NIST measurement services, including calibration services, are critical for ensuring product performance and quality, improving production processes, making marketplace transactions fair and efficient, and leveling the playing field for international trade. NIST offers more than 500 different types of physical calibrations in areas as diverse as radiance temperature, surface finish characterization, and electrical impedance. SRMs are the definitive source of measurement traceability in the United



States and are certified in the NIST laboratories for their specific chemical and material properties. Customers use SRMs to achieve measurement quality and conformance to process requirements that address both national and international needs for commerce and trade and public safety and health. Technical publications represent one of the major mechanisms NIST uses to transfer the results of its research to support the Nation's technical infrastructure and provide measurements and standards to those in industry, academia, and other government agencies. Each year NIST's technical staff produces a total of 2,000 to 2,200 publications with approximately 50 to 60 percent appearing in prestigious scientific peer-reviewed journals. Citation impact of NIST-authored publications demonstrates that NIST consistently produces relevant scientific and technical publications. Citation analysis provides an independent and objective validation of peer review findings as research has shown that high citation rates—the cumulative number of citations per publication—correlate with peer review judgment in terms of scientific quality and relevance. NIST also provides online access to over 80 critically evaluated scientific and technical databases to academia, industry, other government agencies, and the general public.

***Performance Outcome: Promote U.S. competitiveness by directing federal investment and R&D into areas of critical national need that support, promote, and accelerate high-risk, high-reward research and innovation in the United States (NIST)***

**FY 2009 Funding Level** **\$50.2M**

As established by the America COMPETES Act of 2007, TIP makes cost-shared awards for high-risk, innovative research in areas of critical national need. TIP makes awards through publicly announced competitive funding opportunities in areas of critical national need that may be addressed through high-risk, high-reward research. Awards may be made to individual small or medium businesses, or to joint ventures that additionally may include institutions of higher education, non-profit research organizations, national laboratories, or other organizations. Awards of up to \$3 million total to individual companies may be made over three years, and of up to \$9 million total to joint ventures over five years.

The long-term nature of TIP-funded projects will result in a three to five-year lag from initial project funding to the generation of four additional measureable outputs and outcomes. These additional measures will cover the number of publications, patent applications, projects generating continued R&D, and projects with technologies under adoption. These measures, along with other programmatic accomplishments, will be used to evaluate TIP's progress toward its long-term goal of supporting, promoting, and accelerating innovation in the United States in areas of critical national need.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Cumulative number of TIP projects funded	9	9	Met

**HISTORICAL TRENDS**

This is a new outcome and measure so there are no historical trends.

**ACHIEVEMENTS**

***Infrastructure Monitoring and Inspection Techniques***

In January 2009, NIST announced TIP's first nine new projects selected for cost-shared awards in the critical national need area of civil infrastructure. If successful, these awards will generate \$88.2 million in new research during the active life of the projects (three to five years), \$42.5 million of which would be funded by TIP. These awards were made in response to TIP's inaugural solicitation for funding, titled "Advanced Sensing Technologies for the Infrastructure: Roads, Highways, Bridges and Water Systems." The solicitation called for implementable, usable, and accurate sensing systems for the effective measurement of infrastructure performance characteristics such as fatigue, corrosion, stress, usage, damage, etc. These new sensing technologies could provide increased security and safety of key elements of critical infrastructure.

Awarded projects from the first competition demonstrated TIP's commitment to multi-disciplinary approaches and to encouraging broad teaming arrangements. Thirty-five research participants are involved in the nine projects. TIP emphasized system validation for this competition, and there are 14 public sector entities (e.g., state agencies, water authorities, transportation authorities) involved (formally or informally) as testing partners to ensure the usability of the resulting systems. This unique involvement helps the projects toward achieving a transformative impact for infrastructure monitoring and inspection. Additional details on the first TIP competition are available at [http://www.nist.gov/public\\_affairs/releases/20090106\\_TIP\\_2008\\_award\\_announce.html](http://www.nist.gov/public_affairs/releases/20090106_TIP_2008_award_announce.html).

***Performance Outcome: Increase public access to worldwide scientific and technical information through improved acquisition and dissemination activities (NTIS)***

**FY 2009 Funding Level** **\$31.9M**

NTIS seeks to promote innovation and economic growth for U.S. business by (1) collecting, classifying, coordinating, integrating, recording, and cataloging scientific and technical information from a variety of sources, foreign and domestic; (2) disseminating this information to the public; and (3) providing information management services to other federal agencies that help them interact with and better serve the information needs of their own constituents, and to accomplish this without appropriated funds.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Number of updated items available (annual)	745,000	893,138	Met
Number of information products disseminated (annual)	32,850,000	49,430,840	Exceeded
Customer satisfaction	95-98%	98%	Met

**HISTORICAL TRENDS**

NTIS has consistently met its targets.

## ACHIEVEMENTS

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NTIS deployed the National Technical Reports Library in 2009. The library was deployed as a subscription product with an advanced search engine and direct access to full abstracts and to full text documents. The National Technical Reports Library allows advanced search of the NTIS database of more than 2.5 million documents and includes links directly to the full text of the document, when available. Full text documents are viewable, printable, and may be downloaded by the user. Additionally, NTIS was asked to develop and host two major applications in support of the American Recovery and Reinvestment Act (ARRA) of 2009. The Department is a major participant in the ARRA and now NTIS hosts the application providing visibility to the public regarding where Department ARRA dollars are allocated. The Web site lists communities receiving the benefits and also serves as an archive for news releases and financial updates. Also, NTIS hosts the Broadband USA effort at [www.broadbandusa.gov](http://www.broadbandusa.gov). The ARRA appropriated \$7.2 billion and directed the U.S. Department of Agriculture's (USDA) Rural Utilities Service (RUS) and the Department's National Telecommunications and Information Administration (NTIA) to expand broadband access to unserved and underserved communities across the United States, increase jobs, spur investments in technology and infrastructure, and provide long-term economic benefits.

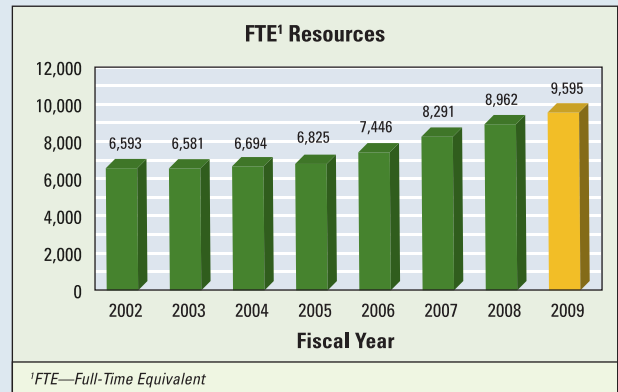
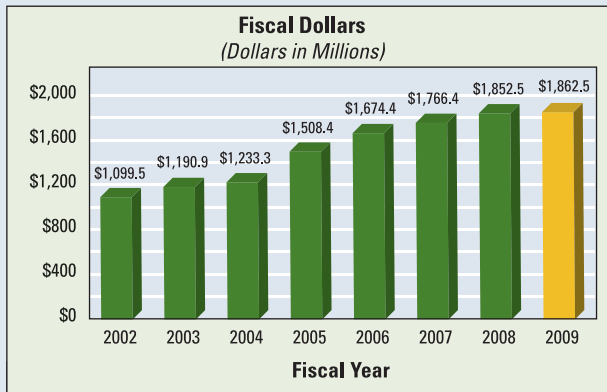
NTIS also continued its long association with the USDA Team Nutrition and Food Stamp programs by distributing free materials to states and citizens promoting healthy nutrition. In FY 2009, NTIS distributed more than 10 million brochures, pamphlets, and kits in both English and Spanish.

NTIS supported the Department of Health and Human Services (HHS) again this year to provide support for the "Health Start, Grow Smart" program by distributing easily understood information booklets to parents and caregivers about the best practices in early childhood development. The information pertains to health, safety, nutritional needs, and early cognitive development. NTIS managed the storage and distribution of over 10 million booklets in FY 2009.

**STRATEGIC OBJECTIVE 2.2**

*Protect intellectual property and improve the patent and trademark system*

**STRATEGIC OBJECTIVE 2.2 TOTAL RESOURCES**

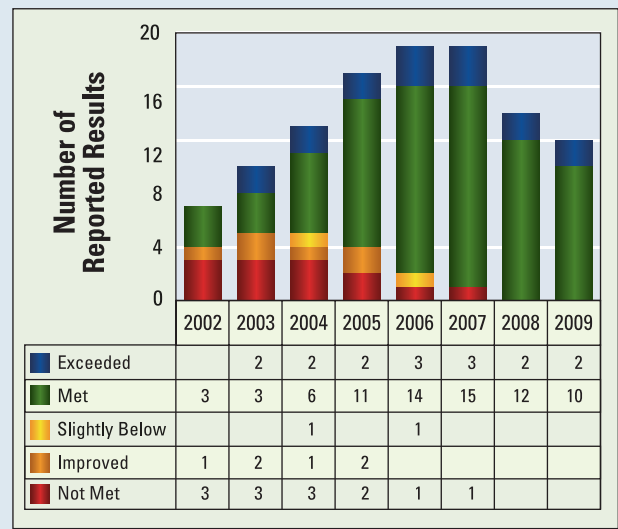


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

**I**P contributes to a strong global economy by encouraging investment in innovation and fostering entrepreneurial spirit. People worldwide benefit from innovations, both directly on a personal level, and indirectly through economic growth fueled by innovation. Continual development of a vigorous, flexible, and efficient IP system thereby achieving this objective protects individual rights, encourages investment in innovation, and fosters entrepreneurial spirit.

The Department promotes the IP system through the protection of inventions or creations via patent, trademark, trade secret, and copyright laws. Under this system of protection, industry in the United States has flourished, creating employment opportunities for millions of Americans.

**STRATEGIC OBJECTIVE 2.2 PERFORMANCE RESULTS**



*See Appendix A: Performance and Resource Tables for individual reported results.*

The primary services the Department provides within this objective are the examination of patent and trademark applications and dissemination of patent and trademark information. Issuance of patents provides incentives to invent and invest in new technology by allowing innovators the opportunity to benefit from their discoveries. Registration of trademarks assists businesses in protecting their investments and safeguards consumers against confusion and deception in the marketplace by providing notice of marks in use. Through dissemination of patent and trademark information, the Department promotes a global understanding of IP protection and facilitates the development and sharing of new technologies worldwide.

Overall performance within this objective has been good, meeting or exceeding targets on average 77 percent of the time from FY 2002 to FY 2009. Performance greatly improved from FY 2002 (43 percent of targets met or exceeded) to FY 2009 (100 percent of targets met or exceeded). However, pendency remains a concern with patent applications taking on average three years to conclude.

**Performance Outcome: Optimize patent quality and timeliness (USPTO)**

**FY 2009 Funding Level**

**\$1,633.4M**

The most significant activity under this outcome is the examination of an inventor's application for a patent by comparing the claimed subject matter of the application to a large body of technological information to determine whether the claimed invention is new, useful, and non-obvious to someone knowledgeable in that subject matter. To that end, not only is it important that a patent or trademark be issued in a timely manner, but that it is of high quality. Finally contributing to both timeliness and quality is the patent and trademark process being fully automated with an ultimate goal of all patents and trademarks being filed and managed electronically.

Providing quality services and products is the U.S. Patent and Trademark Office's (USPTO) foremost priority. USPTO's commitment to the continuous refinement and expansion of quality initiatives is outlined in the Agency's 2007-2012 Strategic Plan. Patent examinations are subjected to both end-product allowance and in-process reviews that evaluate the quality of the substantive basis for examiner decisions, applicability of publications found by the examiner, or the quality reviewer; evidence; and clarity of communications with applicants. Findings produced by these reviews are shared individually with examiners, are collected in a database for ongoing analysis, serve as the basis for the development of training programs, and are used to strengthen the review process. USPTO continues its effort to better define and identify appropriate criteria to gauge quality.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Patent allowance compliance rate	96.5%	96.9%	Met
Patent in-process examination compliance rate	93.0%	93.2%	Met
Patent average first action pendency (months)	27.5	25.8	Met
Patent average total pendency (months)	37.9	34.6	Met
Patent applications filed electronically	80.0%	82.5%	Met

**ACHIEVEMENTS**

The patent allowance compliance rate is the percentage of applications allowed by examiners with no errors after being reviewed by the Office of Patent Quality Assurance. An error is defined as at least one claim within a randomly selected allowed application that would be held invalid in a court of law if the application were to issue without the required correction. In FY 2009, efforts to improve quality resulted in an allowance compliance rate of 96.9 percent, slightly better than the target of 96.5 percent. The in-process examination compliance rate is a ratio derived from the number of office actions void of deficiencies that would significantly impact the applicant's ability to advance the prosecution on the merits of the application, divided by the total number of office actions reviewed. At 93.2 percent in-process examination compliance, USPTO met its goal of 93.0 percent.

The time to process a patent application is measured in two ways: (1) first action pendency—the average time in months from filing until an examiner's initial determination is made of the patentability of an invention, and (2) total pendency—the average time in months from filing until the application issues as a patent, or is abandoned by the applicant. USPTO strives to meet its goals of reducing pendency through a multi-pronged approach that includes hiring sufficient numbers of new examiners, retention of experienced staff, employee flexibility regarding when and where work is performed, exploring work-sharing with other patent offices, training, and electronic tools.

The growth and increasing experience and productivity of USPTO's examination workforce, combined with a slowdown in filings this year, enabled the Patent organization to begin reducing the size of the application backlog and to address growing patent pendency,

which ended the year at 25.8 months from filing to first action and 34.6 months until issue or abandonment. Unfortunately, due to budget reductions necessitated by reduced fee collections many cost saving measures were implemented, which may negatively impact patent pendency in the future if applications growth rebounds strongly in the future. Furthermore, the Department has made it a priority to lower the patent pendency rate to an acceptable level. Electronic filings did exceed this year's goal, reaching 82.5 percent of total filings.

***Performance Outcome: Optimize trademark quality and timeliness (USPTO)***  
**FY 2009 Funding Level** **\$185.5M**

The process involved in reaching this outcome is the examination of trademark applications by trademark attorneys who determine registrability under the provisions of the Trademark Act of 1946, as amended. The examination of trademark applications comprises many elements, including the utilization of electronic databases to determine whether the mark in an application is confusingly similar to any pending or registered mark, the preparation of an office action to inform applicants of the attorney's findings, the approval of applications to be published for opposition, and the examination of Statements of Use filed under the Intent to Use provisions of the Trademark Act.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Trademark first action compliance rate	95.5%	96.4%	Met
Trademark final compliance rate	97.0%	97.6%	Met
Trademark first action pendency (months)	2.5-3.5	2.7	Met
Trademark average total pendency excluding suspended and inter partes proceedings (months)	13.0	11.2	Met
Trademark applications processed electronically	62.0%	62.0%	Met

**ACHIEVEMENTS**

In FY 2009, the trademark first action compliance rate was 96.4 percent, above the 95.5 percent compliance target. Similarly, the final compliance rate was 97.6 percent, also better than the 97.0 percent target.

The two primary measures used to determine trademark application processing time are: (1) first action pendency, which measures the average time, in months, from the filing date to when the examiner's first action is taken; and (2) average total pendency, which is based on the average time, in months, from the filing date until the notice of abandonment, notice of allowance, or registration for applications based on use excluding cases that were previously suspended or were involved in inter partes proceedings at the Trademark Trial and Appeal Board. USPTO met its FY 2009 target of 2.5-3.5 months by achieving a first action pendency of 2.7 months. Trademark average total pendency results were 11.2 months. USPTO met its FY 2009 target of 13.0 months.

The Trademark organization has created an electronic trademark application record management process by capturing nearly 100 percent of the application inventory as an electronic file that includes text and image of the initial application and subsequent applicant and office correspondence. Examining attorneys use the electronic record to process and examine applications, manage their dockets of pending work, and take action on applications.

A new measure was introduced in 2009 to address the major USPTO strategic challenge to complete full electronic workflow and file management for receiving and processing trademark applications and related documents. This measure reports the percentage of trademark applications that were filed, processed, and disposed relying completely on electronic systems and communications. This measure replaced the electronic filing target which has been achieved.

***Performance Outcome: Improve intellectual property protection and enforcement domestically and abroad (USPTO)***

**FY 2009 Funding Level** **\$43.6M**

USPTO plays a leadership role in promoting effective domestic and international protection and enforcement of intellectual property rights (IPR) by advocating U.S. government IPR policy, working to develop unified standards for international IPR, providing policy guidance on domestic IPR issues, and fostering innovation. USPTO advises the President and federal agencies on national and international IPR policy matters and trade-related aspects of IPR, and conducts technical assistance and capacity-building programs for foreign governments seeking to develop or improve their IPR regulatory and enforcement mechanisms.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percentage of countries on the USTR 301 list, awaiting World Trade Organization (WTO) accession, or targeted by the Office of Intellectual Property Policy and Enforcement (OIPPE) for improvements that have positively amended or improved their IP systems	40.0%	54.0%	Exceeded
Number of countries that implemented at least 75% of action steps which improve IP protections in the joint cooperation, action, or work plans	4	5	Exceeded

**ACHIEVEMENTS**

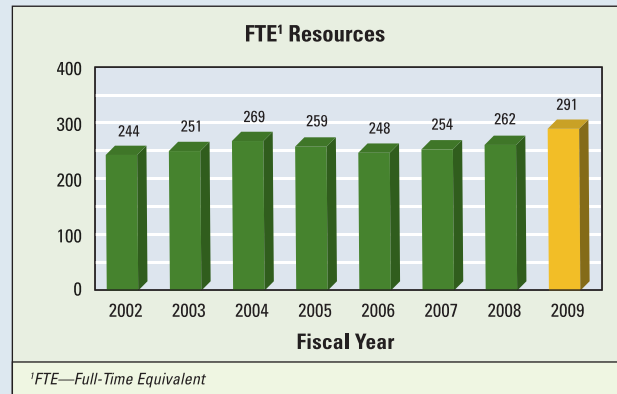
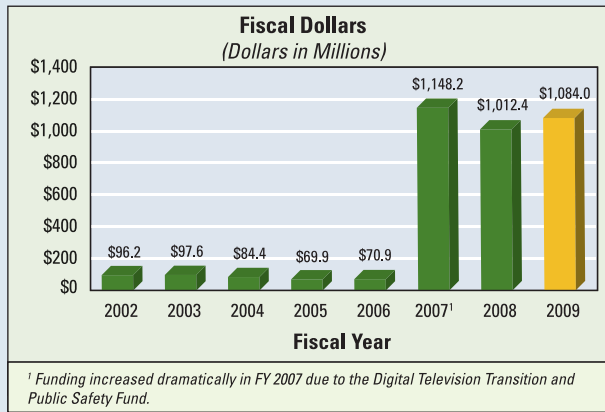
During FY 2009, USPTO continued to improve the enforcement of IP rights in the United States and around the world. USPTO supported the Office of the U.S. Trade Representative (USTR), Department of State, and other U.S. government agencies in international negotiations and consultations throughout the year. USPTO attorneys assisted with the drafting, reviewing, and implementation of IP obligations in bilateral and multilateral treaties and trade agreements, such as Oman's implementation of its free trade agreement (FTA) commitments, and ongoing review of Malaysia's IP regime. In addition, USPTO also continued to participate in the ongoing negotiations to establish an Anti-Counterfeiting Trade Agreement, a state-of-the art agreement to combat counterfeiting and piracy, which is intended to assist in the efforts of governments around the world to more effectively combat the proliferation of counterfeit and pirated goods.

USPTO's IP experts and their teams posted at American embassies in key locations around the world continued to develop long-term and direct working relationships with the foreign government agencies and the private sector. They also delivered targeted capacity-building programs for foreign officials and continuously pressed for stronger legal frameworks for IPR protection, improved IPR enforcement, greater certainty for U.S. innovators and creators, and enhanced public awareness and support for IPR.

**STRATEGIC OBJECTIVE 2.3**

*Advance global e-commerce as well as telecommunications and information services*

**STRATEGIC OBJECTIVE 2.3 TOTAL RESOURCES**



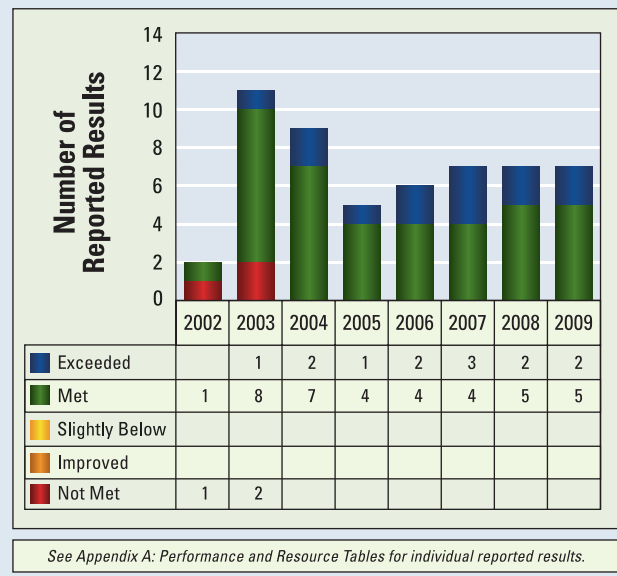
**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

This objective focuses on NTIA's role in radio frequency (RF) spectrum management and telecommunications standards, and as an advisor to the President on communications policy matters; Internet domain names, wireless telecommunications standards, and technology; and high-speed Internet services.

The Agency's expertise encompasses every aspect of telecommunications, including domestic policy, international policy, spectrum management, and technical telecommunications research and engineering.

Achievement of this objective will continue to further the technological advances for wireless communication, Internet services, domain name management issues, and other advances in technology.

**STRATEGIC OBJECTIVE 2.3 PERFORMANCE RESULTS**



NTIA's responsibilities have expanded considerably with the enactment of the Deficit Reduction Act of 2005. Specifically, the act charged NTIA to administer a number of new one-time programs to be funded from anticipated spectrum auction proceeds associated with the transition to digital television (DTV) broadcasts through the Digital Television Transition and Public Safety Fund. These programs include the (1) Public Safety Interoperable Communications (PSIC) Grant Program, and the Digital-to-Analog Converter Box Coupon Program, (2) the Digital-to-Analog Converter Box Program, and (3) the Low-Power Television (LPTV) and translator digital conversion and upgrade programs. NTIA also leads Department activities in the areas of next-generation Internet Protocols, ultrawideband (UWB) technology, wireless broadband applications, wireless sensor technologies, and Internet technical functions.



Overall performance within this objective has been very strong, meeting or exceeding targets on average 92 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 (50 percent of targets met or exceeded) to FY 2009 (100 percent of targets met or exceeded). It should be noted, however, that in FY 2002 there were only two measures with one of the targets missed, hence the 50 percent.

***Performance Outcome: Ensure that the allocation of radio spectrum provides the greatest benefit to all people (NTIA)***

**FY 2009 Funding Level** **\$37.3M**

NTIA examined an array of spectrum management policy issues in FY 2008 dealing with innovative approaches to spectrum management and the effectiveness of current processes. The availability of the RF spectrum is key to the development and implementation of innovative telecommunications technologies.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Frequency assignment processing time (days)	9 or fewer	9	Met
Certification request processing time (months)	2 or fewer	2	Met
Space system coordination request processing time	90% in 14 days or fewer	98%	Met
Spectrum plans and policies processing time	Comments in 15 days or fewer	11 days	Exceeded
Milestones completed from the implementation plan of the President's Spectrum Policy Initiative	14 milestones	14 milestones	Met

**ACHIEVEMENTS**

NTIA coordinated with federal agencies on the Spectrum Reform Initiative implementation plan with 54 milestones to be completed by FY 2010. This initiative will fundamentally change the business of spectrum management over the next five years. This initiative promotes the development and implementation of a U.S. spectrum policy that will foster economic growth; ensure U.S. national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas such as public safety, scientific research, federal transportation infrastructure, and law enforcement. One result is the first National Strategic Spectrum Plan.

NTIA released the "Second Annual Progress Report on the Relocation of Federal Systems from the 1710-1755 MHz Spectrum Band," which details progress from the commencement of relocation activity in March 2007 through December 2008. This is the first federal spectrum band selected for relocation pursuant to the Commercial Spectrum Enhancement Act. The Federal Strategic Spectrum Plan, which is a major result of the Spectrum Reform Initiative, provides extensive data on federal spectrum use and plans, including frequency bands, radiocommunication services, and spectrum-dependent systems. Based on the plan, within the next five years, NTIA will upgrade the federal spectrum management system, consider possible user fees for federal use of spectrum, develop improved interference models for optimizing spectrum use, implement methods to better forecast future requirements, and continue to promote interagency and federal/private sector coordination.

NTIA has improved the timeliness of processing frequency assignment requests from a target of 12 business days to nine days or fewer. This has been accomplished through business process re-engineering and IT improvements. These frequency assignments satisfy the near-term and future spectrum requirements of the 63 federal agencies to operate radiocommunications that provide the public with national and homeland security, law enforcement, transportation control, natural resource management, and other public safety services during peacetime and emergencies.

NTIA and the Department of Transportation's (DOT) National Highway Traffic Safety Administration (NHTSA) issued a joint Final Rule implementing the E-911 grant program authorized under the Ensuring Needed Help Arrives Near Callers Employing 911 (ENHANCE 911) Act of 2004. The act authorizes grants for the implementation and operation of Phase II enhanced 911 services and for migration to an Internet Protocol-enabled emergency network.

At the end of FY 2009, NHTSA and NTIA announced more than \$40 million in grants to 30 states and U.S. territories to help 911 call centers across the country improve the ability to locate people calling from wireless and Internet-connected telephones. The funds could be used to implement advanced technologies to deliver 9-1-1 calls with automatic crash location information as well as evacuation alerts to people using wireless services, warning them of dangerous situations like a bridge being washed out or a toxic spill.

***Performance Outcome: Promote the availability, and support new sources, of advanced telecommunications and information services (NTIA)***

**FY 2009 Funding Level** **\$1,046.7M**

NTIA participated on behalf of the Administration in Federal Communications Commission (FCC) and Congressional proceedings on telecommunications policies, including the development of appropriate regulatory treatment for broadband services deployment. NTIA made significant progress in implementation of programs required under the Digital Television Transition and Public Safety Fund. A number of Internet related policy issues required NTIA action, including continuing Internet privatization, domain name management both domestically and internationally, next generation Internet Protocols, and the combination of Internet and telecommunications addressing (ENUM). All of these activities required substantial coordination among NTIA's program offices, as well as interagency coordination to develop the Administration's positions.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Support new telecom and information technology by advocating Administration views in number of FCC docket filings, and Congressional and other proceedings in which Administration views are advocated	5 dockets and proceedings	12	Exceeded
Number of Web site views for research publications	75,000/month	75,000/month	Met

## ACHIEVEMENTS

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NTIA successfully launched the DTV Coupon Program on January 1, 2008. The June 12, 2009 DTV transition is now making available an improved viewing experience, with enhanced picture and sound quality and more programming choices, for consumers with over-the-air television service. The fact that the DTV transition occurred with minimal disruption and maximum preparedness is due to the foresight and decisiveness of the President and Congress in enacting the DTV Delay Act and providing additional funding via the American Recovery and Reinvestment Act (ARRA) of 2009. This legislation extended the final date by which all full-power television stations were required to transition from analog to digital from February 17 to June 12, 2009. Efforts by the White House, NTIA, FCC, and numerous private sector stakeholders made a critical difference in decreasing the number of households unprepared for the final transition when June 12 arrived. Nielsen data after the June 12 transition indicated that the number of unready households was reduced to less than 2.9 million. Since then, it has dropped even further to less than 1.5 million unready households. As of July 22, 2009, the DTV Coupon Program has distributed 63.2 million coupons to more than 34 million households. Of these, 33.5 million coupons have been redeemed at participating retailers.

ARRA directs NTIA, in consultation with FCC, to establish a grant program designed to increase broadband penetration and adoption in unserved and underserved areas of the United States; provide broadband training and support to schools, libraries, healthcare providers, and other organizations; improve broadband access to public safety agencies; and stimulate demand for broadband and economic growth. In addition, the \$4.7 billion in funding provided under the act is intended to create jobs and stimulate economic growth.

On July 1, NTIA released the first Notice of Funds Availability (NOFA) describing the availability of funds and application requirements for the Broadband Technology Opportunities Program (BTOP) and the USDA's Rural Utilities Service (RUS) Broadband Initiatives Program. The NOFA provides detailed information regarding eligibility, definitions, award terms, application submission, evaluation and selection, and award administration that will guide the disbursement of BTOP funding in the first round. Up to \$1.6 billion in BTOP funds will be available in the first grant round. NTIA is preparing for subsequent rounds of BTOP funding before all awards are obligated by September 30, 2010. In response to the NOFA, NTIA and RUS have received almost 2,200 applications requesting nearly \$28 billion in funding for proposed broadband projects reaching all 50 U.S. states and territories and the District of Columbia. Awards in the first grant round will be made in the first quarter of FY 2010.

NTIA, on behalf of the Department, published a Notice of Inquiry seeking public comment regarding the September 30, 2009, expiration date of its Joint Project Agreement (JPA) with the Internet Corporation for Assigned Names and Numbers (ICANN). This JPA extended a Memorandum of Understanding (MOU) between the Department and ICANN regarding transitioning the technical management of the Domain Name System (DNS) to the private sector. The DNS translates numeric Internet addresses into words, allowing people to navigate the Internet easier.

On September 30, 2009, NTIA and ICANN co-signed an Affirmation of Commitments that completes the transition of the technical management of the DNS to a multi-stakeholder, private-sector-led model. The affirmation ensures accountability and transparency in ICANN's decision-making with the goal of protecting the interests of global Internet users. The affirmation also establishes mechanisms to address the security, stability, and resiliency of the Internet DNS as well as promote competition, consumer trust, and consumer choice.

NTIA awarded \$19.95 million in funding from the Public Telecommunications Facilities Program (PTFP) account to assist public radio, public television, and nonbroadcast (distance learning) projects across the country. Almost \$11.5 million of the \$19.95 million awarded by NTIA went to 39 grantees to assist in the digital conversion of public television facilities.

Thirty-five grants, totaling almost \$4.9 million, were awarded to extend new public radio service. These projects will provide first public radio service to over 400,000 people and provide additional service to almost two million people.

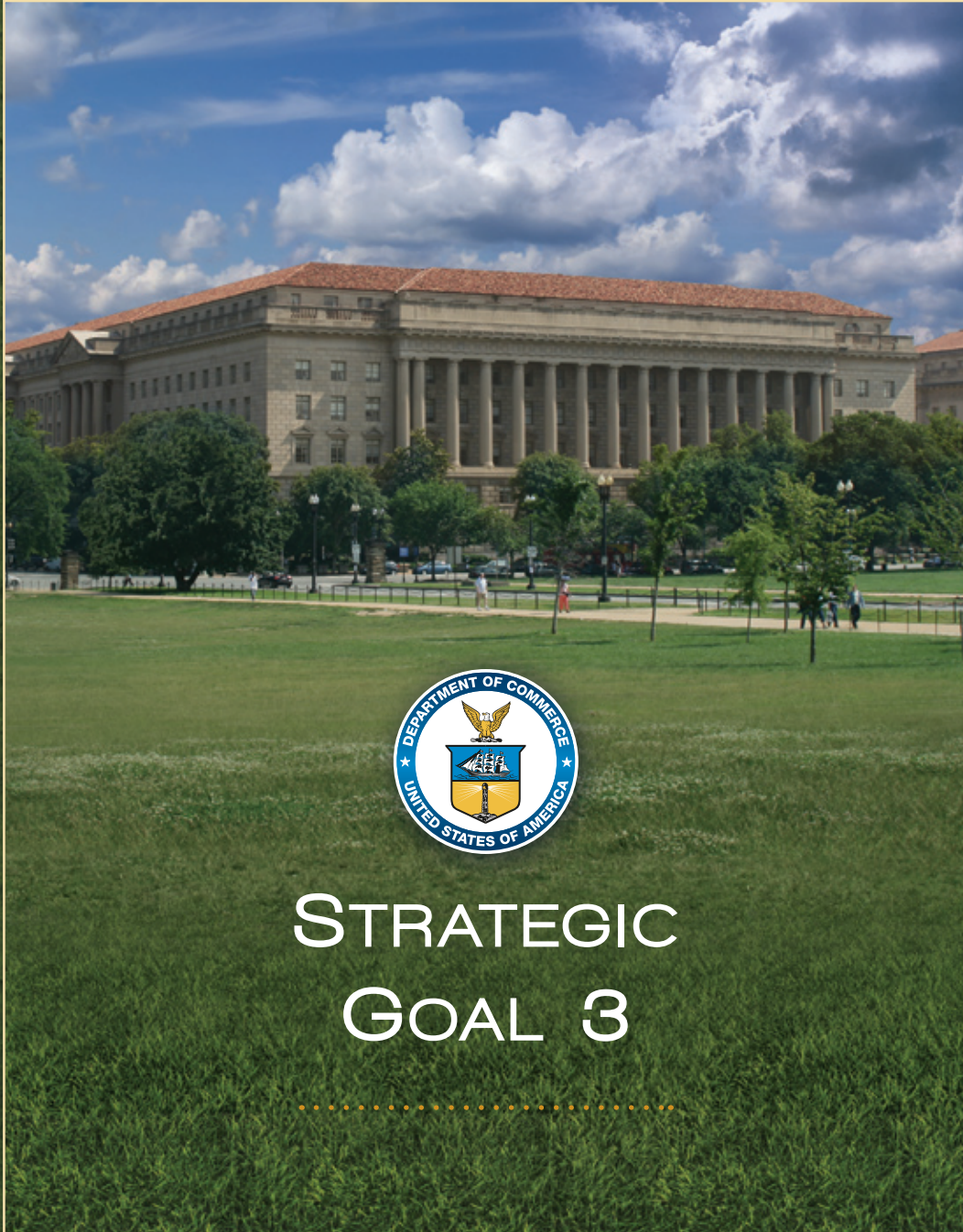
Other awards include 34 projects for almost \$2.8 million that will replace urgently needed equipment at public radio and television stations. Other grants include an award for digital conversion of repeater stations operated by Spokane Public Radio and a distance learning grant to Rowan-Cabarrus Community College in Salisbury, NC. One grant was made to National Public Radio for a planning project to determine the feasibility of digital conversion of radio reading services from the sideband channels of analog FM radio (Subsidiary Communications Authorization service), using consumer HD radio receivers. Included in the 112 awards is one grant awarded to the University of Hawaii for \$499,641 for the PEACESAT (Pan-Pacific Educational and Cultural Experiments by Satellite) Program.

STRATEGIC GOAL 2 PROGRAM EVALUATIONS

BUREAU	NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)
Program	National Measurement and Standards Laboratories
Strategic Objective	Advance measurement science and standards that drive technological change
Name	National Research Council (NRC) FY 2009 Assessments
Findings	<p>Overall, the 2009 NRC assessments attest to NIST's high quality programs, relevance of work to the measurement and standards needs, and impressive technical merit, as illustrated by the following quotes:</p> <ul style="list-style-type: none"> <li>● Center for Nanoscale Science and Technology (CNST) – “The more mature parts of the CNST are outstanding, especially in terms of the quality and productivity of the staff, the uniqueness of the capabilities, and the alignment with the overall NIST mission. The vector of the newer parts of CNST is positive, with excellent new staff and outstanding laboratories, but there is still significant work to be done to achieve the same level of impact currently enjoyed by the more established efforts.”</li> <li>● Chemical Science and Technology Laboratory (CSTL) – CSTL “is meeting its obligations, objectives and desired impacts, and its priorities are appropriate and aligned with NIST’s mission and priorities.”</li> <li>● Electronics and Electrical Engineering Laboratory (EEEL) – “The EEEL, equipped with diverse professional skills and comprehensive technical expertise, has demonstrated significant accomplishments in crucial programs and is ready to take on challenging national strategic programs.”</li> <li>● Information Technology Laboratory (ITL) – “Many ITL activities can be characterized as being a national or international resource. In many cases, ITL staff are the only such resource available. In others, they have established a role as the neutral party that is appropriately charged with evenhanded measurement or evaluation of the quality of products.”</li> <li>● NIST Center for Neutron Research (NCNR) – “The NCNR has been an extremely reliable and comprehensive neutron scattering facility and will continue to be a vital resource for meeting the broad spectrum of users’ scientific objectives and needs for neutron scattering in the future. During the past year, the NCNR has continued to sustain a high level of creativity, productivity, and quality in science and research to service in industry, academic and government agency users. Half of U.S. neutron scatterers used the facility during the past year, demonstrating the scientific role that the NCNR plays in the country.”</li> </ul> <p>The FY 2009 NRC Assessment Reports are available at <a href="http://www.nist.gov/director/nrc/">http://www.nist.gov/director/nrc/</a>.</p>
Actions as a Result of Evaluation	The findings and comments by the NRC assessment panels are critical components of the NIST performance evaluation system. NIST values this input and works to assure that any identified issues are addressed.

BUREAU	NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION (NTIA)
<b>Program</b>	Broadband Technology Opportunities Program (BTOP)
<b>Strategic Objective</b>	N/A
<b>Name</b>	The Office of Inspector General (OIG) Recovery Act Flash Report (ARR-19583)
<b>Findings</b>	NTIA should apply lessons learned from Public Safety Interoperable Communications (PSIC) Program to ensure sound management and timely execution of the \$4.7 billion BTOP
<b>Actions as a Result of Evaluation</b>	As NTIA implements the broadband program, it will consider the lessons learned from its administration of PSIC.

PERFORMANCE SECTION



STRATEGIC  
GOAL 3



STRATEGIC OBJECTIVE	TARGETS MET OR EXCEEDED
Protect, restore, and manage the use of coastal and ocean resources (NOAA)	8 of 8
Advance understanding of climate variability and change (NOAA)	6 of 6
Provide accurate and timely weather and water information (NOAA)	7 of 11
Support safe, efficient, and environmentally sound commercial navigation (NOAA)	5 of 6

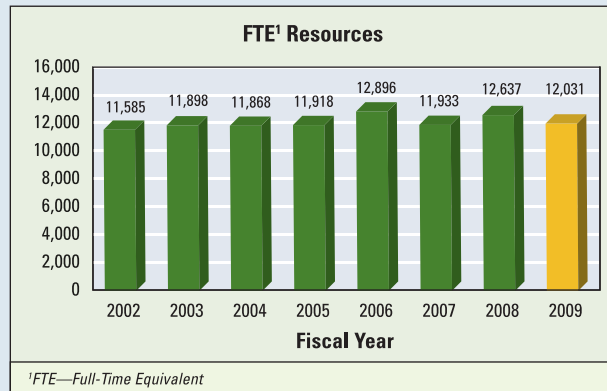
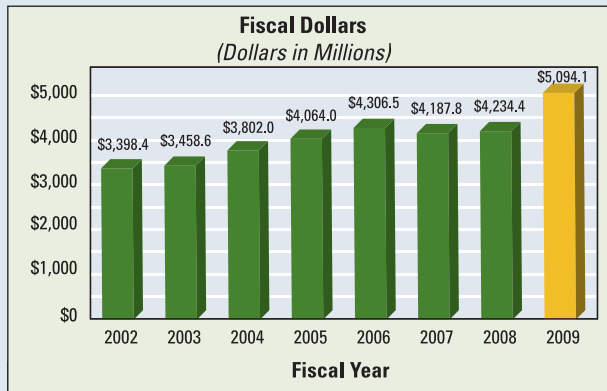




**STRATEGIC GOAL 3**

*Promote environmental stewardship*

**STRATEGIC GOAL 3 TOTAL RESOURCES**

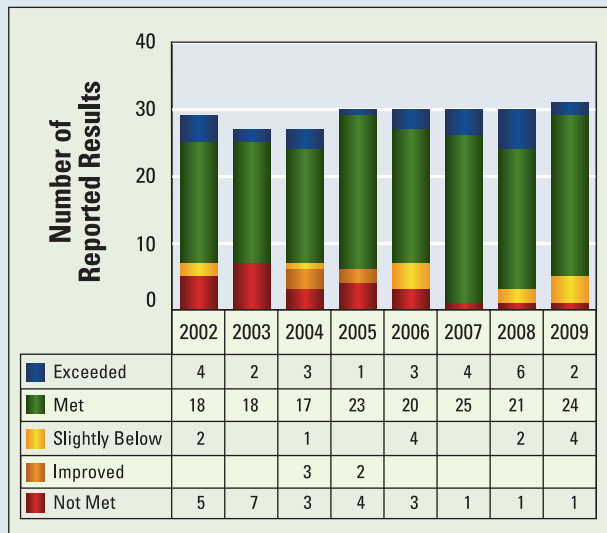


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

The Department has responsibilities for the environment, ecosystems, safety, and commerce of the Nation that span oceanic, coastal, and atmospheric domains. Understanding the oceans and atmosphere is essential to sustaining U.S. environmental and economic health. The Department provides products and services that are a critical component of the daily decisions made across the United States. From hurricane tracking to El Niño and harmful algal bloom predictions, navigational charts to fish stock assessments, severe weather forecasts to coastal zone management—the Department’s future-oriented science, service, and stewardship missions touch the life of every citizen in the United States and in much of the world every day.

Together the Department and its partners provide weather and climate services; conduct atmospheric, climate, and ecosystems

**STRATEGIC GOAL 3 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

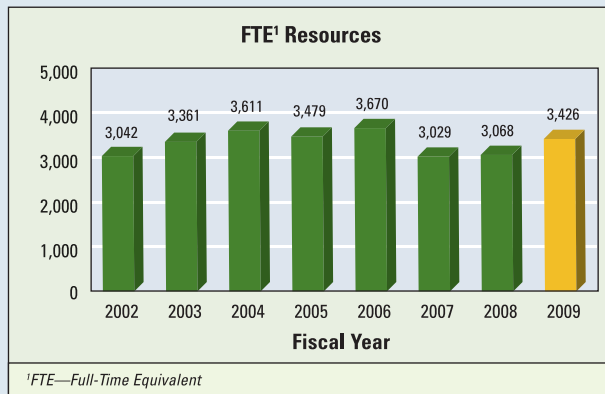
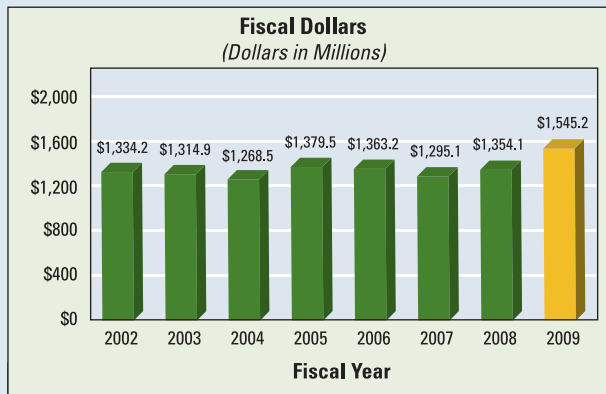
research; manage and protect fisheries and sensitive marine ecosystems; promote efficient and environmentally safe commerce and transportation; and provide emergency response and vital information in support of homeland security. The breadth and scope of these services require the Department to be responsive to both short-term and long-term societal needs.

Overall performance within this goal has been fairly strong, meeting or exceeding targets on average 76 percent of the time from FY 2002 to FY 2009. Performance remained fairly consistent from FY 2002 to FY 2009 rising from 76 percent of targets met or exceeded in FY 2002 to 84 percent met or exceeded in FY 2009.

**STRATEGIC OBJECTIVE 3.1**

*Protect, restore, and manage the use of coastal and ocean resources*

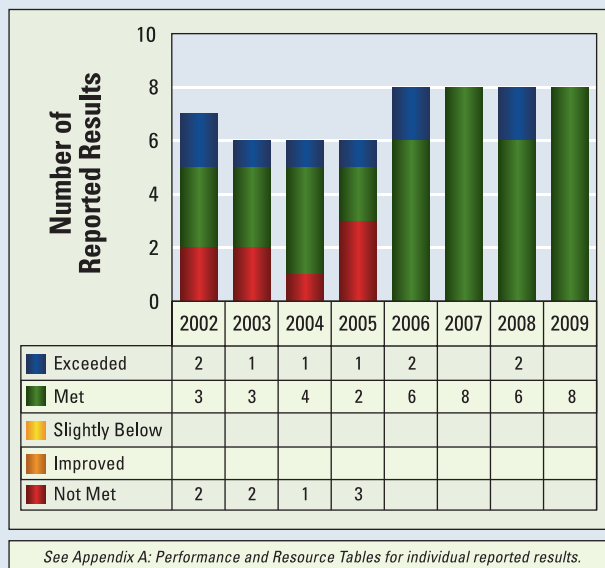
**STRATEGIC OBJECTIVE 3.1 TOTAL RESOURCES**



**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

Coastal areas are among the most developed in the Nation, with over half the population living on less than one-fifth of the land in the contiguous United States. At over 230 persons per square mile, the population density of the near shore is three times that of the Nation as a whole. That portion of the U.S. economy that depends directly on the ocean is also large, with 2.2 million people employed and over \$197 billion in value added to the national economy in 2000. Approximately 89 million people vacation and recreate along U.S. coasts every year. The amount added annually to the national economy by the commercial and recreational fishing industry alone is over \$43 billion with an additional \$1 billion of marine and freshwater aquaculture sales. With its Exclusive Economic Zone of 3.4 million square miles, the United States manages the largest marine territory of any nation in the world. Within this context, the National Oceanic and Atmospheric Administration (NOAA) works with its partners to achieve a balance between the use and protection of these resources to ensure their sustainability, health, and vitality for the benefit of this and future generations and their optimal contribution to the Nation's economy and society.

**STRATEGIC OBJECTIVE 3.1 PERFORMANCE RESULTS**



Overall performance within this objective has been fairly strong, meeting or exceeding targets on average 84 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 (71 percent of targets met or exceeded) to FY 2009 (100 percent of targets met or exceeded).

PERFORMANCE MEASURE (NOAA)	TARGET	ACTUAL	STATUS
Fish stock sustainability index (FSSI)	548.5	565.5	Met
Percentage of living marine resources (LMR) with adequate population assessments and forecasts	42.1%	43.7%	Met
Number of protected species designated as threatened, endangered, or depleted with stable or increasing population levels	22	25	Met
Number of habitat acres restored (annual/cumulative)	9,000/58,742	9,232/58,974	Met
Annual number of coastal, marine, and Great Lakes ecological characterizations that meet management needs	50	50	Met
Cumulative number of coastal, marine, and Great Lakes issue-based forecasting capabilities developed and used for management	41	41	Met
Percentage of tools, technologies, and information services that are used by NOAA partners/customers to improve ecosystem-based management	86%	86%	Met
Annual number of coastal, marine, and Great Lakes habitat acres acquired or designated for long-term protection	2,000	2,243 <sup>1</sup>	Met
<sup>1</sup> Estimate.			

## HISTORICAL TRENDS

For the most part, NOAA has consistently met or exceeded its targets for this outcome.

## ACHIEVEMENTS

### *NOAA Takes Crucial Steps Toward Sustainable Fisheries*

Working with the regional Fishery Management Councils (FMC), NOAA has made significant progress toward ending overfishing through the implementation of annual catch limits and accountability measures. NOAA published guidelines for the FMCs to use in implementing annual catch limits and accountability measures, which became effective February 17, 2009. NOAA successfully worked with the Gulf of Mexico FMC to define annual catch limits and accountability measures for all stocks classified as experiencing overfishing in the Gulf of Mexico one year in advance of the 2010 deadline. NOAA also published a proposed rule regarding certification procedures to address illegal, unregulated, and unreported fishing activities and bycatch of protected living marine resources; published guidelines and procedures for referenda required to establish Limited Access Privilege programs in the Northeast and Gulf of Mexico fisheries; published proposed regulations to govern the requests for determinations of fishery resource disasters; and drafted a proposed rule to revise National Standard 2 guidelines that mandate the use of the best available science. Overall, 54 of 79 specific tasks (68 percent) required by the Magnuson-Stevens Act have been completed, including 83 percent with a specific deadline. Just five percent have been delayed, and only five percent have had no action taken.

### ***NOAA Assists New England Transition to New Groundfish Management Regime***

Beginning May 1, 2009, NOAA implemented interim measures to govern Northeast groundfish fisheries. The interim measures strive to reduce overfishing, continue rebuilding groundfish stocks, and provide more options for fishing businesses trying to mitigate the economic effects of the measures. The measures will protect the stocks most in trouble while allowing the fishing industry to target healthier stocks as the fishery rebuilds. They will remain in place until the Council completes and NOAA implements new measures for Northeast groundfish fishery management, tentatively expected by May 2010. The Council and NOAA are working together to develop new groundfish management measures that will implement fishing sectors—a group of vessel permit holders who voluntarily agree to fishing restrictions and procedures in exchange for a share of the total catch allocated to the industry. This system based on catch shares will replace the current method of limiting fishing through days at sea for those vessels that join a sector. NOAA committed \$16.7 million to assist the Northeast fishing industry with the transition to management of the fishery by sectors and catch shares. The funds will be used both to develop data reporting and fishery monitoring systems that will allow transparent and near real-time management of the fishery, and to sponsor cooperative research, with fishermen and scientists working together to improve surveys of fish stocks and to develop and test fishing gear.

### ***NOAA Awards 50 Grants to Restore Habitat through the American Recovery and Reinvestment Act***

On June 30, 2009, NOAA awarded 50 grants for habitat restoration with funds received from the American Recovery and Reinvestment Act (ARRA) of 2009. The projects will restore thousands of acres of coastal habitat and help jumpstart the Nation's economy by supporting thousands of jobs. When complete, the projects will have restored more than 8,700 acres of habitat and removed obsolete and unsafe dams that will open more than 700 stream miles where fish migrate and spawn. The projects will also remove more than 850 metric tons of marine debris, rebuild oyster and other shellfish habitat, and protect 11,750 acres to reduce threats to coral reefs. These projects are located in 22 states and two territories, many in areas of high unemployment, including California, Oregon, and Michigan. The selected projects will employ Americans with a range of skills including laborers, nursery workers, design engineers, restoration ecologists, landscape architects, hydrologists, and specialized botanists, and will create indirect jobs in industries that supply materials and administrative, clerical, and managerial services.

### ***Four Fish Stocks Declared Fully Rebuilt***

NOAA reported to Congress in May that four stocks—Atlantic bluefish, Gulf of Mexico king mackerel, and two stocks of monkfish in the Atlantic—were rebuilt to allow for continued sustainable fishing. This is the largest number of stocks to be declared rebuilt in a single year since NOAA declared the first stock successfully rebuilt in 2001. Under the Magnuson-Stevens Fishery Conservation and Management Act, NOAA and the regional FMCs are required to end overfishing and prevent future overfishing, and to establish rebuilding schedules for overfished stocks. Federal fishery management plans must establish annual catch limits and accountability measures by 2010 for stocks subject to overfishing, and by 2011 for all other stocks. Overall, 40 stocks remained subject to overfishing, and 46 were overfished as of June 30, 2009. These represent 16 percent and 23 percent respectively of those stocks for which the status is known. There were 519 total stocks and stock complexes.

### ***NOAA Takes Key Actions to Protect Endangered North Atlantic Right Whales from Ship Strikes***

NOAA implemented several new measures in FY 2009 to protect highly endangered North Atlantic right whales from ship strikes. The new ship strike reduction measures combined with existing protective actions, including surveying whale migration routes by aircraft and mandatory ship reporting systems that provide advisories and information on right whale locations to mariners, form a comprehensive approach to help right whales recover. With approximately 300 whales in the population, these are among the most endangered whales in the world. Right whales are slow moving and highly vulnerable to ship collisions, since their migration

routes cross major East Coast shipping lanes. Thus, the two changes—requiring large ships to reduce speeds to 10 knots in areas where the whales feed and reproduce, and moving shipping lanes into Boston—are estimated to reduce the risk of right whale ship strikes by 74 percent during April–July. Approximately 3,500 ships move through the entire Boston shipping lanes area every year, and more than half of the world’s North Atlantic right whales are known to be in this area during the spring. NOAA researchers used more than 20 years of sighting data to determine the risk of whales being struck by ships in and around the Boston shipping lanes to help develop these changes.

### ***NOAA Works With Partners To Deliver Recommendations for Implementing the Executive Order for Chesapeake Bay Protection and Restoration***

NOAA launched three interagency teams in June 2009 to develop strategies and actions to meet the charge of Executive Order 13508, Chesapeake Bay Protection and Restoration. The Executive Order calls for greater shared federal leadership and acceleration of efforts to restore and protect the Chesapeake Bay. In September 2009, NOAA delivered three reports to the Executive Order’s Federal Leadership Committee for integration into a coordinated implementation strategy designed to transform the Bay’s restoration activities into a true application of ecosystem-based management for the Nation’s largest estuary. These reports emphasized actions to connect timely and accurate science to management decisions via a recommended ecosystem-based management framework; established priorities to deliver climate information and adaptation strategies to managers and jurisdictions for realistic adaptation planning; and drew the connections between protecting and restoring habitats to promoting sustainable resources and communities in the watershed. Three overarching actions include the development of a regional climate center, introduction of Bay-wide spatial management, and the implementation of ecological forecasting in the Chesapeake Bay watershed. Following interagency comment, the final reports and a draft strategy will be published for public comment in November 2009.

### ***NOAA is Proactive Regarding the Effects of Climate Change on Living Marine Resources***

NOAA and the National Science Foundation commissioned the first comprehensive national study of how carbon dioxide emissions may be altering fisheries, marine mammals, coral reefs, and other natural resources by reducing the pH of the oceans. Some of the most vulnerable species, like clams, crabs, lobsters, mussels, shrimp, and scallops, represent half of the \$4 billion value of fish harvested annually in U.S. waters. Decline of these species would also have profound effects on entire ecosystems, as shellfish and crustaceans provide food for many other species, and coral provides habitat for fish.

NOAA has initiated a study in collaboration with Louisiana State University and the Naval Research Laboratory to develop an ocean model with the capability of predicting the effects of onshore wind-induced movement of water near the ocean surface on the distribution of larval fish and shrimp in the northern Gulf of Mexico. Future uses for the model include an assessment of the potential effect of climate change on larval fish and shrimp recruitment in the northern Gulf of Mexico.

### ***New NOAA Report Offers In-depth Look at Northwestern Hawaiian Islands Marine Life, Ecosystems, and New Coral Species***

A new NOAA report on the Northwestern Hawaiian Islands (NWHI), protected by the Papahānaumokuākea Marine National Monument, provides the sharpest picture yet of the region’s marine life and ecosystems. The report, *A Marine Biogeographic Assessment of the Northwestern Hawaiian Islands*, examines the geographic distribution of the island chain’s marine life and habitats, and the conditions that determine where they are found. Significant findings include 80 types of coral and 15 whale species. Scientists also identified seven new species of bamboo coral discovered on a NOAA-funded mission in the deep waters of

the Papahānaumokuākea Marine National Monument, a five-foot tall yellow bamboo coral tree never described before, new beds of living deepwater coral and sponges, a giant "cauldron sponge," and other sponges that may represent new species or genera.

### ***Gulf of Mexico Marine Debris Project***

The NOAA Marine Debris Program with the Office of Coast Survey completed the Gulf of Mexico Marine Debris Project—surveys and maps of over 1,550 square nautical miles from Mobile Bay, AL to the Louisiana/Texas border—that located over 7,000 debris items in offshore fishing and shrimping grounds impacted by Hurricanes Katrina and Rita. The submerged marine debris posed a hazard to vessel traffic and could have adversely affected commercially viable fishing grounds. NOAA worked closely with the U.S. Coast Guard, Federal Emergency Management Agency (FEMA), and Louisiana Department of Natural Resources to survey offshore areas in Louisiana, map the new sonar contacts, and post them on the project Web site providing static maps and global positioning system (GPS) coordinates easily downloaded and printed, and an interactive mapping option where users can zoom into a specific area and point on a contact icon for more information.

### ***NOAA and Public/Private Partners Restored Wetlands in Port Arthur, TX***

NOAA, the U.S. Fish and Wildlife Service, Texas Commission on Environmental Quality, Texas Parks and Wildlife Department, and the Texas General Land Office worked with the Chevron Corporation to restore coastal wetlands in Port Arthur, TX, habitats injured by releases from refinery operations that took place decades ago. The largest restoration occurred in the Lower Neches Wildlife Management Area near the Gulf of Mexico, where a project restored historic water flow conditions to coastal wetlands. Estuarine intertidal marsh and coastal wet prairie were created. At the J.D. Murphree Wildlife Management Area, coastal emergent marsh plant communities have been restored to historical conditions through the installation of berms and other water control structures. These habitats were restored to compensate the public for the natural resources that were harmed by historical releases of hazardous substances from the original Clark Chevron refinery in Port Arthur, TX.

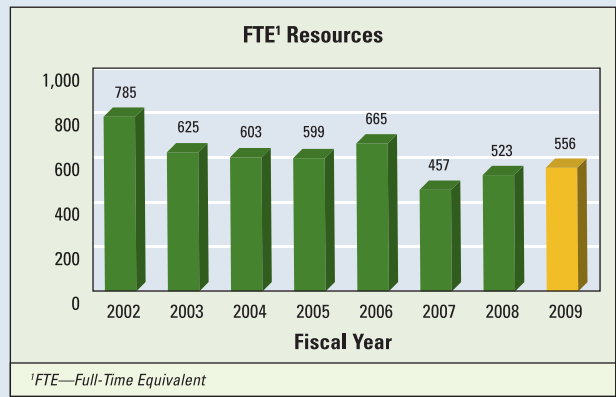
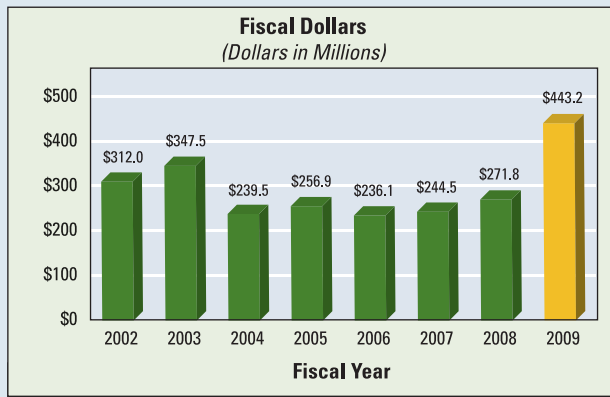
### ***New NOAA Condition Reports Describe Resource Conditions at Four Sites of the National Marine Sanctuary System***

Condition reports were published for Flower Garden Banks, Channel Islands, Cordell Bank national marine sanctuaries and the Papahānaumokuākea Marine National Monument. Condition reports are the latest in a new series of publications by the Office of National Marine Sanctuaries (ONMS) to provide resource managers and the public with a summary of sanctuary resources, pressures on those resources, current conditions and trends, and management responses to the pressures that threaten the integrity of the marine environment. Specifically, the reports include information on the status and trends of water quality, habitat, living resources and maritime archaeological resources, and the human activities that affect them. The reports serve as a vital and unique tool to determine if the sanctuaries are achieving their resource protection and improvement goals as reflected in ONMS performance measures established by OMB during a 2004 Program Assessment Rating Tool (PART) evaluation. Additionally, the reports help identify gaps in current monitoring efforts and highlights areas where additional information is needed. The data discussed in the reports enables sanctuary staff to not only acknowledge prior changes in resource status, but also provide guidance for future management challenges.

**STRATEGIC OBJECTIVE 3.2**

*Advance understanding of climate variability and change*

**STRATEGIC OBJECTIVE 3.2 TOTAL RESOURCES**

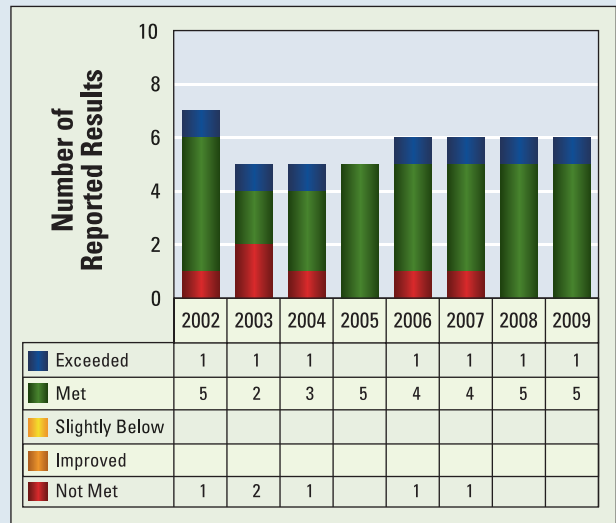


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

Society exists in a highly variable climate system, with conditions changing over the span of seasons, years, decades, and centuries. Given such stresses as population growth, drought, and increasing demand for fresh water, it is essential for NOAA to provide reliable observations, forecasts, and assessments of climate, water, and ecosystems to enhance decisionmakers' ability to minimize climate risks. This information supports decisions regarding community planning, business management, and natural resource and water planning.

Overall performance within this objective has been fairly strong, meeting or exceeding targets on average 87 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 (86 percent of targets met or exceeded) to FY 2009 (100 percent of targets met or exceeded).

**STRATEGIC OBJECTIVE 3.2 PERFORMANCE RESULTS**



See Appendix A: Performance and Resource Tables for individual reported results.

In FY 2009, NOAA continued its efforts to obtain the best science through the U.S. Global Change Research Program (USGCRP, formerly the Climate Change Science Program) and NOAA Climate Program. NOAA accomplished this through its continuing role as lead agency of the interagency USGCRP. In addition, NOAA increased the production of climate information and services for decisions, including completion of the USGCRP Synthesis and Assessment Reports, and implementation of the National Integrated Drought Information System (NIDIS).



PERFORMANCE MEASURE (NOAA)	TARGET	ACTUAL	STATUS
U.S. temperature forecasts (cumulative skill score computed over the regions where predictions are made)	20	27.5	Exceeded
Uncertainty in the magnitude of the North American carbon uptake	0.40 GtC/year	0.40 GtC/year <sup>1</sup>	Met
Uncertainty in model simulations of the influence of aerosols on climate	20% improvement	20% improvement	Met
Determine the national explained variance (%) for temperature and precipitation for the contiguous United States using U.S. Climate Reference Network (USCRN) stations	Temperature-98.0% Precipitation-95.0%	Temperature-98.3% Precipitation-95.1%	Met
Error in global measurement of sea surface temperature	0.50°C	0.50°C	Met
Regionally focused climate impacts and adaptation studies communicated to decisionmakers	37 assessments/ evaluations	37 assessments/ evaluations	Met
<sup>1</sup> Estimate.			

## ACHIEVEMENTS

### *New Authoritative Assessment of National, Regional Impacts of Global Climate Change*

On June 16, 2009, the USGCRP released the NOAA-led study, "Global Climate Change Impacts in the United States," a state-of-the-knowledge report about the observed and projected consequences of climate change for the Nation and its people. The document is an authoritative scientific report written so as to better inform public and private decision-making at all levels. The report draws from a large body of scientific information, including the set of 21 Synthesis and Assessment Products from the USGCRP and the assessments of the Intergovernmental Panel on Climate Change. This report provides a single coherent analysis of the current understanding of climate change science and identifies gaps that remain in climate science.

### *USGCRP Completes Suite of 21 Climate Assessment Reports*

In 2009, the USGCRP released four NOAA-led Synthesis and Assessment Products that completed the suite of 21 USGCRP assessments. These reports are richly illustrated documents that provide climate information useful to policymakers and resource managers across the United States and its territories. These reports join the large body of scientific information included in the set of 21 Synthesis and Assessment Products from the USGCRP to which NOAA substantially contributed.

### *New Observing Network in Indian Ocean to Improve Monsoon Prediction*

A new array of moored buoys in the Indian Ocean will provide critical climate and ocean data to help scientists predict the dramatic variations between seasonal monsoon rains and droughts. NOAA's Pacific Marine Environmental Laboratory in Seattle, and nine partners from Australia, China, France, India, Indonesia, Japan, and the United States are deploying the Research Moored Array for African-Asian-Australian Monsoon Analysis and Prediction (RAMA) program. This effort is part of the implementation of a memorandum of understanding (MOU) signed in April 2008. By the end of 2008, instruments had been deployed at 22 of the RAMA mooring sites. Contributing organizations intend to complete the full array of 46 moorings by 2012.

The new, multi-national network of buoys sited across the historically data-sparse Indian Ocean is designed to address unresolved questions related to Indian Ocean variability and to advance monsoon research and forecasting. The research will offer direct benefits to society, as monsoon rain is critical to agricultural production that supports a third of the world's population.

### ***Guidance for Water Management in a Changing Climate***

A multi-agency report, "Climate Change and Water Resources Management: A Federal Perspective," was released to the public on February 2, 2009. The study presents the best available science to help water managers prepare for, adapt to, and mitigate the effects of climate change on the Nation's water resources. NOAA and the U.S. Geological Survey collaborated with the U.S. Army Corps of Engineers and the Bureau of Reclamation to explore strategies for improved water management. The report suggests processes that will improve tracking, anticipation, and response to climate change effects. A critical goal of this report is to develop effective coordinated, cross-agency early warning systems in support of adaptation as the climate changes. One such example is NIDIS. The report serves as an important document for guiding the development of NOAA climate services and informing its role as a partner with resource management and environmental science agencies.

### ***Adaptation Planning Course Aids International Stakeholders***

NOAA staff members developed and delivered a 10-day training program, Planning for Climate Change in the Coastal and Marine Environment, in Vietnam, the Philippines, and the Galapagos Islands. The course was completed by approximately 150 participants from local marine protected areas and from national, regional, and local governments. NOAA is adapting the curriculum for U.S. communities. Climate change adaptation training programs help build resilient communities by educating local governments on climate change and its impacts on the marine environment. Training in the Philippines focused specifically in the area of the Verde Island Passage, considered to be the world's center of marine biodiversity. Participants learned strategies for conducting vulnerability and risk assessments and varied methods of adaptation planning.

### ***NOAA Establishes a New Cooperative Institute for Climate and Satellites***

On May 28, 2009, NOAA scientists teamed up with experts from the University of Maryland and North Carolina State University to establish a new Cooperative Institute for Climate and Satellites (CICS). The new institute will use satellite observations to detect, monitor, and forecast climate change and its impact on the environment, including ecosystems. The CICS will also create new climate data records for the Geostationary Operational Environmental Satellite-R series (GOES-R) and the National Polar-orbiting Operational Environmental Satellite System (NPOESS). The institute will have two locations, College Park, MD, (CICS-MD) and NOAA's National Climatic Data Center in Asheville, NC (CICS-NC). Other partners include: Howard University, Princeton University, Duke University, the University of California at Irvine, Columbia University, the University of Miami, the University of North Carolina at Chapel Hill, Oregon State University, Colorado State University, Remote Sensing Systems in Santa Rosa, CA, and the City University of New York.

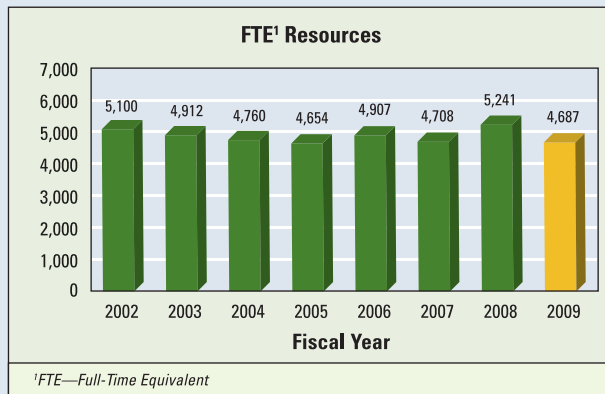
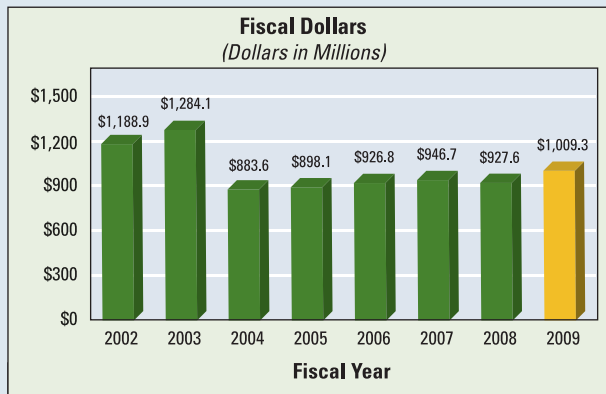
### ***New Guide to Improve Climate Literacy***

A guide is now available to help individuals of all ages understand how climate influences them and how they influence climate. "Climate Literacy: The Essential Principles of Climate Science" is a product of the USGCRP and was compiled by an interagency group led by NOAA; multiple science agencies, several nongovernmental organizations, and numerous individuals contributed to this guide. The Climate Literacy guide supports the development of formal and informal educational materials about climate science as well as professional development opportunities for educators. The intent is to integrate the framework into national and state education standards, and to support teacher workshops to ensure that educators are proficient in teaching the concepts of climate science. The release of the guide was announced at the National Science Teachers Association's 2009 National Conference in New Orleans, LA.

**STRATEGIC OBJECTIVE 3.3**

*Provide accurate and timely weather and water information*

**STRATEGIC OBJECTIVE 3.3 TOTAL RESOURCES**

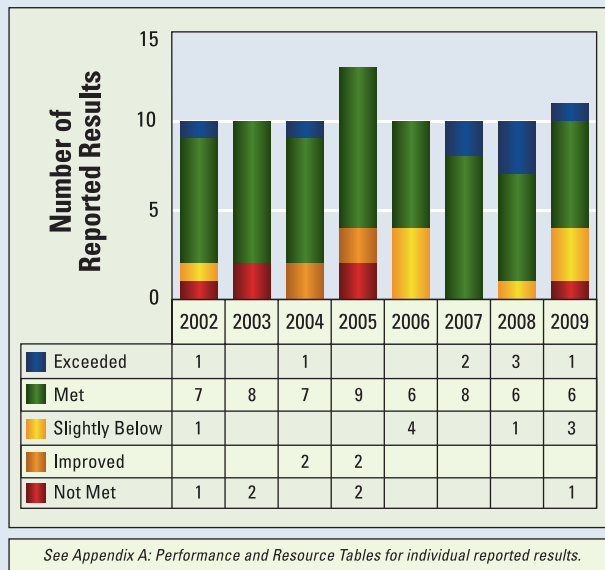


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

The Department's role in understanding, observing, forecasting, and warning of weather events is expanding. The Department is conducting sound, scientific research and providing integrated observations, predictions, and advice for decisionmakers who manage environmental resources, ranging from fresh water supplies to coastal ecosystems to air quality.

Realizing that the Department's information and services bridge both weather and climate timescales, the Department will continue to collect and analyze environmental data and issue forecasts and warnings that help protect life and property and enhance the U.S. economy. The Department is committed to excellent customer service and depends on its partners in the private sector, academia, and government to add value and help disseminate critical weather and climate information. The Department will expand services to support evolving national needs, including those associated with space weather, freshwater and coastal ecosystems, and air quality prediction.

**STRATEGIC OBJECTIVE 3.3 PERFORMANCE RESULTS**



Overall performance within this objective has been good, meeting or exceeding targets on average 79 percent of the time from FY 2002 to FY 2009. Performance dipped from FY 2002 (80 percent of targets met or exceeded) to FY 2009 (64 percent of targets met or exceeded).

PERFORMANCE MEASURE (NOAA)	TARGET	ACTUAL	STATUS
Cumulative percentage of U.S. shoreline and inland areas that have improved ability to reduce coastal hazard impacts	32%	32%	Met
Severe weather warnings for tornadoes (storm-based) – Lead time (minutes)	12	12 <sup>1</sup>	Met
Severe weather warnings for tornadoes (storm-based) – Accuracy (%)	69%	66% <sup>1</sup>	Slightly Below
Severe weather warnings for tornadoes (storm-based) – False alarm rate (%)	72%	77% <sup>1</sup>	Not Met
Severe weather warnings for flash floods – Lead time (minutes)	49	73	Exceeded
Severe weather warnings for flash floods – Accuracy (%)	90%	91%	Met
Hurricane forecast track error (48 hours) (nautical miles)	108	86 <sup>2</sup>	Met
Hurricane forecast intensity error (48 hours) (difference in knots)	13	14 <sup>2</sup>	Slightly Below
Accuracy (%) (threat score) of day 1 precipitation forecasts	29%	30%	Met
Winter storm warnings – Lead time (hours)	16	18	Met
Winter storm warnings – Accuracy (%)	91%	90%	Slightly Below

<sup>1</sup> Estimate.  
<sup>2</sup> Reflects 2008 target and actual results. 2009 results not available until February 2010.

**FY 2009 MISSED TARGETS**

MEASURE	SEVERE WEATHER WARNINGS FOR TORNADOES (STORM-BASED) – ACCURACY
<b>Explanation</b>	Accuracy has fallen slightly below the FY 2009 goal. The observed performance is typical of other severe weather seasons similar to 2009. These total numbers for the year are much lower than normal. Even through peak tornado season, the very low number of warnings issued do not provide a representative sample of tornado warning performance. The few tornado events observed generally occurred in marginal tornado environments, with most being brief and weak tornadoes reported. These types of events are generally quite challenging for warning forecasters. The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	See above. No remedial action taken.

MEASURE	SEVERE WEATHER WARNINGS FOR TORNADOES (STORM-BASED) – FALSE ALARM RATE
Explanation	FY 2009 has been characterized by an unusually high proportion of weak, brief tornadoes occurring in marginal environments. The number of tornado events through peak season of FY 2009 is low at 1,018 events, compared to the total number of events (1,800) for a typical fiscal year. There have been some improvements in false alarms, though this statistic is still above the goal of 72 percent. The observed performance is typical of other severe weather seasons similar to 2009. The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
Action	See above. No remedial action taken.
MEASURE	HURRICANE FORECAST INTENSITY ERROR
Explanation	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
Action	See above. No remedial action taken.
MEASURE	WINTER STORM WARNINGS – ACCURACY
Explanation	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
Action	See above. No remedial action taken.

## HISTORICAL TRENDS

NOAA has either consistently met or been slightly below the targets for nearly all its measures since FY 2002.

## ACHIEVEMENTS

### *National Tornado Experiment*

In the spring of 2009, a collaborative nationwide project exploring the origins, structure, and evolution of tornadoes occurred. The project, Verification of Origin of Rotation in Tornadoes EXperiment2 (VORTEX2 or V2), is the largest and most ambitious attempt to study tornadoes in history and involves more than 50 scientists and 40 research vehicles, including 10 mobile radars. Scientists sampled (and will do so again in 2010) the environment of supercell thunderstorms—violent thunderstorms capable of producing damaging winds, large hail, and tornadoes—that form over more than 900 miles of the central Great Plains. Areas of focus include southern South Dakota, western Iowa, eastern Colorado, Nebraska, Kansas, the Texas panhandle and western Oklahoma. The V2 Operations Center will be at the National Weather Center in Norman, OK.

The VORTEX2 teams will be looking to understand how, when, and why tornadoes form. V2 is a program funded by NOAA, the National Science Foundation, 10 universities, and three non-profit organizations. The original VORTEX program, operated in the central Great Plains during 1994 and 1995, documented the entire life cycle of a tornado for the first time in history. Recent improvements in National Weather Service (NWS) severe weather warning statistics may be partly due to the application of VORTEX findings. V2 will build on the progress made during VORTEX and further improve tornado warnings and short-term severe weather forecasts.

### ***First Wintertime Observations Find Ozone Soaring near Natural Gas Field***

During the past three winters, ozone—normally linked to hot weather and urban pollution—has soared to health-threatening levels near a remote natural gas field in northwestern Wyoming. Scientists at NOAA's Earth System Research Laboratory have solved the problem of how ozone can form in cold weather at levels threatening to human health. Their results, published January 18 in the journal *Nature Geosciences*, are forcing researchers to rethink the mechanics of ground-level ozone production. The NOAA analysis, the first ever for rapid ozone production in cold temperatures, suggests the problem could be more widespread. Among other likely areas are Russia, Kazakhstan, Mongolia, and China. Ozone measurements in most of these regions are limited or nonexistent in winter.

The NOAA team found ozone was rapidly produced on frigid February days in 2008 when three factors converged: ozone-forming chemicals from the natural gas field, a strong temperature inversion that trapped the chemicals close to the ground, and extensive snow cover, which provided enough reflected sunlight to jump-start the needed chemical reactions. Besides motor vehicle exhaust, industrial gases, and other urban emissions, it was previously thought that direct sunlight and hot weather were also required for high ozone concentrations to occur. Thus, ozone is routinely monitored only between April and October in the United States. But from January to March 2008, instruments near the Jonah and Pinedale Anticline natural gas field showed that (in 14 days) ozone exceeded the U.S. Environmental Protection Agency's (EPA) limit of 75 parts per billion averaged over eight hours. At times, single-hour averages topped 140 parts per billion—rivaling peak summertime levels of 150 parts per billion measured in highly polluted cities. The state of Wyoming issued its first ever wintertime ozone advisories during those months.

### ***Hurricane Paloma Provides Opportunity for First Rapid Intensity Experiment***

The Atlantic Oceanographic and Meteorological Laboratory's (AOML) Hurricane Research Division conducted the first-ever coordinated rapid intensity experiment in Hurricane Paloma, the second strongest November Atlantic hurricane on record. Better understanding how and why hurricanes undergo rapid intensification is important for improving the ability to better predict these storms, especially prior to landfall. Improving prediction of rapidly intensifying hurricanes is also a goal of NOAA's Hurricane Forecast Improvement Project. Three NOAA P-3 missions were flown into the core of Paloma while two G-4 research missions were conducted in the near-storm environment, Paloma's maximum winds increased by 50 knots and the mean sea level pressure dropped by 38 millibars over 24 hours while the experiment was being conducted. One hundred fifteen GPS drop wind sondes were released and data from most of them were transmitted from the aircraft. Fifty-four airborne expendable bathythermographs (water temperature probes) were used to sample the upper ocean beneath Paloma. Fourteen Doppler analyses were performed and transmitted during the P-3 flights and multiple sets of Super Obs (observations that are reduced by 90 percent for efficient model assimilation) were generated for model initialization. Five real-time runs of the high-resolution research model HRS were also completed at AOML.

### ***Storm Surge Model Improved***

To estimate storm surge heights and winds, NOAA's NWS forecasters and emergency managers can now call up time series graphs and display along with surge information from the Sea, Lake and Overland Surges from Hurricanes (SLOSH) program, a computerized model run by NOAA's National Hurricane Center. Other improvements provide additional Geographic Information System (GIS) capabilities and options for displaying roads, populated areas, and city boundaries to assist NWS's Tropical Prediction Center to make better use of the SLOSH display for media briefings. To better support NOAA's Integrated Ocean Observing System (IOOS), NOAA delivered real-time water levels and predictions for the SLOSH enhancements to National Hurricane Center's Center for Operational Oceanographic Products and Services (CO-OPS) also provided the Lowest Astronomical Tide/Highest Astronomical Tide values statistical tools which are used in the National Hurricane Center storm surge model and are relied upon by Weather Forecast Offices and Emergency Managers for public warnings and evacuations.

### ***Tool Bolsters Hawaii's Capacity to Respond to Floods***

The Hawaii Flood Response Tool was installed at the Pacific Disaster Center in August 2009. This application assists emergency managers by improving the state's ability to respond to floods and flood threats. The application provides centralized access to real-time data from multiple sources, such as imagery from satellite and radar and data on precipitation, and streamflow. This information can be easily paired with local GIS data to help emergency managers and first responders make critical decisions related to flood events.

### ***Tsunami Program***

Tsunamis are infrequent, but high-impact natural hazards that have the potential to cause considerable numbers of fatalities, inflict major damage to infrastructure, and result in significant social upheaval, economic disruption, and environmental degradation to large coastal sections of the United States. The cost of the economic disruption as a result of a major tsunami damaging the ports of Los Angeles and Long Beach, CA is estimated to be \$1 billion each day the port is closed. As coastal economic growth and population density increase, so does the risk of economic damage and harm to people from tsunamis. Specific 2009 accomplishments include: (1) published a Tsunami Data Management Plan, a U.S. Tsunami Hazard Assessment Plan, and a Tsunami Strategic Plan; and (2) developed nine new Coastal Relief Grids for Adak, AK; Wake Island; Midway Atoll; Taholah, WA; Shemya, AK; Eureka, CA; Ocean City, MD; Pago Pago; and Arena Cove, CA.

For the first time, NOAA scientists have demonstrated that tsunamis in the open ocean can change sea surface texture in a way that can be measured by satellite-borne radars. The finding could one day help save lives through improved detection and forecasting of tsunami intensity and direction at the ocean surface. Large tsunamis crossing the open ocean stir up and darken the surface waters along the leading edge of the wave, according to the study. The rougher water forms a long, shadow-like strip parallel to the wave and proportional to the strength of the tsunami. That shadow can be measured by orbiting radars and may one day help scientists improve early warning systems. The research is published online in the journal, *Natural Hazards and Earth System Sciences*.

### ***NOAA Installs Dual Polarization Radar Production Prototype***

Following the successful completion of the Integration Test Readiness Review in May 2009, NOAA installed the Dual Polarization modification production prototype on a development radar system in Norman, OK. The Dual Polarization modification represents the single most significant improvement in weather radar technology since the completion of the Doppler radar deployment in the mid 1990s and will significantly improve radar precipitation estimation accuracy; its capability to differentiate hail, snow, and rain; and the general quality of data the radar produces. These improvements will lead to improved severe weather and flood forecasts.

### ***NOAA Introduces El Niño-Southern Oscillation Alert System***

NOAA rolled out its new El Niño-Southern Oscillation (ENSO) Alert System in February 2009. Issued each month, the Alert System will succinctly describe the onset and status of the ENSO in order to increase understanding among federal and state agencies, academia, the private sector, and the general public. Climate watches and advisories are a way to heighten awareness in the user community that a significant climate anomaly exists or might develop and that preparedness measures should be initiated. Recently the ENSO Alert System was used to communicate accurate and timely forecasts of the 2009 El Niño conditions a month in advance, and can provide up to a six-month advance notice under certain circumstances. NOAA issued an El Niño watch in June and an advisory in July. The information from these products promoted early awareness among NWS personnel, customers, and partners of potential impacts to the 2009 Atlantic Hurricane season and to the Nation for the upcoming winter season 2009-2010.

### ***NOAA Deploys the Community Hydrologic Prediction System to Four River Forecast Centers***

In February 2009, NOAA deployed the Community Hydrologic Prediction System (CHPS) to the first four River Forecast Centers (RFC). This system provides valued science, software, and information, thus helping manage water resources and save lives. As part of a risk-reduction activity, four RFCs (in Sacramento, CA (California Nevada RFC), Portland, OR (Northwest RFC), Tulsa, OK (Arkansas-Red Basin RFC), and Taunton, MA (Northeast RFC)) were migrated to CHPS one year ahead of the remaining nine RFCs. This deployment began the next phase in replacing the existing, aging NWS river forecast modeling software system, which has been in use since the 1970s. This modernization will enable all 13 RFCs to provide expanded and improved services to their partners and customers.

### ***NOAA Helps Implement International Flash Flood Guidance System***

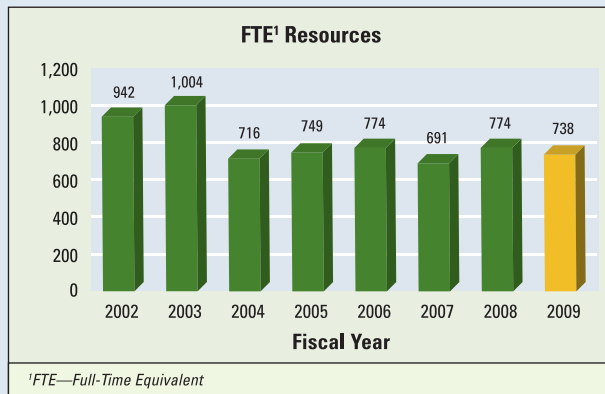
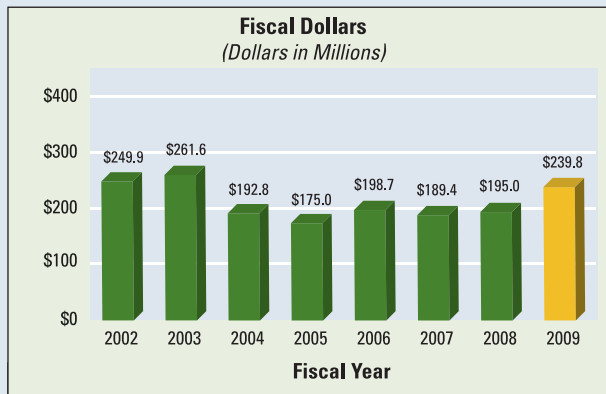
NOAA has signed an agreement with the Hydrologic Research Center, the U.S. Agency for International Development (USAID), and the World Meteorological Organization to implement an International Flash Flood Guidance System. This system is composed of 22 regional servers that collect data, run models, and provide developing National Meteorological and Hydrological Services around the world with products needed to issue warnings for very small flash flood prone river basins where communities are at risk for potential catastrophic flash flooding. The first regional system was funded by USAID and implemented in Central America. The second system implemented was in the Mekong countries in Southeast Asia. Two additional systems have been funded and are now in the early stages of development with the third system in southern Africa and the fourth in the Middle East.



**STRATEGIC OBJECTIVE 3.4**

*Support safe, efficient, and environmentally sound commercial navigation*

**STRATEGIC OBJECTIVE 3.4 TOTAL RESOURCES**

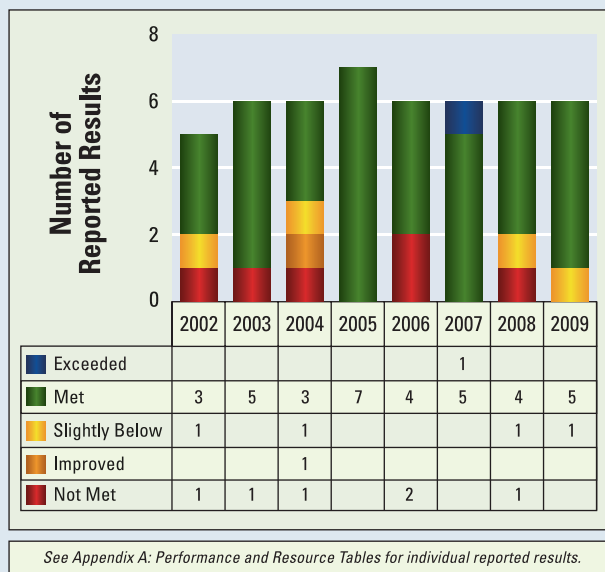


**PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE**

U.S. transportation systems are economic lifelines for the Nation. As U.S. dependence on surface and air transportation grows over the next 20 years, and as maritime trade doubles, better navigation and weather information provided by NOAA will be critical to protect lives, cargo, and the environment. For example, better aviation weather information could significantly reduce the \$4 billion lost through economic inefficiencies as a result of weather-related air traffic delays. Improved surface forecasts and specific user warnings would likely reduce the 7,000 weather-related fatalities and 800,000 injuries annually from vehicle crashes.

Overall performance within this objective has been good, meeting or exceeding targets on average 76 percent of the time from FY 2002 to FY 2009. Performance improved from FY 2002 (60 percent of targets met or exceeded) to FY 2009 (83 percent of targets met or exceeded).

**STRATEGIC OBJECTIVE 3.4 PERFORMANCE RESULTS**



PERFORMANCE MEASURE (NOAA)	TARGET	ACTUAL	STATUS
Reduce the hydrographic survey backlog within navigationally significant areas (square nautical miles surveyed per year)	3,000	3,219 <sup>1</sup>	Met
Percentage of U.S. counties rated as fully enabled or substantially enabled with accurate positioning capacity	69.0%	72.0%	Met
Marine wind speed accuracy (%)	69%	73%	Met
Marine wave height accuracy (%)	74%	77%	Met
Aviation forecast accuracy of ceiling/visibility (3 mile/1,000 feet or less) (%)	64%	63%	Slightly Below
Aviation forecast FAR for ceiling/visibility (3 mile/1,000 feet or less) (%)	43%	38%	Met

<sup>1</sup> Estimate.

**FY 2009 MISSED TARGETS**

MEASURE	AVIATION FORECAST ACCURACY OF CEILING/VISIBILITY
<b>Explanation</b>	The performance target was set at an approximate target level, and the deviation from that level is slight. There was no effect on the overall program or activity performance.
<b>Action</b>	See above. No remedial action taken.

**ACHIEVEMENTS**

***NOAA Satellites Helped Rescue 184 People in 2009***

NOAA satellites were key factors in the rescues of 184 people throughout the United States and its surrounding waters in 2009 thanks to the Search and Rescue Satellite-Aided Tracking (SARSAT) program. In each incident, NOAA satellites detected and located a distress signal from an emergency beacon and relayed the information to first responders on the ground. The international SARSAT system, called COSPAS-SARSAT, uses a network of satellites to quickly detect and locate distress signals from emergency beacons on board aircraft and boats and from handheld personal locator beacons. When a satellite finds the location of a distress signal within the United States or its surrounding waters, it is relayed to the SARSAT Mission Control Center at NOAA's Satellite Operations Facility in Suitland, MD, then to a Rescue Coordination Center, operated by either the U.S. Air Force for land rescues, or the U.S. Coast Guard for water rescues. Now in its 27th year, COSPAS-SARSAT has been credited with supporting more than 25,000 rescues worldwide, including 6,134 in the United States and its surrounding waters.

***NOAA's National Geophysical Data Center Supports Safe Navigation***

NOAA Satellites and Information's National Geophysical Data Center has primary archive and data stewardship responsibility for NOAA's Marine Transportation System (MTS) program. In March 2009, NOAA developed a new, much higher resolution model of Earth's magnetic field. This new model and the resultant grid capture not only the field generated from the interior of Earth's core, but also the anomalous field in the crust, a major source of error when navigating by magnetic compass. The new and improved model will lead to more accurate navigational capability for ship and aircraft.

### ***NOAA Expands International Reference Network Adding 43 GPS Stations***

The NOAA Continuously Operating Reference Station (CORS) network now contains over 1,200 sites spanning the United States, its territories, and several foreign countries. NOAA's National Geodetic Survey (NGS) incorporated 43 new GPS tracking sites into the CORS network, including 13 new sites established by the Federal Aviation Administration (FAA) as part of their Wide Area Augmentation System (WAAS) in Alaska, Canada, and Mexico. WAAS provides differential GPS correctors for safe airline navigation across North America to help precisely determine a position and enable pilots to determine the three-dimensional location of their aircraft with an accuracy of a few meters. The WAAS network now contains 38 GPS tracking sites.

The CORS network is a critical NOAA product that helps ensure the consistency and accuracy of the Nation's spatial reference system. These additional stations are part of a continuing effort by NOAA's National Ocean Service (NOS) to improve the accuracy of the spatial reference system and be on the cutting edge of positioning technology. These new sites significantly improve the geographic coverage of the CORS network and the accuracy with which CORS users can position things, including property boundaries, transportation arteries, buildings, and other map-worthy objects. The expanded coverage will also benefit those organizations that apply CORS data to monitor the distribution of water vapor in the atmosphere and the distribution of free electrons in the ionosphere. Knowing the distribution of water vapor is critical for accurately forecasting severe weather such as hurricanes, tornadoes, and thunder storms. An overabundance of free electrons in the ionosphere can disrupt those communications services that involve satellite links. Alternatively, users can submit their GPS data to the Web-based Online Positioning User Service (OPUS) utility to have NOAA compute such coordinates automatically.

### ***Study: Economic Value of NOAA's Geodetic Services at \$2.4 Billion***

According to a new independent study by Leveson Consulting, Jackson, NJ, the National Spatial Reference System (NSRS), the official U.S. government source for precise latitude, longitude, and elevation measurements, provides more than \$2.4 billion in potential annual benefits to the U.S. economy. Refining and modernizing the system for measuring elevation has the potential to net an additional \$522 million in annual economic benefits. The study analyzed the total economic value of all revenue generated from private surveying and mapping as well as from related services in the government and non-profit sectors. It also assessed the potential cost savings due to improved accuracy of position and elevation data. The study found that NOAA's CORS network—part of NSRS—provides an estimated \$758 million per year in benefits. This advanced system marries the concept of reference stations on the ground with GPS technology to provide more precise positioning delivered via the Internet. Scientific, military, and engineering activities usually require accuracy of a few inches versus typical commercial GPS users requiring accuracy of a few yards.

### ***New NOAA System Improves Safety and Efficiency of Ships in Lake Charles***

Mariners can now get free real-time information on water and weather conditions for the Port of Lake Charles, LA, from a new NOAA ocean observing system at the port. The NOAA Physical Oceanographic Real-Time System (PORTS®) at Lake Charles provides observations of tides, currents, water and air temperature, barometric pressure, winds, and bridge clearance. PORTS® can significantly reduce the risk of vessel groundings and increase the amount of cargo moved through the port by enabling mariners to safely utilize every inch of dredged channel depth. The system also allows large ships to time their arrivals and departures more efficiently. Governed by the Lake Charles Harbor and Terminal District, the Port of Lake Charles covers 203 square miles in Calcasieu Parish and accommodates 58 million tons of cargo annually at its public facilities. The functioning of this port is vital to the national economy and is responsible for 160,498 jobs, \$8 billion in earnings, \$17 billion in spending, and \$800 million in taxes statewide.

### ***NOAA's Survey Teams Respond Quickly to Keep Marine Transportation Moving Safely***

NOAA Office of Coast Survey's Navigation Response Teams, survey vessels, and contract surveyors responded to survey requests in the Nation's busiest ports in several high risk situations such as:

- Locating the wreck of the 71-foot fishing vessel LADY MARY which sank 74 miles from the entrance of the Delaware River, tragically losing four crew members;
- Supporting the search for the missing engine of U.S. Airways Flight 1549, the 155-passenger commercial plane which made an emergency water landing on the Hudson River;
- Conducting surveys in Honolulu Harbor in response to reports of container ships "touching bottom" while docking because of uncharted and dangerous shoaling around certain pier faces within the harbor;
- Locating the submerged oil rig ENSCO, which was toppled by Hurricane Ike near Galveston, TX, and posed a real threat to oil tanker lightering operations; and
- Assisting the U.S. Coast Guard and Army Corps of Engineers with salvage operations of a 175-foot derelict barge in the Hylebos Waterway and Commencement Bay.

Coast Survey responds quickly to hydrographic survey needs which benefit both maritime commerce and environmental protection by reducing risk of maritime accident in U.S. ports and waterways.

### ***NOAA Surveys and Maps Critical Coastal Areas with American Recovery and Reinvestment Act Funds***

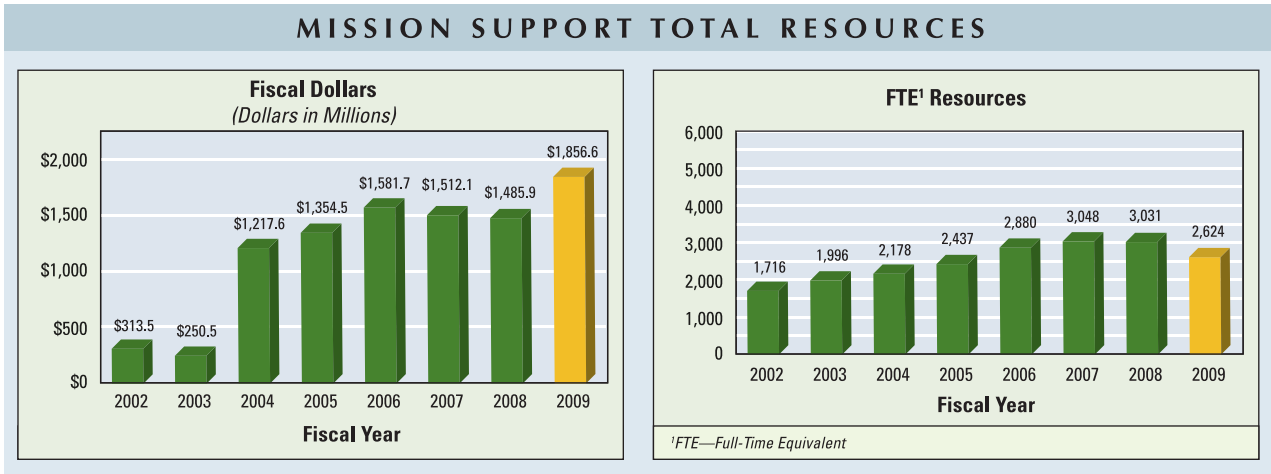
As announced by Secretary of Commerce Gary Locke at an event on August 23rd in Norfolk, VA, NOAA's Navigation Services programs awarded \$40 million in ARRA funds for critical hydrographic survey projects to eight private sector firms in 2009. The contracts are for seafloor mapping data to update nautical charts and provide up-to-date information on eight critical coastal areas, some that were last surveyed over 70 years ago. To ensure maritime safety—and to avoid ecological disasters—vessels require the high degree of accuracy and complete bottom coverage that modern surveys provide. These surveys will provide the data necessary for updating nautical charts along coastlines that are experiencing heavy or hazardous marine transport. The data strengthens U.S. maritime commerce and international trade for continuing economic growth, and is also very beneficial for other uses like storm surge and emergency planning, marine spatial planning, and coastal zone management. When complete, the ARRA-funded projects will have charted nearly 2,000 square nautical miles in the Chesapeake Bay, and in the coastal waters of Alaska, Washington, California, Louisiana, Alabama, Florida, and Virginia. This work more than doubles the area that would have been covered by NOAA's survey contractors in 2009 without ARRA funds.

### ***Office of Coast Survey Works to Reduce Hydrographic Survey Backlog***

The NOS Office of Coast Survey addressed the survey backlog with updated hydrographic surveys of critical areas of the United States, such as high traffic port areas, areas with known but unsurveyed changes, and areas never before surveyed which make up about four percent of the total navigationally significant areas in need of surveys in the United States. The Office of Coast Survey obligated contract funds to address survey backlog to deliver roughly 1,380 square nautical miles. The Office of Coast Survey obligated American Recovery and Reinvestment Act (ARRA) funded hydrographic survey task orders by August 1, 2009 for over 1,800 square nautical miles of additional survey area. Overall the program has acquired 3,476 square nautical miles meeting its FY 2009 3,000 square nautical miles target. Without the surveys, ocean bottom conditions that are hazardous to navigation will not be located, identified, and placed on nautical charts to help mariners navigate safely and avoid accidents, spills, loss of life, and cargo, and damage to the environment. NOAA's hydrographic data supports planning, management, and science applications in the coastal zone.

**MISSION SUPPORT OBJECTIVE**

*Provide critical support for NOAA's mission*



**T**here are no Government Performance Results Act (GPRA) measures for the Mission Support objective since the activities of this objective support the outcomes of the Mission objectives. NOAA is developing new and improving existing internal management performance measures for the Mission Support objective.

**ACHIEVEMENTS**

***Launched NOAA Geostationary Operational Environmental Satellite-O Series***

On June 27, 2009, the Geostationary Operational Environmental Satellite-O series (GOES-O) Satellite was successfully launched from the Kennedy Space Center. GOES-O successfully reached orbit, joining three other GOES spacecraft that help NOAA forecasters track life-threatening weather and solar storms by providing reliable satellite coverage to see severe weather as it develops. With more than a thousand tornadoes touching down in the United States each year and the serious risk posed by hurricanes to residents along the Gulf and East coastlines, it is critical that GOES-O is in orbit and ready when needed. GOES-O is the second spacecraft in the GOES-N/O/P series and features significant improvements in the instruments that capture high-resolution images of weather patterns and atmospheric measurements. The imagery and data NOAA gets from GOES satellites are key to NOAA's ability to continuously monitor and diagnose weather in the tropics. Continued improvements in the type and quality of GOES data will contribute to improvements in tropical cyclone forecasts. GOES-O also provides expanded measurements for space and solar environment monitoring using a Solar X-Ray Imager (SXI). The SXI data are improving forecasts and warnings for solar disturbances, protecting billions of dollars of commercial and government assets in space and on the ground and lessening the effect of power surges for the satellite-based electronics and communications industry. On July 7, 2009, GOES-O was placed in its final orbit and renamed GOES-14. GOES-14 also contributes to the emerging Global Earth Observation System of Systems (GEOSS). GEOSS is an ongoing effort among more than 70 nations to develop a worldwide network to monitor the world's changing climate.

### ***Launched New Polar-orbiting Satellite***

On February 6, 2009, NOAA-N Prime was successfully launched from the Vandenberg Air Force Base in California aboard a Delta-II rocket. The new NOAA polar-orbiting operational environmental satellite circles the globe every 102 minutes taking images and measurements to support NOAA's efforts to forecast and monitor the environment. NOAA-N Prime, renamed NOAA-19 after reaching orbit, joins NOAA-18 and a European satellite as environmental satellites already in polar orbit that NOAA uses in its forecasts. NOAA-19 carries six scientific instruments, two search and rescue instruments, and a data recording system. Unique to this satellite is an advanced data collection system that will relay meteorological and oceanographic data—even track migration patterns of wildlife—to help researchers improve their study of Earth's environment. NOAA-19 will support several NOAA programs, including weather analysis and forecasting, climate research and prediction, global sea surface temperature measurements, atmospheric soundings of temperature and humidity, ocean dynamics research, volcanic eruption monitoring, forest fire detection, global vegetation analysis, and search and rescue operations. NOAA-19 will help NOAA monitor current conditions in the atmosphere and oceans and keep tabs on long-term climate trends. These data are increasingly important in polar regions, given the potential effects of climate change on the polar ice cap and sea ice extent. NOAA is working closely with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) to ensure polar seamless satellite coverage. Under an agreement, two of NOAA's polar-orbiting satellites—NOAA-18 and NOAA-19—are carrying a EUMETSAT instrument. In return, through 2020, EUMETSAT is carrying key NOAA instruments on board its European-built Metop satellites, which fly in morning orbits. NOAA-19 also contributes to GEOSS.

### ***NOAA Announces GOES-R Spacecraft Awards***

In December 2008, NOAA and National Aeronautics and Space Administration (NASA) officials announced that they selected Lockheed Martin Space Systems to build two spacecraft for NOAA's next generation GOES series, GOES-R. The advanced spacecraft and instrument technology used on the GOES-R series will result in more timely and accurate weather forecasts. It will improve support for the detection and observations of meteorological phenomena that directly affect public safety, protection of property, and ultimately, economic health and development, and give a greater understanding of the changing climate. The first launch of the GOES-R series satellite is scheduled for 2015. The Advanced Baseline Imager (ABI) provides significant advancements over the current GOES imaging capabilities with three times the spectral, four times the spatial, and more than five times the temporal resolution. NWS forecasters will see detailed rapid update images of potentially deadly hurricanes every 30 seconds, instead of the current 7.5 minutes. GOES-R will also carry an instrument called the Geostationary Lightning Mapper, which will quickly locate all lightning flashes occurring anytime, anywhere in the Western Hemisphere thus aiding in predicting tornadoes, which often spawn from lightning-packed thunderstorms. Other benefits include greater monitoring of surface temperatures in metropolitan areas to improve warnings for heat stress and better data to bolster the forecasts for unhealthy air quality days. The GOES-R will feature advanced solar monitoring instruments for space weather forecasts and warnings of solar storms. These storms endanger billions of dollars worth of commercial and government assets in space and cause power surges for the satellite-based electronics and communications industry. Geomagnetic storms caused by energetic streams of particles and fields that originate from the Sun impact Earth's magnetic field, interact with the long wires of the power grid, and cause electrical currents to flow in the grid. These currents cause imbalances in electrical equipment, reducing its performance and leading to dangerous overheating.

### ***NOAA Ships and Aircraft***

NOAA's Office of Marine and Aviation Operations continues to modernize the Agency's fleet of ships and aircraft to modernize data collection and improve data quality. In June 2009, NOAA took delivery of PISCES, the third of four new fisheries survey vessels. The ship will support NOAA's mission to protect, restore, and manage the use of living marine, coastal, and ocean resources. NOAA ship ALBATROSS IV ended 45 years of admirable federal service to NOAA following decommissioning ceremonies in November 2008. Since entering service in 1963, this grand ship has logged 453 research cruises and sailed an estimated 655,272 miles. ALBATROSS

IV is the last of four vessels sharing the same name sailing from Woods Hole since 1883. The original ALBATROSS was the first built exclusively for marine research by any government. ALBATROSS IV was replaced by the new fishery survey vessel, HENRY B. BIGELOW, following fish stock assessment comparisons to ensure time-series data quality and consistency.

**STRATEGIC GOAL 3 PROGRAM EVALUATIONS**

<b>PROGRAM</b>	<b>OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH NATIONAL SEVERE STORMS LABORATORY (NSSL) NORMAN, OK</b>
<b>Strategic Objective</b>	Enhance performance of programs, encourage innovative and collaborative approaches to address scientific and technical issues related to the environment, articulate research contributions toward achieving the NOAA mission, and deliver evidence to stakeholders of the benefits of NOAA research.
<b>Name</b>	External Panel Review of NSSL Science, February 17-19, 2009
<b>Findings</b>	Final summary report of the review panel expected to be received August 2009.
<b>Actions as a Result of Evaluation</b>	Findings and recommendations in the final summary report will be addressed and actions taken within 12 months of the receipt of the final report.

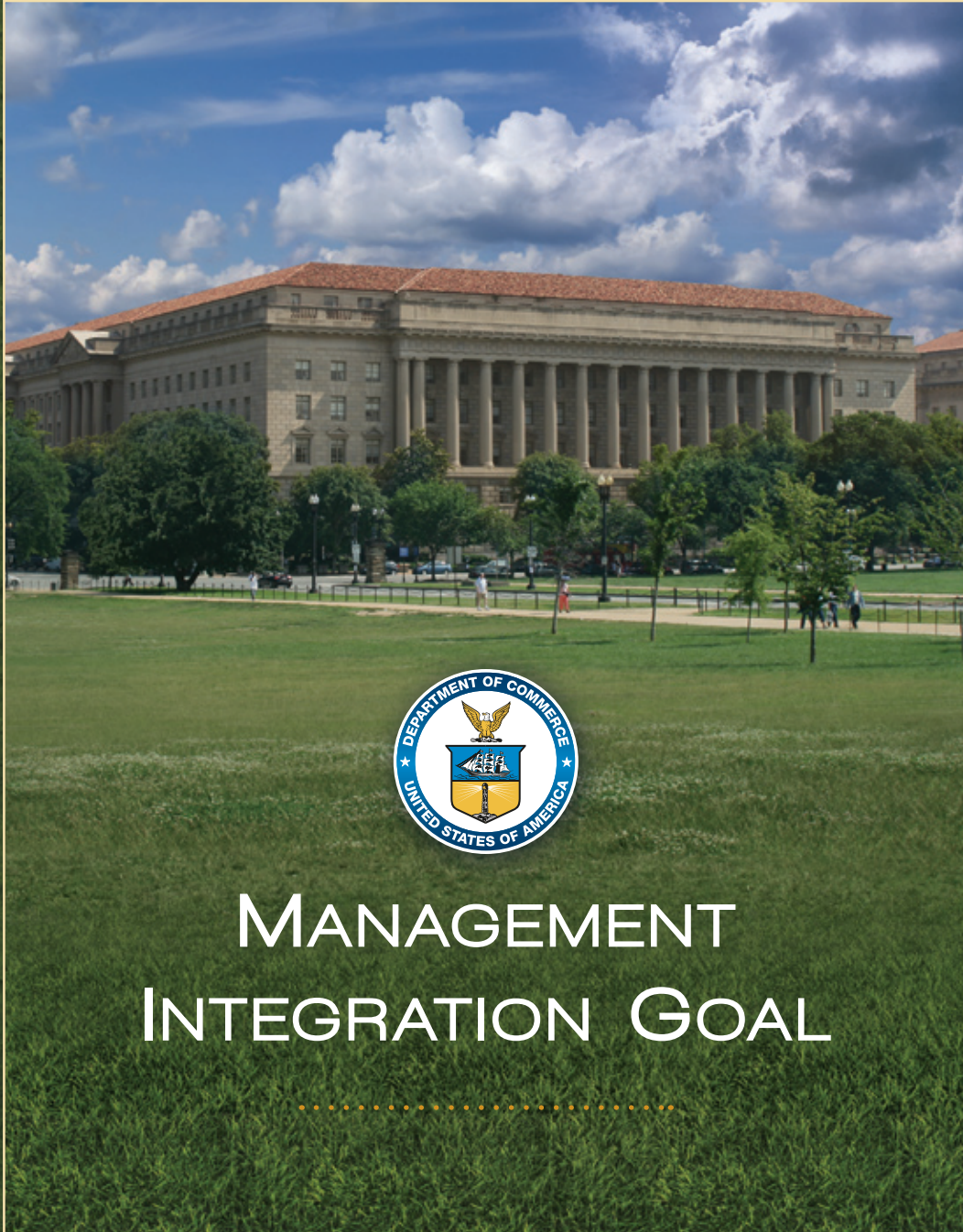
<b>PROGRAM</b>	<b>OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH GEOPHYSICAL FLUID DYNAMICS LABORATORY (GFDL) PRINCETON, NJ</b>
<b>Strategic Objective</b>	Enhance performance of programs, encourage innovative and collaborative approaches to address scientific and technical issues related to the environment, articulate research contributions toward achieving the NOAA mission, and deliver evidence to stakeholders of the benefits of NOAA research.
<b>Name</b>	External Panel Review of GFDL Science, June 30 – July 2, 2009
<b>Findings</b>	Final summary report of the review panel expected to be received October 2009.
<b>Actions as a Result of Evaluation</b>	Findings and recommendations in the final summary report will be addressed and actions taken within 12 months of the receipt of the final report.

<b>PROGRAM</b>	<b>CLIMATE GOAL/CLIMATE SERVICE DEVELOPMENT PROGRAM</b>
<b>Strategic Objective</b>	The Climate Working Group will review cross-program connections, synergies, and gaps; climate information products and applications strategic planning; and recommendations for the way forward. The Climate Service Development Program review will assist the NOAA Climate Goal in advancing NOAA's Climate Services.
<b>Name</b>	Climate Service Development Program Review (Climate Information Products and Applications), July 13 – July 15, 2009, by the Science Advisory Board Climate Working Group.
<b>Findings</b>	Final summary report of the review panel, date TBA.
<b>Actions as a Result of Evaluation</b>	Findings and recommendations in the final summary report will be addressed.





P E R F O R M A N C E   S E C T I O N



MANAGEMENT  
INTEGRATION GOAL



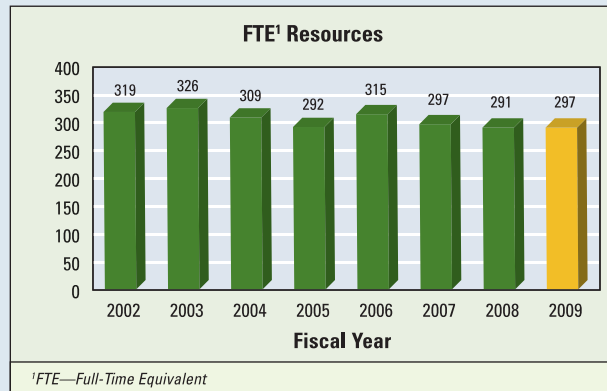
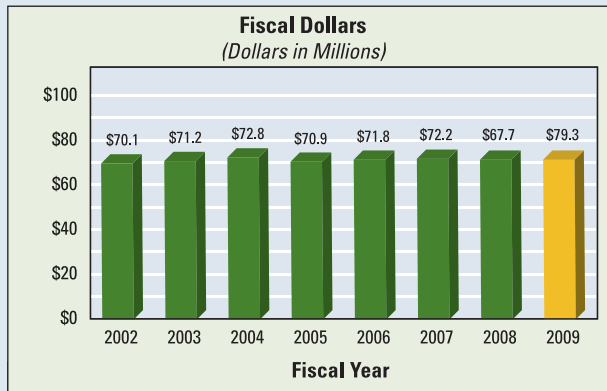
PERFORMANCE OUTCOME	TARGETS MET OR EXCEEDED
Ensure effective resource stewardship in support of the Department's programs (DM)	1 of 3
Ensure retention of highly qualified staff in mission-critical positions (DM)	1 of 1
Acquire and manage the technology resources to support program goals (DM)	1 of 1
Promote improvements to Department programs and operations by identifying and completing work that (1) promotes integrity, efficiency, and effectiveness; and (2) prevents and detects fraud, waste, and abuse (OIG)	3 of 3



MANAGEMENT INTEGRATION GOAL

Achieve organizational and management excellence

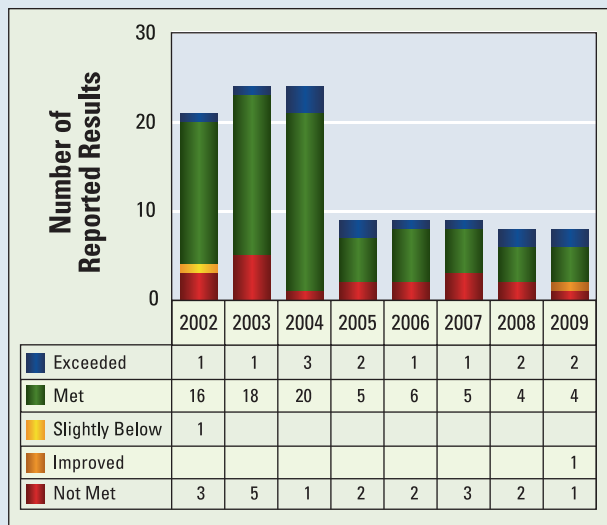
MANAGEMENT INTEGRATION GOAL TOTAL RESOURCES



PUBLIC BENEFITS AND SUMMARY OF PERFORMANCE

**A**chieving organizational and management excellence is a goal that requires extensive interaction and coordination among entities throughout the Department. Departmental Management (DM)—consisting of the Offices of the Secretary, Deputy Secretary, Chief Financial Officer (CFO) and Assistant Secretary for Administration, Chief Information Officer (CIO), and General Counsel—provides the policies and guidelines that support the management infrastructure the Department needs to carry out its mission. In addition, the Office of Inspector General (OIG) audit and inspection programs help promote consistency and integrity throughout the Department. Most of DM's and the OIG's work can be characterized as "behind-the-scenes," contributing to the efficiency with which operating units throughout the Department administer their programs.

MANAGEMENT INTEGRATION GOAL PERFORMANCE RESULTS



See Appendix A: Performance and Resource Tables for individual reported results.

Overall performance within this goal has been fairly good, meeting or exceeding targets on average 79 percent of the time from FY 2002 to FY 2009. Performance declined slightly from 81 percent of targets met or exceeded in FY 2002 to 75 percent in FY 2009. It should be noted, however, that the number of measures went down sharply in FY 2005 from a total of 24 in FY 2004 to eight in FY 2009. With fewer measures, even one measure shifting from met to not met can make a major change in the percentage met or exceeded.

***Performance Outcome: Ensure effective resource stewardship in support of the Department's programs (DM)***

**FY 2009 Funding Level** **\$43.1M**

The Department must have the capacity to do business with the public and its partner agencies, both as a more than \$6 billion worldwide enterprise, and as an integrated set of individual programs. This requires that it identify, adopt, and maintain business practices essential to successful operations; use its resources wisely; and effectively implement the laws that affect it. In order to ensure the accomplishment of its mission, the Department has developed and put into place policies and programs designed to enable the successful operation of its units, the effective and efficient use of both material and human resources (HR), and the implementation of laws and regulations that govern the use of those resources. This performance outcome represents the Department's commitment to ensuring the wise stewardship of its resources. Because this goal encompasses a wide range of administrative and operational tasks, the measures used to assess progress are highly diverse.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Provide accurate and timely financial information and conform to federal standards, laws, and regulations governing accounting and financial management	<ul style="list-style-type: none"> <li>Eliminate any significant deficiency within 1 year of determination</li> <li>Complete FY 2009 A-123 assessment of internal controls</li> </ul>	<ul style="list-style-type: none"> <li>Completed FY 2009 A-123 assessment of internal controls for financial reporting</li> <li>One significant deficiency was not eliminated</li> </ul>	<b>Not Met</b>
Effectively use commercial services management	Use business process re-engineering, feasibility studies and/or similar initiatives to identify operational efficiency and effectiveness opportunities	Due to change in Administration, all new competitive sourcing comparisons have been placed on hold. The same is true for the Green Plan.  2009 FAIR Act Inventory filed timely with OMB.	<b>Met</b>
Obligate funds through performance-based contracting (% of eligible service contracting \$)	50%	45%	<b>Improved but Not Met</b>

**FY 2009 MISSED TARGETS**

MEASURE	PROVIDE ACCURATE AND TIMELY FINANCIAL INFORMATION AND CONFORM TO FEDERAL STANDARDS, LAWS, AND REGULATIONS GOVERNING ACCOUNTING AND FINANCIAL MANAGEMENT
<b>Explanation</b>	The Department completed 71 percent of the outstanding information technology (IT) corrective actions for FY 2009. While many IT vulnerabilities were mitigated, the OIG auditors' used NIST Special Publication 800-53, Recommended Security Controls for Federal Information Systems, to conduct their review of IT controls in support of the FY 2009 Consolidated Financial Statement and continued to find IT control weaknesses, particularly in the areas of access controls and configuration management.
<b>Action</b>	The CIO/CFO team will continue to monitor the progress of financial systems IT plans of action and milestones (POA&M) via the Cyber Security Assessment and Management tool.

MEASURE	OBLIGATE FUNDS THROUGH PERFORMANCE-BASED CONTRACTING
<b>Explanation</b>	The infusion of ARRA funding (e.g. money obligated in the Decennial Census and the DTV coupon contracts) was not amenable to performance-based contracting and had the effect of skewing final outcomes. Less than optimal procurement infrastructure also contributed to these results.
<b>Action</b>	Performance-based contracting continues to be a primary focus in DM, and will be monitored closely in FY 2010. Limitations within the procurement infrastructure, e.g., data accuracy and level of staff expertise, continue to be aggressively addressed within the procurement community.

**ACHIEVEMENTS**

- Established a Security Operations Center at the Office of the Secretary to safeguard the Department's information resources against malicious Internet attacks. The Security Operations Center is responsible for monitoring the organization's computer components and the network infrastructure.
- Conducted an annual IT internal control review for all 14 Department operating units as part of continuous monitoring of security improvements. The review comprised Federal Information Security Management Act (FISMA), Federal Financial Management Improvement Act (FFMIA), and Federal Managers' Financial Integrity Act (FMFIA) control requirements.
- Continued to participate in the government-wide initiative to strengthen internal controls. Efforts are underway to enhance both financial and non-financial controls. Additional efforts and test of internal controls are also being implemented for the American Recovery and Reinvestment Act (ARRA) of 2009. A Senior Management Council and a Senior Assessment Team worked together to provide oversight guidance and decision-making for the OMB Circular A-123 process.
- On its FY 2009 financial statements, the Department achieved an unqualified audit opinion for the 11th consecutive year.
- Provided proactive and timely guidance to the acquisition and grants community in the Department to ensure smooth implementation of the ARRA.

<b><i>Performance Outcome: Ensure retention of highly qualified staff in mission-critical positions (DM)</i></b>	
<b>FY 2009 Funding Level</b>	<b>\$2.1M</b>

The Department continues to refine and develop programs to help train and retain a highly qualified workforce and avoid disruption in services it provides. Leadership priorities for improvement are based on employee feedback to surveys, various skills assessments, and comprehensive workforce analyses. While performance management systems are effective in rewarding high performers, more targeted approaches are necessary to close skill gaps in the entire workforce. Training and development programs are based on competency assessments for mission-critical occupations such as meteorologist, statistician, contract specialist, engineer, and chemist.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Acquire and maintain diverse and highly qualified staff in mission-critical occupations	<ul style="list-style-type: none"> <li>• Have new competency models in place for three mission-critical occupations for use in applicant selections and training and development decisions</li> <li>• Meet or exceed the 45-day hiring goals mandated by OPM</li> <li>• Train up to 50-60 participants on leadership development programs via ALDP, ELDP and APCP</li> <li>• Open ALDP to Department employees nationwide</li> </ul>	<ul style="list-style-type: none"> <li>• Competency models in place for four series including budget analyst, meteorologist, oceanographer, and hydrologist</li> <li>• Average time to fill of 31 days for non-SES (senior executive service) vacancies</li> <li>• 100 trainees graduated from leadership development programs</li> <li>• Department employees nationwide applied to ALDP</li> </ul>	Exceeded

### FY 2009 STATUS

DM exceeded the targets for implementing new competency models for three mission-critical occupations for use in workforce recruitment, training, and development activities and filling vacancies within the 45-day hiring goals mandated by the Office of Personnel Management (OPM). DM exceeded the target for training 50-60 employees in the Executive Leadership Development Program (ELDP), Aspiring Leaders Development Program (ALDP), and Administrative Professional Certificate Program (APCP). DM met the target to open ALDP to Department employees nationwide.

### HISTORICAL TRENDS

DM has consistently met the targets for this measure.

### ACHIEVEMENTS

- Ranked number 10 (out of 62 agencies) in the Best Places to Work in the federal government rankings—the most comprehensive and authoritative rating of employee satisfaction and commitment in the federal government—produced by the Partnership for Public Service and American University’s Institute for the Study of Public Policy Implementation.
- Implemented targeted and expedited recruitment strategies to hire more than 2,260 (95 percent of projected 2,380) temporary employees to assist in carrying out the Department’s responsibilities under ARRA. Established an accountability system for measuring and reporting hiring results. ARRA allocated \$7.9 billion to the Department.
- Exceeded the required federal government-wide standards for the design, implementation, and results of agency performance management programs by earning a score of 85 points from OPM on the Performance Appraisal Assessment Tool Report. The Department was one of only 16 federal agencies that received a passing score of 80 points or higher.
- In conjunction with OPM evaluators, conducted comprehensive human capital assessment and accountability audits of five organizational units at the bureau level to determine compliance with merit principles. Findings from the accountability audits are being tracked to ensure corrective actions are taken and continuous improvements are made to the human capital management systems throughout the Department.

**Performance Outcome: Acquire and manage the technology resources to support program goals (DM)**

**FY 2009 Funding Level** **\$7.6M**

As U.S. society becomes increasingly oriented toward using electronic means of communication and information dissemination, federal agencies must ensure that they continue to be as responsive as possible to the needs of the public, the private sector, other levels of government, and other federal agencies. DM must promote leading-edge technologies, collaboration, and technology transformation across the Department, ensuring alignment with mission requirements, goals, and objectives in order to deploy and maintain systems able to perform at the highest levels.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Improve the management of information technology	<ul style="list-style-type: none"> <li>• Cost/schedule overruns/performance shortfalls less than 10%</li> <li>• All national-critical and mission-critical systems certified and accredited with acceptable, quality documentation in place</li> </ul>	<ul style="list-style-type: none"> <li>• Cost/schedule overruns and performance shortfalls averaged under 10%</li> <li>• CSAM C&amp;A enhancements were deployed</li> <li>• IT security compliance in all operating units and five FISMA systems in CSAM were reviewed</li> </ul>	<b>Met</b>

**HISTORICAL TRENDS**

DM has consistently met the targets for this measure.

**ACHIEVEMENTS**

- Established the Commerce Investment Review Board to provide holistic programmatic assessment of all major Department programs, both IT and non-IT. This new board will ensure that Department investments are well managed and of value to the taxpayer. In support of the Commerce Investment Review Board, developed solid business cases for major IT investments to ensure that IT funds are managed and invested wisely.
- Achieved, on average, within five percent of cost, schedule, and performance targets for the Department's major IT investments undergoing development and enhancement.
- Prepared privacy impact assessments, including procedures to log and verify extracts of sensitive information, and posted them to the Web. These assessments document for the public the Department's commitment to IT privacy.
- Developed policy concerning electronic transmission of personally identifiable information so that Department employees will know how such information should be handled.
- Updated the Department IT Security Program Policy and created interim policies governing various programs, including federal desktop core configuration, foreign travel, IT continuous monitoring, C&A process and mobile media, process overview, remote access, password management, peer-to-peer file sharing, role-based training, Bluetooth use with BlackBerry, Web application security, inventory management, and POA&M inventory.

- Implemented a cyber intrusion prevention system for monitoring and reporting IT security violations at the Herbert C. Hoover Building. As a result of this continuous monitoring, the Department detected malicious cyber attacks and implemented corrective actions to mitigate potential threats. Acquired the secure Domain Name System (DNS) capability to enhance cyber security at the Office of the Secretary.
- Developed a Trusted Internet Connection (TIC) implementation approach, which will direct all operating unit Internet traffic to run through one of several planned TIC access provider portals.

**Performance Outcome: Promote improvements to Department programs and operations by identifying and completing work that (1) promotes integrity, efficiency, and effectiveness; and (2) prevents and detects fraud, waste, and abuse (OIG)**

**FY 2009 Funding Level** **\$26.5M**

The OIG’s criminal, civil, and administrative investigations continue to disclose instances of misconduct by employees, contractors, and grantees that threaten the integrity of the Department’s programs and operations. In addition, auditors or inspectors frequently identify investigative issues, such as fraud and conflicts of interest, and refer such matters to the OIG’s investigators.

PERFORMANCE MEASURE	TARGET	ACTUAL	STATUS
Percentage of OIG recommendations accepted by Departmental and bureau management	95%	97%	Met
Dollar value of financial benefit identified by the OIG	\$28.0M	\$126.9M	Exceeded
Percentage of criminal and civil matters that are accepted for prosecution	63%	78%	Met

## HISTORICAL TRENDS

The OIG has exceeded its performance targets for several years, particularly the target “Dollar value of financial benefits identified by the OIG.” The value of financial benefits can vary widely from year to year, depending on the work the OIG is engaged in. For example, most of the financial benefits for the last two years have been the result of a single case, which is now ending.

## ACHIEVEMENTS

Almost all of the OIG’s recommendations made were accepted by senior Agency leadership; implementation of these recommendations will result in significant improvements to the Department’s operations. The OIG’s inspections and audits also captured significant financial benefits for the Department, including recovery of funds returned to the Department, expenditures that were not supported by adequate documentation, recoveries from criminal and civil investigations, future financial benefits from recommendations for more efficient use of Department funds, and expenditure of funds that may have been inconsistent with applicable laws and regulations.