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Section 1 Overview

Research and Innovative Technology Administration (RITA) FY 2009 Congressional Budget Request

Administrator's Overview

The Research and Innovative Technology Administration (RITA) is dedicated to coordinating, facilitating and reviewing the Department of Transportation's (DOT) Research, Development and Technology (RD&T) activities; and to developing and deploying technologies that will improve intermodal transportation safety and security, reduce freight and traveler congestion, promote economic growth, and deliver a better-integrated transportation enterprise for America.

The FY 2009 budget request for RITA totals \$39,000,000. This request reflects funding levels authorized in the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, P.L. 109-59, August 8, 2005). The request also provides \$4,600,000 for maintenance of the Nationwide Differential Global Positioning System (NDGPS), and \$400,000 for other delegated positioning, navigation and timing (PNT) responsibilities.

This budget request continues RITA's commitment to focusing DOT RD&T programs and projects on the strategic objectives of the *DOT Strategic Plan 2006-2011*, expressed through the *Transportation Research*, *Development and Technology Strategic Plan 2006-2010* and guided by decisions of the executive-level DOT RD&T Planning Council.

RITA's Mandate

The Norman Y. Mineta Research and Special Programs Improvement Act (P.L. 108-426, November 30, 2004, the "Mineta Act"), assigned the following responsibilities to RITA:

- coordination, facilitation, and review of the Department's research and development programs and activities;
- advancement, and research and development, of innovative technologies, including intelligent transportation systems;
- comprehensive transportation statistics research, analysis, and reporting;
- education and training in transportation and transportation-related fields;
- review activities of the Volpe National Transportation Systems Center; and
- other powers and duties prescribed by the Secretary.

RITA's SAFETEA-LU Responsibilities

A significant portion of RITA's budget request supports the authorized SAFETEA-LU programs delegated to RITA by the Secretary as supporting RITA's mandate. These programs include:

- Transportation Research and Development Strategic Planning (sec. 5208);
- National Cooperative Freight Research Program (sec. 5209);
- University Transportation Research (secs. 3036, 5401, 5402);
- Commercial Remote Sensing Products and Spatial Information Technologies (sec. 5506);
- and the mandates of the Bureau of Transportation Statistics (sec. 5601).

Summary of FY 2009 Budget Request

RITA's FY 2009 budget request of \$39,000,000 comprises \$27,000,000 from the Highway Trust Fund and \$12,000,000 from the General Fund. RITA also will manage and coordinate over \$400 million in multimodal transportation-related research, analysis, technology transfer, education and training activities on a reimbursable basis. To summarize RITA's FY 2009 budget request:

Research, Development and Technology

The *Office of Research, Development and Technology* (RD&T) is responsible for the management, strategic planning, coordination, facilitation and review of RITA's RD&T programs. The requirements to support these programs are reflected in budget requests for:

- RD&T Coordination;
- Hydrogen Fuels Safety R&D (supporting the President's Hydrogen Fuel Initiative);
- Nationwide Differential Global Positioning System (NDGPS) Program (supporting the U.S. National Space Policy); and
- Positioning, Navigation and Timing (PNT) (supporting the U.S. National Space Policy).

Transportation Statistics

The *Bureau of Transportation Statistics* (BTS) develops and disseminates transportation data and high-quality information to advance the effective use of public and private transportation decision making, through programs addressing:

- Freight Statistics;
- Transportation Economics;
- Geospatial Information Systems;
- Statistical Methods and Standards; and
- the responsibilities of the National Transportation Library.

Consulting and Other Professional Services

In FY 2009 RITA will coordinate, facilitate, and review over \$400 million in transportation-related research, analysis, technology transfer, deployment, education and training activities:

- John A. Volpe National Transportation Systems Center (Volpe Center, Cambridge, MA) provides research, analysis, technology deployment, and other technical knowledge and expertise to DOT and non-DOT customers on specific transportation systems projects or issues, on a fee-for-service basis.
- *Transportation Safety Institute* (TSI, Oklahoma City, OK) provides training to more than 30,000 DOT and non-DOT transportation professionals annually in transportation safety and security, on a fee-for-service and tuition basis.
- University Transportation Centers (UTC) Program advances U.S. technology and expertise in many transportation-related disciplines, and advances DOT RD&T priorities, through grants for transportation education, research and technology transfer at university-based centers of excellence.
- The *Intelligent Transportation System (ITS) Research Program* is designed to facilitate deployment of technologies to reduce system congestion and to enhance the safety,

efficiency, and convenience of surface transportation. The ITS program carries out its goals through research and development, operational field testing, technology transfer, training and capacity building, and technical guidance activities. Per SAFETEA-LU, the ITS Research Program is funded through the Federal Highway Administration (FHWA). The Secretary has assigned RITA to manage all aspects relating to this program.

RITA's Support for the Strategic Objectives of the DOT Strategic Plan

While pursuing its Mineta Act mandate and the broader RD&T coordination mission for DOT, RITA uses the *DOT Strategic Plan* to guide programmatic and administrative decisions, and to formulate and manage resource requirements.

The FY 2009 budget request supports all of the Department's strategic objectives. Examples of the linkage between these objectives and RITA's FY 2009 programs include (*Reimbursable activities not include*):

Safety [\$0]

- Undertaking hydrogen safety R&D, and accelerating the hydrogen safety education and training initiative with the National Association of State Fire Marshals.
- Providing multimodal safety training at the Transportation Safety Institute, as part of RITA's reimbursable programs.

Reduced Congestion [\$7,106,000]

- Enhancing transportation planning and operations by distributing transportation data through the National Transportation Atlas Database (NTAD), and supporting the transportation component of the National Spatial Data Infrastructure (NSDI).
- Maintaining the Nationwide Differential Global Positioning System (NDGPS).
- Performing system engineering and assessment toward developing a Civil Positioning, Navigation and Timing (PNT) Architecture.

Global Connectivity [\$20,426,000]

- Conducting and analyzing the Commodity Flow Survey (CFS), the only national snapshot of freight commodity movement in the U.S.
- Routinely collecting, analyzing and publishing information on transborder surface freight data for U.S. exports to and imports from Canada and Mexico.
- Providing monthly incoming border crossing/entry data for vehicles, containers, passengers, and pedestrians on the U.S.-Canadian and U.S.-Mexican borders.
- Supplying technical support for the International Trade Data System (ITDS) and developing and managing the information portal for DOT users.

Environmental Stewardship [\$852,000]

- Leading the Department's participation in the President's Hydrogen Fuel Initiative, the Hydrogen R&D Interagency Task Force, and the International Partnership for a Hydrogen Economy (IPHE).
- Conducting research projects in hydrogen fuels technology, including a hydrogen infrastructure analysis study and hydrogen materials compatibility research.

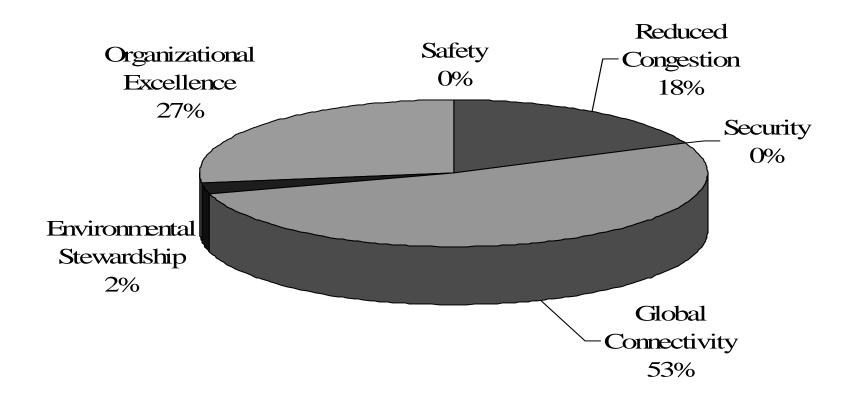
Security, Preparedness and Response [\$0]

- Providing sophisticated mapping support to the DOT Crisis Management Center (CMC).
- Providing significant technical and training support to DOT and non-DOT transportation security activities through the Volpe National Transportation Systems Center and the Transportation Safety Institute, as part of RITA's reimbursable programs.

Organizational Excellence [\$10,616,000]

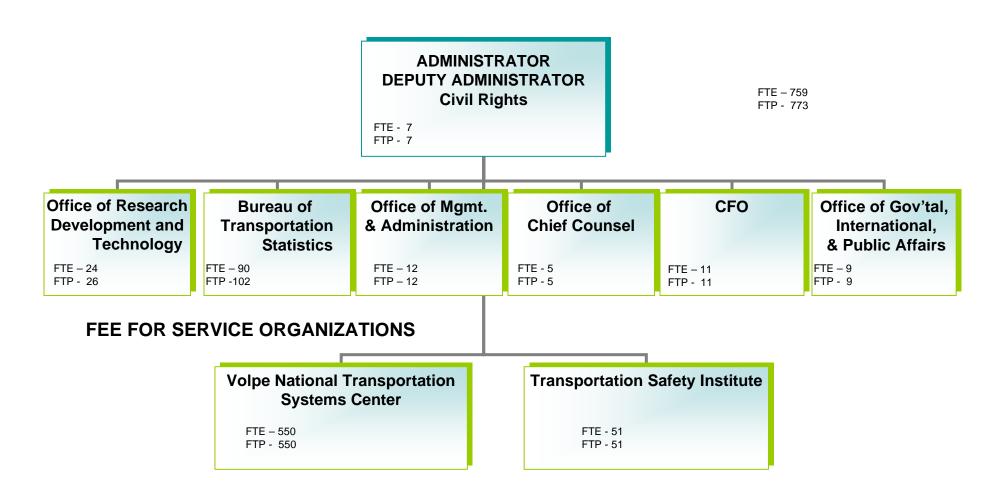
- Completing, and tracking and reporting status and results against, the *Transportation Research, Development and Technology Strategic Plan 2006-2010*.
- Leveraging the resources of the National Transportation Library to develop an accessible transportation knowledge network.
- Increasing the relevance to DOT and national RD&T priorities of the transportation research activities undertaken by the university centers funded through the University Transportation Centers (UTC) Program.

RITA Support to DOT Strategic Objectives

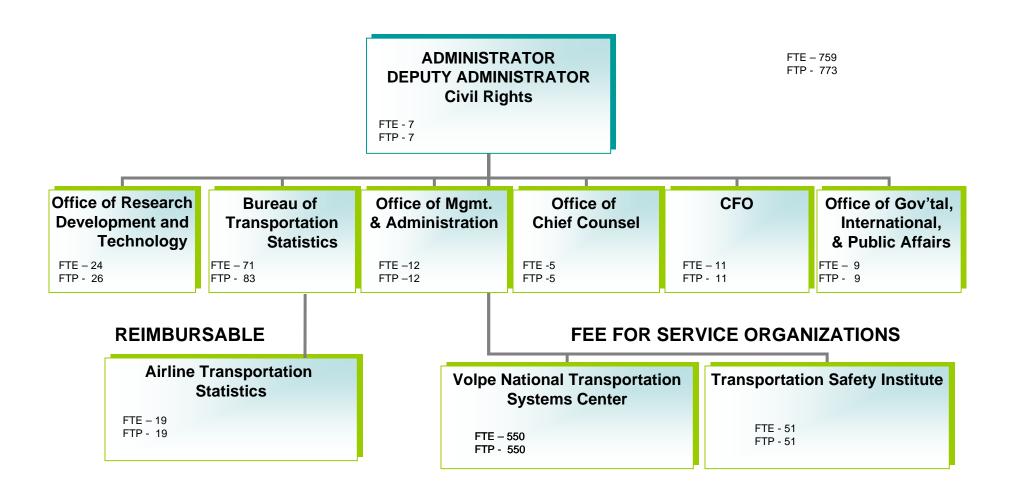


Organizational Charts

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION FY 2008



RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION FY 2009



Section 2 Budget Summary Tables

EXHIBIT II-1 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

	FY 2007	FY 2008	FY 2009	FY 2009
Account Name	Actual	Enacted	Target	Request
Research and Development	7,736	12,000	12,000	12,000
Bureau of Transportation Statistics (HTF) 1/	[27,562] 2/	[27,000]	[27,000]	[27,000]
TOTAL	7,736	12,000	12,000	12,000

 $^{^{1/}}$ Resources are shown as non-adds because the Bureau of Transportation Statistics is an allocation account under the Federal-aid Highway program.

^{2/} An increase of \$562K over amounts provided in SAFETEA-LU is due to Revenue Aligned Budget Authority (RABA) estimates (\$469K) and a pay increase (\$93K) provided by H.J. Res. 20.

EXHIBIT II-2 FY 2009 BUDGET REQUEST BY APPROPRIATION ACCOUNT RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Research and Development

Appropriations, Obligation Limitations and Exempt Obligations (\$000)

				FY 2009	FY 2009		Variance
	FY 2007 Actual	FY 2008 Enacted	FY 2009	Baseline Estimates	Program Changes	FY 2009	From
Research and Development:	Actual	Enacted	Target	Estimates	Changes	Request	Target
Salaries and Administrative Expenses	4,705	5,964	5,964	5,964	0	5,964	0
Hydrogen Fuels Safety Research and Development	495	500	500	500	0	500	0
RD&T Coordination	536	536	536	536	0	536	0
Nationwide Differential Global Positioning System	0	5,000	5,000	5,000	-400	4,600	-400
Positioning, Navigation and Timing (PNT) $^{\mathrm{1/}}$	0	0	0	0	400	400	400
Airline Transportation Statistics Program	2,000	0	0	0	0	0	0
TOTAL: [Discretionary]	7,736	12,000	12,000	12,000	0	12,000	0
Reimbursable Programs/Other:							
University Transportation Centers	[76,700]	[76,700]	[76,700]	[76,700]	[0]	[76,700]	[0]
Transportation Safety Institute	[15,000]	[17,000]	[17,000]	[17,000]	[0]	[17,000]	[0]
VOLPE National Transportation Systems Center	[202,491]	[218,000]	[218,000]	[218,000]	[0]	[218,000]	[0]
Intelligent Transportation Systems	[110,000]	[110,000]	[110,000]	[110,000]	[0]	[110,000]	[0]
TOTAL: [Reimbursable/Other]	[404,191]	[421,700]	[421,700]	[421,700]	[0]	[421,700]	[0]

^{1/} This is a new activity in FY 2009 to develop the requirements for civil applications of the Global Positioning System.

EXHIBIT II-2 FY 2009 BUDGET REQUEST BY APPROPRIATION ACCOUNT RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Bureau of Transportation Statistics (Allocation Account under FHWA's Federal-Aid Highways)
Appropriations, Obligations Limitations and Exempt Obligations
(\$000)

	FY 2007 Actual	FY 2008 Enacted	FY 2009 Target	FY 2009 Baseline Estimates	FY 2009 Program Changes	FY 2009 Request	Variance From Target
Bureau of Transportation Statistics	-						
Travel Statistics	2,947	2,947	2,947	2,947	0	2,947	0
Freight Statistics	11,285	10,723	10,723	10,723	0	10,723	0
Transportation Economics	1,811	1,811	1,811	1,811	0	1,811	0
Geospatial Information	1,758	1,758	1,758	1,758	0	1,758	0
Compilations, Methods and Standards	7,416	7,416	7,416	7,416	0	7,416	0
National Transportation Library	2,345	2,345	2,345	2,345	0	2,345	0
TOTAL: [Discretionary] ^{2/3/}	[27,562]	[27,000]	[27,000]	[27,000]	[0]	[27,000]	[0]
Reimbursable Programs:							
Air Transportation Statistics 1/	[4,000]	[4,000]	[4,000]	[4,000]	[0]	[4,000]	[0]

^{1/} The Air Transportation Statistics program is proposed to be funded by reimbursable resources.

^{2/} Resources are shown as non-adds because the Bureau of Transportation Statistics is an allocation account under the Federal-aid Highway program.

^{3/} An increase of \$562K over amounts provided in SAFETEA-LU is due to Revenue Aligned Budget Authority (RABA) estimates (\$469K) and a pay increase (\$93K) provided by H.J. Res. 20.

Exhibit II-3 FY 2009 BUDGET REQUEST BY APPROPRIATION ACCOUNT AND STRATEGIC GOAL RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION RESEARCH AND DEVELOPMENT

Appropriations, Obligation Limitations, & Exempt Obligations (\$000)

	Safety	Reduced Congestion	Global Connectivity	Environment Steward.		Org. Excellence	Total
Appropriation/Program Activity					-		
Research and Development							
Hydrogen Fuels Safety Research and Development	0	0	0	852	0	0	852
Research, Development & Technology Coordination	0	0	0	0	0	5,800	5,800
Nationwide Differential Global Positioning System	0	4,948	0	0	0	0	4,948
Positioning, Navigation and Timing (PNT)	0	400	0	0	0	0	400
Total	0	5,348	0	852	0	5,800	12,000
Total Direct FTE	0	1	0	1	0	34	36

Exhibit II-3 FY 2009 BUDGET REQUEST BY APPROPRIATION ACCOUNT AND STRATEGIC GOAL RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION BUREAU OF TRANSPORTATION STATISTICS (HTF Allocation)

Appropriations, Obligation Limitations, & Exempt Obligations (\$000)

	Safety	Reduced Congestion		Environmental Stewardship	Security	Org. Excellence	Total
Appropriation/Program Activity	·				·		
Travel Statistics	0	0	2,947	0	0	0	2,947
Freight Statistics	0	0	10,723	0	0	0	10,723
Transportation Economics	0	0	1,811	0	0	0	1,811
Geospatial Information	0	1,758	0	0	0	0	1,758
Compilations, Methods and Standards	0	0	4,945	0	0	2,471	7,416
National Transportation Library	0	0	0	0	0	2,345	2,345
TOTAL	0	[1,758]	[20,426]	0	0	[4,816]	[27,000]
TOTAL Direct FTE	0	7.4	76.6	0	0	19	103

Exhibit II-3A

FY 2009 INFORMATION TECHNOLOGY (IT) BUDGET REQUEST BY IT INVESTMENT AND STRATEGIC GOAL RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

 $\begin{tabular}{ll} Appropriations, Obligation Limitations, \& Exempt Obligations \\ (\$000) \end{tabular}$

		Reduced	Global	Environment.		Org.	
	Safety	Congestion	Connectivity		Security	Excellence	Total
Decision Unit: BTS		Ü	·				
Common IT Services (consolidated into DOT IT							
Services)							1,536
Achieve PMA						1,536	
RITAX005: RITA Web							923
Achieve PMA						923	
RITAX006: RITA Mission Support							1,285
Achieve PMA						1,285	
DOTXX098: International Freight Data System							400
Reduce barriers to trade			133				
Improve efficiency of freight movement			133				
Reduce congestion		134					
Decision Unit: RD&T							
Common IT Services (consolidated into DOT IT							
Services)							480
Achieve PMA						480	
RITAX005: RITA Web							138
Achieve PMA						138	
RITAX006: RITA Mission Support							402
Achieve PMA						402	
RITAX022: Transportation Research Database							119
Achieve PMA						119	
Total	0	134	266	0	0	4,883	5,283
FTEs		3.7	5.6	0	0	9.4	18.7

EXHIBIT II-4
FY 2009 BUDGET REQUEST RECAP BY ACCOUNT
RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations
\$(000)

Accounts	FY 2007 Actual	FY 2008 Enacted	FY 2009 Target	FY 2009 Request
Research and Development	7,736	12,000	12,000	12,000
Bureau of Transportation Statistics				
Travel Statistics	2,947	2,947	2,947	2,947
Freight Statistics	11,285	10,723	10,723	10,723
Transportation Economics	1,811	1,811	1,811	1,811
Geospatial Information	1,758	1,758	1,758	1,758
Compilations, Methods and Standards	7,416	7,416	7,416	7,416
National Transportation Library	2,345	2,345	2,345	2,345
Total - Bureau of Transportation Statistics $^{1/}$	[27,562]	[27,000]	[27,000]	[27,000]
TOTAL	7,736	12,000	12,000	12,000

Resources are shown as non-adds because the Bureau of Transportation Statistics is an allocation account under the Federal-aid Highway program.

EXHIBIT II-5 FY 2009 BUDGET REQUEST BY ACCOUNT RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Outlays (\$000)

	FY 2007	FY 2008	FY 2009
Accounts	Actual	Enacted	Request
Research and Development	-88,632	104,635	12,000
VOLPE National Transportation Systems Center	-30,171	0	0
TOTAL	-118,803	104,635	12,000

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

RESEARCH AND DEVELOPMENT

					Bas	seline C	hanges								
	2008 Enacted	2008 PC&B By 2008 # FTE Program Per Program		2008 Annualization of Pay Raise	2009 Pay Raises	GSA Rent	Other Services Increase/ Decrease	1 Day Pay Decrease	Inflation/ Deflation	FY 2008 Adjusted Base	Program Inc/ Dec	2009 PC&B Program Increase	2009 # FTE Per Program Increase	2008 Contract Expense Program Increases	FY 2009 Request
<u>OPERATIONS</u>		Note Non-A	dd										Note Non-Ad	ld	
PERSONNEL RESOURCES (FTE)	<u>36</u>														
Direct FTE	36									36					36
FINANCIAL RESOURCES															
Salaries and Benefits	3,470	36		39	78			-14		3,573					3,57
Travel	131								3	134					134
Training	52	 !							1	53					5.
GSA Rent	550)							13	563					56.
Other Services:															
-WCF	923						16		21	960	1				960
-Common Services	726	i					-176		17	567					56
Equipment	71								2	73					7.
Supplies	41									41					4
Admin Subtotal	5,964			39	78	(-160	-14	57	5,964	. 0				5,96
PROGRAMS															
Research and Development Program															
Hydrogen Fuels Safety R&D	500)								500)			0	500
RD&T Coordination	536	;								536					530
NDGPS	5,000)								5,000	-400			0	4,600
PNT	0)								0	400				400
Programs Subtotal	6,036	Í		0	0	(0		0	6,036	0	0		0	6,03
CD AND TOTAL	12 000			20	70	-) -160	1.4	59	12 000					12.00
GRAND TOTAL	12,000	1		39	78	(, -100	-14	57	12,000	0	0	'		12,000

EXHIBIT II-6 SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

BUREAU OF TRANSPORTATION STATISTICS (Highway Trust Fund Allocation)

Rase	ine	Cha	nges

			-		Dascii	не Спан;	<u>, co</u>									
	2008 Enacted	2008 PC&B By Program		2008 Contracts Expenses	2008 Annualization of Pay Raise	2009 Pay Raises	GSA Rent	Other Services Increase/ Decrease	1 Day Pay Decrease	Inflation/ Deflation	FY 2008 Adjusted Base	Program Inc/ Dec	2009 PC&B Program Increase	2009 # FTE Per Program Increase	2008 Contract Expense Program Increases	FY 2009 Request
<u>OPERATIONS</u>		1	Note Non-A	dd										Note Non-Add	i	
PERSONNEL RESOURCES (FTE)	103															
Direct FTE	103										103					103
FINANCIAL RESOURCES																
Salaries and Benefits	14,030		103		157	316			-55		14,448					14,448
Travel	112									3	115					115
Training	66									0	66					66
GSA Rent	1,382									32	1,414					1,414
Other Services:																
-WCF	2,949							5		68	3,022					3,022
- Common Services	2,779							-28		64	2,815					2,815
Supplies	20									0						20
Equipment	347									8	355					355 22,25 5
Admin Subtotal	21,685		103		157	316	0	-23	-55	175	22,255	0				22,255
PROGRAMS																
Travel Statistics	0			0	 						0					0
Freight Statistics	3,565			3,565							3,565	-570				2,995
Transportation Economics	0			0							0					0
Geospatial Information	200			200							200					200
Compilations, Methods and Standards	1,100			1,100							1,100					1,100
National Transportation Library	450			450	1						450					450
Air Transportation Statistics	0			0							0					0
Programs Subtotal	5,315	0	0	5,315							5,315	-570				4,745
GRAND TOTAL	27,000	0	103		157	316	0	-23	-55	175	27,570	-570				27,000

EXHIBIT II-6A

WORKING CAPITAL FUND RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligation Limitations, Exempt Obligations and Reimbursable Obligations (\$000)

	FY 2008 ENACTED	FY 2009 REQUEST	CHANGE
<u>Direct Funded by Appropriation:</u> Research and Development	923,000	959,386	36,386
Allocation Account: Bureau of Transportation Statistics	2,949,139	3,022,066	72,927
Reimbursable Account: Airline Transportation Statistics	811,450	815,478	4,028
TOTAL	4,683,589	4,796,930	113,341

EXHIBIT II-7 RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION PERSONNEL RESOURCE - SUMMARY TOTAL FULL-TIME EQUIVALENTS

	FY 2007	FY 2008	FY 2009
	Actual	Enacted	Request
Direct Funded by Appropriation:			
Research and Development	21	36	36
Allocation Account:			
Bureau of Transportation Statistics	90	103	103
Reimbursable:			
Volpe National Transportation Systems Center	510	550	550
Transportation Safety Institute	38	51	51
Bureau of Transportation Statistics:			
Air Transportation Statistics	0	19	19
Total Reimbursable FTE	38	70	70
Other:			
Intelligent Transportation Systems [non-add]	[15]	[17]	[17]
TOTAL FTES	659	759	759

EXHIBIT II-8 RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION PERSONNEL RESOURCE - SUMMARY TOTAL FULL-TIME PERMANENT POSITIONS

	FY 2007 Actual	FY 2008 Enacted	FY 2009 Request
Direct Funded by Appropriation:			
Research and Development	33	36	36
Allocation Account:			
Bureau of Transportation Statistics	136	117	117
Reimbursable:			
Volpe National Transportation Systems Center	550	550	550
Transportation Safety Institute	49	51	51
Bureau of Transportation Statistics:			
Air Transportation Statistics	0	19	19
Total Reimbursable FTP	49	70	70
Other:			
Intelligent Transportation Systems [non-add]	[15]	[17]	[17]
TOTAL FTP	768	773	773

Section 3 Budget Request by Appropriation Account

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Research and Development

For necessary expenses of the Research and Innovative Technology Administration, \$12,000,000, of which \$6,036,000 shall remain available until September 30, [2010]2011: Provided, That there may be credited to this appropriation, to be available until expended, funds received from States, counties, municipalities, other public authorities, and private sources for expenses incurred for training. (Department of Transportation Appropriation Act, 2008)

EXHIBIT III-1

Research and Development

Appropriations Summary by Program Activity Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

	FY 2007 Actual	FY 2008 Enacted	FY 2009 Target	FY 2009 Request	Change FY 2008- 2009
Research and Development					
Salaries and Administrative Expenses	4,705	5,964	5,964	5,964	0
Hydrogen Fuels Safety Research & Development	495	500	500	500	0
RD&T Coordination	536	536	536	536	0
Nationwide Differential Global Positioning System	0	5,000	5,000	4,600	-400
Positioning, Navigation and Timing (PNT)	0	0	0	400	400
Airline Transportation Statistics Program	2,000	0	0	0	0
TOTAL	7,736	12,000	12,000	12,000	0
<u>FTEs</u>					
Direct Funded Reimbursable:	21	36	36	36	0
Transportation Safety Institute	38	51	51	51	0
Volpe National Transportation Systems Center	510	550	550	550	0
Other:					
Intelligent Transportation Systems [non-add]	[15]	[17]	[17]	[17]	0

EXHIBIT III-2

RESEARCH AND DEVELOPMENT

SUMMARY ANALYSIS OF CHANGE FROM FY 2008 TO FY 2009

Appropriations, Obligations, Limitations and Exempt Obligations

(\$000)

	(\$000)	T-				
	Change					
	from FY	FY 2009	FY 2009	FY 2009		
	2008 to FY	PC&B by	FTEs by	Contract		
Item	2009	Program	Program	Expenses	7	Γotal
FY 2008 Base	\$ 12,000	Note: Co	<mark>olumns are</mark> l	Non-Add	\$	12,000
Adjustments to Base						
2008 Pay Raise Annualization (3.5%)	39					
2009 Pay Raise (2.9%)	78					
Inflation	57					
Other Services Adjustment	-160					
One less pay day	-14					
Subtotal, Adjustments to Base	(0)					
New or Expanded Programs						
Salaries & Admin Expenses	0	5,964	36	0		\$5,964
Hydrogen Fuels Safety R&D	0			500		500
RD&T Coordination	0	0	0	536		536
Nationwide Differential Global Positioning						
System (NDGPS)	-400	0	0	4,600		4,600
Positioning, Navigation and Timing (PNT)	400	0	0	400		400
Subtotal, New or Expanded Program						
Increases/Decreases	0	5,964	36	6,036		12,000
Total FY 2009 Request	\$ 12,000	5,964	36	6,036	\$	12,000

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Research and Development Program and Performance

The Research and Innovative Technology Administration (RITA) works to provide strategic clarity to DOT's multi-modal and intermodal research efforts and coordinates DOT's multifaceted research agenda. Coordination and advancement of research and development activities is led by the RITA Office of Research, Development and Technology and is funded through the General Fund. RITA also manages the Department's work in Position, Navigation and Timing and the Nationwide Differential Global Positioning System.

RITA also coordinates and reviews the following programs and activities: 1) the Volpe Center -- that services many of the research, development, and technology needs of the Department's operating administrations on a fee-for-service basis; 2) the Intelligent Transportation Systems -- that facilitates deployment of technology to enhance the safety, efficiency and convenience of surface transportation; and 3) the Transportation Safety Institute -- that develops and conducts worldwide safety, security, and environmental training, products and services for both the public and private sector on a fee-for-service basis.

The Bureau of Transportation Statistics (BTS) is funded by an allocation from the Federal Highway Administration's Federal-Aid Highways account. BTS compiles, analyzes, and makes accessible information on the Nation's transportation systems; including statistics on freight movement, geospatial transportation information and transportation economics.

RESEARCH AND DEVELOPMENT

RESEARCH AND DEVELOPMENT PROGRAM AND FINANCING

(in thousands of dollars)

Identifica	tion code 69-1730-0	FY 2007	FY 2008	FY 2009
		Actual	Enacted	Request
Obliga	tions by Program Activity:			-
0001	Salaries and Administrative Expenses	4,506	6,113	5,964
0002	Airline Transportation Statistics Program	2,000	0	0
0003	Research development and technology coordination	149	1,079	536
0004	Hydrogen Fuels Safety R&D	467	1,036	500
0005	Nationwide Differential Global Positioning System	0	4,600	5,000
0006	Positioning Navigation & timing	0	400	0,000
0100	Direct Program by Activities - Subtotal (running)	7,122	13,228	12,000
0901	-			
0902	University Transportation Center	83,036	77,000	77,000
	Transportation Safety Institute	11,779	17,000	17,000
0903	Other Programs	35,980	32,000	32,000
0909	Reimbursable program - subtotal line	130,795	126,000	126,000
1000	Total new obligations	137,917	139,228	138,000
Budge	tary resources available for obligation:			
2140	Unobligated balance - start of year	759	1,228	0
2200	New budget authority (gross)	138,531	137,700	138,000
2390	Total budgetary resources available for obligation	139,290	138,928	138,000
2395	Total new obligations	-137,917	-138,928	-138,000
2398	Unobligated balance expiring or withdrawn	-145	0	0
2440	Unobligated Balance - End of year	1,228	0	0
New Bu	udget Authority (gross), detail:			
	Discretionary:			
4000	Appropriation	7,736	12,000	12,000
4300	Appropriation (total discretionary)	7,736	12,000	12,000
Spendi	ing auth from offsetting collections:			
5800	Offsetting collections: cash	118,309	125,700	126,000
5810	Change in orders on hand from federal sources	12,486	0	0
5890	Spending auth from offsetting collections (total discretionary)	130,795	125,700	126,000
7000	Total new budget anthority (gross)	138,531	137,700	138,000
Chang	e in obligated balances:			
7240	Obligated balance, start of year	-2,263	92,607	1,200
7310	Total new obligations	137,917	138,928	138,000
7320	Total Outlays (Gross)	-54,446	-230,335	-138,000
7340	Adjustments in expired accounts (net)	-1,253	0	0
7400	Change in uncollected customer payments (unexpired)	-12,486	0	0
7410	Change in uncollected customer payments (expired)	25,138	0	0
7440	Obligated balance, end of year	92,607	1,200	1,200
Outlay	vs (gross), detail:			
8690	Outlays from new permanent authority	12,263	136,500	136,800
8693	Outlays from permanent balances	42,182	93,835	1,200
8700	Total Outlays (gross)	54,445	230,335	138,000
Offset	s:			
8800	Federal funds	143,077	125,700	126,000
8895	Change in uncollected customer payments (unexpired)	12,486	0	0
8896 Net b	Portion of offseting collection (cash) credited to expired accounts udgt authority and outlays:	-24,768	0	0
8900	Budget Authority	7,736	12,000	12,000
9000	Outlays	-88,632	104,635	12,000
2300	, -	50,002	. 5 1,000	12,000

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION RESEARCH AND DEVELOPMENT OBJECT CLASSIFICATION

		FY 2007 Actual	FY 2008 Enacted	FY 2009 Request
	Direct Obligations:			
	Personnel compensation:			
1111	Personnel compensation, Full-time permanent	1,864	2,380	2,382
1115	Other personnel compensation	173	290	353
	Total Personnel Compensation	2,037	2,670	2,735
1121	Civilian personnel benefits	752	800	838
1210	Travel and Transportation of persons	119	131	134
1220	Transportation of Things	14		
1231	Rent to GSA	445	550	563
1240	Printing and reproduction	7	-	-
1251	Advisory and Assistance services	1,037	600	650
1252	Other Services	35	271	271
1253	Other purchases of goods and services	2,602	6,866	6,695
1260	Office Supplies	6	41	41
1310	Equipment	68	71	73
1990	Subtotal, direct obligations	7,122	12,000	12,000
2990	Reimbursable obligations	130,795	126,000	126,000
9999	Total obligations	137,917	138,000	138,000
Employmen	t Summary:			
	Direct:			
1001	Civilian Full-time Equivalent Employment Reimbursable:	21	36	36
2001	Civilian Full-time Equivalent Employment Allocation account:	38	51	51
3001	Civilian Full-time Equivalent Employment	90	103	103

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION RESEARCH AND DEVELOPMENT

Funding History Dollars in Thousands

<u>Year</u>	Requested	Enacted
2005	0	4,213 ^{1/}
2006	6,274	5,716 ^{2/}
2007	8,217	7,736 ^{3/}
2008	12,000	12,000 4/
2009	12.000	-

^{1/} Total FY 2005 enacted level for R&D was \$5,967,359; \$4,310,000 reflects the amount transferred to RITA. Previous funding for R&D appeared in the Research and Special Programs budget.

^{2/} FY 2006 reflects a 1% across the board rescission of \$58,000 as stated in P.L. 109-148, section 3801.

^{3/} FY 2007 reflects Continuing Resolution (H.J. Resolution 20) at the FY 2006 budget level of \$5,736,000 and funding to support Air Transportation Statistics program.

^{4/} FY 2008 reflects funding provided in P.L. 110-161.

Detailed Justification for Salaries and Administrative Expenses

FY 2008 Request: \$5,964,000

FTE: 36

Overview:

The Research and Innovative Technology Administration (RITA) was established by the Norman Y. Mineta Research and Special Programs Improvement Act, November 2004. The component functions transferred into RITA were the following: the Bureau of Transportation Statistics, the Transportation Safety Institute, the Volpe Center, the Office of Innovation, Research and Education (formerly in RSPA) and staff from the Office of Intermodalism (formerly in OST Policy).

FY 2008 Base:

Base funding for salaries and administrative expenses provides for 36 FTE. The FTE consists of overhead staff supporting the RITA administrative functions, as well as direct program staff supporting the Office of Research, Development and Technology (RD&T). In addition, funding provides for administrative expenses, including travel, training, rent, working capital, IT support and E-government initiatives.

RITA anticipates the FY 2008 Working Capital Fund (WCF) to be \$4,683,589, which the General Fund (GF) share is \$923,000 or 20%; Highway Trust Fund (HTF) share is \$2,949,139 or 63%; and the Airline Transportation Statistics Program (OAI) share is \$811,450 or 17% The FY 2009 FY 2009 Working Capital Fund (WCF) estimate the cost to be \$4,811,664 of which the GF share is \$962,400 or 20%. The HTF share is \$3,031,560 or 63% and OAI share is ay \$817,704 or 17%. Included in the WCF services is Information Technology estimated at \$2,412,463 or 50% of the total bill. The WCF also includes cross-servicing agreements to provide for procurement operations (\$499,510) and human resources administration (\$413,361).

RITA supports the E-Government initiatives through a Department-wide distribution based on a specified algorithm. The RITA contribution to E-Government is estimated to be \$121,130 in FY 2008 and \$42,635 in FY 2009. This benefit allows RITA's business process improvements to be more efficient. The E-Government initiatives serve citizens, businesses, and federal employees by delivering high quality services more efficiently and at a lower price. Instead of expensive "stove-piped" operations, agencies work together to develop common solutions which achieve mission requirements at a reduced cost, thereby making resources available for higher priority needs.

Anticipated FY 2008 Accomplishments:

RITA's accomplishments will include meeting the goals associated with the President's Management Agenda in the areas of Budget and Performance Integration, Human Capital, Competitive Sourcing, E-government, Improved Financial Management and Research and Development.

FY 2009 Budget Request:

The funding level for RITA salaries and administrative expenses is \$5,964,000.

Explanation of Funding Changes for Salaries and Administrative Expenses:

Amount: \$0

Detailed Justification for Hydrogen Fuels Safety Research and Development

FY 2008 Request: \$500,000

Overview:

RITA was created by Congress with the primary objective of serving as the Department's focal point for coordination of crosscutting research and clearing the pathway to technology deployment. To fulfill its role as Department of Transportation's lead agency in support of the Administration's Hydrogen Fuels Initiative, RITA will continue to coordinate, manage and execute key components of the Department's hydrogen activities. Many of these activities will be conducted in collaboration with DOT, Federal, State, academic, and industry partners.

FY 2008 Base:

The requested funding level for RITA's Hydrogen program was \$500,000.

Anticipated FY 2008 Accomplishments:

- Conduct multi-modal research to further RITA's mission and respond to direct stakeholder and industry needs in advancing the Hydrogen economy.
- Conduct materials compatibility research and Sandia National laboratory for design and operations guidelines for hydrogen delivery and transport systems including pipeline, pressure vessels, and fuel storage systems.
- Conduct targeted research aimed at addressing near-term gaps identified in the independent DOT safety gap analysis study completed in FY 2006. The gaps relate to technology development and validation of hydrogen transport and storage.
- Ensure the safety of hydrogen transportation continues involvement in domestic and international partnerships. Monitor and develop safety codes, standards, and regulations.
- Partner with the National Association of State Fire Marshals to conduct and execute the Hydrogen Executive Leadership Panel (HELP) and continue the national program to educate and train the state and local public safety officials and first responders.
- Conduct research to develop, evaluate, and validate under real world conditions non-destructive testing and other safety and inspection technologies that will facilitate the reliable and safe operation of components of the hydrogen transportation system.

- Support collaborative demonstration efforts for hydrogen stations, vehicles, and infrastructure with federal, state, local, industry, and academia partners. These demonstrations will focus on evaluating real world real use operational scenarios and validation.
- Maintain national and DOT hydrogen websites.
- Execute individual projects and participate in collaborative efforts including the UC Davis Hydrogen pathways program that analyze or advance the hydrogen initiative and facilitate an effective transition to the hydrogen economy.
- Manage and serve as a technical partner with RITA hydrogen grantees under SAFTEA-LU. Facilitate coordination between the RITA grantees and contractors, and disseminate information to the DOT modes

FY 2009 Budget Request:

- This funding will enable RITA to continue the progress made in FY 2008. The programs enumerated in the proposal are directly in line with RITA's mission and objectives to coordinate and lead multi-modal research. Each program has broad reaching benefit to multiple operating administrations within DOT. The proposal also responds to direct stakeholder and industry needs in advancing the Hydrogen economy.
- RITA will work with NHTSA, FMCSA, and other DOT modes to execute accelerated life testing and operational validation of materials and components.
- RITA will, in conjunction with other modes, conduct validation experiments for the composite cylinder thermal/mechanical failure model.
- Identify opportunities for cross cutting and multi-modal research within DOT.

Explanation of Funding Changes for Hydrogen Fuels Safety R&D

Amount: \$0

Detailed Justification for Research, Development and Technology Coordination

FY 2009 Request: \$536,000

Overview:

RITA was created by Congress with the primary objective of serving as the Department's focal point for coordinating, facilitating and reviewing crosscutting and cross-modal research, and for enabling new technology deployment across all modes. To fulfill this role, RITA provides strategic direction and coordinates the Department's research programs through annual program reviews, budget and performance planning and prioritization, and performance tracking and reporting.

In response to the Government Accountability Office's (GAO) 2006 recommendations, RITA will improve Departmental RD&T coordination in FY 2009 by:

- Implementing the Research Planning and Investment Control (RPIC) process across all Operating Administrations to foster collaborative RD&T portfolio management;
- Ensuring that DOT research is evaluated according to established best practices;
- Preparing and reporting on a schedule of research program evaluations; and
- Developing common performance measures and selection criteria for DOT RD&T activities at an enterprise level.

FY 2008 Base:

The base funding in FY 2008 for the RD&T Coordination program is \$536,000. RITA will continue to lead the RD&T Planning Council and Team to identify research priorities and opportunities for collaboration on crosscutting RD&T. It will identify innovative approaches to coordinating, facilitating, and reviewing DOT's \$1 billion investment in research.

Anticipated FY 2008 Accomplishments:

In direct support of the DOT Organizational Excellence strategic objective, RITA managed RD&T coordination through the RD&T Planning Council and Team (per DOT Order 1120.39A) to promote the efficient use of DOT RD&T funds, prevent duplication and encourage joint RD&T efforts. In FY 2008, the following accomplishments are planned:

1. Develop a Web-based data tracking system for research coordination in accordance to requirements as specified in the Functional Requirements Document and the System Design Document created in FY 2007.

- 2. Conduct one stakeholder workshop on cross modal research priorities or emerging technologies as part of a strategic update to the current RD&T Strategic Plan.
- 3. Develop and implement within RITA a Research Planning and Investment Control (RPIC) process to ensure a systematic way of selecting the right mix of investments to meet goals and then manage those investments to ensure success.
- 4. Rollout RPIC with other operating administrations to ensure collaborative RD&T portfolio management.
- 5. Conduct cost-benefit analysis and return-on-investment analysis pertaining to key segments of DOT's research agenda and targeted technologies.
- 6. Perform assessments to determine DOT's most promising technologies.
- 7. Provide staff support to the RD&T Planning Council and RD&T Planning Team and other cross modal working groups.
- 8. Strengthen RD&T coordination and reviews, including:
 - Define and refine RPIC selection criteria at enterprise level.
 - Providing recommendations to the Secretary on strategic RD&T priorities.
 - Preparing the FY 2010 RD&T budget priorities for inclusion in the Department's FY 2010 budget guidance.
 - Reviewing FY 2010 RD&T budget requests to ensure alignment with DOT strategic objectives and priorities.
 - Conducting annual RD&T program reviews.
 - Preparing the RD&T Funding Report to Congress (SAFETEA-LU, sec. 5208).

FY 2009 Budget Request:

The proposed FY 2009 activities will enhance Department-wide coordination by focusing DOT's efforts to increase evaluation and measurement activity and engage internal and external stakeholders. These activities will enable RITA to recognize unnecessary duplication and help identify the Department's best opportunities for concentrating research efforts to gain the best investment. In addition to ongoing planning and coordination activities, such as the Annual Report to Congress, staff support to the Planning Council, updates to the strategic plan, budget guidance, budget reviews, and program reviews, RITA will initiate or enhance the following in FY 2009:

- 1. Operate and maintain in a production environment the Web-based data tracking system for research coordination started in FY 2007.
- 2. Conduct multiple stakeholder workshops supporting at least ten (10) cross modal research priorities identified by RD&T Planning Team and on emerging technologies as part of a strategic update to the current RD&T Strategic Plan.

- 3. Develop a Technology Transfer support program with the capability to support all research areas.
- 4. Establish communications guidelines to strengthen collaboration/coordination across DOT and to support efforts to share information with University Transportation Centers (UTCs), Centers of Excellence and other entities such as hydrogen and other alternative fuels' grantees.
- 5. Provide staff support to the RD&T Planning Council RD&T Planning Team and other cross modal working groups.
- 6. Implement RPIC departmental-wide to foster collaborative RD&T portfolio management and advise Secretary on budgetary implications of R&D investment decisions.

Explanation of Funding Changes for RD&T Coordination Amount: \$0

Detailed Justification for Nationwide Differential Global Positioning System (NDGPS) **Program**

FY 2009 Request: \$4,600,000

Overview:

Among current United States (U.S.) positioning, navigation and timing (PNT) systems, the Nationwide Differential Global Positioning System (NDGPS) is an enabling technology for civil, commercial and scientific applications. Fifty nations have followed the U.S. lead by building compatible NDGPS systems.

DOT, in cooperation with the U.S. Coast Guard (USCG), the U.S. Air Force, the U.S. Army Corps of Engineers, and the National Oceanic and Atmospheric Administration (NOAA), has deployed and operates the inland NDGPS service in the U.S. NDGPS provides real-time, accurate dynamic navigation and positioning information to users with one-to-three meter accuracy (.1 to 1 meter accuracy "standing still").

The government has invested \$64.3 million to date in inland NDGPS (not including inkind contributions of land and equipment from federal and state partners). This investment is being preserved while an assessment of Federal and other user requirements for inland NDGPS is completed. NDGPS user needs will be evaluated in conjunction with the National PNT Architecture effort to determine to what extent the NDGPS infrastructure can meet user needs as part of a national PNT architecture.

DOT's assessment addresses requirements for the inland component of NDGPS only. The Maritime Differential GPS system operated by the USCG will continue operations to meet maritime safety and security mission requirements, regardless of the decision on inland NDGPS.

FY 2008 Base:

The funding base in the FY 2008 budget request for the NDGPS Program was \$5,000,000.

Anticipated FY 2008 Accomplishments:

RITA is completing a systems analysis and assessment of current NDGPS requirements for transportation and other civil applications. This assessment will identify other federal and non-federal users of inland NDGPS that could fund its completion and operation. The assessment may also point to another funding source for future maintenance, operation or enhancement of NDGPS, or to shared sponsorship of the inland segment.

The NDGPS program was previously managed and funded by the Federal Railroad Administration (FRA).

FY 2009 Request

• DOT will continue operations and maintenance of the inland NDGPS segment. This request provides funding for DOT to operate and maintain the system.

Explanation of Funding Changes for Nationwide Differential Global Positioning System Program Amount: -\$400,000

NDGPS funding was reduced by \$400,000 and reallocated to the new Positioning, Navigation and Timing System budget line item to develop the requirements for civil applications of the Global Positioning System (GPS).

Detailed Justification for Positioning, Navigation and Timing

FY 2009 Request: \$400,000

Overview:

The National Security Presidential Directive on National Space-Based Positioning Navigation and Timing Policy gives the Secretary of Transportation broad responsibilities in providing for and implementing positioning, navigation and timing (PNT) services for the civil community. The fundamental goal of this policy is to ensure that the United States maintains space-based positioning, navigation, and timing services, augmentation, back-up, and service denial capabilities. The basic civil requirements are to: (1) provide uninterrupted availability of positioning, navigation, and timing services; (2) meet growing national, homeland, economic security, and civil requirements, and scientific and commercial demands; and (3) continue to provide civil services that exceed or are competitive with foreign civil space-based positioning, navigation, and timing services and augmentation systems. To achieve this goal, the United States Government provides on a continuous, worldwide basis civil space-based, positioning, navigation, and timing services free of direct user fees for civil, commercial, and scientific uses; provides open, free access to information necessary to develop and build equipment to use these services; and improves the performance of space-based positioning, navigation, and timing services, including more robust resistance to interference for, and consistent with, U.S. and allied national security purposes, homeland security, and civil, commercial, and scientific users worldwide.

The Secretary of Transportation has the lead responsibility for the development of requirements for civil applications from all United States Government civil Departments and Agencies; ensures, in cooperation with the Secretary of Defense and the Secretary of Homeland Security, the performance monitoring of U.S. civil space-based positioning, navigation, and timing services; facilitates foreign development of civil positioning, navigation, and timing services and systems based on the Global Positioning System; facilitates international participation in the development of civil applications for U.S. space-based positioning, navigation, and timing services; ensures, in coordination with the Secretary of Defense, that space-based positioning, navigation, and timing public safety services meet or exceed international performance standards, including but not limited to those used for these services in aviation and/or maritime applications; promote, in cooperation with other Departments and Agencies, the use of U.S. civil space-based positioning, navigation, and timing services and capabilities for transportation safety; represents the civil Departments and Agencies in the development, acquisition, management, and operations of the Global Positioning System; develops, acquires, operates, and maintains Global Positioning System space or terrestrial augmentations for civil transportation applications; ensures the earliest operational availability for modernized civil signals and services on the Global Positioning System and its

augmentations, in coordination with the Secretary of Defense; in coordination with the Secretary of Homeland Security, develops, acquires, operates, and maintains backup position, navigation, and timing capabilities that can support critical transportation, homeland security, and other critical civil and commercial infrastructure applications within the United States, in the event of a disruption of the Global Positioning System or other space-based positioning, navigation, and timing services, consistent with Homeland Security Presidential Directive-7, Critical Infrastructure Identification, Prioritization, and Protection, dated December 17, 2003; and in cooperation with the Secretary of Defense, assesses and assists in the international acceptance for using the military positioning, navigation, and timing services of the Global Positioning System for operations in civil airspace.

Under this policy, the Secretary of Transportation provides resources to the Secretary of Defense for assessment, development, acquisition, implementation, operation, and sustainment of additional designated Global Positioning System civil capabilities beyond the second and third civil signals already contained in the current Global Positioning System program. Funding to develop and acquire the civil capabilities for the United States Air Force GPS modernization program are requested in the budget of the Federal Aviation Administration.

The Research and Innovative Technology Administration requests funding to assess and develop the requirements for civilian positioning, navigation and timing systems. The funding will provide the systems engineering and analysis needed to determine the most effective and efficient path for acquiring government PNT systems and services.

FY 2008 Base:

In FY 2008, \$400,000 was included in the Nationwide Differential Global Positioning System (NDGPS) budget for the work to develop the requirements for civil positioning, navigation and timing systems. In FY 2009 the budget request separates the work to develop the requirements for civil positioning navigation and timing applications out of the NDGPS into a separate line item.

FY 2009 Request:

The requested funding will support the activities of the Department as required by the Presidential Directive on U.S. Space-Based Positioning, Navigation and Timing Policy.

Specifically, the request includes \$400,000 for the systems engineering and analysis work to develop the requirements for civil PNT applications

RITA has the responsibility to lead the effort on behalf of the civil community to develop architecture (National PNT Architecture) to help guide future civil PNT investment and implementation decisions. The objective is to provide more effective and efficient PNT

capabilities and an evolutionary path for government-provided PNT systems and services. This effort has documented the current national PNT architecture and will evaluate alternative future mixes of global (space and non space-based) and regional PNT solutions, PNT augmentations, and autonomous PNT capabilities to address priorities identified by both the civil and military communities. In addition, this work supports the development of the Federal Radionavigation Plan as directed by the National Defense Authorization Act for Fiscal Year 1998 (10 U.S.C. 2281(c)).

Explanation of Funding Changes for Positioning, Navigation and Timing Amount: + \$400,000

Based on the FY 2008 recommendations of the National PNT Architecture, RITA will perform the systems engineering and analysis to develop a time-phased, fiscally informed roadmap of PNT activities, including research and development needs, to meet the civil requirements for PNT.

R&D Reimbursable Program

RESEARCH AND DEVELOPMENT

Reimbursable Programs

Funding Level: \$76,700,000

University Transportation Center (UTC)

Authorized under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the University Transportation Centers (UTC) Program advances U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer at university-based centers of excellence.

The UTC Program is a Congressionally mandated financial-assistance program to support transportation education, research and technology transfer activities at university-based centers. Under the program, UTCs receive grant funds from DOT to educate the future transportation workforce and to conduct research to advance the field of transportation. UTC grant funds require grantees to provide a dollar-for-dollar match on the Federal funds (with the exception of eight UTCs that Congress exempted from this requirement), thus doubling DOT's investment in transportation research and education.

In FY 2007, the UTC Program awarded funding to 60 grantees. Forty of the grantees were designated in SAFETEA-LU and 20 were chosen from two competitions held in FY 2006. The amount of each grant is specified in SAFETEA-LU.

In FY 2009, RITA is authorized by SAFETEA-LU to award \$76,700,000 in grants to the UTCs and to perform certain required program-coordination functions such as operating a clearinghouse for UTC research. UTC Program funding is provided to RITA through reimbursable agreements with the Federal Highway Administration and the Federal Transit Administration.

Success is measured by the number of students graduating with transportation-related advanced degrees from universities funded under the UTC program.

Funding Level: \$17,000,000

Funding Level: \$32,000,000

FTE: 51

Transportation Safety Institute's (TSI) mission is to provide premier worldwide training, products, and/or services for people in the public and private sectors through innovative, state-of-the-art methods and technologies that contribute to the protection of life, property, and the environment.

TSI was established in 1971 to assist DOT modal administrations in accomplishing their essential training requirements. Since its inception, TSI has expanded its clientele to keep up with the needs of the Department and transportation industry. The Institute offers premier transit, aviation, pipeline, motor carrier, highway safety, hazardous material, and risk management training nationally and internationally.

TSI is funded via reimbursable agreements, tuitions, and fees. TSI is a Federal cost recovery agency that develops and conducts worldwide safety, security, and environmental training, products, and/or services for both public and private sectors. The Research and Innovative Technology Administration (RITA) is the Institute's parent organization within the Department of Transportation.

How TSI Operates

- Direction and budget oversight provided by RITA
- Funded via reimbursable agreements, tuitions, and fees
- Operational and logistical support provided by the Mike Monroney Aeronautical Center
- Associate and contract staff (industry experts) are instrumental in delivery/development of the training

Other RITA Reimbursable Programs

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorization provides funding under Title V – Research to fund National Cooperative Freight Research, Biobased Transportation Research, Commercial Remote Sensing Research, Appalachian Regional Commission Grants, Rural Transportation Research Initiatives Grants, Hydrogen Powered Research Grants, Cold Region and Rural Research Grants, Advanced Vehicle Technology Grants and Renewable Transport Systems Grants. The funding to support these initiatives is transferred to RITA from the Federal Highway Administration and the programs are managed by RITA staff.

RITA also collects reimbursable funds to manage the Department's Climate Change Center.

FY 2009 Request: [\$110,000,000]

FTE: [17]

Overview:

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) established a Federal Program to research, develop, and operationally test Intelligent Transportation Systems (ITS). The ITS program was designed to facilitate deployment of technology to enhance the safety, efficiency, and convenience of surface transportation. The ITS program carries out its goals through research and development, operational testing, technology transfer, training and technical guidance.

In 2005, Congress enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorizing \$550 million for the ITS program over five fiscal years (2005-2009). The ITS Research Program is funded through the Federal Highway Administration (FHWA), but managed by RITA. The ITS program continues to play a vital role in addressing the transportation problems which our Nation faces.

FY 2008 Base:

The base funding in FY 2008 for the ITS program is \$110 million. The ITS program continues its focus on ten (10) major initiatives and supporting technology transfer activities. Key among the initiatives was the Vehicle Infrastructure Integration (VII) program that continues research into developing the enabling wireless platform to connect vehicles to vehicle and vehicle to infrastructure, along with safety and mobility applications. Additionally, the ITS program increased its work as part of USDOT's congestion initiative by supporting technology-based operational tests in Urban Partner cities as designated by the Secretary.

Research continued in other major initiatives to complete the research and/or transition into technology transfer and commercialization of relevant research findings. The technology transfer aspects of the ITS program were refocused to support professional capacity building, evaluation of technology applications, development and distribution of technical materials, and web-based benefit, costs, lessons learned information clearinghouse.

FY 2008 Accomplishments:

Vehicle Infrastructure Integration: In collaboration with the auto industry, a proof
of concept test was completed for a wireless network to link vehicles to vehicles
and vehicles to infrastructure to support safety and mobility applications.
Research on early deployment scenarios and applications using VII data was
initiated.

- Congestion Initiative: Initiated various congestion reduction strategies including technology components to support selected congestion initiative sites that will field operationally test the use of ITS. Initiated overall evaluation effort to study effectiveness of the strategies.
- Integrated Vehicle Based Safety Systems: Quantification of the safety benefits and user acceptance of Integrated Vehicle Based Safety Systems in a real-world operating environment as used by average drivers.
- Next Generation 9-1-1: Conducted live testing of specific NG911 components with selected public safety answering points. Completed the NG911 architecture and transition plan.
- Mobility Services for All Americans: Completed detailed design of ITSenhanced, scalable and replicable models of human service transportation and selected two sites to initiate field testing.
- Clarus: Completed integration of 18 state departments of transportation road weather data sites into the Clarus national database. Initiated development of selected applications based on Clarus data.
- Electronic Freight Management: Completed the field operational test with The Limited Brands. Analyzed, evaluated and published the test results. Initiated technology transfer activities for move the technology into commercialization.
- Integrated Corridor Management: Completed requirements documentation for eight pioneer sites; selected three sites and initiated analysis, modeling and simulation for multimodal corridor optimization.

FY 2009 Budget Request:

In addition to advancing the ITS program mission, ITS will focus on high risk, high profile, high impact, and high reward research that will address specific problems and needs, have a high level of stakeholder commitment, involve the private sector extensively, and have significant potential benefits to the transportation community and the Nation. ITS will initiate and enhance the following in FY 2009:

- Congestion Initiative: Implement operational tests of ITS technologies at selected sites for congestion reducing benefits. Begin evaluation of the use of the technology.
- Vehicle Infrastructure Integration: Technical research will be continued to resolve scalability, positioning and other issues, including a variety of institutional

issues such as data ownership and access, liability, and governance. Development of initial safety and mobility applications that will use a wireless communications network to connect vehicles with vehicles, and vehicles with the infrastructure will continue.

- Professional Capacity Building: Expand the Nation's transportation research capability through capacity building of transportation professionals, encouraging private sector research, and cooperative research with universities, and State and local governments.
- Clarus: Further integration of road weather data sites into Clarus. Complete development of applications that were initiated in 2008. Further the migration of Clarus data into the National Weather Service.
- Integrated Corridor Management: Complete development of modeling tools and validate the usefulness of the tools with selected test sites. Identify up to three sites for implementation of a field operational test of integrated corridor management approaches and tools.
- Mobility Services for All Americans: Complete and evaluate the demonstration
 of the two operational test sites for development of scaleable, replicable
 architectures for technology applications that connect various transportation
 service providers for simplified access for customers.

DEPARTMENT OF TRANSPORTATION

Intelligent Transportation Systems Obligation Limitation (in thousands of dollars)

	FY 2007	FY 2008	FY 2009
	<u>Actual</u>	Enacted	Request
	101,279	106,640	110,000
Vehicle Infrastructure Integration	34,770	23,054	23,910
Integrated Vehicle Based Safety Systems	638	10,472	1,350
Cooperative Intersection Collision Avoidance Systems	8,764	18,088	4,400
Next Generation 911	2,530	1,904	0
Integrated Corridor Management	2,702	11,424	8,800
Emergency Management and Operations	1,280	4,094	0
Mobility Services for All Americans	738	2,856	1,200
Clarus	3,065	1,904	2,200
Road Weather Research and Development	1,239	2,856	3,300
I-95 (T)	6,335	6,664	7,800
Architecture and Standards (T)	6,567	7,140	4,700
Professional Capacity Building (T)	3,535	3,332	2,700
Program Assessment (T)	3,201	6,664	3,100
Outreach (T)	685	952	440
ITS Program Support	3,420	5,236	6,100
Congestion Relief Research and Development (T)	20,000	0	40,000
Congestion Relief Research and Development (T) [Non-add]	0	[25,000]	0



RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Research and Development Program and Performance

The Working Capital Fund finances multidisciplinary research, evaluation, and analytical and related activities under the Volpe Center in Cambridge, MA. The Fund is financed through negotiated agreements with the Office of the Secretary, Departmental operating administrations, and other governmental elements requiring the Center's capabilities. These agreements also define the activities undertaken at the Volpe Center.

DEPARTMENT OF TRANSPORTATION RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

WORKING CAPITAL FUND, VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

PROGRAM AND FINANCING (in thousands of dollars

Identification code 69-4522-0-4-407

identilic	ation code 69-4522-0-4-407	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate		
Oblig	ations by Program Activity:					
0901	Volpe National Transportation Systems Center	220,936	218,000	218,000		
1000	Total Obligations	220,936	218,000	218,000		
Budge	etary resources available for obligation:					
2140 2200 2390 2395 2440	Unobligated balance - start of year New budget authority (gross) Total budgetary resources available for obligation Total new obligations Unobligated Balance - End of year	203,210 279,176 482,386 (220,936) 261,452	261,452 218,000 479,452 (218,000) 261,452	261,452 218,000 479,452 (218,000) 261,452		
	ding authority from offsetting collections:	,				
5800 5810 5890	Offsetting collections: cash Change in orders on hand from federal sources Spending auth from offsetting collections (total)	225,799 53,377 279,176	218,000 - 218,000	218,000		
Change in obligation balances:						
7240 7310 7320 7400 7440	Obligated balance: Fund Balance Total Obligations Total Outlays (Gross) Change in uncollected customer payments from Fed source Obligated balance, end of year	(154,664) 220,936 (195,628) (53,377) (182,734)	(182,734) 218,000 (218,000) (182,734)	(182,734) 218,000 (218,000) (182,734)		
Outla	ys (gross), detail:					
8690 8693 8700	Outlays from new discretionary authority Outlays from discretionary balances Total Outlays (gross)	144,701 50,927 195,628	218,000	218,000		
Offset	ts:					
8800 8895 8900 9000	Federal sources Change in uncollected customer payments (unexpired) Budget Authority (net) Outlays (net)	225,799 53,377 - (30,171)	218,000 - - - -	218,000		
9502	Unpaid obligation, end of year	127,551	-	-		

DEPARTMENT OF TRANSPORTATION RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

WORKING CAPITAL FUND, VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

Object Classification (in thousands of dollars)

Identification code 69-4522-0-4-407

Reimbursable Obligations:

Kemin	oursable Obligations.	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Perso	onnel compensation:			
2111	Full-time permanent	44,224	43,000	43,000
2113	Other than full-time permanent	3,584	3,000	3,000
2115	Other personnel compensation	<u>1,065</u>	<u>1,000</u>	<u>1,000</u>
2119	Total personnel compensation	48,873	47,000	47,000
2121	Civilian personnel benefits	12,154	11,000	11,000
2130	Benefits for former personnel	11	30	30
2210	Travel & transportation of persons	3,647	4,450	4,450
2220	Transportation of things	159	0	0
2233	Commun, utilities & misc. charges	3,008	4,000	4,000
2240	Printing and reproduction	94	0	0
2251	Advisory and assistance services	595	0	0
2252	Other services	77,068	63,520	63,520
2253	Purch of G&S from Govt accounts	2,360	5,000	5,000
2254	O&M of facilities	4,116	5,000	5,000
2255	R&D Contracts	50,820	65,000	65,000
2257	O&M of equipment	4,807	1,000	1,000
2260	Supplies and materials	1,980	1,000	1,000
2310	Equipment	8,290	8,000	8,000
2320	Land and structures	2,954	3,000	3,000
9999	Total new obligations	220,936	218,000	218,000
	EMPLOYMENT SUMMARY			
	Reimbursable:			
2001	Civilian full-time equivalent employment	510	550	550

Bureau of Transportation Statistics

EXHIBIT III-1 BUREAU OF TRANSPORTATION STATISTICS (HIGHWAY TRUST FUND ALLOCATION) Appropriations Summary by Program Activity

Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

	EX 2007	EV 2000	EX 2000	EX 2000	Change FY 2008-
	FY 2007 Actual	FY 2008 Enacted	FY 2009 Target	FY 2009 Request	2009
Bureau of Transportation Statistics:	_			•	
Travel Statistics	2,947	2,947	2,947	2,947	0
Freight Statistics	11,285	10,723	10,723	10,723	0
Transportation Economics	1,811	1,811	1,811	1,811	0
Geospatial Information	1,758	1,758	1,758	1,758	0
Compilations, Methods and Standards	7,416	7,416	7,416	7,416	0
National Transportation Library	2,345	2,345	2,345	2,345	0
TOTAL: [Discretionary] 1/2/	[27,562]	[27,000]	[27,000]	[27,000]	[0]
Direct FTE Reimbursable FTE	90 0	103 19	103 19	103 19	0

^{1/} Resources are shown as non-adds because the Bureau of Transportation Statistics is an allocation account under the Federal-aid Highway program.

Program and Performance Statement

This account provides the necessary resources to support transportation research, statistical collections, reviews, and consulting services.

^{2/} In FY 2007 an increase of \$562K over amounts provided in SAFETEA-LU is due to Revenue Aligned Budget Authority (RABA) estimates (\$469K) and a pay increase (\$93K) provided by H.J. 20.

EXHIBIT III-2 BUREAU OF TRANSPORTATION STATISTICS SUMMARY ANALYSIS OF CHANGE FROM FY 2008 TO FY 2009 Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

FY 2009 FY 2009 FY 2009 Change from **Appropriation** PC&B by FTEs by FY 2008 to Contract **Total** FY 2009 **Program Program Expenses** Item 27,000 **FY 2008 Base** 27,000 **Note Columns are Non-Add** \$ Adjustments to Base 2008 Pay Raise Annualization (3.5%) 157 2009 Pay Raise (2.9%) 316 175 Inflation -55 One less pay day -23 Other Services adjustment Subtotal, Adjustments to Base 570 New or Expanded Programs 2,947 Travel Statistics -76 14 2,947 2,995 -197 7,728 10,723 Freight Statistics 34 Transportation Economics -46 1,811 8.6 1,811 1,758 Geospatial Information -40 1,558 7.4 200 Compilation Methods and Standards -162 6,316 30 1,100 7,416 1,895 2,345 National Transportation Library -49 450 Subtotal, New or Expanded Programs -570 22,255 103 4,745 27,000 **Total FY 2009 Request** \$ 27,000 22,255 103 4,745 27,000

^{1/} In FY 2008 and FY 2009 the Air Transportation Statistics program is proposed to be funded by reimbursable sources. Overhead costs have been allocated to other programs.

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION BUREAU OF TRANSPORTATION STATISTICS

(Allocation Account under FHWA's Federal-Aid to Highways) OBJECT CLASSIFICATION (In thousands of dollars)

		FY 2007	FY 2008	FY 2009	
		Actual	Enacted	Request	
Direct Obliga	ations:				
	Personnel compensation:				
1111	Full-time permanent	7,801	10,910	11,234	
1115	Other personnel compensation	217	180	187	
	Total Personnel Compensation	8,018	11,090	11,421	
1121	Civilian Personnel benefits	1,797	2,940	3,027	
1210	Travel and Transportation of persons	82	112	115	
1220	Transportation of Things	2	0	0	
1231	Rent to GSA	1,755	1,882	1,918	
1240	Printing & Production	53	0	0	
1251	Advisory and Assistance services	7,548	4,136	4,549	
1252	Other Services	92	94	96	
	Other purchases of goods and services				
1253	from gov't accounts	7,104	5,267	4,361	
1257	Operation and maint of equipment	1,087	1,112	1,138	
1260	Office Supplies	13	20	20	
2310	Equipment	1,334	347	355	
1990	Subtotal, direct obligations	28,885	27,000	27,000	
1990	Reimbursable obligations	8,102	12,000	10,000	
1990	Total obligations	36,987	39,000	37,000	
Personnel Summary:					
	Direct Full-time Equivalents	90	103	103	
	Reimbursable Full-time Equivalents	0	19	19	
	TOTAL	90	122	122	

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION BUREAU OF TRANSPORTATION STATISTICS

(Allocation Account under FHWA's Federal Aid to Highways)
10-Year Funding History
(In thousands of dollars)

<u>Year</u>	Requested	<u>Enacted</u>
2000	31,000	31,000
2001	31,000	30,932 1/
2002	43,760	30,808 2/
2003	35,806	30,499 ^{3/}
2004	35,239	30,235 ^{4/}
2005	32,199	30,015 ^{5/}
2006	32,869	26,730 ^{6/}
2007	27,480	27,562 ^{7/}
2008	27,000	27,000 8/
2009	27,000	-

^{1/} FY 2001 reflects a reduction of \$68,000 as stated in P.L. 106-554.

FY 2002 reflects a reduction of \$192,000 to WCF expenses as stated in P.L. 106-554. based on an across the board recission

^{3/} FY 2003 reflects a reduction of \$300,000 for WCF expenses (section 362) and .65% rescission of \$201,500 (section 601) of P.L. 108.7.

FY 2004 reflects a reduction of \$581,000 for WCF expenses (section 517) and .59% across the board rescission of \$183,000 (section 168) of P.L. 180-199.

^{5/} FY 2005 reflects a reduction of \$737,000 to WCF expenses (section 197) as stated in P.L. 108-477, based on an across the board recission.

^{6/} FY 2006 reflects a 1% across the board recission of \$270,000 as stated in P.L. 109-148, section 3801.

FY 2007 reflects levels under a year long CR. An increase of \$562k over amount is due to Revenue Aligned B.A. (RABA) estimates (\$462k) and a pay increase (\$93k) provided by H.J. Res. 20

^{8/} FY 2008 reflects funding provided in P.L. 110-161.

Detailed Justification for Travel Statistics Program

FY 2009 Request: \$2,947,000 FTE: 14.0 [includes 4.0 overhead]

Overview:

The Travel Statistics Program is Congressionally mandated under SAFETEA-LU. Travel data are prepared and disseminated for Federal, State, and local governments to effectively establish transportation policy, planning, and program management. The Travel Statistics Program provides information regarding business and personal travel as well as passenger travel facilities.

The Travel Statistics Program:

- Develops and maintains the National Census of Ferry Operators needed by state transportation officials for resource determinations for ferry operations and infrastructure.
- Organizes and summarizes the U.S. Customs and Border Protection international border crossing data used by DOT in border state infrastructure grants allocation formulae.
- Improves the safety and security of transportation through projects such as the development, maintenance, and statistical analysis of a Confidential Close Call Reporting System for the Federal Railroad Administration, or by conducting targeted data collections for other agencies' key performance indicators under the OMB approved Omnibus Survey Program.
- Provides transportation data to decision makers on intermodal connectivity of passenger facilities, public accessibility to transportation in rural areas, or risk exposure in transportation.
- Develops congestion measures to assist planners in determining the impacts of congestion or in prioritizing mitigation efforts.

FY 2008 Base:

The Travel Statistics Program in FY 2008 will augment and refine the National Ferry Database (NFD), continue to organize and summarize U.S. Customs and Border Protection crossing data at the port level, produce updates of BTS' rural access studies, continue working with the Federal Railroad Administration (FRA) on the Confidential Close Call Reporting System, continue releasing data from the Passenger System Connectivity Study, and coordinate the travel community needs for data from the Census' American Community Survey.

Anticipated FY 2008 Accomplishments

• Conduct the 2008 National Census of Ferry Operators, update the public use file for the National Ferry Database, and publish a summary report of findings. Augment the database with data from other sources (Coast Guard, Corps of Engineers, and AASHTO) on ferry routes, vessels, and terminals.

- Publish updated data on the number of intermodal passenger facilities from the Passenger System Connectivity Study.
- Continue the reimbursable partnership with FRA on the Confidential Close Call Reporting System (C³RS) Demonstration Project to develop a database of observational and corporate data, and assist FRA's Human Factors Program in data collection and data analysis of behavioral-based safety studies and program evaluation data.
- Release updated data on rural access to transportation quantifying the availability of air, rail, and intercity bus services available for the rural population.
- Produce timely and relevant information on international travel, including processing and publishing monthly Border Crossing/Entry data for use in Departmental allocation formulae.
- Continue statistical data analysis to determine the impact on transportation planning data of the Census Bureau's implementation of the annual American Community Survey, which replaced the decennial long form.
- Develop statistics for the measurement of congestion in various modes of transportation.
- Develop and release special reports, studies, and data analyses of key travel issues such as exposure to risks of accident and injury and transportation issues faced by members of various demographic groups.
- Support user requests for data and assistance with analysis of the National Household Travel Survey, the American Travel Survey, and the Omnibus Household Survey.

FY 2009 Budget Request

In FY 2009, the Travel Statistics Program will continue to provide unique services to other Federal agencies, particularly in DOT. Staff will continue to refine the National Ferry Database using the 2008 survey of ferry operators. The Confidential Close Call Reporting System—a collaborative project with the FRA—will be in its fourth year of data collection. Work will continue on developing statistics for the measurement of congestion and safety risk exposure. Monthly Border Crossing/Entry data will be processed and published. The Omnibus Household Survey and other targeted surveys will be conducted on an on-demand basis and results will be summarized and published on the Travel Statistics Program web page. Travel program staff will also update the rural access analysis and prepare special reports based on the needs of the Administration and Congress on travel data issues. The program will also continue its coordination role with the Census Bureau on travel data.

Explanation of Funding Changes for Travel Statistics

Amount: \$0

Detailed Justification for Freight Statistics

FY 2009 Request: \$10,723,000 FTE: 34.0[Includes 21.0 overhead]

Overview:

The Freight Data Program develops and compiles data and information on the movement of freight within, through, into, and from the U.S. by all modes of transportation. The program provides key freight data for the Congressionally mandated Intermodal Transportation Database under SAFETEA-LU, and meets the most commonly cited, high priority freight data needs of the Department, other federal agencies, and the transportation community.

Its Commodity Flow Survey is the most comprehensive source of nationwide data on the flow of goods, the geography of freight movements, and the distance of shipments that covers all modes of transportation (including multi-modal shipments); the only source of nationwide data on domestic truck freight flows; and the sole source of national-level flow data on hazardous materials shipments by highway and air that is collected by the federal government.

The program also supplies the Department with transborder freight data and border crossing/entry data used in Congressionally specified allocation formulae for border state infrastructure grants under SAFETEA-LU. The Freight Data Program supports the DOT strategic goals of safety; reduced congestion; global connectivity; environmental stewardship; and security, preparedness and response.

Freight Data Program provides:

- Transborder data for the Border States Infrastructure Grants allocation formula required by SAFETEA-LU;
- National freight data and freight shipment information, especially for nationwide domestic truck freight shipments;
- A federal source for nationwide hazardous materials flow data for truck and aviation modes;
- Data to update the Freight Analysis Framework, a Departmental tool that resides in the Federal Highway Administration that allows analysis of freight movements by all Operating Administrations for their particular purposes;
- Data on North American Free Trade Agreement (NAFTA) freight flows and trends, which includes all modes of transportation, particularly trucks;
- Data on the transport of U.S. exports and imports worldwide for all modes of transportation.

FY 2008 Base:

The Freight Data Program for FY 2008 includes completing the data collection phase of the 2007 Commodity Flow Survey, as well as conducting the majority of the processing activities associated with this data. The Freight Data Program also includes processing and disseminating

international trade and freight transportation data and analysis, including data used in the formulae for calculating apportionments for border state infrastructure grants under SAFETEA-LU.

Anticipated FY 2008 Accomplishments

- Publish *U.S. North American Trade and Freight Transportation Highlights, a* report which provides a comprehensive summary of North American Freight flows for all modes of transportation.
- Complete data collection for the 2007 Commodity Flow Survey. The survey will conclude with the last quarter interviews of approximately 75,000 eligible establishments.
- Conduct processing of completed Commodity Flow Survey data. A significant amount of the data processing activities will occur during FY 2008, including continuation of the mileage calculation, weekly and quarterly edits and imputation of missing data items, as well as the initial stages of weighting and estimation.
- Release the Transborder and Border Crossing Freight data, permitting scheduled and reliable access to a wide variety of customers who utilize the U.S. international freight data, including Departmental staff, Congressional staff, state transportation departments, international organizations, and universities. Customers use this data for a variety of purposes, including trade corridor studies and transportation infrastructure planning.
- Publish *Maritime Trade and Transportation*, a report that provides comprehensive data and information on the maritime transportation system. The report is a result of a partnership between federal agencies both within and outside DOT with maritime-related interests and responsibilities.
- Continue to participate in planning and design workshops for the International Trade Data System (ITDS) that are held by the U.S. Department of Homeland Security's Customs and Border Protection to ensure that needed transportation data are provided.
- Publish special report on the growth in U.S. China trade and the resulting increase in demands on the U.S. transportation system.
- Lead the effort to design the International Freight Data System (IFDS) which will serve as the Department's interface with the ITDS and serve as the warehouse for international freight data. The IFDS is a DOT agency partnership which will support the international freight data needs of the participating DOT modal administrations. This also supports the DOT agencies' requirement to interface with ITDS according to the OMB directive under the Import Safety Initiative.

- Conduct a detailed research project on the effectiveness of the questionnaire used to collect data for the 2007 Commodity Flow Survey.
- Provide technical support for the oversight committees and project panels of the National Cooperative Freight Research Program (NCFRP) and the Hazardous Materials Cooperative Research Program (HMCRP). These applied research programs administered by the National Academy of Sciences' Transportation Research Board were established and funded by Congress under SAFETEA-LU.
- Produce relevant, timely, and focused technical and analytical reports on freight transportation-related issues and data.

FY 2009 Budget Request

In FY 2009, the Freight Data Program will continue to process and finalize the data collected for the 2007 Commodity Flow Survey—a major, national benchmark survey of the flow of commodities nationwide. It will also actively engage in the development of Commodity Flow Survey data products, including finalizing the initial set of preliminary estimates, and the continued development of other products in print format, and on the web.

The Freight Data Program will continue to release transborder freight data and border crossing/entry data on a monthly basis, providing data users with trade statistics on the commodities and mode of transportation used with our largest trading partners.

The Freight Data Program will continue to produce relevant and timely national and international freight transportation data and analysis for all modes of transportation. The Freight Data Program will include outreach to customers to assure that the most important data are provided, and innovative methods for meeting freight data needs at the state and local levels will be encouraged.

The Freight Data Program will lead the testing and deployment of the IFDS for the Department, in cooperation with other DOT agencies and the Department of Homeland Security (DHS). The IFDS is the DOT interface to the DHS Customs and Border Protection's International Trade Data System (ITDS).

Explanation of Funding Changes for Freight Statistics

Amount: \$0

Detailed Justification for Transportation Economics

FY 2009 Request: \$1,811,000 FTE: 8.6 [includes 2.6 overhead]

Overview:

The Transportation Economics Program develops basic economic and financial data to support transportation decision making, including development of economic indicators that explain the relationship between transportation and the economy. Program products provide transportation policy officials with information and data on how their decisions impact the larger economy so they can optimize transportation investments, improve transportation system productivity, and increase the value of transportation to users. The program focuses on topics identified by Congress in BTS' authorizing legislation, such as transportation sector productivity, transportation costs, and national accounting for transportation expenditures.

Transportation Economics program:

- Maintains the Transportation Satellite Accounts to measure the effect of transportation upon Gross Domestic Product (GDP). This information is provided to DOT and other governmental economists to accurately calculate the total effects of the transportation sector upon the economy.
- Produces the Air Travel Price Index (ATPI), an index of representative air fares that measures the changes that people pay for commercial air travel. This information on the increase in air travel prices by airport, is used for analysis of the aviation industry, by the Bureau of Labor Statistics, in a supporting capacity for development of the Consumer Price Index, and by the Bureau of Economic Analysis.
- Measures transportation productivity. The productivity data are important to DOT for
 evaluating the economic performance of transportation modes and determining priorities
 for resource allocation, and are used by economists to understand the factors that affect
 changes in productivity over time to evaluate alternative for increasing production
 efficiency.
- Develops and publishes key financial information such as the Government Transportation Financial Statistics (GTFS) and the State Transit Expenditure Survey, which provide data on Federal, state and local transportation revenues and expenditures.
- Conducts research using the Transportation Services Index, to improve the quality, timeliness, and usefulness of that index, and to gain a fuller understanding of the relationship between transportation and the economy. The index and research is used by academics, government officials, and by the financial community and press.
- Develops estimates of highway congestion trends and seasonal patterns. This includes estimation of seasonal factors for congestion data collected in several urban areas and trends in overall national levels of congestion over time.

FY 2008 Base:

The Transportation Economics Program in FY 2008 includes continued development of the Transportation Satellite Accounts (extending the transportation component of GDP beyond for-hire services to include transportation services provided in-house by industries), quarterly production of the Air Travel Price Index, measures of productivity, studies of the economic consequences of transportation investments, development of a transportation and economic forecasting center, publication of Government Transportation Financial Statistics, research on the Transportation Services Index, estimation of seasonal patterns of highway congestion for three urban areas, development of trends in national congestion levels over time, and development of a National Highway Construction Cost Index for the Federal Highway Administration.

Anticipated FY 2008 Accomplishments:

- Publish and update the Transportation Satellite Account (TSA) estimates for private truck, rail, aviation, and waterborne modes.
- Produce the Air Travel Price Index on a quarterly basis. Continue development of new ATPI automated system components, including an operational seasonal adjustment component into the experimental production system.
- Publish multi-factor productivity (MFP) measures and analysis for trucking and pipeline modes. This will include an enhancement of previous long-distance trucking estimates and an assessment of the causes for pipeline productivity gains.
- Publish the 2008 edition of the Government Transportation Financial Statistics (GTFS).
- Create a Time Series and Forecasting Center and publish short-term time series and mid-term forecasts.
- Develop a National Highway Construction Cost Index for the Federal Highway Administration.
- Develop estimates of seasonal congestion patterns for selected cities, and estimates of trends in historical nationwide congestion measures.
- Update and publish the State Transit Expenditure Survey results, which will include a summary report.

FY 2009 Budget Request

In FY 2009, the Transportation Economics Program will produce the core set of economic data and indicators as in 2008, which include the Transportation Satellite Accounts, Air Travel Price Index, Government Transportation Financial Statistics, multi-factor productivity measures, and the State Transit Expenditure Survey.

Explanation of Funding Changes for Transportation Economics

Amount \$ 0

Detailed Justification for Geospatial Information

FY 2009 Request: \$1,758,000 FTE: 7.4 [includes 2.4 overhead]

Overview:

The vision of the Geospatial Information Program is to improve transportation decision making by providing a comprehensive set of geospatial information as the basis for planning, policy, investment, and asset management. The Geospatial Information Program provides visual and analytic tools that enable data to be linked using a geographic reference. This capability is particularly useful for transportation, which is inherently geospatial, and represents an important IT investment. Transportation planners and others can use geospatial information systems to prioritize highway maintenance projects, study noise "footprints" around airports, and plan for system disruptions due to natural disasters or national security threats.

FY 2008 Base:

In FY 2008, BTS will work with other modal administrations to distribute transportation data through the National Transportation Atlas Databases (NTAD). BTS is congressionally mandated to produce the NTAD on an annual basis. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 contained the original mandate and it remained in the legislation that followed, including the most recent SAFETEA-LU. The NTAD is distributed on CDROM and is available for download from the BTS web site. The NTAD is used by geospatial professionals throughout all levels of government, academia and the private sector. Many of the transportation data sets have been incorporated in to Department of Defense programs for national security, including the Homeland Security Infrastructure Program.

BTS built a sophisticated mapping capability for the DOT Crisis Management Center (CMC) and will continue its support, providing mapping and spatial analyses during emergency transportation situations and emergency preparedness exercises. BTS also provides this critical function for Continuity of Operations (COOP).

As mandated in SAFETEA-LU, Section 5601 (6), this program has the responsibility to lead the development of the transportation component of the National Spatial Data Infrastructure (NSDI). This responsibility is also a requirement in OMB Circular A-16 and Executive Order 12906. Staff have been leading DOT through participation in the development of the Geospatial Line of Business. Also, this staff chairs the Federal Geographic Data Committee (FGDC) Ground Transportation Subcommittee, and participates on the FGDC Coordination Group. In response to OMB memorandum M-06-07, the RITA Administrator has been designated the Senior Agency Official for Geospatial Information within DOT.

Anticipated FY 2008 Accomplishments:

- Lead DOT and the geospatial transportation community, support the development of the legislatively mandated NSDI through the Geospatial Line of Business e-government initiative, participate in the Federal Geographic Data Committee, the National States Geographic Information Council, the Transportation Research Board, and the AASHTO GIS for Transportation Symposium Planning Committee.
- Produce the Congressionally mandated National Transportation Atlas Databases (NTAD) for 2008. Staff will gather transportation geospatial data and accompanying metadata from throughout the DOT and other federal agencies. The data will be compiled and distributed via CDROM and offered for download from the BTS web site.
- Provide mapping and geospatial analysis support. This will include standard map products for BTS publications and surveys.
- As practical, provide mapping and geospatial analysis support to DOT's Crisis Management Center (CMC), for Continuity of Operations (COOP), and government-wide exercises such as TOPOFF.

FY 2009 Budget Request

In FY 2009, this Program will compile and disseminate transportation specific geospatial data. The data will continue to be disseminated through the annual release of the National Transportation Atlas Databases (NTAD).

This Program will provide geospatial leadership, in the form of mapping and analyses, to decision makers. The Program staff will provide support to the Department's Crisis Management Center (CMC) and for Continuity of Operations (COOP).

BTS will continue leading and representing DOT in the geospatial community through Federal Geographic Data Committee participation, support of the National Spatial Data Infrastructure, and continued support of the Geospatial Line of Business.

Explanation of Funding Changes for Geospatial Information

Amount \$ 0

Detailed Justification for Compilations, Methods and Standards

FY 2009 Request: \$7,416,000 FTE: 30.0[includes 12.0 overhead]

Overview:

The statistical compilations component of this program brings together data from the BTS programs and other national data sources to produce the Congressionally mandated Transportation Statistics Annual Report, which presents the state of transportation data and discusses several different topics specified by Congress in SAFETEA-LU and the DOT Strategic Plan. In response to SAFETEA-LU's mandate to compile and publish a comprehensive set of transportation statistics, the program produces National Transportation Statistics, mandated by Congress since 1991, as a broad reference updated quarterly on the web and the *State* Transportation Statistics – a comprehensive set of key statistics at the state level. The Pocket Guide to Transportation provides aggregate statistics in an easy to use format, consistent with the SAFETEA-LU mandate to make statistics published by BTS readily accessible to the public. The data in these products cover the DOT strategic goals of safety; reduced congestion; global connectivity; security, preparedness and response; and environmental stewardship. The Compilations, Methods and Standards program compiles multi-modal transportation data covering most transportation topics and updates them regularly. It also prepares publications and other materials for printing and posting on the web, and handles product distribution. Publishing statistics is a Congressionally mandated role for BTS under SAFETEA-LU.

To assure the quality of these compilations and of individual data programs throughout the Department, the Methods and Standards program coordinates efforts to develop standards for transportation data; develops and implements statistical standards and policy for the BTS; maintains with the DOT-CIO the statistical quality guidelines for the Department; consults with other DOT operating administrations on statistical issues; performs quality assurance reviews for BTS information products and publications; and provides statistical support for DOT's annual performance report. These also are Congressionally mandated roles for BTS under SAFETEA-LU, and relate to the DOT strategic goal of organizational excellence.

The Methods and Standards program also: reviews and reports to the Secretary on the sources and reliability of statistics proposed to be used to measure outputs and outcomes under the Government Performance and Results Act; develops guidelines for collection of transportation statistics to ensure accurate, reliable and relevant transportation information; provides data quality support for BTS statistical program; reviews BTS information products, and special and technical reports for compliance with BTS statistical standards and the appropriate application of statistical methodology; monitors agency wide confidentiality procedures, reviews information products for potential disclosures of confidential information, and provides confidentiality training to BTS employees and contractors.

FY 2008 Base:

Statistical compilations include recurring print and web publications: *National Transportation Statistics*, the annual report to Congress, and the *BTS Pocket Guide to Transportation*. The program also provides transportation data to the White House website, and disseminates transportation data through multinational exchanges. As required under SAFETEA-LU, the program also interacts with the Transportation Research Board on a data needs assessment.

The Methods and Standards program will conduct statistical data quality reviews of BTS data systems and information products; provide consulting support to other DOT modes to help ensure that rulemakings and other program actions are based on sound, defensible data; and provide statistical support for the Department's Performance and Accountability Report.

Anticipated FY 2008 Accomplishments:

- Publish the *Transportation Statistics Annual Report* (TSAR) to provide Congress with key indicators on transportation issues.
- Produce and release monthly on the web the Transportation Services Index (TSI), which is a measure of the movement of freight and passengers, and is an indicator of changes in the economy.
- Update, publish, and distribute the annual *Pocket Guide to Transportation*, including revisions resulting from consultations with key customers.
- Update the website version of *National Transportation Statistics* compendium and produce an associated volume of the *State Transportation Statistics*.
- Provide the White House Economic Statistics Briefing Room website with key Transportation Indicators.
- Produce relevant and timely focused analytical and technical reports on transportation and statistics-related issues and data.
- Prepare BTS products for print publication and web posting, including scheduled data releases, recurring publications and special reports, and distribute products to the public.
- Continue the North American Transportation Statistics Interchange with Canada and Mexico and international data exchanges with other nations. In partnership with statistics and transportation agencies in Canada and Mexico, release an update of the North American Transportation Statistics Online Database (NATS OD) on the web. NATS OD houses comprehensive key statistics from the three countries along with technical documentation related to data collection methods, definitions and applicable standards.

- For the DOT Performance and Accountability Report (PAR), provide assistance to the DOT operating administrations with rebaselining of performance measures, and performance measure estimation, projection, and extrapolation methodologies. Assemble data from the DOT operating administrations and prepare the data presentation for this annual report, to help ensure the reliability of the data, transparency in the process, and utility in data presentation.
- Support DOT in the interpretation and implementation of the statistical portion of the DOT Information Dissemination Quality Guidelines. Support other ad hoc requests from DOT such as review of statistical methods in rulemaking processes.
- Continue monitoring agency-wide confidentiality procedures. Review information
 products for potential disclosures of confidential information. Continue annual
 confidentiality training to all BTS employees and contractors. Assess privacy
 compliance of RITA information systems.
- Continue to provide data and statistics to other agencies and organizations within and outside the U.S. for national and international statistics compilations such as OMB, the United Nations, and OECD. BTS takes the lead in reporting transportation data and statistics for the DOT in these compilations.

FY 2009 Budget Request

BTS will continue to produce, publish and make available a core set of online and print documents, and scheduled data releases, at a level commensurate with resources. This includes a Congressionally mandated *Transportation Statistics Annual Report*, a web update of the *National Transportation Statistics*; a *Pocket Guide to Transportation*, and regularly scheduled data releases. It also includes data interchanges with Canada and Mexico and the beginning of a new interchange with China.

This program will also provide assistance to the DOT operating administrations for the DOT Performance and Accountability Report and general statistical consulting, perform data quality reviews of BTS data systems and information products as requested by the BTS Director, and provide training on BTS' confidentiality standards.

Explanation of Funding Changes for Compilations, Methods and Standards

Amount \$ 0

Detailed Justification for the National Transportation Library

FY 2009 Request: \$2,345,000 FTE: 9.0 [includes 4.0 overhead]

Overview:

The National Transportation Library (NTL) is a virtual library, accessible through the Internet, providing broad access to the nation's transportation research and planning literature. The NTL offers reference services, a digital archive, web portal, and access standards and tools including Transportation Research Information Service (TRIS) Online, in cooperation with the Transportation Research Board, the Transportation Research Thesaurus (TRT), the Transportation Libraries Catalog (TLCat), and the NTL Integrated Search platform.

The NTL was created out of the need to fill a national leadership role to support and coordinate networking among transportation libraries. For the Department, it provides a knowledge access point through its reference services, which field inquiries from the Department's key stakeholders. Internationally, the NTL's Organization for Economic Cooperation and Development (OECD) membership permits TRIS Online participation in the International Road Transport Database. The NTL Integrated Search platform combines a metadata standard and digital document repository to provide full-text access to technical, research, and statistical policy resources. Through the Integrated Search platform, the NTL is moving to a metadata and digital object exchange environment to serve the University Transportation Centers, the National Highway Traffic Safety Administration, and other modes with a long term solution to information access.

The NTL is unique in its role as a catalyst and tool for national transportation information access. It stands alone in the industry for representation and cooperation with other national libraries, facilitation of cooperation and collaboration among US transportation libraries, and participating in convocations and forums on behalf of the Agency. Without the NTL, there would be a void in national leadership of transportation information.

Legislative Mandate:

49 U.S.C. 111(e) directs BTS to establish a National Transportation Library, create a collection of statistical and other information, to promote access to the library, to improve transportation community's ability to share information, and to work with other transportation libraries and information providers in to achieve these goals.

FY 2008 Base:

The major components of the NTL are:

<u>Reference Management:</u> This is the transportation information front-door to the Department. The NTL reference service responds to transportation information requests from the community, including DOT, other federal agencies, State DOTs, Congress, and the general public. The library staff handles about 3,000 requests for information each month. Special technology is

used to retain canned responses and FAQs to assure consistency and efficiency in delivering repeatedly requested information, and making it more accessible to the user.

<u>Database and Archive Management:</u> Through a partnering agreement with the Transportation Research Board, the NTL publishes the Transportation Research Information Service on the Web as *TRIS Online*, which provides researchers and the public with free desktop access to over 575,000 information and research resources. *TRIS Online* has the broadest coverage of transportation resources of any analytical index in the world. The NTL Integrated Search platform also includes a Digital Repository and web portal. The Digital Repository contains 16,000 full-text documents, including significant transportation documents from the University Transportation Centers, State DOTs, transportation associations, and other research and policy institutions. The NTL Portal Collection is an index to select transportation web sites. The NTL Integrated Search platform greatly improves access to *TRIS Online* and the NTL Repository, and also provides for expansion into other department collections.

<u>Tools and Standards Management</u>: The NTL's metadata standard for indexing digital resources and use of controlled vocabularies (e.g., Transportation Research Thesaurus) allows interoperability with other web resources and targeted access to both the Digital Repository and the Portal Collection. NTL also makes its databases available to Internet Search Engines such as Google and Yahoo! through implementation of Google Sitemaps and other protocols. Other NTL access tools include directories, bibliographies, and a taxonomy. NTL also houses custom Google searches of all State DOT, UTC, MPO, and transit agency websites. Additionally, the NTL has developed the Rural and Agricultural Transportation Data and Information Resources website. These tools are used in tandem with the databases and archives enabling efficient, robust search, retrieval, and access to NTL, *TRIS Online*, and other transportation information resources.

<u>Networking</u>: Through partnership with the Federal and State DOT libraries, university transportation libraries, and the largest holder of library catalog records, the Online Computer Library Consortium (OCLC), the NTL has made available to the public a one-stop portal, the Transportation Librarians Catalog (TLCat) to the catalogs of the Nation's most significant transportation libraries. The NTL created TLCat which provides users with unprecedented desktop access to policy, administrative, operations, and research literature through interlibrary loan. The NTL has also coordinated and supported the development of two new transportation library networks. Additionally, in cooperation with other national transportation and library organizations, NTL hosts the Transportation Librarians Roundtable, a monthly forum for transportation librarians to discuss and exchange best practices on issues of mutual interest.

Anticipated FY 2008 Accomplishments:

• Continue to provide online reference services, answering the thousands of questions received each month that are related to the business of the Department of Transportation. Queries are received by telephone (800-853-1351), or by email: Librarian@bts.gov, Answers@bts.gov, DOT.Comments@dot.gov, TRIS@bts.gov or RITAInfo@dot.gov..

• Continued compliance with international information interoperability standards such as the Open Archive Initiative. This effort will expand the universe of archives that hold digital documents and other files, thus improving long term preservation and access.

• Augment the content and robustness of the digital archive by incorporating new standards

and aligning with other digital repositories.

 Work with University Transportation Centers and other object and data providers to create a more efficient method for transfer of digital documents and metadata into the

NTL Digital Repository.

• Collect materials focusing on US transportation policy, planning, research, and operations; resources of long-term significance and value; and resources indexed in the Transportation Research Board's TRIS database

Transportation Research Board's TRIS database.

• Work with other transportation librarians to develop a national plan for collection

development and for digital preservation.

• Increase total number of full-text links in TRIS Online.

• Increase the number of participating libraries in TLCat.

• Expand the regional and national transportation knowledge networks.

FY 2009 Budget Request

• The NTL will continue to provide quick, courteous, and accurate answers to requests for

information within 24 – 48 hours of receipt.

• The NTL will continue to provide access to, and improve the NTL Integrated Search

platform.

• The NTL will continue to expand and provide access to TLCat.

• The NTL will continue to develop, maintain, and promote new tools and standards

providing better access to information.

Explanation for Funding Changes National Transportation Library

Amount: \$0

72

BTS Reimbursable

Detailed Justification for Air Transportation Statistics

Reimbursable

FY 2009 Request: \$4,000,000

FTE: 19

Overview:

BTS collects and publishes a variety of data about the operations of foreign and U.S. domestic airlines. The primary purpose of the program is to provide Congress, DOT, and other Federal agencies with uniform and comprehensive aviation data that are accurate, timely, and relevant for use in making aviation policy decisions and administering aviation-related programs. DOT program uses of BTS airline data include the Airport Improvement program, Essential Air Service, monitoring the performance of the air transportation industry, and conducting status evaluations at both the individual airline and at industry levels, as well as conducting International Negotiations of air service agreements. The use and visibility of this airline data collection, which was originally mandated to enable oversight of airline competition, has grown in recent years as airlines and their markets have increased in complexity and competitiveness.

The BTS Form 41 traffic data is relied upon to manage key Departmental programs such as the FAA Airport Improvement Program to distribute billions of dollars, annually, to airports. The Office of the Secretary relies on this data in managing airline programs, including its International program which relies upon the BTS Form 41 data for international negotiations, grants of authority to airlines and other purposes. Also, the monthly On-Time Flight Performance and Flight Delay data is important to the airlines and public in understanding of airline performance.

FY 2008 Base:

The Air Transportation Statistics Program collects, processes, and regularly releases/disseminates airline data from four primary data collections: On-Time Flight Performance (including causes of delays), domestic and international passenger and freight traffic, passenger ticket information, and airline financial and employment information. This air passenger itinerary and fare information is disseminated on the BTS website and directly from BTS as datasets and reports. The program also provides specialized reports for DOT and other Government agencies that they require in fulfilling their legislative mandates.

BTS collects and disseminates airline financial, traffic, performance and operational data from 150 U.S. airlines. Traffic data to and from the United States are collected and disseminated from 135 foreign air carriers that operate air service to the United States. Annually, BTS collects over 8,000 reports from U.S. and foreign airlines. Besides collecting and disseminating airline data, BTS continues to enhance its airline data edit and validation procedures in order to maintain a high level of data quality for DOT decision-makers.

Anticipated FY 2009 Accomplishments:

- Release traffic data monthly covering total monthly air passenger enplanements for the industry; airline rankings by air passenger enplanements, traffic volume, revenue miles, available seat miles, load factors and trip lengths.
- Release the quarterly Air Passenger Origination-Destination Survey of passenger fare and trip itinerary data.
- Release domestic operating profit and loss data quarterly for individual airlines and by carrier groups (e.g. majors, low cost carriers); airline domestic unit costs; and revenue yield.
- Release On-Time performance data monthly, providing the overall on-time arrival and departure performance of airlines, airports, and specific flights.
- Provide data monthly on causes of flight delays, characterized in five categories: Air Carrier, Extreme Weather, National Aviation System (NAS), Late-Arriving Aircraft, and Security.
- Maintain and operate the Airline Reporting and Data Information System (ARDIS) data processing environment.
- Consistent with E-GOV goals, continue to develop and further enhance and expand a pilot program to enable air carriers to file their financial, operational, and traffic data reports with BTS using a more efficient electronic means (Web e-filing), improving data processing efficiency and reducing reporting burden on the industry.
- BTS will continue to support the Office of the Secretary mail ratemaking and Essential Air Service (EAS) programs.
- Continue to provide weekly airline traffic data collection and processing as required jointly of DOT and the U.S. Postal Service by the Rural Service Improvement Act.
- Develop and implement further enhancements to the processing system for data validation, improving the edit logic or "business rules" to maintain a high level of airline data quality in a Total Quality Management (TQM) program.
- Continue enhancing the IT systems for airline data processing, within available resources. Continue the improvements to the "Production" airline data server and the "Developmental" server to better accommodate Web-filing and foster the development of other airline data collection and data-edit improvements.

FY 2009 Budget Request

In FY 2009, the Air Transportation Statistics Program will continue the maintenance and operation of the existing airline data collections, ensuring high quality data and maintaining a steady state production of accurate, timely and relevant outputs. BTS plans to continue to expand the coverage of its pilot Web-Filing project to include additional airlines and additional databases that can benefit from the advances implemented in electronically filing airline data. Also, support will continue to be provided to the mail ratemaking and Essential Air Service programs in the Office of the Secretary. Weekly airline traffic data collection and processing (as required jointly of DOT and the U.S. Postal Service by the Rural Service Improvement Act) will continue to be provided by the Air Transportation Statistics Program. BTS will also continue with the implementation of its total quality management program, improving the integrity of its airline data systems, and ensuring data consistency across data systems and across all the historical years of data collection. In addition, the program will continue planning and implementation of an airline data modernization program in partnership with other DOT organizations.

Explanation of Funding Changes for Air Transportation Statistics Program:

Amount: 0

PART

Performance Overview

Annual Performance Results and Targets

The Research and Innovative Technology Administration (RITA) integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's Strategic Plan.

Program Assessment Rating Tool (PART) Assessment

The following RITA programs have been assessed via the PART:

Program	PART	Score	OMB Assessment
	Cycle		
Bureau of Transportation	FY 2006	79.8	Moderately Effective
Statistics			
Research, Development &	FY 2007	43.2	Results Not Demonstrated
Technology Coordination			

Bureau of Transportation Statistics Analysis:

1. The program's purpose is clear and the program's design is free of major flaws. The program has been reviewed and evaluated independently by the National Academy of Science's Transportation Research Board and the program has incorporated recommendations from this board and other advisory committees to improve program effectiveness. 2. The program is designed to reduce duplication at the Federal, State, and local levels. By focusing on intermodal and multi-modal transportation, the Bureau of Transportation Statistics provides analysis of transportation data that bridges geographic and modal lines. 3. The program level strategic and performance plans conform to the agreed-upon performance dimensions of the federal statistical community but not to required Departmental goals.

Recommendation #1: Addressing identified management deficiencies, especially the need to fill formal leadership positions.

Actions Taken: A new BTS Associate Administrator was approved and brought on board in January of 2007 and the BTS Deputy Associate Administrator was brought on board before the end of the fiscal year. Key staff positions related to building BTS infrastructure were established and filled with experienced experts. Performance evaluations and performance plans for BTS employees are now up to date.

Recommendation #2: Bridging the program's connection to Departmental goals while maintaining an adherence to federal statistical performance dimensions.

Actions Taken: All BTS programs are attributable to Departmental goals and appear as such in the agency's budget. Management also developed a performance-based 180-day management plan for producing sound statistical products that is also attributable to Departmental goals.

Recommendation #3: Developing a new, more systematic performance measure that identifies the program's primary users/customers and solicits feedback from those users.

Actions Taken: BTS partnered with the Transportation Research Board on stakeholder activities. Subsequently, BTS is now developing a customer satisfaction instrument and mechanism including: (a) inventory of key data / product users; (b) customer feedback tracking system; (c) web-based customer satisfaction survey; (d) customer comment card process; (e) performance indicators of customer data and production user satisfaction; and (f) BTS feedback instruction.

Research, Development & Technology Coordination Analysis:

1. The program has developed a coordinated strategic plan covering all Departmental RD&T and tied all RD&T resources to DOT strategic goals; however, the program has not set clear long-term goals and accompanying performance measures, annual objectives and measures that reflect an aggressive program direction, or established an independent program evaluation mechanism. 2. Some partnerships have been created in pursuit of multi-modal collaborative research; however, the program has not been able to provide a critical view of the Department's overall RD&T portfolio and how best to concentrate limited resources for maximum impact. 3. Though the program has achieved some success in promoting basic information-sharing, the program has not developed a reliable means of assessing the management of RD&T programs or the quality of RD&T activities.

Recommendation #1: Establishing long-term measures and annual performance baselines and targets that address the degree of success in coordination and collaboration of DOT RD&T activities and assets to address shared transportation goals and objectives.

Actions Taken: Initial measures have been established through the PART process. Management is currently considering the most appropriate measures and targets for the program.

Recommendation #2: Creating a database system to inventory and track all of DOT's RD&T activities.

Actions Taken: RITA has established the authority to collect RD&T information from DOT operating administrations through a notification letter process. RD&T initiated a task order to develop a web-based database application that will enable the Department to see and track its investments in research and development.

Recommendation #3: Continuing development and use of R&D Investment Criteria in a more robust and consistent way that evaluates how well DOT RD&T programs or projects are performing.

Actions Taken: A new Research Planning and Investment Control Process (RPIC) has been initiated as a systematic way of selecting the right mix of investments to meet goals then managing those investments to ensure success.

Section 4 Budget by Performance Goal

Exhibit IV-1

FY 2009 BUDGET REQUEST BY STRATEGIC OBJECTIVE AND PERFORMANCE GOAL RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION

Appropriations, Obligation Limitations, & Exempt Obligations (dollars in thousands)

(donars in thousands)								
				FY 2009	FY 2009			
Strategic & Performance Goals	FY 2007	FY 2008	FY 2009	Baseline	Program	FY 2009		
by Performance Measure	Actual	Enacted	Target	Estimates	Changes	Request		
1. REDUCED CONGESTION STRATEGIC GOAL								
A. Increase use of ITS								
a. Other								
ITS ¹	[110,000]	[110,000]	[110,000]	[110,000]	0	[110,000]		
B. Reduced impediments								
a. Other								
NDGPS	0	5,348	5,348	5,348	-400	4,948		
PNT	0	0	0	0	400	400		
Geospatial Information ²	[1,758]	[1,758]	[1,758]	[1,758]	<u>0</u>	[1,758]		
Total - Reduced Congestion Strategic Goal	0	5,348	5,348	5,348	0	5,348		
2. GLOBAL CONNECTIVITY STRATEGIC GOAL								
A. Cost effective movement of passengers and cargo movement								
a. Other								
Air Statistics	2,000	0	0	0	0	0		
Travel Statistics ²	[2,947]	[2,947]	[2,947]	[2,947]	0	[2,947]		
Freight Statistics ²	[11,285]	[10,723]	[10,723]	[10,723]	0	[10,723]		
Complications ²	[4,945]		[4,945]		0	[4,945]		
		[4,945]		[4,945]	_			
Subtotal	2,000	0	0	0	0	0		
B. Enhanced competitiveness								
a. Other								
Transportation Economics ²	{1,811]	[1,811]	[1,811]	[1,811]	0	[1,811]		
Air Statistics Reimbursable ²	0	[4,219]	[4,219]	[4,219]	[1,781]	[6,000]		
Subtotal	0	0	0	0	0	0		
Total - Global Connectivity Strategic Goal	0	0	0	0	0	0		
3. ENVIRONMENTAL STEWARDSHIP STRATEGIC GOAL								
A. Reduced environmental effects								
a. Other								
Hydrogen Fuels Safety R&D	852	852	852	852	0	852		
Subtotal	852	852	852	852	0	852		
Total - Environmental Stewardship Strategic Goal		852 852	852 852	852 852	0	852 852		
	0.52	052	052	052	v	032		
4. ORGANIZATIONAL EXCELLENCE STRATEGIC GOAL								
A. Achieved strategic management of human capital.								
a. Other								
UTC Reimbursable Program ³	[76,700]	[76,700]	[76,700]	[76,700]	0	[76,700]		
Subtotal	0	0	0	0	0	0		
B. Achieved e-government goals.								
a. Other								
National Transportation Library ²	[2,345]	[2,345]	[2,345]	[2,345]	0	[2,345]		
Subtotal	0	0	0	0	0	0		
C. Achieved research and development goals.								
a. Other								
RD&T Coordination	4,884	5,800	5,800	5,800	0	5,800		
Methods and Standards	[2,471]	[2,471]	[2,471]	[2,471]	0	[2,471]		
Subtotal	4,884	5,800	5,800	5,800	0	5,800		
Total - Organizational Excellence Strategetic Goal	4,884	5,800	5,800	5,800	0	5,800		
Total	7,736	12,000	12 000	12,000	0	12,000		
1 Otal	1,130	12,000	12,000	12,000	U	12,000		

^{1/} Resources are shown as non-adds because resources reside in the FHWA budget.

 $^{^{2/}}$ Resources are shown as non-adds because the Bureau of Transportation Statistics is an allocation account under the Federal-aid Highway program.

^{3/} Resources are shown as non-adds because resources are reimbursable from FHWA and FTA.

Reduced Congestion

REDUCED CONGESTION

This funding request contributes to the DOT Reduced Congestion strategic objective and to the following performance outcomes:

Performance Outcome 3: Increased use of Intelligent Transportation Systems (ITS) networks and new incident management approaches.

Performance Outcome 5: Reduced impediments to the efficient movement of freight over the transportation network, especially at key freight gateways.

This request would allow RITA to:

- Develop geospatial data useful for transportation planning and continue work toward a common geospatial information infrastructure for transportation.
- Develop requirements for the Global Positioning System (GPS) and continue operations and maintenance of the inland segment of the Nationwide Differential Global Positioning System (NDGPS).
- Advance high-risk, high profile, high impact and high reward research on congestion mitigation and traffic management through intelligent transportation system technologies and capacity-building.

The resources requested to achieve this goal are:

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligations Limitations, & Exempt Obligations

				FY 2009	FY 2009	
	FY 2007	FY 2008	FY 2009	Baseline	Program	FY 2009
Strategic & Performance Goals by Program Measure	Actual	Enacted	Target	Estimates	Changes	Request
1. REDUCED CONGESTION STRATEGIC GOA	L					
A. Increase use of ITS						
a. Other						
ITS	[110,000]	[110,000]	[110,000]	[110,000]	<u>0</u>	[110,000]
Subtotal	[110,000]	[110,000]	[110,000]	[110,000]	$\overline{0}$	[110,000]
FTE	[17.0]	[17.0]	[17.0]	[17.0]	0	[17.0]
B. Reduced impediments	[27.0]	[17.0]	[17.0]	[17.0]	Ŭ	[17.0]
a. Other						
NDGPS	0	5,348	5,348	5,348	-400	4,948
PNT	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>400</u>	<u>400</u>
R&D Subtotal	0	5,348	5,348	5,348	0	5,348
FTE	0.0	1.0	1.0	1.0	0.0	1.0
Geospatial Information	[1,758]	[1,758]	[1,758]	[1,758]	0	[1,758]
BTS Subtotal	[1,758]	[1,758]	[1,758]	[1,758]	<u></u>	[1,758]
FTE	7.4	7.4	7.4	7.4	0.0	7.4
Total - Reduced Congestion Strategic Goal	0	5.348	5.348	5.348	0	5.348

REDUCED CONGESTION

<u>Performance Outcome 3: Increased use of Intelligent Transportation Systems (ITS)</u> networks and new incident management approaches.

PEFORMANCE ISSUES

<u>Intelligent Transportation Systems</u> – To ensure intelligent technologies are deployed for traffic and incident management within the transportation system by developing useful information and tested applications.

• Intelligent Information Systems – With projections forecasting the continued increase of traffic volume and congestion, the expense, limited land and public reaction to construction projects, the solutions for managing congestion rest with better use of technologies to manage traffic flows and driver behavior. Research, development and operational testing needs fall into three categories: Vehicle-Based Systems, Infrastructure Systems, and Vehicle-Infrastructure Integration Systems.

<u>Performance Goal 5: Reduced impediments to the efficient movement of freight over the transportation network, especially at key freight gateways.</u>

PERFORMANCE ISSUES

<u>Spatial Information & Related Technologies</u> – To improve the transportation community's capabilities in managing traffic flows by developing deployable spatial and related tools and technologies.

- Nationwide Differential Global Positioning System (NDGPS) NDGPS is an enabling system for civil, commercial and scientific applications. DOT's role in the multi-agency effort applies to inland components only and is intended to preserve the system while assessments of Federal and other user requirements are made.
- Position, Navigation and Timing (PNT) This program fulfills DOT's responsibility
 to (1) provide uninterrupted availability of PNT services, (2) meet growing national,
 homeland security, economic security and civil requirements, scientific and
 commercial demands, and (3) provide civil services that exceed or are competitive
 with foreign civil space-based PNT services and augmentation systems.
- Geospatial Information Geospatial information provides the visual and analytic tools that enable data to be linked using a common geographic reference. This is particularly useful for transportation which is inherently location based. By using common geospatial infrastructure to code data, the transportation community creates the capacity for dramatically enhancing the ability to prioritize highway maintenance projects, study noise footprints, plan for system disruptions, and assess the supply and demand of travel routes.

Agency Output Measure: Ensure that the annual release of National Transportation Atlas Database (NTAD) CD is available prior to the start of the annual ESRI (Environmental Systems Research Institute) International User Conference on GIS and mapping software (to provide timely support for research, analysis, and decision-making across all modes of transportation). Goal: 1 or more weeks in advance of the target date ON-TRACK

Agency Outcome Measure: Reduce response time for map requests by the DOT Crisis Management Center (CMC) and in support of the Continuity of Operations (COOP) plans (improve emergency response by providing current and timely information). Goal: 0.25 hour per annum reduction the first year and 0.5 hour reduction each year thereafter --long term: 4 hour turnaround by 2010 ON-TRACK

Agency Output Measure: Increase the number of National Atlas Transportation Database (NTAD) CD-ROMs distributed (to broaden the customer base for this product). Goal: 15.0% growth per annum ON-TRACK

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- Complete a systems analysis and assessment of current NDGPS requirements for transportation and other applications (as part of the Nationwide Differential Global Positioning System program).
- Produce the National Transportation Atlas Databases (NTAD) for 2008.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities	Outputs	Outcomes			
	Spatial Information & Related Technologies					
Geospatial Infor	mation					
\$1,758,000/ 7.4 FTE	 Develop transportation-specific geospatial data. Provide geospatial analytic support and products. Represent DOT on geospatial committees. 	 NTAD. Mapping products & analytic reports. Recommendations on the Geospatial Line of Business 	A common foundation for transportation information analysis and exchange.			
Nationwide Diffe	erential Global Positioning System	•				
NDGPS \$4,948,000/ 1 FTE	1. Initiate implementation of NDGPS decision.	1. Develop business plan for NDGPS.	Accurate positioning and location information is available for routing and control.			
Positioning, Navi	Positioning, Navigation and Timing					
PNT \$ 400,000/ 0 FTE	1. Document the current PNT architecture & evaluate alternatives.	1. Recommendations to the National Space-Based PNT Executive Committee.	Accurate positioning and location information is available for routing and control.			

Global Connectivity

GLOBAL CONNECTIVITY

This funding request contributes to the DOT Global Connectivity strategic objective and to the following performance outcomes:

Performance Outcome 2: Safer, more efficient and cost effective movement of passengers and cargo throughout international and domestic transportation systems, including U.S. ports of entry, modal and intermodal supply chains.

Performance Outcome 4: Enhanced competitiveness of U.S. transport providers and manufacturers in the global marketplace.

This request would allow RITA to:

- Produce financial and economic transportation information including the Air Travel price Index (ATPI), the effect of transportation on the Gross Domestic Product, government transportation financial statistics and the State Transit Expenditure Survey.
- Provide prompt information on 150 airlines including passenger ticket information and airline financial and employment information for government agencies and stakeholders.
- Produce multiple annual publications of transportation data including the Transportation Statistical Annual Report on key indicators and issues, National Transportation Statistics compendium and state volumes, and the Pocket Guide to Transportation.
- Continue work on the 2007 Commodity Flow Survey
- Provide transborder data, border crossing data and design recommendations on the development of the International Freight Data System (IFDS) interface to ITDS.

The resources requested to achieve this goal are:

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligations Limitations, & Exempt Obligations

	FY 2007	FY 2008	FY 2009	FY 2009 Baseline	FY 2009 Program	FY 2009
A. Cost effective movement of passengers and cargo movement	Actual	Enacted	Target	Estimates	Changes	Request
a. Other						
Air Statistics	2,000	0	0	0	0	-
R&D Subtotal	2,000	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Travel Statistics	[2,947]	[2,947]	[2,947]	[2,947]	0	[2,947]
Freight Statistics	[11,285]	[10,723]	[10,723]	[10,723]	0	[10,723]
Complications	[4,945]	[4,945]	[4,945]	[4,945]	0	[4,945]
BTS Subtotal	[19,177]	[18,615]	[18,615]	[18,615]	0	[18,615]
FTE	68.0	68.0	68.0	68.0	0.0	68.0
B. Enhanced competitiveness						
a. Other						
Transportation Economics	[1,811]	[1,811]	[1,811]	[1,811]	0	[1,811]
BTS Subtotal	[1,811]	[1,811]	[1,811]	[1,811]	0	[1,811]
FTE	8.6	8.6	8.6	8.6	0.0	8.6
a. Other						
Air Statistics Reimbursable	0	[4,219]	[4,219]	[4,219]	[1,781]	[6,000]
BTS Subtotal	0	[4,219]	[4,219]	[4,219]	[1,781]	[6,000]
FTE	0.0	19.0	19.0	19.0	0.0	19.0
Total - Global Connectivity Strategic Goal	2,000	0	0	0	0	0

GLOBAL CONNECTIVITY

<u>Performance Goal 2: Safer, more efficient and cost effective movement of passengers and cargo throughout international and domestic transportation systems, including U.S. ports of entry, modal and intermodal supply chains.</u>

PERFORMANCE ISSUES

<u>System Performance</u> – To facilitate system-level transportation decision-making by providing intermodal and multimodal products and services related to the movement of passengers and cargo throughout the system.

 Domestic Freight Movement – The Freight Data Program meets the most commonly cited, high priority freight data needs of the Department, other federal agencies and the transportation community. Its Commodity Flow Survey is the most comprehensive source of nationwide data on the flow of goods, the geography of freight movement, and the distance of multimodal shipment, plus the sole course of national flow data on hazardous materials shipments by highway and air.

Agency Outcome Measure: Maintain a minimum 80% response rate on the Commodity Flow Survey (CFS) (quality of outcome improvement by reducing non-response bias). Goal: 80.0% for 2007 data ON-TRACK

• International Cargo & Passenger Movement - The Freight Data Program provides transborder and border crossing data that is specified in the allocation formula for border state infrastructure grants.

Agency Efficiency Measure: Improve cost efficiencies in acquiring international freight data (Transborder data). Goal: 10.0% reduction per annum over 5 years ON-TRACK

- Domestic Passenger Movement The Travel Statistics Program provides data on personal
 and business travel that is used by state transportation officials to manage ferry operations
 and infrastructure, by modal administrations to improve transportation projects, and to
 develop measures of system reliability.
- Compilations Statistical compilations include recurring print and web publications:
 National Transportation Statistics, the annual report to Congress, and the BTS Pocket Guide to Transportation. The program also provides transportation data to the White House website, and improves and disseminates transportation data through multinational exchanges. As required under SAFETEA-LU, the program also interacts with the Transportation Research Board on a data needs assessment.

Agency Efficiency Measure: Improve cost efficiencies in the production of BTS' major published reference products (Transportation Statistics Annual Report, National Transportation Statistics, and the Pocket Guide to Transportation Statistics). Goal: 10.0% reduction per annum over 5 years ON-TRACK

Agency Outcome Measure: Improve coverage of legislative mandates in the annual Transportation Statistics Annual Report (TSAR) (indicator of the degree to which we satisfy primary set of stakeholders - Congress). Goal: 100.0%

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- Complete data collection and conduct the bulk of processing on 2007 Commodity Flow Survey data.
- Publish the *US North American Trade and Freight Transportation Highlights* multimodal summary report of North American freight flows.
- Contribute to the design of the International Freight Data System (IFDS) as the interface to the International Trade Data System (ITDS).
- Publish *Maritime Trade and Transportation* comprehensive report.
- Produce updates to rural access studies.
- Publish a variety of data from the Passenger System Connectivity Study.
- Produce the National Transportation Statistics compendium electronically, the BTS Pocket Guide to Transportation, and the Transportation Statistics Annual report (TSAR).

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities	Outputs	Outcomes
P 3-3-		tem Performance	
Domestic Frei	ght Movement (BTS) Freight Stati	v	
\$7,705,000 / 23 FTE	Validate CFS data. Finalize mileage calculations.	Mileage calculation data.	Transportation decision-makers are informed of key freight flow patterns and issues.
International 1	Freight Movement (BTS) Freight S	Statistics	
\$3,018,000 / 11 FTE	 Conduct outreach to assess needs. Prepare border crossing and transborder data. Design IFDS 	1. Monthly transborder and border crossing data releases.	Transportation stakeholders have information about the current positioning of the US in international transportation environment.
Domestic Pass	enger Movement (BTS) Travel Sta	atistics	
\$2,947,000 / 14 FTE	1. Run Confidential Close Calls reporting system.	 Issue briefs and reports on various topics. Rural travel analysis update. 	DOT has a clear picture of the nature of passenger travel within the US and insights into where the system fails to meet the needs of travelers.
Compilations	(BTS)		
\$4,945,000/ 20 FTE	Collect and maintain transportation data. Measure freight & passenger movement – Transportation Services Index.	1. Publications & postings: TSAR, NTS and Pocket Guide. 2. Produce TSI.	DOT and Congress have a clear picture of the state of transportation statistics and the overall state of transportation.

<u>Performance Goal 4: Enhanced competitiveness of U.S. transport providers and manufacturers in the global marketplace.</u>

PERFORMANCE ISSUES

<u>Industry Economics</u> - To facilitate informed transportation planning and management by providing information about the transportation industry and the sector's relationship to economics.

• Airline Industry - [reimbursable] - The Air Transportation Statistics Program is the only source for objective airline performance information. It is the basis for significant decision-making efforts such as the FAA Airport Improvement Program and provides the core information used in airline policy initiatives, international negotiations, and grants of authority to airlines. It also provides the basis for the public's use of airline performance information in making consumer travel decisions.

Agency Output Measure: Increase the percentage of periodic data releases (airline traffic and financial data, Transportation Services Index, and Air Travel Price Index) that occurred on schedule (enable our stakeholders and customers predictable delivery of our datasets). Goal: 100% ON-TRACK

• Transportation Economic Statistics - The Transportation Economics Program serves to explain key relationships and impacts between economics and transportation. Information can then be used to make decisions that can optimize transportation investments and improve system productivity. This includes the Air Travel price Index (ATPI), the effect of transportation on the Gross Domestic Product, government transportation financial statistics and the State Transit Expenditure Survey.

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- Release traffic data monthly covering total monthly enplanements for the industry, airline
 rankings by enplanements, passenger volume, revenue miles, available seat miles, load
 factors and trip lengths.
- Release quarterly Air Passenger Origin-Destination Survey for passenger fare and trip itinerary data.
- Release domestic operating profit and loss data quarterly for individual airlines and by carrier groups, airline domestic unit costs; and revenue yield.
- Release On-Time performance data monthly providing overall on-time arrival and departure performance information on airlines, airports and specific flights.
- Provide monthly data on causes of flight delays, characterized in five categories: air carrier, extreme weather, National Aviation System (NAS), late-arriving aircraft, and security.
- Implement additional enhancements to the processing system for airline data validation.
- Publish Transportation Satellite Account (TSA) estimates for private truck, rail, aviation, and waterborne modes and post the data.
- Produce the Air Travel Price Index (ATPI), a quarterly index of representative air fares.

- Publish enhanced multi-factor productivity measures and analysis for long-distance trucking and pipeline modes.
- Publish the revamped Government Transportation Financial Statistics 2007 (GTFS).
- Publish an updated State Transit Expenditure Survey.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs		Activities		Outputs	Outcomes
		In	dustry &	Economics	
Air Transporta	ation Sta	tistics (BTS)			
[\$6,000,000 /	1. Expa	nd web-filing to	1. Data	reports on airline financial	Stakeholders are better
19 FTE]	addition	nal states.	perform	ance.	informed about
	2. Main	tain and operate airline	2. Mont	hly airline traffic data	transportation system
	data col	lections.	releases	i.	efficiency, performance
	3. Conti	nue data	3. On-ti	me data releases.	and reliability.
	modern	ization project.			
		Ι	ndustry l	Economics	
Transportation	n Econon	nic Statistics (BTS)			
\$1,811,000/	1. Analy	yze economic and	Electro	nic publishing of:	Transportation decision-
8.6 FTE	financia	ıl data.	1. Trans	sportation Satellite Accounts,	makers are informed
	2. Produ	ice economic	2. Air T	ravel Price Index,	about the economic
	indicato	ors for transportation.	3. Gove	rnment Transportation	impact of transportation
			Financi	al Statistics,	and transportations impact
			4. Multi	i-factor productivity	on the economy.
			measure	es, and	
			5. State	e Transit Expenditure Survey	
			results.		

Environmental Stewardship

ENVIRONMENTAL STEWARDSHIP

This funding request contributes to the DOT Environmental Stewardship strategic objective and to the following performance outcomes:

Performance Outcome 1: Reduced pollution and other adverse environmental effects of transportation and transportation facilities.

This request would allow RITA to:

• Coordinate, manage, and conduct the Department's hydrogen R&D activities. Engage research in hydrogen fuel technology, including the hydrogen infrastructure analysis study, advanced propulsion and alternative fuels projects, and hydrogen materials compatibility research.

The resources requested to achieve this goal are:

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION Appropriations, Obligations Limitations, & Exempt Obligations

A. Reduced environmental effects	FY 2007 Actual	FY 2008 Enacted	FY 2009 Target	FY 2009 Baseline Estimates	FY 2009 Program Changes	FY 2009 Request
a. Other Hydrogen Fuel Safety R&D	852	852	852	852	<u>0</u>	852
Subtotal	852	852	852	852	0	852
Total - Environmental Stewardship Goal FTE	852 1.0	852 1.0	852 1.0	852 1.0	0 0.0	852 1.0

ENVIRONMENTAL STEWARDSHIP

<u>Performance Goal 1: Reduced pollution and other adverse environmental effects of transportation and transportation facilities.</u>

PERFORMANCE ISSUES

<u>Alternative Fuels Objective</u> - To improve the transportation community's capabilities in reducing adverse environmental impacts through environmental assessment, alternatives fuels research, and development of mitigation tools.

- Creation of a Hydrogen Economy As part of the President's Hydrogen Fuels Initiative, RITA is charged with coordinating, managing, and executing key components of the Department's hydrogen R&D activities to ensure fuel cell and hydrogen-fueled vehicles can be developed, demonstrated, and deployed and used as a safe and reliable alternative to petroleum fueled vehicles. Part of this coordination role is the responsibility to maintain the DOT and Federal Hydrogen Portal.
- Hydrogen Safety There is a need to develop and organize cooperative initiatives to
 determine how best to protect responders in real-world hydrogen-related scenarios,
 and develop training and educational materials to support Federal and state initiatives.
 Based on a variety of research and information, RITA has a responsibility to help
 establish safety codes and standards development at the local, state, national, and
 international level as the Department's technical representative for hydrogen fuels
 infrastructure safety R&D committees and organizations.
- Bio-Fuels [Directed Grants] The need to expand RITA's work from strictly hydrogen fuel to bio-fuel research is important in order to present policy-makers and transportation professionals with a variety of viable alternative fuels options. Research and related program activity is needed in the areas of bio-fuel production, transport, economics and sustainability, analysis, outreach, education and training. Many advances in hydrogen research are transferable to bio-fuels under controlled conditions and vice versa, providing RITA with excellent leveraging of expertise for pursuit of multi-faceted alternative fuel solutions.
- Climate Change [Reimbursable] Heightened attention to climate change means
 that RITA will need to drastically advance climate change research efforts to meet
 transportation and policy-making expectations. The Climate Change Center is in need
 of significant leadership and vision to establish the direction of the joint program, and
 to leverage available resources and participation from modal partners to provide
 reliable insight on climate change issues for application in transportation policy and
 program planning.

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- Evaluate and validate non-destructive testing and inspection technologies under real-world condition.
- Determine gaps in materials compatibility research.
- Develop a comparative model for life cycle modeling of propulsion system options and related infrastructure.
- Establish a technology transfer mechanism incorporating the first RITAsponsored technology transfer into a peer outreach conference forum.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities Outputs		End Outcomes				
	Alternative Fuels						
Hydrogen (p	olus limited staff support for Bio-Fuels & clin	nate change)					
\$852,000/	1. Support collaborative research projects	1. DOT Hydrogen website.	Hydrogen and/or				
1 FTE	(see below).	2. Recommendations on	alternative fuels				
	2. Conduct targeted near-term research on	standards.	infrastructure is				
	gaps.	3. Multiple outreach	deployed by/in in the				
	3. Continue partnering on safety codes and	sessions.	market.				
	standards.						
	4. Continue partnering on public safety						
	response training & education.						

Major research initiatives for FY 2009 fall into the following areas:

- a. Demonstration efforts for hydrogen stations, vehicles and infrastructure
- b. Materials compatibility
- c. Design and operations guidelines for hydrogen transport systems
- d. Composite cylinder thermal/mechanical failure model

Organizational Excellence

ORGANIZATIONAL EXCELLENCE

This funding request contributes to the DOT Organizational Excellence strategic objective and to the following performance outcomes:

Performance Outcome 1: Achieved strategic management of human capital.

Performance Outcome 5: Achieved e-government goals.

Performance Outcome 6: Achieved research and development goals.

This request would allow RITA to:

- Provide \$76.7 million in reimbursable funding for investment in education, research, and technology transfer through the University Transportation Centers.
- Validate performance and accountability measures and methodology for DOT and uphold the statistical quality and confidentiality.
- Blend the National Transportation Library with the DOT Library for an integrated service approach to providing a central source for transportation and transportation R&D information primarily through electronic means.
- Enhance Department-wide RD&T coordination through creation of a Department-wide RD&T database, enhanced planning and prioritization efforts, and initiation of common RD&T performance measures.

The resources requested to achieve this goal are:

	FY 2007	FY 2008	FY 2009	FY 2009 Baseline	FY 2009 Program	FY 2009
-	Actual	Enacted	Target	Estimates	Changes	Request
A. Achieved strategic management of human capital. a. Other						
UTC Reimbursable Program	[76,700]	[76,700]	[76,700]	[76,700]	<u>0</u>	[76,700]
R&D Subtotal	0	0	0	0	0	0
FTE	51	51	51	51	0	51
B. Achieved e-government goals. a. Other						
National Transportation Library	[2,345]	[2,345]	[2,345]	[2,345]	<u>0</u>	[2,345]
BTS Subtotal	[2,345]	[2,345]	[2,345]	[2,345]	0	[2,345]
FTE	9	9	9	9	0	9
C. Achieved research and development goals. a. Other						
RD&T Coordination	<u>4,884</u>	5,800	5,800	<u>5,800</u>	<u>0</u>	5,800
R&D Subtotal	4,884	5,800	5,800	5,800	0	5,800
FTE	34	34	34	34	0	34
Methods and Standards	[2,471]	[2,471]	[2,471]	[2,471]	<u>0</u>	[2,471]
BTS Subtotal	[2,471]	[2,471]	[2,471]	[2,471]	<u>0</u>	[2,471]
FTE	10	10	10	10	0	10
Total - Organizational Excellence Goal	4,884	5,800	5,800	5,800	0	5,800

ORGANIZATIONAL EXCELLENCE

Performance Goal 1: Achieved strategic management of human capital.

PERFORMANCE ISSUES

<u>Education & Technology Transfer</u> - To advance the transportation workforce by delivering transportation education, research and technology transfer.

• University Transportation Centers – [reimbursable] - RITA anticipates \$76,700,000 to provide financial assistance to support transportation education, research and technology transfer activities at university-based centers. UTC program funding is provided to RITA through reimbursable agreements with the Federal Highway Administration and Federal Transit Administration.

ANTICIPATED FY 2008 ACCOMPLISHMENTS

• Utilize a clearinghouse for UTC research.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities	Outputs	Outcomes				
	Research, Education & Technology Transfer						
University Tran	sportation Centers						
[\$76,700,000/ 51 FTE]	 Manage grants. Review UTCs' work to improve efficiency and productivity. Transfer results of UTCs' research to transportation community. Collect, analyze, and publicize UTC 	 Deliver continuing education courses. Deliver transportation degree courses. Award grants. 	Transportation professionals in sufficient numbers and qualifications to plan and operate an advanced transportation system.				
	performance measures.						

Performance Goal 5: Achieved e-government goals.

PERFORMANCE ISSUES

<u>Electronic Information</u> - To improve accessibility and ease of use of transportation research and other transportation information by providing a transportation and transportation research library and variety of electronic information formats.

 National Transportation Library (NTL) - The NTL fills the need for national leadership and coordination among transportation libraries. It provides a metadata standard and repository for technical, research, and statistical policy resources serving as a catalyst and lever for access to a broad spectrum of transportation information across modes and geography. It serves as a knowledge access point of reference for DOT enabling customers to access needed information more thoroughly and quickly.

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- Augment the content and robustness of the digital archive.
- Create a more efficient method for transfer of digital documents and metadata.
- Develop a national plan for collection development and for digital preservation.
- Increase the total number of full-text links on TRIS Online.
- Increase the number of participating libraries in TLCat.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities	Outputs	Outcomes			
	Electronic Information					
National Trai	nsportation Library					
\$2,345,000/	1. Provide answers for information.	1. Answers within 24-	A rich and accessible			
9 FTE	2. Maintain and improve the Digital	48 hours.	transportation research library			
	Collection.	2. Digital Collection.	that is used regularly by			
	3. Maintain TLCat.	3. TLCat.	transportation professionals.			
	4. Develop & promote tools and	4. Policies, standards &				
	standards for information.	guidance.				

Performance Goal 6: Achieved research and development goals.

PERFORMANCE ISSUES

<u>Research & Statistical Planning & Management</u> – To maximize research investment toward national and departmental priorities by ensuring reliable research and statistical methods are applied within a coordinated DOT research and statistical portfolio.

 RD&T Coordination – With limited resources and opportunities for collaboration combined with near-term and long-term needs to develop transportation solutions, RITA has the responsibility of proactively coordinating, evaluating and reporting on the Department's RD&T portfolio. Without over-arching priorities and an objective entity to assess and report on such abroad portfolio, the Department is far less likely to achieve cost-savings, a high degree of quality control, and an acceleration of priority RD&T solutions.

Agency Output Measure: Percentage and value of RD&T programs that incorporate shared research and cost-leveraging techniques. ON-TRACK

Agency Output Measure: Degree to which DOT research, development and technology programs demonstrate effective application of the R&D investment criteria.

MEASUREMENT UNDER DEVELOPMENT

Agency Output Measure: Degree to which DOT RD&T programs incorporate evaluation best practices. MEASUREMENT UNDER DEVELOPMENT

Agency Output Measure: Annual milestones to improve the management and ensure the effectiveness of DOT RD&T activities. MEASUREMENT UNDER DEVELOPMENT

Agency Efficiency Measure: Cost of executing basic research, development and technology (RD&T) coordination functions. MEASUREMENT UNDER DEVELOPMENT

• Methods & Standards – There is a need to maintain statistical standards and guidelines and provide procedural tools and specific descriptions of minimum levels of quality. The protection of confidential information from unauthorized disclosure in this era of information accessibility is paramount in a research and statistical environment. Expert statistical advice in support of rulemakings, the Department's Performance and Accountability Report, and other DOT matters is the responsibility of RITA as an objective agency with statistical experts on staff.

ANTICIPATED FY 2008 ACCOMPLISHMENTS

- RITA will develop a web-based data tracking system for DOT's RD&T portfolio.
- RITA will conduct its first stakeholder workshop on crossmodal research priorities or emerging priorities as part of a strategic plan update.
- RITA will conduct its first cost-benefit analysis and return-on-investment analysis on key segments of DOT's research agenda and targeted technologies.
- RITA will increase statistical review of print and web statistical publications.
- RITA will facilitate DOT in achieving a high ranking from the Mercatus Center on the DOT Performance and Accountability Report through expert services in performance measure estimation, projection and extrapolation.

FY 2009 PERFORMANCE BUDGET REQUEST

Inputs	Activities	Outputs	Outcomes		
Research & Statistical Planning & Management					
RD&T Coor	dination				
\$5,800,000/ 34 FTE	1. Provide planning & coordination activities. 2. Develop and implement an electronic reporting mechanism to capture research program management information. 3. Conduct 10 stakeholder workshops. 4. Establish guidelines for communication among DOT and partners. 5. Construct performance goals for program and partners.	1. Report to Congress, Annual Update for DOT RD&T Strategic Plan. 2. Demonstration and assessment of database tool before full launch. 3. Update to DOT's RD&T Strategic Plan. 4. Communications guidelines. 5. Performance goals and implementation plan.	To maximize resources toward departmental priorities and achieve efficiencies in research efforts throughout the Department.		
	program and partners.				

Statistical Methods & Standards				
\$2,471,000/	1. Maintain confidentiality protocols.	1. Training on confidentiality	Advanced methodologies	
10 FTE	2. Perform data quality reviews.	standards.	and standards are	
	3. Provide statistical consulting	2. Assessments &	employed within DOT in	
	services.	recommendations on data	its statistical research,	
		quality.	data, and measurement	
		3. Data transparency validation	activities.	
		for the DOT PAR.		

Section 5 Research, Development and Technology

EXHIBIT V-1
Research and Innovative Technology Administration
RD&T Budget Authority
(\$000)

	FY 2007	FY 2008	FY 2009
	Actual	Enacted	Request
Research and Development			_
Salaries and Administrative Expenses	1,659	3,597	4,201
Hydrogen Fuels and Safety R&D	500	500	500
RD&T Coordination	536	536	536
Nationwide Differential Global Positioning System	0	5,000	4,600
Positioning, Navigation, and Timing	0	0	400
Intelligent Transportation Systems 1/	[101,279]	[106,640]	[110,000]
Total RITA	2,695	9,633	10,237

^{1/} Resources are shown as non-adds because the funding resides in the FHWA budget.

EXHIBIT V-2 Research and Innovative Technology Administration FY 2009 RD&T Budget Request (\$000)

RD&T Program	FY 2009 Request	Safety	Reduced Congestion	Global Conn.	Environmental Stewardship	Security	Org. Excellence
Salaries and Administrative Expenses	4,201						4,201
Hydrogen Fuels Safety R&D	500				500		
RD&T Coordination	536						536
National Differential Global Positioning System	4,600		4,600				
Positioning, Navigation, and Timing	400		400				
Total RITA	10,237		5,000	0	500	0	4,737

Research and Innovative Technology Administration FY 2009 RD&T Program Summary

RD&T PROGRAM: Hydrogen Fuels Safety R&D

AMOUNT REQUESTED FOR FY 2009: \$500,000

Objective: Advance milestones adopted in the Department's Hydrogen Roadmap.

<u>Description</u>: RITA was created by Congress with the primary objective of serving as the Department's focal point for coordination of crosscutting research and clearing the pathway to technology deployment. As part of the Administration's initiative for Energy Security for the 21st Century, RITA will continue to coordinate, manage and execute key components of the Department's hydrogen activities. Many of these activities will be conducted in collaboration with DOT, Federal, state, academic, and industry partners.

Outputs:

- Design operation guidelines for hydrogen delivery and transport systems including pipeline, pressure vessels, and fuel storage systems.
- Address near-term gaps identified in the independent DOT safety gap analysis study completed in FY 2006. The gaps relate to technology development and validation of hydrogen transport and storage.
- Continue participation in domestic and international partnerships, code and standards development organizations to develop safety codes, standards, regulations, projects and activities to ensure the safety of hydrogen transportation.
- Refine a hydrogen safety training program for firefighters and first responders to
 disseminate the Hydrogen Executive Leadership Panel's (HELP) train-the-trainer
 and information packages. HELP will continue to expand its national outreach
 program to promote awareness of hydrogen transportation safety. HELP will also
 continue to develop recommended practices and provide input into related
 consensus codes and standards.
- Conduct research to develop, evaluate, and validate under real world conditions non-destructive testing and other safety and inspection technologies that will facilitate the reliable and safe operation of components of the hydrogen transportation system.
- Support collaborative demonstration efforts for hydrogen stations, vehicles, and infrastructure with Federal, state, local, industry, and academia partners. These demonstrations will focus on evaluating real world, real-use operational scenarios and validation.

- Maintain national and DOT hydrogen websites.
- Execute individual projects and participate in collaborative efforts including the University of California–Davis Sustainable Transportation Energy Pathways program that analyze or advance the hydrogen initiative and facilitate an effective transition to the hydrogen economy.

RD&T Partners: RITA chairs the Department's Hydrogen Working Group, which is the primary mechanism for coordinating program activities with other operating administrations, including FAA, FMCSA, FTA, MARAD, NHTSA, PHMSA, and with the Office of the Secretary. RITA coordinates with other Federal agencies through the Interagency Working Group on Hydrogen, and chairs their Ad Hoc Committee on a Regulatory Framework for a Hydrogen Economy. Members of the Ad Hoc Committee include the Department of Energy, Environmental Protection Agency, Department of Agriculture, Department of State, Occupational Safety and Health Administration, Federal Energy Regulatory Commission, and U.S. Coast Guard. RITA also participates in the California Fuel Cell Partnership and International Partnership for a Hydrogen Economy; coordinates with the U.S. Fuel Cell Council, the and National Hydrogen Association; and works closely with the National Association of State Fire Marshals, fire chiefs, and other emergency responders.

<u>RD&T Strategies</u>: Safety 3 – Support safety rulemaking by assessing the potential safety impacts of new transportation technologies, vehicles, concepts, designs, and procedures; Environmental Stewardship 1 – Conduct and support research to understand the various impact of transportation activities on natural and artificial environments and communities.

RD&T PROGRAM: RD&T Coordination

AMOUNT REQUESTED FOR FY 2009: \$536,000

<u>Objective</u>: Implement DOT Order 1120.39A by coordinating and providing strategic direction for the Department's research programs through strategic planning; annual program reviews; budget and performance planning; prioritization, and tracking. Identify areas for cross-modal collaboration, and advance the deployment of innovative technologies.

<u>Description</u>: In direct support of the DOT Organizational Excellence strategic goal, RITA coordinates RD&T through the RD&T Planning Council and RD&T Planning Team (per the DOT Order) to identify research priorities, promote the efficient use of RD&T resources, prevent unnecessary duplication, and encourage joint efforts.

Outputs:

- Completion and delivery to Congress of the next edition of the Department's *Transportation RD&T Strategic Plan*, for 2010-2015.
- Preparation of recommendations to the Secretary on strategic RD&T priorities.
- Development of FY 2011 RD&T budget priorities to include in the Department's FY 2011 budget guidance.
- Review of FY 2011 RD&T budget requests to ensure alignment with DOT strategic objectives and priorities.
- Annual RD&T program reviews to ensure implementation of research evaluation best practices.
- RD&T Funding Report to Congress (SAFETEA-LU, sec. 5208).
- Operations and Maintenance of a web-based data tracking system for research, coordination, in accordance to requirements specified in the Functional Requirements Document and the System Design Document.

RD&T Partners: RITA works closely with the Office of the Secretary, FAA, FHWA, FMCSA, FRA, FTA, NHTSA, PHMSA; and MARAD. 2) To implement RD&T Coordination program: The primary components for this intra-agency coordination are the Department's RD&T Planning Council, RD&T Planning Team, and RD&T Program Review Working Group. Across the Government, RITA coordinates with other Federal agencies to identify and leverage their transportation-related research efforts. RITA also works with external stakeholders through the NRC Committee on the review of the USDOT Strategic Plan for R&D and through participation in stakeholder committees and activities of the operating administrations.

<u>RD&T Strategies</u>: *Organizational Excellence* – Consistently apply the President's R&D Investment Criteria—relevance, quality, and performance—to all DOT-sponsored and inhouse research.

RD&T PROGRAM: Nationwide Differential Global Positioning System

AMOUNT REQUESTED FOR FY 2009: \$4,600,000

<u>Objective</u>: Preserve the government's investment in the inland Nationwide Differential Global Positioning System (NDGPS), operate and maintain the system while conducting an assessment of NDGPS user requirements.

<u>Description</u>: This program will support continued operations and maintenance of the inland NDGPS segment. The request provides funding for DOT to continue protecting Government assets and to develop options for the future course of inland NDGPS. RITA is conducting a systems analysis and assessment of current and potential future NDGPS requirements for transportation and other applications. NDGPS user needs will be evaluated in conjunction with the National PNT Architecture effort to determine to what extent the NDGPS infrastructure can meet user needs as part of a national PNT architecture. The assessment is also identifying other federal and non-federal users of inland NDGPS that could fund its completion and operation.

<u>Outputs</u>: Outputs depend on the results of RITA's inland NDGPS assessment and DOT decisions based on assessment results. Options include:

- Maintaining the inland NDGPS.
- Transferring inland NDGPS to another sponsor or set of sponsors.

<u>RD&T Partners</u>: Partners include the U.S. Coast Guard, Air Force, Army Corps of Engineers, National Geodetic Survey, and National Oceanic and Atmospheric Administration.

<u>RD&T Strategies</u>: *Reduced Congestion 3* – Conduct and support research to advance the use of next generation technologies and to make effective use of combinations of modes in moving people and goods.

RD&T PROGRAM: Positioning, Navigation, and Timing

AMOUNT REQUESTED FOR FY 2009: \$400,000

<u>Objective</u>: Support the National Security Presidential Directive on Space-Based Positioning, Navigation, and Timing (PNT) Policy through the development of requirements for civil applications of the PNT services as part of the National PNT Architecture.

<u>Description</u>: The National Security Presidential Directive on PNT gives the Secretary of Transportation broad responsibilities for providing and implementing PNT services on behalf of the civil community. The Directive establishes a permanent Space-Based PNT Executive Committee co-chaired by the Deputy Secretaries of Transportation and Defense. Within DOT, RITA has the responsibility to lead the National PNT Architecture effort that will guide future PNT system-of-systems investment and implementation decisions. The objective is to provide more effective and efficient PNT capabilities, and an evolutionary path for government-provided PNT systems and services.

Outputs:

- Documentation of the current national PNT architecture and development of civilian agency user requirements and projections for Federally provided radionavigation systems.
- Evaluations of alternative future mixes of global (space and non-space-based) and regional PNT solutions, PNT augmentations, and autonomous PNT capabilities to address priorities identified by both the civil and military communities.

<u>RD&T Partners</u>: The National Space-Based PNT Executive Committee is co-chaired by the Deputy Secretaries of the Department of Transportation and Department of Defense. Membership includes equivalent-level officials from the Departments of State, Commerce, and Homeland Security; the Joint Chiefs of Staff; and NASA. Components of the Executive Office of the President participate as observers to the Executive Committee, and the Federal Communications Commission Chairman participates as a liaison.

<u>RD&T Strategies</u>: *Reduced Congestion 3* – Conduct and support research to advance the use of next generation technologies and to make effective use of combinations of modes in moving people and goods.

RD&T PROGRAM: Intelligent Transportation Systems (ITS)

AMOUNT REQUESTED FOR FY 2009: [\$110.0] Million

<u>Objective:</u> To conduct research on ITS technology applications and transfer research knowledge for the purpose of reducing congestion, improving safety, and improving productivity.

Description: The ITS program supports the advancement of ITS through investments in major RD&T research initiatives and the transfer of lessons and technology to our federal, State, and local government partners. The major initiatives are large multi-year programs, each focused on a specific transportation issue with precise milestones and goals. The initiatives are multimodal, public-private sector engaged and aim to provide congestion relief and to improve safety, mobility, and/or productivity. The Technology Transfer Program provides the tools, guidance, and training to support the deployment and operation of ITS by State and local governments. The ITS program carries out its goals through research and development, engineering and operational testing, technology transfer, training, and technical guidance in the areas of transportation supply and demand management, vehicle-infrastructure integration, congestion pricing and electronic payment, transportation information management, commercial vehicle operations, public safety, traveler information, and advanced traffic, transit, and intermodal freight management.

Outputs:

- Research results on technical, application, and policy research for a nationwide vehicle-to-vehicle and vehicle-to-roadside communication infrastructure that will enable a wide range of safety, mobility, and commercial applications.
- Demonstrate through three operational test sites the ability of integrated technology to optimize network performance in a corridor. The Integrated Corridor Management Initiative will connect freeways, arterials, and transit.
- Demonstrate the technology necessary to equip new vehicles (automobiles and trucks) with advanced driver assistance systems to help drivers avoid deadly crashes.
- Coordinate a one-stop, customer-based travel reservation, information and trip planning service for human service transportation.
- Use the environmental sensor stations that are currently deployed along America's highways to help reduce the impact of adverse weather on all road users and operators.

- Facilitate the operational testing and evaluation of innovative and aggressive congestion reduction strategies that can demonstrate measurable reductions in congestion levels.
- Share and disseminate information about ITS through benefit, cost, and lessons learned resources, professional capacity building activities, architecture and standards, and stakeholder technology transfer.

EXHIBIT V-3 Research and Innovative Technology Administration Support for Secretarial and Administration RD&T Priorities

Priority	Supporting RD&T Program (s)	FY 2009 Request (\$000)
System Performance and Reliability – Secretarial Priority	Nationwide Differential GPS	4,600
21 st Century Solutions for 21 st Century Transportation Problems – Secretarial Priority	Positioning, Navigation, and Timing	400

Hydrogen Fuels Safety R&D:

Priorities Supported: Safety, Alternative Energy Sources

RITA's Hydrogen R&D program will help to achieve the Secretary's Safety priority by conducting multimodal safety R&D and supporting the development of consensus codes and standards for hydrogen delivery infrastructure, transportation and vehicle fuel system containers and components, and in-service inspection technologies. In addition, these activities will support the priority for alternative energy sources by addressing barriers to the widespread deployment of hydrogen-fueled vehicles. This program collaborates with FAA, FMCSA, FTA, MARAD, NHTSA, PHMSA, the Office of the Secretary, the Department of Energy, other federal agencies, and with multiple stakeholders and partners outside the Government.

Nationwide Differential GPS:

Priorities Supported: System Performance and Reliability

This program will advance the Secretarial priority for System Performance and Reliability by funding continued operations and maintenance of the inland NDGPS while conducting an assessment of user needs and options for meeting the high accuracy PNT requirements of future transportation applications. Partners include the U.S. Coast Guard, Air Force, Army Corps of Engineers, National Geodetic Survey and National Oceanic and Atmospheric Administration.

Positioning, Navigation, and Timing:

Priority Supported: 21st Century Solutions for 21st Century Transportation Problems

The PNT program will support this Secretarial priority by working with the Departments of Defense, State, Commerce, and Homeland Security; the Joint Chiefs of Staff; and NASA to develop the requirements for civil applications of the Global Positioning System (GPS) as part of the National PNT Architecture.

EXHIBIT V-4
Research and Innovative Technology Administration
Implementation of the R&D Investment Criteria

Implementation of the R&D Investment Criteria						
R&D	How Applied	Actions Reflected in				
Investment		FY 2009 Request				
Criteria						
Relevance	All RD&T supports DOT objectives and RITA's mission. On all stages of program planning and execution, RITA works closely with its internal stakeholders, through the RD&T Planning Council and RD&T Planning Team, and with external stakeholders, including the National Research Council (NRC), GAO, other Federal agencies, and state, local, and industry partners.	In response to NRC recommendations, RITA is revising the Department's <i>Transportation RD&T Strategic Plan</i> , for 2010-2015. RITA has developed and is implementing the RITA Notification System (R2NS) in response to recommendations of the GAO for capturing and preserving information on research projects As called for in the National Security Presidential Directive on Space-Based PNT, RITA is requesting additional resources to identify civil GPS requirements as part of the National PNT Architecture.				
Quality	RITA awards funding on a competitive basis whenever possible. Grants and contracts are posted at www.grants.gov and FedBizOpps.	All activities proposed for FY 2009 incorporate the results of the competitive selection process and merit review of proposals.				
Performance	RITA has established long-term and annual goals for significant RD&T programs. RITA has established efficiency measures for the RD&T Coordination and other programs. RD&T program results are linked to DOT and RITA performance plans.	FY 2009 activities will be evaluated against RITA's long-term, annual, and efficiency goals. DOT's RD&T Planning Council and RD&T Planning Team will assess program performance during the annual review conducted in FY 2009. RITA will continue to implement the research planning and investment control process (RPIC) across DOT.				