

# **BUDGET ESTIMATES**

**FISCAL YEAR 2012**

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**FEDERAL RAILROAD  
ADMINISTRATION**

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SUBMITTED FOR THE USE OF  
THE COMMITTEES ON APPROPRIATIONS

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**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**FY 2012 CONGRESSIONAL BUDGET SUBMISSION**

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# DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION

## Mission

The Federal Railroad Administration (FRA) was established by the *Department of Transportation Act of 1966* as the agency to ensure the Nation's passenger and freight rail transportation safety and infrastructure requirements. As such, FRA promotes safe, environmentally sound railroad transportation to meet the Nation's current and future needs.

FRA promulgates and enforces rail safety regulations, administers a portfolio of railroad assistance programs, conducts research and development in support of improved railroad safety and national rail transportation policy, and consolidates government support of rail transportation activities. The enactment of the American Recovery and Reinvestment Act of 2009 (ARRA) provided FRA with \$8 billion to establish the High-Speed Intercity Passenger Rail Program, which is transforming FRA's mission by adding a new dimension and policy initiative—partnering with States and the private sector to support development of regional networks of high-speed and intercity passenger rail services. FRA's mission fully supports multiple goals in the Department of Transportation's (DOT) strategic plan. Specifically, FRA's core programs directly contribute to achieving the Safety, Economic Competitiveness, Environmental Sustainability, Livable Communities, State of Good Repair, and Organizational Excellence strategic goals.



## Administrator's Overview

FY 2012 marks a pivotal year in achieving the President's goal to give 80 percent of Americans convenient access to a passenger rail system, featuring high-speed service, within 25 years. Building on the funding and state efforts initiated in 2009, and the momentum of 2010 and 2011, FRA's FY 2012 budget request represents a cohesive and comprehensive approach to developing new passenger rail corridors, while preserving and enhancing the Nation's existing infrastructure. This budget request is driven by future population growth and economic demands, is informed by international experiences, and is focused on moving people, not trains, with world-class service.

To accelerate job growth further and allow States to initiate sound multi-year investments, DOT FY 2012 budget includes a \$50 billion boost above current law spending for railways, roads, and runways. Within this up-front investment are \$3 billion for additional high-speed rail network development and \$2.5 billion for returning publicly-owned infrastructure to a cost-efficient, reliable condition; procuring equipment to replace the Nation's aging fleet; making all stations accessible for those with disabilities; and improving the performance of the Northeast Corridor that serves the Nation's highest concentration of population and economic activity.

In formulating the FY 2012 budget request, FRA restructured its appropriation accounts to advance a comprehensive, long-term vision, which will be included in DOT's six-year surface

transportation authorization proposal, to facilitate the development of a high-performance passenger rail system and to continue FRA's core rail safety mission. For the first time ever, the Administration proposes to include passenger rail programs in a multi-year authorization funded with mandatory contract authority out of a dedicated rail account of the new Transportation Trust Fund (the successor to the Highway Trust Fund).

Although facilitating development and expansion of the Nation's high-performance rail system is the centerpiece of this year's request, FRA's safety culture continues to drive the agency and its safety programs demanded by the public. FRA remains the single Federal agency charged with ensuring that U.S. rail transportation is safe, secure, efficient, and reliable. In fact, during the past 18 months, FRA's safety mission has significantly expanded in terms of scope, impact, and responsibility of national level programs and activities. The FY 2012 budget builds upon the programs and policy resulting from three pieces of legislation that reshaped the agency's mission and focus: (1) the Rail Safety Improvement Act of 2008 (RSIA), (2) the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), and (3) ARRA.

Since its establishment over four decades ago, FRA has made significant contributions toward the safety, operation, and advancement of the Nation's passenger and freight rail industry and infrastructure. Today, FRA regulates more than 740 railroads (including 27 passenger, 160 switching and terminal, approximately 105 tourist/excursion/historical, and nearly 450 freight railroads). This is significant given that the railroad industry affects a significant portion of the economy, and its broad influence and magnitude pose many challenges and opportunities for the agency. In 2010, the rail industry:

- Employed roughly 200,000 workers, who logged more than 440 million employee-hours.
- Hauled the Nation's freight over 683 million train-miles.
- Carried more than 578 million passengers over 17.5 billion miles.

The programs and activities in this FY 2012 request will continue to support the Nation's economic and mobility needs for decades to come, with efficient and effective programs and careful stewardship of taxpayer resources.

### **Employee Satisfaction and Organizational Health**

FRA's safety, planning, and development responsibilities and program resources have significantly increased. From FY 2008 to FY 2009, FRA's appropriated program resources increased from \$1.5 billion to over \$11 billion. The FY 2012 proposal requests a total of 1,000 FTE to accommodate these responsibilities. FRA reorganized and recalibrated priorities to (1) meet staffing needs necessary to establish a new multi-year, multi-billion dollar high-speed rail program; (2) respond to increasing levels of program transparency and oversight; and (3) establish and validate internal controls.

Despite this unprecedented change, FRA employees, participating in the bi-annual OPM Employee Viewpoint Survey, rated the agency as a **healthy, satisfying working environment for the third consecutive year**. Placing this rating in perspective, FRA's overall survey scores

have consistently surpassed both the DOT and the government-wide averages by significant margins. In the most recent survey, FRA employees responded that they (1) have ample opportunities to improve skills; (2) have enough information to perform their jobs well; (3) are encouraged to be innovative; (4) have a sense of personal accomplishment in performing their jobs; (5) like the work they are doing; (6) have a good understanding of what is expected of them; and (7) are willing to put forth extra effort to help get an assignment or job done.

### **Budget Request Summary**

FRA's proposed \$8.2 billion budget continues its strong safety mission, as well as the Administration's pledge to make targeted investments in high-speed passenger rail. These investments will support construction of core express high-speed lines only where it makes sense—where future population growth will lead to increasingly congested airways and roadways (such as densely populated areas of the Northeast Corridor, California, and other regions) and where rail competes with airline and highway trip times between major population centers. In FY 2012, FRA requests:

**Safety and Operations:** \$223 million and 1,083 positions (1,000.0 FTE) to fund FRA's salary and expense requirements, such as payroll, rent, telecommunications, information technology, and contract support. This account also funds a number of railroad safety activities, including monitoring compliance of Federal safety regulations throughout the Nation's railroad industry. In FY 2012, this account includes a proposed \$80 million railroad safety user fee designed to help offset costs associated with 399 FRA railroad safety inspectors and related railroad safety activities.

**Railroad Research and Development:** \$40 million to support the research agenda in rail systems safety, human factors in train operations, rolling stock and components, track and structures, track and train interaction, train control, grade crossings, hazardous materials transportation, train occupant protection, facilities and test equipment, and rail cooperative research.

**National High-Performance Rail System (NHPRS):** \$8.046 billion in obligation limitation for the first year of a six-year proposal to set the stage for realizing the President's goal of giving 80 percent of Americans convenient access to a passenger rail system, featuring high-speed service, within 25 years. These funds are requested to preserve and enhance America's existing rail infrastructure and to support development of a three-tiered passenger rail network consisting of:

1. Core express corridors that offer electric-powered service operating primarily on dedicated track at peak speeds of 125 to 250 miles per hour or greater, and that primarily connect major metropolitan centers in the United States that are generally up to 500 miles apart within a three-hour travel time;
2. Regional corridors that offer service operating on a mix of dedicated and shared use track at peak speeds of 90 to 125 miles per hour, and that

primarily connect mid-size urban areas to larger and smaller communities that are generally up to 500 miles apart; and

3. Emerging corridors that are State- or regionally-designated, that offer service operating on shared-use track at peak speeds of up to 90 miles per hour, and that connect large, mid-sized, and small urban areas generally less than 750 miles apart.

The FY 2012 request consolidates multiple rail development and improvement programs into two integrated and coordinated programs: (1) Network Development and (2) System Preservation.

- **Network Development:** \$4.0 billion in obligation limitation is requested to plan and develop the infrastructure, equipment, and capacity necessary to continue implementation of the NHPRS. These initiatives focus on (1) planning and developing core express, regional, and emerging corridors; (2) developing intermodal stations to connect intercity passenger rail service to communities and other transportation options; (3) facilitating the design, procurement, manufacturing, and demand management of passenger rail equipment; and (4) delivering training and technical assistance services to develop government and private expertise, promoting research and development in the rail industry, and providing temporary transitional operating support during the launch of new services and for existing State-supported corridors.
- **System Preservation:** \$4.046 billion in obligation limitation is requested to (1) replace aging national rail assets and equipment that have deteriorated due to historical underinvestment; (2) provide operating, capital, and debt resources to the National Railroad Passenger Corporation (Amtrak) for long-distance intercity passenger rail service and other nationally-important assets; and (3) fund state of good repair and asset recapitalization of publicly-owned rail infrastructure and fleet.
- Previously funded **Grants to the National Railroad Passenger Corporation and Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail** are proposed to be discontinued, with funds folded into the proposed Network Development and System Preservation and Renewal accounts, enabling the Federal government to take comprehensive action on rail issues. A crosswalk is provided in Section 3.

The FY 2012 budget request changes the Federal approach to providing financial assistance for the Nation's existing passenger rail network, recognizing the different needs and characteristics of the country's three types of intercity passenger rail services:

1. State corridors<sup>1</sup>—This budget request proposes to build on the federal-state partnership established in PRIIA by providing temporary transitional operating grants directly to States to support the implementation of PRIIA

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<sup>1</sup> As defined in section 24102(5)(B) and (D) of title 49 of the United States Code (49 USC 24102(5)(B) and (D)).

Section 209, which calls for fully allocating the costs of these corridors to States. This budget request also provides States and Amtrak access to competitive grants for capital costs on these corridors.

2. The Northeast Corridor connecting Washington, D.C., New York City, New York, and Boston, Massachusetts—This budget request provides for reinvestment of Amtrak’s Northeast Corridor operating surplus into capital needs for the corridor. The request includes substantial one-time, upfront funding to address the Northeast Corridor state of good repair backlog. This funding will be allocated directly to Amtrak in FY 2012.
3. Long-distance routes<sup>2</sup>—This budget request provides operating and capital grants to Amtrak to continue operating these national-priority services, but in a separate, more transparent manner. This will allow taxpayers to understand better the costs and benefits of long-distance routes.

Additionally, this proposal provides direct grants to Amtrak for general capital to support national “backbone” assets (such as reservations and ticketing systems and training centers), legacy debt service, and bringing all intercity passenger rail stations into compliance with the Americans with Disabilities Act (ADA). Thus, this proposal fully funds the activities Amtrak is currently responsible for, while also preparing Amtrak to compete for corridor operations.

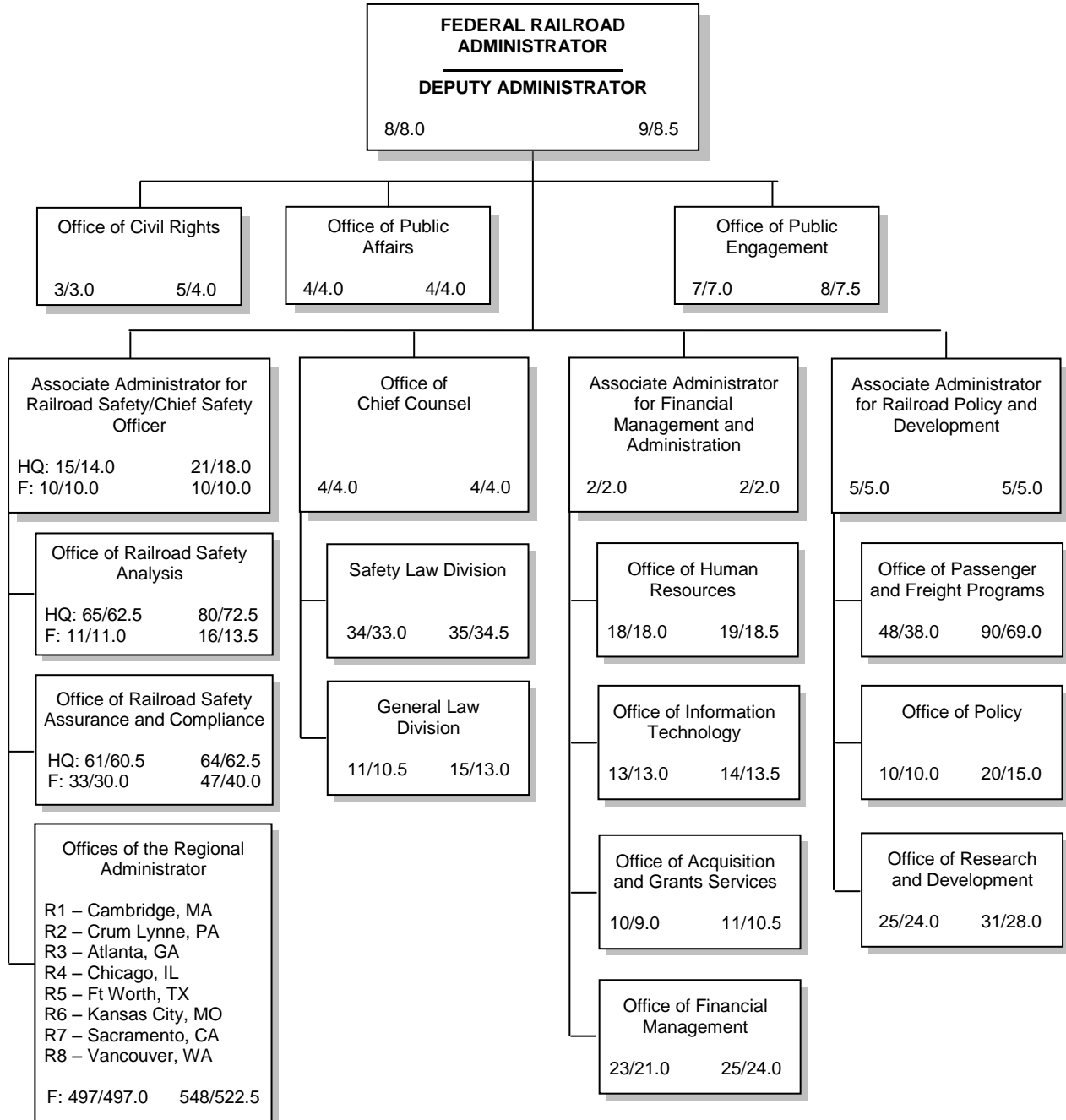
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<sup>2</sup> As defined in 49 USC 24102(5)(C).

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**Organization Chart  
Full-time Positions (FTP) / Full-time Equivalents (FTE)**

2010 FTP/FTE                      2012 FTP/FTE



HQ = Headquarters, F = Field

**2010 Total: 917 FTP/ 894.5 FTE**

**2012 Total: 1,083 FTP/ 1,000 FTE**

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**TECHNICAL NOTE**

*All surface transportation funding and spending are mandatory, attributed to the Transportation Trust Fund, and are proposed to be subject to PAYGO. Outlays flowing from contract authority, prior obligations of the Highway Trust Fund, baseline discretionary budget authority, and outlays of programs merged into the Transportation Trust Fund are now classified as mandatory and subject to PAYGO in all years. Additionally, 2010 enacted and 2011 estimated discretionary budget authority and outlays for programs merged into the Transportation Trust Fund are also reclassified as mandatory for comparability purposes.*

**Exhibit II-1**

**FY 2012 NEW BUDGET RESOURCES  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Safety and Operations <sup>1/</sup>	172,270	172,270	143,034
Railroad Safety Technology Program	50,000	50,000	-
Railroad Research and Development	37,613	37,613	40,000
Rail Line Relocation & Improvement Program	34,532	34,532	-
<b>Total, Discretionary Budget Resources</b>	<b>294,415</b>	<b>294,415</b>	<b>183,034</b>
Network Development (CA) (TF, Oblim) <sup>2/</sup>	-	-	4,000,000
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service (Rebased) <sup>2/</sup>	2,500,000	2,500,000	-
System Preservation (CA) (TF, Oblim) <sup>2/</sup>	-	-	4,046,000
Operating Grants to the National Railroad Passenger Corporation (Rebased) <sup>2/</sup>	563,000	563,000	-
Capital / Debt Service Grants to the National Railroad Passenger Corporation (Rebased) <sup>2/</sup>	1,001,625	1,001,625	-
Railroad Rehabilitation & Improvement Financing Fund - Program Account	18,441	23,692	-
Railroad Rehabilitation & Improvement Financing Fund - Liquidating Account	(3,324)	(3,465)	(113)
<b>Total, Mandatory Budget Resources</b>	<b>4,079,742</b>	<b>4,084,852</b>	<b>8,045,887</b>
<b>TOTAL BUDGET RESOURCES</b>	<b>4,374,157</b>	<b>4,379,267</b>	<b>8,228,921</b>

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

2. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).



**Exhibit II-2**

**FY 2012 TOTAL BUDGETARY RESOURCES BY APPROPRIATIONS ACCOUNT  
FEDERAL RAILROAD ADMINISTRATION  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>ACCOUNT NAME</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
<b>Safety and Operations</b>	<b>172,270</b>	<b>172,270</b>	<b>223,034</b>
Salaries and Expenses	170,734	170,734	141,445
Off-setting collections (Rail Safety User Fees) <sup>1/</sup>	-	-	80,000
Contract Support	572	572	608
Alaska Railroad Liabilities	964	964	981
<b>Railroad Safety Technology Program</b>	<b>50,000</b>	<b>50,000</b>	<b>-</b>
<b>Railroad Research and Development</b>	<b>37,613</b>	<b>37,613</b>	<b>40,000</b>
Railroad System Issues	3,623	3,623	4,010
Human Factors	3,270	3,270	3,670
Rolling Stock and Components	3,000	3,000	3,000
Track and Structures	5,450	5,450	5,450
Track and Train Interaction	3,600	3,600	3,800
Train Control	7,870	7,870	8,270
Grade Crossings	2,100	2,100	2,200
Hazardous Materials Transportation	1,550	1,550	1,550
Train Occupant Protection	4,600	4,600	4,700
R&D Facilities and Test Equipment	2,550	2,550	2,850
Rail Cooperative Research Program	-	-	500
<b>Rail Line Relocation &amp; Improvement Program</b>	<b>34,532</b>	<b>34,532</b>	<b>-</b>
Rail Line Relocation	10,013	34,532	-
Blue Ridge & KC Southern Railroad Rail Line Rehabilitation & Improvement, MO	800	-	-
Detroit/Wayne County Port Authority Rail Access Improvement Program, MI	500	-	-
Grade Crossing Mitigation, Galesburg, IL	2,922	-	-
Grade Separated Railroad Crossing, TX	500	-	-
Hoquiam Horn Spur Railroad Track Improvement Project, WA	350	-	-
Industrial Park Rail Project, Greene County, AL	400	-	-
MN Valley Regional Rail Authority Rehabilitation Project, MN	1,000	-	-
North Rail Relocation Project, Cameron County, TX	400	-	-
Ogden Avenue Grade Separation, Aurora, IL	1,000	-	-
Port of Alexandria Rail Spur, City of Alexandria, LA	487	-	-
Port of Monroe Dock & Industrial Park, Monroe County, IL	500	-	-
Rail Safety Improvements, Tualatin, OR	250	-	-
Rail Safety Upgrades, Coos Cty, NH	800	-	-
Rail Spur Extension, Greater Ouachita Parish, LA	2,000	-	-
Railroad Overpass, Blytheville, AR	500	-	-
Railway-Highway Grade Crossing Mitigation, Northeastern IL	1,948	-	-

**Exhibit II-2 (cont'd)**

**FY 2012 TOTAL BUDGETARY RESOURCES BY APPROPRIATIONS ACCOUNT  
FEDERAL RAILROAD ADMINISTRATION  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>ACCOUNT NAME</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Sacramento Intermodal Terminal Facility Track Reloc., CA	750	-	-
Shelby Intermodal Hub, MT	974	-	-
Short Line Rehabilitation, Salem , NJ	750	-	-
South Orient Rail Line Rehabilitation in San Angelo, TX	1,000	-	-
South Orient Rail Line Rehabilitation, TX	1,000	-	-
Southern Rail Corridor, MN	487	-	-
Springfield Rail Relocation, IL	250	-	-
Transbay Transit Center, San Francisco, CA	750	-	-
Waterfront Rail Reconstruction Project, Kawasaki SWIMO, NY	779	-	-
West Freight Access Project, Fort of Vancouver, WA	2,922	-	-
West Wye Rail Line Relocation, City of Springfield, MO	500	-	-
<b>Network Development (Obligation Limitation)<sup>2/</sup></b>	<b>-</b>	<b>-</b>	<b>4,000,000</b>
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service <sup>2/</sup>	2,500,000	2,500,000	-
<b>System Preservation (Obligation Limitation)<sup>2/</sup></b>	<b>-</b>	<b>-</b>	<b>4,046,000</b>
Operating Grants to the National Railroad Passenger Corporation <sup>2/</sup>	563,000	563,000	-
Capital / Debt Service Grants to the National Railroad Passenger Corporation <sup>2/</sup>	1,001,625	1,001,625	-
<b>TOTAL</b>	<b>4,359,040</b>	<b>4,359,040</b>	<b>8,309,034</b>

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

2. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

### Exhibit II-3

#### FY 2012 BUDGET REQUEST BY DOT STRATEGIC AND ORGANIZATIONAL GOALS FEDERAL RAILROAD ADMINISTRATION (\$000)

	SAFETY	ENVIRONMENTAL SUSTAINABILITY	STATE OF GOOD REPAIR/ INFRASTRUCTURE	LIVABLE COMMUNITIES	ECONOMIC COMPETITIVENESS	ORGANIZATIONAL EXCELLENCE	TOTAL
<b>Safety and Operations <sup>1/</sup></b>	184,483	5,575	3,616	5,398	10,409	13,552	223,034
<b>Railroad Safety Technology Program</b>	0	-	-	-	-	-	0
<b>Railroad Research and Development</b>	29,335	2,762	5,256	0	2,647	0	40,000
<b>A. Track Research</b>	9,195	0	2,218	0	1,187	0	12,600
Track & Structures	3,815	-	1,363	-	272	-	5,450
Track & Train Interaction	3,420	-	-	-	380	-	3,800
R&D Facilities & Test Equipment (TTCI) (F)	1,710	-	855	-	285	-	2,850
Rail Cooperative Research Program	250	-	-	-	250	-	500
<b>B. Equipment &amp; Operating Practices</b>	12,397	2,762	1,771	0	0	0	16,930
Human Factors	3,670	-	-	-	-	-	3,670
Rolling Stock & Components	2,100	-	900	-	-	-	3,000
Hazardous Materials Transportation	1,395	155	-	-	-	-	1,550
Train Occupant Protection	4,230	-	470	-	-	-	4,700
Railroad Systems Issues	1,002	2,607	401	-	-	-	4,010
<b>C. Signals, Train Control &amp; Communication</b>	7,743	0	1,267	0	1,460	0	10,470
Train Control	6,203	-	827	-	1,240	-	8,270
Grade Crossings	1,540	-	440	-	220	-	2,200
<b>Network Development (CA) (TF)</b>	362,500	1,001,330	0	720,660	1,711,390	204,120	4,000,000
High-Speed Corridor Development	313,700	846,990	-	564,660	1,411,650	-	3,137,000
Station Development	9,600	74,400	-	156,000	-	-	240,000
U.S. Rail Equipment Development	39,200	68,600	-	-	137,200	-	245,000
Capacity Building & Transition Assistance	-	11,340	-	-	162,540	204,120	378,000
<b>System Preservation (CA) (TF)</b>	560,760	459,300	1,170,840	950,620	767,380	137,100	4,046,000
Amtrak Operating & Capital	-	-	-	-	-	-	0
Public Asset Capital Backlog Retirement	536,760	298,200	1,103,340	626,220	417,480	-	2,982,000
National Network Service	-	137,100	-	319,900	319,900	137,100	914,000
State-of-Good Repair & Recapitalization	24,000	24,000	67,500	4,500	30,000	-	150,000
<b>Total FY 2012 Request</b>	1,137,078	1,468,967	1,179,712	1,676,678	2,491,826	354,772	8,309,034
<b>FTE (Direct)</b>	428.5	28.0	18.0	28.0	50.0	78.0	630.5
<b>FTE (Reimbursable - Safety User Fee)</b>	369.5	-	-	-	-	-	369.5

**Notes:**

1/ The Safety and Operations appropriation is FRA's salaries and expenses account. Funds in this account were allocated in the following manner. For salaries and expenses associated with staff whose work is directly associated with achieving strategic and/or organizational goals, funds were directly allocated to these goals. For salaries and expenses of staff whose work is not directly associated with achieving any strategic and/or organizational goal, funds were allocated to goals on a pro-rata basis of total program dollars. For common services costs, funds were allocated to goals on a pro-rata basis of total FTE.

**Exhibit II-3a**

**FY 2012 BUDGET REQUEST BY DOT OUTCOMES  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

<b>DOT OUTCOME</b>	<b>PROGRAM <sup>1/</sup></b>	<b>FY 2012 REQUEST</b>
<b>SAFETY</b>		<b>\$ 1,109,333</b>
		<b>\$ 629,664</b>
<b>Reduction in injuries and fatalities</b>	Salaries & Expenses: Safety and Operations	154,728
	Passenger & Freight: Network Development	181,250
	Passenger & Freight: System Preservation	280,380
	Research & Development (R&D): Track Research	2,995
	R&D: Equipment & Operating Practices	7,970
	R&D: Signals, Train Control, & Communications	2,341
		<b>\$ 479,669</b>
<b>Improved safety experience</b>	Salaries & Expenses: Safety and Operations	2,010
	Passenger & Freight: Network Development	181,250
	Passenger & Freight: System Preservation	280,380
	R&D: Track Research	6,200
	R&D: Equipment & Operating Practices	4,427
	R&D: Signals, Train Control, & Communications	5,402
<b>Other</b>		<b>\$ -</b>
<b>ENVIRONMENTAL SUSTAINABILITY</b>		<b>\$ 1,466,800</b>
		<b>\$ 656,301</b>
<b>Reduced carbon/emissions and dependence on fossil fuels and improved energy efficiency</b>	Salaries & Expenses: Safety and Operations	\$ 1,489
	Passenger & Freight: Network Development	514,150
	Passenger & Freight: System Preservation	139,660
	R&D: Equipment & Operating Practices	1,002
		<b>\$ 317,729</b>
<b>Reduced pollution impacts on ecosystems</b>	Salaries & Expenses: Safety and Operations	\$ 861
	Passenger & Freight: Network Development	176,050
	Passenger & Freight: System Preservation	139,660
	R&D: Equipment & Operating Practices	1,158
		<b>\$ 314,699</b>
<b>Environmentally sustainable practices and materials in transportation</b>	Salaries & Expenses: Safety and Operations	\$ 707
	Passenger & Freight: Network Development	200,550
	Passenger & Freight: System Preservation	112,840
	R&D: Equipment & Operating Practices	602
		<b>\$ 178,071</b>
<b>Environmentally sustainable practices in DOT services and facilities</b>	Salaries & Expenses: Safety and Operations	\$ 351
	Passenger & Freight: Network Development	110,580
	Passenger & Freight: System Preservation	67,140
<b>Other</b>		<b>\$ -</b>
<b>GOOD REPAIR</b>		<b>\$ 1,178,123</b>
<b>LIVABLE COMMUNITIES</b>		<b>\$ 1,674,338</b>
		<b>\$ 563,864</b>
<b>Convenient and affordable choices</b>	Salaries & Expenses: Safety and Operations	\$ 924
	Passenger & Freight: Network Development	361,700
	Passenger & Freight: System Preservation	201,240

**Notes:**

<sup>1/</sup> The Safety and Operations appropriation is FRA's salaries and expenses account. Funds in this account were allocated in the following manner. For salaries and expenses associated with staff whose work is directly associated with achieving strategic and/or organizational goals, funds were directly allocated to these goals. These funds were further distributed to outcomes on a pro-rata basis of total program dollars associated with the outcome. For salaries and expenses of staff whose work is not directly associated with achieving any strategic and/or organizational goal and for common services costs, funds were displayed as overhead.

**Exhibit II-3a (cont'd)**

**FY 2012 BUDGET REQUEST BY DOT OUTCOMES  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

<b>DOT OUTCOME</b>	<b>PROGRAM <sup>1/</sup></b>	<b>FY 2012 REQUEST</b>
<b>Improved public transit experience</b>	Salaries & Expenses: Safety and Operations	\$ 305,694
	Passenger & Freight: Network Development	\$ 544
	Passenger & Freight: System Preservation	154,110
		151,040
<b>Improved networks that accommodate pedestrians and bicycles</b>	Salaries & Expenses: Safety and Operations	\$ 146,721
	Passenger & Freight: Network Development	\$ 341
	Passenger & Freight: System Preservation	86,740
		59,640
<b>Improved access for special needs populations</b>	Salaries & Expenses: Safety and Operations	\$ 658,060
	Passenger & Freight: Network Development	\$ 1,250
	Passenger & Freight: System Preservation	118,110
		538,700
<b>Other</b>		
<b>ECONOMIC COMPETITIVENESS</b>		<b>\$ 2,488,067</b>
<b>Maximize economic returns</b>	Salaries & Expenses: Safety and Operations	\$ 582,993
	Passenger & Freight: Network Development	\$ 2,053
	Passenger & Freight: System Preservation	391,120
	R&D: Track Research	188,360
	R&D: Signals, Train Control, & Communications	826
		634
<b>Competitive transportation system</b>	Salaries & Expenses: Safety and Operations	\$ 1,270,757
	Passenger & Freight: Network Development	\$ 2,540
	Passenger & Freight: System Preservation	876,370
	R&D: Track Research	390,660
	R&D: Signals, Train Control, & Communications	361
		826
<b>Advance U.S. transportation interests abroad</b>	Salaries & Expenses: Safety and Operations	\$ 110,984
	Passenger & Freight: Network Development	\$ 684
	Passenger & Freight: System Preservation	18,900
		91,400
<b>Expanded opportunities for business</b>	Salaries & Expenses: Safety and Operations	\$ 523,333
	Passenger & Freight: Network Development	\$ 1,373
	Passenger & Freight: System Preservation	425,000
		96,960
<b>Other</b>		
<b>ORGANIZATIONAL EXCELLENCE</b>		<b>\$ 351,853</b>
	Salaries & Expenses: Safety and Operations	\$ 351,853
	Passenger & Freight: Network Development	\$ 10,633
	Passenger & Freight: System Preservation	\$ 204,120
		\$ 137,100
<b>OVERHEAD PROGRAMS/FUNCTIONS DISTRIBUTED TO PROGRAMS</b>	Salaries & Expenses: Safety and Operations	<b>\$ 40,520</b>
<b>TOTAL</b>		<b>\$ 8,309,034</b>

**Notes:**

<sup>1/</sup> The Safety and Operations appropriation is FRA's salaries and expenses account. Funds in this account were allocated in the following manner. For salaries and expenses associated with staff whose work is directly associated with achieving strategic and/or organizational goals, funds were directly allocated to these goals. These funds were further distributed to outcomes on a pro-rata basis of total program dollars associated with the outcome. For salaries and expenses of staff whose work is not directly associated with achieving any strategic and/or organizational goal and for common services costs, funds were displayed as overhead.

**Exhibit II-4**

**FY 2012 BUDGET AUTHORITY  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

<b>ACCOUNT NAME</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
<b>Safety and Operations <sup>1/</sup></b>	<b>172,270</b>	<b>172,270</b>	<b>143,034</b>
Salaries and Expenses	170,734	170,734	141,445
Contract Support	572	572	608
Alaska Railroad Liabilities	964	964	981
<b>Railroad Safety Technology Program</b>	<b>50,000</b>	<b>50,000</b>	<b>-</b>
<b>Railroad Research and Development</b>	<b>37,613</b>	<b>37,613</b>	<b>40,000</b>
Railroad System Issues	3,623	3,623	4,010
Human Factors	3,270	3,270	3,670
Rolling Stock and Components	3,000	3,000	3,000
Track and Structures	5,450	5,450	5,450
Track and Train Interaction	3,600	3,600	3,800
Train Control	7,870	7,870	8,270
Grade Crossings	2,100	2,100	2,200
Hazardous Materials Transportation	1,550	1,550	1,550
Train Occupant Protection	4,600	4,600	4,700
R&D Facilities and Test Equipment	2,550	2,550	2,850
Rail Cooperative Research Program	-	-	500
<b>Rail Line Relocation &amp; Improvement Program</b>	<b>34,532</b>	<b>34,532</b>	<b>-</b>
Rail Line Relocation	10,013	34,532	-
Blue Ridge & KC Southern Railroad Rail Line Rehabilitation & Improvement, MO	800	-	-
Detroit/Wayne County Port Authority Rail Access Improvement Program, MI	500	-	-
Grade Crossing Mitigation, Galesburg, IL	2,922	-	-
Grade Separated Railroad Crossing, TX	500	-	-
Hoquiam Horn Spur Railroad Track Improvement Project, WA	350	-	-
Industrial Park Rail Project, Greene County, AL	400	-	-
MN Valley Regional Rail Authority Rehabilitation Project, MN	1,000	-	-
North Rail Relocation Project, Cameron County, TX	400	-	-
Ogden Avenue Grade Separation, Aurora, IL	1,000	-	-
Port of Alexandria Rail Spur, City of Alexandria, LA	487	-	-
Port of Monroe Dock & Industrial Park, Monroe County, IL	500	-	-
Rail Safety Improvements, Tualatin, OR	250	-	-
Rail Safety Upgrades, Coos Cty, NH	800	-	-
Rail Spur Extension, Greater Ouachita Parish, LA	2,000	-	-
Railroad Overpass, Blytheville, AR	500	-	-
Railway-Highway Grade Crossing Mitigation, Northeastern IL	1,948	-	-

**Exhibit II-4 (cont'd)**

**FY 2012 BUDGET AUTHORITY  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

<b>ACCOUNT NAME</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Sacramento Intermodal Terminal Facility Track Reloc., CA	750	-	-
Shelby Intermodal Hub, MT	974	-	-
Short Line Rehabilitation, Salem , NJ	750	-	-
South Orient Rail Line Rehabilitation in San Angelo, TX	1,000	-	-
South Orient Rail Line Rehabilitation, TX	1,000	-	-
Southern Rail Corridor, MN	487	-	-
Springfield Rail Relocation, IL	250	-	-
Transbay Transit Center, San Francisco, CA	750	-	-
Waterfront Rail Reconstruction Project, Kawasaki SWIMO, NY	779	-	-
West Freight Access Project, Fort of Vancouver, WA	2,922	-	-
West Wye Rail Line Relocation, City of Springfield, MO	500	-	-
<b>Network Development (CA) (TF) <sup>2/</sup></b>	<b>-</b>	<b>-</b>	<b>4,000,000</b>
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service <sup>2/</sup>	2,500,000	2,500,000	-
<b>System Preservation (CA) (TF) <sup>2/</sup></b>	<b>-</b>	<b>-</b>	<b>4,046,000</b>
Operating Grants to the National Railroad Passenger Corporation <sup>2/</sup>	563,000	563,000	-
Capital / Debt Service Grants to the National Railroad Passenger Corporation <sup>2/</sup>	1,001,625	1,001,625	-
<b>RR Rehab &amp; Improvement Financing Fund - Program Account</b>	<b>18,441</b>	<b>23,692</b>	<b>-</b>
<b>RR Rehab &amp; Improvement Financing Fund - Liquidating Account</b>	<b>(3,324)</b>	<b>(3,465)</b>	<b>(113)</b>
<b>TOTAL</b>	<b>4,374,157</b>	<b>4,379,267</b>	<b>8,228,921</b>
<i>Mandatory</i>	<i>4,079,742</i>	<i>4,084,852</i>	<i>8,045,887</i>
<i>Discretionary</i>	<i>294,415</i>	<i>294,415</i>	<i>183,034</i>

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

2. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

## Exhibit II-5

### FY 2012 OUTLAYS FEDERAL RAILROAD ADMINISTRATION (\$000)

	FY 2010 ACTUAL	FY 2011 CR ANNUALIZED	FY 2012 REQUEST
Safety and Operations <sup>1/</sup>	185,157	234,630	175,114
Railroad Safety Technology Program	-	30,000	50,000
Railroad Research and Development	41,365	37,810	42,168
Rail Line Relocation & Improvement Program	307	56,899	39,632
Network Development (CA) (TF) <sup>2/</sup>	-	-	635,580
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service (Rebased) <sup>2/</sup>	1,355	22,500	112,750
System Preservation (CA) (TF) <sup>2/</sup>	-	-	2,252,500
Operating Grants to the National Railroad Passenger Corporation (Rebased) <sup>2/</sup>	563,000	563,000	-
Capital / Debt Service Grants to the National Railroad Passenger Corporation (Rebased) <sup>2/</sup>	917,614	1,089,261	-
Capital Grants to the National Railroad Passenger Corporation (ARRA)	884,864	322,782	-
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service (ARRA)	14,816	922,238	1,002,250

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

2. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).



**Exhibit II-5 (cont'd)**

**FY 2012 OUTLAYS  
FEDERAL RAILROAD ADMINISTRATION  
(\$000)**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Intercity Passenger Rail Grant Program	10,274	18,000	60,000
Emergency Railroad Rehabilitation and Repair	8,411	11,589	-
Efficiency Incentive Grants to the National Railroad Passenger Corporation	21,562	-	-
Grants to the National Railroad Passenger Corporation	3,385	5,627	-
Alaska Railroad Rehabilitation	492	47	-
Next Generation High-Speed Rail	3,416	9,052	8,739
Northeast Corridor Improvement Program	-	6,052	-
Pennsylvania Station Redevelopment Project	-	4,805	23,931
Railroad Rehabilitation and Improvement Program - Program Account	18,441	23,692	-
Railroad Rehabilitation and Improvement Program - Liquidating Account	-3,324	-3,465	-113
<b>Total</b>	<b>2,671,135</b>	<b>3,354,519</b>	<b>4,402,339</b>
<i>[Discretionary]</i>	<i>1,175,404</i>	<i>1,659,531</i>	<i>1,401,622</i>
<i>[Mandatory]</i>	<i>1,495,731</i>	<i>1,694,988</i>	<i>3,000,717</i>

## Exhibit II-6

**SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE  
FEDERAL RAILROAD ADMINISTRATION  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

SAFETY AND OPERATIONS

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	Rail Safety User Fee Transfer	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>DIRECT:</b>													
<b>PERSONNEL RESOURCES</b>													
Direct FTE 1/	894.5	22.5	917.0	-	-	-	-	-	-	(340.0)	577.0	53.5	630.5
<b>FINANCIAL RESOURCES</b>													
Salaries and Benefits 1/	116,336	3,499	119,835	-	-	(448)	-	-	-	(45,220)	74,167	8,373	82,540
Travel	10,379	(1,749)	8,630	-	-	-	-	-	-	(4,583)	4,095	1,444	5,539
Transportation	175	-	175	-	-	-	-	-	48	1	176	-	176
GSA Rent	5,902	88	5,990	-	-	-	242	-	-	-	6,232	1,967	8,199
Communications, Rent & Utilities	1,118	-	1,118	-	-	-	-	-	6	-	1,124	-	1,124
Printing	187	-	187	-	-	-	-	-	1	-	188	-	188
Other Services	-	-	-	-	-	-	-	-	-	-	-	-	-
-WCF	6,209	684	6,893	-	-	-	-	4,711	-	-	11,604	-	11,604
-Other	28,644	(2,522)	26,122	-	-	-	-	-	248	(16,648)	9,722	12,632	22,354
Supplies and Materials	667	-	667	-	-	-	-	-	2	-	669	-	669
Equipment	638	-	638	-	-	-	-	-	3	-	641	249	890
Grants, subsidies, contributions	1,015	-	1,015	-	-	-	-	-	44	-	1,059	7,687	8,746
Insurance claims and indemnities	1,000	-	1,000	-	-	-	-	-	5	-	1,005	-	1,005
<b>Subtotal by Object Class</b>	<b>172,270</b>	<b>0</b>	<b>172,270</b>	<b>0</b>	<b>0</b>	<b>(448)</b>	<b>242</b>	<b>4,711</b>	<b>358</b>	<b>(66,451)</b>	<b>110,682</b>	<b>32,352</b>	<b>143,034</b>
<b>PROGRAMS</b>													
Salaries and Expenses	170,734	-	170,734	-	-	(444)	242	4,711	355	(66,451)	109,147	32,298	141,445
Contract Support	572	0	572	-	-	(4)	-	-	3	-	575	33	608
Alaska Railroad	964	-	964	-	-	(4)	-	-	2	-	960	21	981
<b>Subtotal by Program</b>	<b>172,270</b>	<b>0</b>	<b>172,270</b>	<b>0</b>	<b>0</b>	<b>(448)</b>	<b>242</b>	<b>4,711</b>	<b>358</b>	<b>(66,451)</b>	<b>110,682</b>	<b>32,352</b>	<b>143,034</b>
<b>REIMBURSABLE:</b>													
PERSONNEL RESOURCES													
Reimbursable FTE 1/	0.0	-	0.0	-	-	-	-	-	-	340.0	340.0	29.5	369.5
<b>FINANCIAL RESOURCES</b>													
Salaries and Benefits 1/	-	-	-	-	-	-	-	-	-	45,220	45,220	3,554	48,774
Travel	-	-	-	-	-	-	-	-	-	4,583	4,583	1,635	6,218
Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-
GSA Rent	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications, Rent & Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-
Printing	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-	-	-	-	-
-WCF	-	-	-	-	-	-	-	-	-	-	-	-	-
-Other	-	-	-	-	-	-	-	-	-	16,648	16,648	8,168	24,816
Supplies and Materials	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants, subsidies, contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance claims and indemnities	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal by Object Class</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>66,451</b>	<b>66,451</b>	<b>13,549</b>	<b>80,000</b>
<b>PROGRAMS</b>													
Salaries and Expenses	-	-	-	-	-	-	-	-	-	66,451	66,451	13,549	80,000
<b>Subtotal by Program</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>66,451</b>	<b>66,451</b>	<b>13,549</b>	<b>80,000</b>
<b>TOTAL:</b>													
<b>PERSONNEL RESOURCES</b>													
FTE 1/	894.5	22.5	917.0	-	-	-	-	-	-	-	917.0	83.0	1,000.0
<b>PROGRAMS</b>													
Salaries and Expenses	170,734	-	170,734	-	-	(444)	242	4,711	355	-	175,598	45,847	221,445
Contract Support	572	-	572	-	-	(4)	-	-	3	-	575	33	608
Alaska Railroad	964	-	964	-	-	(4)	-	-	2	-	960	21	981
<b>Total by Program</b>	<b>172,270</b>	<b>0</b>	<b>172,270</b>	<b>0</b>	<b>0</b>	<b>(448)</b>	<b>242</b>	<b>4,711</b>	<b>358</b>	<b>0</b>	<b>177,133</b>	<b>45,901</b>	<b>223,034</b>

**Notes:**  
1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

## Exhibit II-6 (cont'd)

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE FEDERAL RAILROAD ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

#### RAILROAD SAFETY TECHNOLOGY PROGRAM

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0									0.0		0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Grants, Subsidies and Contributions	50,000		50,000							50,000	(50,000)	0
<b>Total by Object Class</b>	<b>50,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50,000</b>	<b>(50,000)</b>	<b>0</b>
<b>PROGRAMS</b>												
Railroad Safety Technology Program	50,000		50,000							50,000	(50,000)	0
<b>Total by Program</b>	<b>50,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50,000</b>	<b>(50,000)</b>	<b>0</b>

## Exhibit II-6 (cont'd)

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE FEDERAL RAILROAD ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

#### RAILROAD RESEARCH AND DEVELOPMENT

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0	-	0.0	-	-	-	-	-	-	0.0	-	0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Other Services	12,314	(8,664)	3,650	-	-	-	-	-	-	3,650	-	3,650
Operation and Maintenance of Facilities	2,550	1,300	3,850	-	-	-	-	-	-	3,850	-	3,850
Research and Development Contracts	13,613	9,050	22,663	-	-	-	-	-	-	22,663	8,337	31,000
Grants, Subsidies and Contributions	9,136	(1,686)	7,450	-	-	-	-	-	-	7,450	(5,950)	1,500
<b>Total by Object Class</b>	<b>37,613</b>	<b>0</b>	<b>37,613</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37,613</b>	<b>2,387</b>	<b>40,000</b>
<b>PROGRAMS</b>												
Railroad System Issues	3,623	-	3,623	-	-	-	-	-	-	3,623	387	4,010
Human Factors	3,270	-	3,270	-	-	-	-	-	-	3,270	400	3,670
Rolling Stock and Components	3,000	-	3,000	-	-	-	-	-	-	3,000	-	3,000
Track and Structures	5,450	-	5,450	-	-	-	-	-	-	5,450	-	5,450
Track and Train Interaction	3,600	-	3,600	-	-	-	-	-	-	3,600	200	3,800
Train Control	7,870	-	7,870	-	-	-	-	-	-	7,870	400	8,270
Grade Crossings	2,100	-	2,100	-	-	-	-	-	-	2,100	100	2,200
Hazardous Materials Transportation	1,550	-	1,550	-	-	-	-	-	-	1,550	-	1,550
Train Occupant Protection	4,600	-	4,600	-	-	-	-	-	-	4,600	100	4,700
R&D Facilities and Test Equipment	2,550	-	2,550	-	-	-	-	-	-	2,550	300	2,850
Rail Cooperative Research Program	-	-	-	-	-	-	-	-	-	-	500	500
<b>Total by Program</b>	<b>37,613</b>	<b>0</b>	<b>37,613</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37,613</b>	<b>2,387</b>	<b>40,000</b>

## Exhibit II-6 (cont'd)

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE FEDERAL RAILROAD ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

#### NETWORK DEVELOPMENT (Obligation Limitation)<sup>1/</sup>

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	2012 Pay of 2011 FTE	2012 Raises	One Less Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0		0.0							0.0		0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Other Services	130,000		130,000							130,000		130,000
Grants, Subsidies and Contributions	2,370,000		2,370,000							2,370,000	1,500,000	3,870,000
<b>Total by Object Class</b>	<b>2,500,000</b>	<b>0</b>	<b>2,500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,500,000</b>	<b>1,500,000</b>	<b>4,000,000</b>
<b>PROGRAMS</b>												
High Speed Corridor Development	2,418,000		2,418,000							2,418,000	719,000	3,137,000
Station Development	-		-							-	-	240,000
U.S. Rail Equipment Development	2,000		2,000							2,000	243,000	245,000
Capacity Building and Transition Assistance	80,000		80,000							80,000	298,000	378,000
<b>Total by Program</b>	<b>2,500,000</b>	<b>0</b>	<b>2,500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,500,000</b>	<b>1,500,000</b>	<b>4,000,000</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System initiative. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

**Exhibit II-6 (cont'd)**

**SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE  
FEDERAL RAILROAD ADMINISTRATION  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

**CAPITAL ASSISTANCE FOR HIGH SPEED RAIL CORRIDORS AND INTERCITY PASSENGER RAIL SERVICE**

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0		0.0	-	-	-	-	-	-	0.0	-	0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Other Services	130,000		130,000	-	-	-	-	-	-	130,000	(130,000)	-
Grants, Subsidies and Contributions	2,370,000		2,370,000	-	-	-	-	-	-	2,370,000	(2,370,000)	-
<b>Total by Object Class</b>	<b>2,500,000</b>	<b>0</b>	<b>2,500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,500,000</b>	<b>(2,500,000)</b>	<b>0</b>
<b>PROGRAMS</b>												
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	2,500,000		2,500,000	-	-	-	-	-	-	2,500,000	(2,500,000)	-
<b>Total by Program</b>	<b>2,500,000</b>	<b>0</b>	<b>2,500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,500,000</b>	<b>(2,500,000)</b>	<b>0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System initiative. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

## Exhibit II-6 (cont'd)

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE FEDERAL RAILROAD ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

#### SYSTEM PRESERVATION (Obligation Limitation)<sup>1/</sup>

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compens able Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increases/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0		0.0							0.0		0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Other Services	10,016		10,016							10,016	38,444	48,460
Grants, Subsidies and Contributions	1,554,609		1,554,609							1,554,609	2,442,931	3,997,540
<b>Total by Object Class</b>	<b>1,564,625</b>	<b>0</b>	<b>1,564,625</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,564,625</b>	<b>2,481,375</b>	<b>4,046,000</b>
<b>PROGRAMS</b>												
Amtrak Operating and Capital	1,279,625		1,279,625							1,279,625	(1,279,625)	-
Public Asset Backlog Retirement	285,000		285,000							285,000	2,697,000	2,982,000
National Network Service	-		-							-	914,000	914,000
State of Good Repair and Recapitalization	-		-							-	150,000	150,000
<b>Total by Program</b>	<b>1,564,625</b>	<b>0</b>	<b>1,564,625</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,564,625</b>	<b>2,481,375</b>	<b>4,046,000</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System initiative. These resources will be distributed between two new accounts: (1) New York Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail A account of the Transportation Trust Fund (formerly the Highway Trust Fund).

## Exhibit II-6 (cont'd)

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE FEDERAL RAILROAD ADMINISTRATION Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

#### GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

	FY 2010 Actual	Redirected Funds	FY 2011 CR Annualized	Annualization of 2011 FTE	2012 Pay Raises	One Less Compens able Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2012 Baseline Estimate	Program Increase/ Decreases	FY 2012 Request
<b>PERSONNEL RESOURCES</b>												
Direct FTE	0.0		0.0							0.0		0.0
<b>FINANCIAL RESOURCES</b>												
<b>ADMINISTRATIVE EXPENSES</b>												
Other Services	10,016		10,016							10,016	(10,016)	-
Grants, Subsidies and Contributions	1,554,609		1,554,609							1,554,609	(1,554,609)	-
<b>Total by Object Class</b>	<b>1,564,625</b>	<b>0</b>	<b>1,564,625</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,564,625</b>	<b>(1,564,625)</b>	<b>0</b>
<b>PROGRAMS</b>												
Operating Grants to the National Railroad Passenger Corporation <sup>1/</sup>	563,000		563,000							563,000	(563,000)	-
Capital / Debt Service Grants to the National Railroad Passenger Corporation <sup>1/</sup>	1,001,625		1,001,625							1,001,625	(1,001,625)	-
<b>Total by Program</b>	<b>1,564,625</b>	<b>0</b>	<b>1,564,625</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,564,625</b>	<b>(1,564,625)</b>	<b>0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System initiative. These resources will be distributed between two new accounts: (1) New York Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).



**Exhibit II-7**

**WORKING CAPITAL FUND  
Federal Railroad Administration  
(\$000)**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>	<b>CHANGE FY 2010 - FY 2012</b>
<b>DIRECT:</b>				
Safety and Operations	6,209	6,893	11,604	5,395
<b>SUBTOTAL</b>	<b>6,209</b>	<b>6,893</b>	<b>11,604</b>	<b>5,395</b>
<b>REIMBURSABLE:</b>				
	0	0	0	0
<b>SUBTOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL</b>	<b>6,209</b>	<b>6,893</b>	<b>11,604</b>	<b>5,395</b>

**Exhibit II-8**

**FEDERAL RAILROAD ADMINISTRATION  
PERSONNEL RESOURCE – SUMMARY  
TOTAL FULL-TIME EQUIVALENTS (FTE)**

<b>DIRECT FUNDED BY APPROPRIATION</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Safety and Operations <sup>1/</sup>	840.0	917.0	630.5
<b>SUBTOTAL, DIRECT FUNDED</b>	<b>840.0</b>	<b>917.0</b>	<b>630.5</b>
<b>REIMBURSEMENTS/ALLOCATIONS/OTHER:</b>			
Reimbursements and 'Other' <sup>1/</sup>	0.0	0.0	369.5
Allocations from other Organizations	0.0	0.0	0.0
<b>SUBTOTAL, REIMBURSE/ALLOC./OTH</b>	<b>0.0</b>	<b>0.0</b>	<b>369.5</b>
<b>TOTAL FTE</b>	<b>840.0</b>	<b>917.0</b>	<b>1,000.0</b>
 INFO:			
Allocation to Other Agencies	0.0	0.0	0.0

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

**Exhibit II-9**

**FEDERAL RAILROAD ADMINISTRATION  
PERSONNEL RESOURCE – SUMMARY  
FULL-TIME PERMANENT POSITIONS (FTP)**

<b>DIRECT FUNDED BY APPROPRIATION</b>	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>
Safety and Operations <sup>1/</sup>	917	917	684
<b>SUBTOTAL, DIRECT FUNDED</b>	<b>917</b>	<b>917</b>	<b>684</b>
<b>REIMBURSEMENTS/ALLOCATIONS/OTHER:</b>			
Reimbursements and 'Other' <sup>1/</sup>	0	0	399
Allocations from other Organizations	0	0	0
<b>SUBTOTAL, REIMBURSE/ALLOC./OTH</b>	<b>0</b>	<b>0</b>	<b>399</b>
<b>TOTAL POSITIONS</b>	<b>917</b>	<b>917</b>	<b>1,083</b>
<b>INFO:</b>			
Allocation to Other Agencies	0	0	0

**Notes:**

1. FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

**Exhibit II-10**

**FEDERAL RAILROAD ADMINISTRATION  
SURFACE TRANSPORTATION AUTHORIZATION PROPOSAL  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM**

**Proposed Contract Authority, FY 2012 through FY 2017  
(\$ in millions)**

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TOTAL
<b>National High Performance Rail System</b>							
Network Development	4,000	4,967	6,002	7,242	7,532	7,867	<b>\$37,610</b>
System Preservation and Renewal	4,046	2,479	2,504	1,864	2,024	2,063	<b>\$14,980</b>
<b>National Railroad Passenger Corporation (Amtrak)</b>							
Operating Grants	-	-	-	-	-	-	-
Capital and Debt Service Grants	-	-	-	-	-	-	-
<b>Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service</b>							
	-	-	-	-	-	-	-
<b>TOTAL – NATIONAL HIGH PERFORMANCE RAIL SYSTEM</b>	<b>8,046</b>	<b>7,446</b>	<b>8,506</b>	<b>9,106</b>	<b>9,556</b>	<b>9,930</b>	<b>\$52,590</b>

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**SAFETY AND OPERATIONS APPROPRIATIONS  
LANGUAGE**

**【FEDERAL RAILROAD OPERATIONS】SAFETY AND OPERATIONS**

For necessary expenses of the Federal Railroad Administration, not otherwise provided for, **【\$153,846,000】\$223,034,000**, of which **【\$5,492,000】\$36,658,000** shall remain available until expended and of which **【\$50,000,000】\$80,000,000** shall be derived from railroad safety fees collected in fiscal year **【2011】2012**, as provided in this Act: *Provided*, That such railroad safety fees shall be credited as an offsetting collection to this account, *of which \$24,047,000* **【to】shall** remain available until expended for railroad safety activities: *Provided further*, That the sum herein appropriated from the general fund shall be reduced on a dollar-for-dollar basis as such offsetting collections are received during fiscal year **【2011】2012**, so as to result in a final appropriation from the general fund estimated at **【\$103,846,000】\$143,034,000**.

**Exhibit III-1**

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

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>	<b>CHANGE FY 2010-2012</b>
Salaries and Expenses	\$170,734	\$170,734	141,445	(29,289)
Contract Support	572	572	608	36
Alaska Railroad Liabilities	964	964	981	17
<b>Subtotal</b>	<b>172,270</b>	<b>172,270</b>	<b>143,034</b>	<b>(29,236)</b>
Off-setting collections (Rail Safety User Fees) <sup>1/</sup>	-	-	80,000	80,000
<b>TOTAL</b>	<b>172,270</b>	<b>172,270</b>	<b>223,034</b>	<b>50,764</b>
<b>Positions</b>				
Direct Funded	917	917	684	(233)
Reimbursable, Allocated, Other	-	-	399.0	399
<b>Total FTP</b>	<b>917</b>	<b>917</b>	<b>1,083</b>	<b>166</b>
<b>FTE</b>				
Direct Funded	894.5	917.0	630.5	(286.5)
Reimbursable, Allocated, Other	-	0.0	369.5	369.5
<b>Total FTE</b>	<b>894.5</b>	<b>917.0</b>	<b>1,000.0</b>	<b>83.0</b>

**Notes:**

1/ FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

**PROGRAM AND PERFORMANCE LANGUAGE**

Funds requested in the Safety and Operations account funds FRA's management and administrative costs in the following activities:

*Salaries and expenses* - Provides support for administrative and operating activities related to FRA personnel and programs.

*Contract support* - Provides support for policy-oriented economic, industry, and systems analysis.

*Alaska Railroad Liabilities* - Provides reimbursement to the Department of Labor for compensation payments to former Federal employees of the Alaska Railroad employed during the period of Federal ownership and support for clean-up activities at hazardous waste sites located at properties once owned by the FRA. The 2012 request is for workers' compensation.

In the FRA Administrative Provisions, the Budget includes language to implement a rail safety user fee. The fee is meant to recoup the cost of FRA rail safety inspectors. The fee would be phased-in starting in 2012, and fee collections would increase in subsequent years.

**Exhibit III-1a**

**SAFETY AND OPERATIONS  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriation, Obligation Limitations, and Exempt Obligations  
(\$000)**

Item	Change from FY 2010 to FY 2012	
	FTE	(\$000)
<b>DIRECT:</b>		
<b>FY 2010 Actual</b>	<b>894.5</b>	<b>172,270</b>
<b>Redirected Funds:</b>		
Annualization of FY 2010 FTE	22.5	3,499
GSA Rent Increase	0.0	88
WCF Increase	0.0	684
Offset from Travel	0.0	(1,749)
Offset from Contracts	0.0	(2,522)
<b>Subtotal, Redirected Funds</b>	<b>22.5</b>	<b>0</b>
<b>FY 2011 CR ANNUALIZED</b>	<b>917.0</b>	<b>172,270</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	0
FY 2012 Comparability Pay Increase (0.0%)	-	0
One Less Compensable Day	-	(448)
Non-Pay Inflation (0.5%)	-	358
GSA Rent	-	242
WCF	-	4,711
<b>Subtotal, Baseline Changes</b>	<b>0.0</b>	<b>4,863</b>
<b>Transfers to Rail Safety User Fee (Reimbursable):</b>		
Transfer of Rail Safety Inspector FTE from base to Rail Safety User Fee	(340.0)	(45,220)
Transfer of Rail Safety Inspector Travel from base to Rail Safety User Fee	0.0	(4,583)
Transfer of Rail Safety contracts (ATIP, RSIS, etc.) from base to Rail Safety User Fee	0.0	(15,028)
<b>Subtotal, Transfers to Rail Safety User Fee (Reimbursable)</b>	<b>(340.0)</b>	<b>(64,831)</b>
<b>Program Changes:</b>		
<b>Salaries and Expenses</b>		
Personnel Increases	53.5	9,613
Financial Management Business Transformation: Data Migration Preparation	0.0	3,000
Financial Management Business Transformation: One DOT Procurement-Delphi Integration	0.0	3,500
Risk Reduction Program	0.0	3,325
Crossing Safety & Trespasser Prevention	0.0	3,315
RSIA and Other Contract Increases	0.0	5,246
Acquisition of additional HQ Space/Buildout	0.0	2,500
mDOT Secure Remote Access	0.0	179
<b>Subtotal, Salaries and Expenses</b>	<b>53.5</b>	<b>30,678</b>
<b>Contract Support</b>	<b>0.0</b>	<b>33</b>
<b>Alaska Railroad</b>	<b>0.0</b>	<b>21</b>
<b>Subtotal, Direct Funding</b>	<b>630.5</b>	<b>143,034</b>

**Exhibit III-1a (cont'd)**

**SAFETY AND OPERATIONS  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriation, Obligation Limitations, and Exempt Obligations  
(\$000)**

Item	Change from FY 2010 to FY 2012	
	FTE	(\$000)
<b>REIMBURSABLE:</b>		
FY 2010 Off-setting Collections (Rail Safety User Fees) <sup>1/</sup>	0.0	0
<b>Baseline Changes:</b>		
Annualization of FY 2011 Comparability Pay Increase (0.0%)	-	0
FY 2012 Comparability Pay Increase (0.0%)	-	0
One Less Compensable Day	-	0
Non-Pay Inflation (0.5%)	-	0
GSA Rent	-	0
WCF	-	0
<b>Subtotal, Adjustments to Base</b>	<b>0.0</b>	<b>0</b>
<b>Transfers from Direct Funding to Rail Safety User Fee:</b>		
Transfer of Rail Safety Inspector FTE from base to Rail Safety User Fee	340.0	45,220
Transfer of Rail Safety Inspector Travel from base to Rail Safety User Fee	0.0	4,583
Transfer of Rail Safety contracts (ATIP, RSIS, etc.) from base to Rail Safety User Fee	0.0	15,028
<b>Subtotal, Transfers from Direct Funding to Rail Safety User Fee</b>	<b>340.0</b>	<b>64,831</b>
<b>Program Changes:</b>		
<b>Salaries &amp; Expenses</b>		
<i>Office of Railroad Safety</i>		
Rail Safety Inspector personnel increases	29.5	7,178
Automated Track Inspection Program	0.0	5,840
Railroad Safety Information System	0.0	2,151
<b>Subtotal, Program Changes</b>	<b>29.5</b>	<b>15,169</b>
<b>Subtotal, Reimbursable Funding</b>	<b>369.5</b>	<b>80,000</b>
<b>TOTAL FY 2012 REQUEST</b>	<b>1,000.0</b>	<b>223,034</b>

**Notes:**

<sup>1/</sup> FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.



## Exhibit III-2

### ANNUAL PERFORMANCE RESULTS AND TARGETS FEDERAL RAILROAD ADMINISTRATION SAFETY AND OPERATIONS

The Federal Railroad Administration integrates performance results into its budget request to align with the Department of Transportation's Strategic Plan.

**Safety – Reduction in injuries and fatalities:** FRA's Office of Railroad Safety tracks the following DOT-level performance measures to demonstrate program results:

**DOT Goal/Outcome: Safety - Reduction in injuries and fatalities**

<b>Reduce rail-related accidents and incidents per million train miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	16.70	18.45	17.00	16.40	16.40	16.30
Actual	17.37	16.93	16.82	16.13	15.20 *	NA

**DOT Goal/Outcome: Safety - Reduction in injuries and fatalities**

<b>Reduce highway-rail grade crossing incidents per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	3.75	3.75	3.65	3.65	3.50	3.30
Actual	3.54	3.25	2.99	2.86	3.15 *	NA

**DOT Goal/Outcome: Safety - Reduction in injuries and fatalities**

<b>Reduce human-factors-caused train accidents per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	1.66	1.66	1.35	1.35	1.25	1.20
Actual	1.30	1.23	1.04	0.90	0.81 *	NA

**DOT Goal/Outcome: Safety - Reduction in injuries and fatalities**

<b>Reduce track-caused train accidents per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	1.15	1.15	1.15	1.15	1.12	1.08
Actual	1.26	1.10	1.03	0.95	0.89 *	NA

\* FY 2011 actuals are based on one month of preliminary data and are provided for transparency of reporting to date; but might differ significantly from the full-year data due to reporting submission requirements. Official data will be published in FRA's annual rail safety statistics report.

NA: Not available at this time.

**Exhibit III-2 (cont'd)**

**ANNUAL PERFORMANCE RESULTS AND TARGETS  
FEDERAL RAILROAD ADMINISTRATION  
SAFETY AND OPERATIONS**

**DOT Goal/Outcome:** Safety - Reduction in injuries and fatalities

<b>Reduce equipment-caused train accidents per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	0.521	0.521	0.450	0.450	0.450	0.430
Actual	0.419	0.436	0.369	0.362	0.291 *	NA

**DOT Goal/Outcome:** Safety - Reduction in injuries and fatalities

<b>Reduce other (signal and misc.) train accidents per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	0.647	0.647	0.647	0.593	0.590	0.560
Actual	0.509	0.499	0.484	0.486	0.372 *	NA

**DOT Goal/Outcome:** Safety - Reduction in injuries and fatalities

<b>Reduce non-accident hazmat releases per million train-miles</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	0.915	0.900	0.800	0.800	0.780	0.760
Actual	0.878	0.895	0.927	0.966	0.856 *	NA

\* FY 2011 actuals are based on one month of preliminary data and are provided for transparency of reporting to date; but might differ significantly from the full-year data due to reporting submission requirements. Official data will be published in FRA's annual rail safety statistics report.

NA: Not available at this time.

**Exhibit III-2 (cont'd)**

**ANNUAL PERFORMANCE RESULTS AND TARGETS  
FEDERAL RAILROAD ADMINISTRATION  
SAFETY AND OPERATIONS**

**Organizational Excellence – Best Work Place:** FRA’s Office of Financial Management and Administration tracks the following DOT-level performance measures to demonstrate program results:

<b>DOT Goal/Outcome:</b>	<b>Organizational Excellence – Best Work Place</b>					
<b>Improve Employee Satisfaction: For 2010, exceed 2008 DOT Leadership average score (49.1) by 7 percent</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	**	NA	**	52.5	**	TBD
Actual	**	71.8	**	73.1	**	NA

<b>DOT Goal/Outcome:</b>	<b>Organizational Excellence – Best Work Place</b>					
<b>Improve Employee Satisfaction: For 2010, exceed 2008 DOT Performance average score (41.3) by 7 percent</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	**	NA	**	44.2	**	TBD
Actual	**	61.2	**	63.2	**	NA

\*\* OPM surveys Federal employees every two years.

NA: Not available at this time.

TBD: DOT has not determined its 2012 targets.

The Office of Personnel Management (OPM) surveys Federal employees every two years regarding their satisfaction with their work, agency, supervisor, performance culture, and leadership. For 2010, DOT’s targets were to improve its average score in the Leadership and Performance Culture areas by 7 percent over the 2008 scores in order to bring these scores to 52.5 percent and a 44.2 percent, respectively.

FRA’s actual results far exceeded the DOT target scores, averaging 73.1 percent positive responses for Leadership and 63.2 percent positive responses for Performance Culture. FRA also exceeded many government-wide averages in the survey. In fact, FRA exceeded the government-wide scores in 75 questions of 78 questions, and exceeded the DOT scores in 77 questions of 78 questions. Of the 38 government agencies whose scores were posted on OPM’s Web site, FRA scored the highest score government-wide in 12 questions, second highest in 16 questions, third highest in 17 questions, and fourth highest in 8 questions.

**Exhibit III-2 (cont'd)**

**ANNUAL PERFORMANCE RESULTS AND TARGETS  
FEDERAL RAILROAD ADMINISTRATION  
SAFETY AND OPERATIONS**

**DOT Goal/Outcome:** **Organizational Excellence - Financial Performance**

<b>Improve the administration, oversight, transparency, and management of DOT's traditional grants and expanding portfolio of discretionary grants.</b>						
<b>Number of risk based financial monitoring visits completed.</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	--	--	--	--	10	20
Actual	--	--	--	--	NA	NA
<b>Number of financial desk reviews conducted.</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	--	--	--	--	20	40
Actual	--	--	--	--	NA	NA
<b>Number of formal financial technical assistance engagements conducted.</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Target	--	--	--	--	3	6
Actual	--	--	--	--	NA	NA

-- Goal/outcome not set for this fiscal year.

NA: Not available at this time.

The above Financial Performance outcomes are designed to establish a baseline for FRA to begin assessing itself in matters related to the effective financial management of FRA's expanding portfolio of competitive, discretionary grant programs. As a result of these post-award financial monitoring activities, FRA will catalog lessons learned and best practices from across the country. These items will be leveraged and used in developing the course work materials for a grantee-focused training and technical assistance program.

## Detailed Justification for Safety and Operations

### WHAT IS THE REQUEST AND WHAT WILL WE GET FOR THE FUNDS?

#### FY 2012 – Safety and Operations – Budget Request (\$000)

	FY 2010 ACTUAL	FY 2012 REQUEST	CHANGE FY 2010-2012
Salaries and Expenses	\$170,734	141,445	(29,289)
Contract Support	572	608	36
Alaska Railroad Liabilities	964	981	17
<b>Subtotal</b>	<b>172,270</b>	<b>143,034</b>	<b>(29,236)</b>
Off-setting collections (Rail Safety User Fees) <sup>1/</sup>	-	80,000	80,000
<b>TOTAL</b>	<b>172,270</b>	<b>223,034</b>	<b>50,764</b>
<b>Positions</b>			
Direct Funded	917	684	(233)
Reimbursable, Allocated, Other	0	399	399
<b>Total Positions</b>	<b>917</b>	<b>1,083</b>	<b>166</b>
<b>FTE</b>			
Direct Funded	894.5	630.5	(264.0)
Reimbursable, Allocated, Other	-	369.5	369.5
<b>Total FTE</b>	<b>894.5</b>	<b>1,000.0</b>	<b>105.5</b>

**Notes:**

1/ FRA proposes a provision allowing user fee collections of \$80 million to be credited to the Safety and Operations appropriation as offsetting collections, thereby reducing the amount appropriated and the budget authority.

### WHAT IS THE PROGRAM?

Safety and Operations funds three program activities.

**Salaries and expenses:** Provides resources for the Federal Railroad Administration's (FRA) staff and operations (e.g., payroll, rent, telecommunications, information technology, and contract support), as well as programs that improve railroad safety (e.g., monitoring compliance of Federal safety regulations throughout the Nation's railroad industry). These funds ensure that FRA has the management and administrative structure to accomplish Administration priorities and ensure sound stewardship of FRA's approximately \$8.23 billion rail safety and development programs. The Salaries and Expenses program also includes a railroad safety user fee to aid in offsetting FRA railroad safety inspector and related activity costs.

**Contract support:** Provides support for policy-oriented economic, industry, and systems analyses.

**Alaska Railroad Liabilities:** Provides reimbursement to the Department of Labor (DOL) for compensation payments to former Federal employees of the Alaska Railroad who were in a pay status during the period of Federal ownership and support for clean-up activities at hazardous waste sites located at properties previously owned by FRA. The FY 2012 request is for the reimbursement of DOL for workers' compensation payments.

**Anticipated FY 2011 Accomplishments:**

- Reduce the rate of rail-related accidents and incidents per million train-miles to 16.40 by:
  - Reducing the grade crossing incident rate to 3.50;
  - Reducing the human factors-caused train accident rate to 1.25;
  - Reducing the track-caused train accident rate to 1.12;
  - Reducing the equipment-caused train accident rate to 0.450;
  - Reducing the other (signal & miscellaneous) train accident rate to 0.590; and
  - Reducing the non-accident hazmat releases rate to 0.780.

**WHY IS THIS PARTICULAR PROGRAM NECESSARY?**

FRA operates across three major functional areas: (1) Railroad Safety, (2) Railroad Policy and Development, and (3) Executive Leadership and Support.

**Railroad Safety:** The Office of Railroad Safety (RRS) supports the Department's strategic goal of reducing transportation-related fatalities and injuries on the Nation's railroads. It promotes and regulates safety throughout the Nation's railroad industry by employing approximately 400 Federal safety inspectors at eight regional offices across the country. FRA inspectors specialize in five safety disciplines:

- (1) Track and Structures,
- (2) Signal and Train Control,
- (3) Motive Power and Equipment,
- (4) Operating Practices, and
- (5) Hazardous Materials.



In addition to the five disciplines, numerous rail safety and prevention activities are essential to the FRA's safety program. The *Knowledge and Management Program* manages the collection and conversion of all data on rail safety into meaningful statistical charts, tables, and reports, which is central to the success of the rail safety effort. The *Safety Improvement and Development Team* determines technical needs for the field and ensures each safety inspector and specialist is provided at least one week of technical training per year. The *Highway-Rail Grade Crossing Safety and Trespass Prevention Program* helps ensure safety and prevent trespassing along our Nation's grade crossings. The *Industrial Hygiene Program* helps maintain safety at FRA headquarters and in the field. The *Passenger*

*Rail Division* maintains and coordinates FRA's safety policies, regulations, guidance, and coordination for all matters related to high-speed rail, intercity rail, commuter rail, and shared-use rail operations. The *State Rail Safety Participation Program* consists of 30 States employing 170 safety inspectors in the five rail safety inspection disciplines. Before participation may begin, each State agency must enter into a multi-year agreement with FRA for the exercise of specified authority. This agreement may delegate investigative and surveillance authority regarding all or any part of Federal railroad safety laws. The Office trains and certifies State safety inspectors to enforce Federal rail safety regulations. The *Planning and Evaluation Division* plans and evaluates rail-related safety projects, programs, and initiatives; helps ensure cost-effective solutions to railroad safety problems; and identifies critical rulemaking information for FRA decision makers and staff.

**Railroad Policy and Development:** Office of Railroad Policy and Development (RPD) provides Federal financial assistance to State governments and the rail industry, including the National Railroad Passenger Corporation (Amtrak), and develops and implements high-speed and intercity passenger rail service policy. The Office sponsors research and development activities to improve the technology for railroad safety and work, and provides investment opportunities for small freight railroad projects, primarily through the Railroad Rehabilitation and Improvement Financing (RRIF) program.

RPD is the lead for implementation of the Administration's vision to renew and expand intercity passenger rail infrastructure and services across the Nation. RPD's leadership is the driving force behind the success of the High-Speed Intercity Passenger Rail Program, initially funded in ARRA, and continues to build and support the Administration's vision of a national system of regional passenger rail networks.

**Executive Leadership and Support:** This function is composed of several offices within FRA; each with a specific function supporting FRA mission essential programs and activities.

- **Office of the Administrator:** Includes staff and programs in the immediate Office of the Administrator, the Office of Civil Rights, the Office of Public Affairs, and the Office of Public Engagement. The Office of the Administrator provides executive leadership and direction to FRA and is responsible for the overall planning and direction of FRA activities. The Office of Civil Rights (OCR) provides leadership, policy guidance, support, and coordination to FRA's various offices and external customers to ensure effective and consistent diversity and civil rights programs. The OCR program responsibilities also include processing internal and external complaints, employing minority interns, holding special observances, and other operational functions. The Office of Public Affairs (OPA) plans, organizes, coordinates, and implements wide-ranging activities to promote and enhance public understanding, support, and awareness of FRA's policies, programs, and accomplishments. OPA also conducts research and drafts, edits, proofreads, clears and disseminates official executive statements, speeches, talking points, remarks, briefing papers, testimonies, as well as media advisories, press releases, fact sheets, and other materials for distribution. The Office of Public Engagement (OPE) plans, organizes, coordinates, and administers activities related to

marketing and outreach assistance to external stakeholders, customers, and partners at the national, regional, and State levels in the railroad community and the public.

- **Office of the Chief Counsel:** There are two major divisions within the FRA Chief Counsel: (1) Safety Law and (2) General Law. The Safety Law Division develops and drafts the agency's safety regulations, assesses civil penalties for violations of the rail safety statutes and FRA safety regulations, and provides other legal support for FRA's safety program. The General Law Division provides legal services to FRA's offices on all legal issues other than safety law, including appropriations, contract and grant management, Freedom of Information Act, Federal Tort Claims Act, and Surface Transportation Board matters.
- **Office of Financial Management and Administration:** Directs and coordinates administrative programs and support services of FRA in headquarters and the eight regional offices. It includes the offices of Budget, Financial Services, Human Resources, Information Technology, and Acquisition and Grants Services. It also coordinates the implementation of government-wide and Departmental management initiatives and reforms.

### **HOW DO YOU KNOW THE PROGRAM WORKS?**

The Government Performance and Results Act (GPRA) requires FRA to develop strategic plans with long-term, outcome-oriented goals and objectives, to link annual goals to achieving long-term goals, and to report on results annually. FRA uses this process to document and evaluate all aspects of its programs.

**Safety Strategic Objective:** The Office of Railroad Safety (RRS) utilizes the GPRA process in support of two DOT safety strategic objectives: (1) to reduce transportation-related accidents and incidents, and (2) to reduce all transportation-related hazardous materials incidents. RRS also focuses on its current strategic objective to reduce deaths and injuries.

- **Steady Reductions in Rail-related Accidents:** The railroad industry has experienced safety improvements over the past two years. Although the FY 2010 data are preliminary, the total number of rail-related accidents and incidents declined 3.4 percent over the prior year, with train accidents, casualties, and grade-crossing incidents dropping (see table below). This downward trend is continuing. In the FY 2009 "Top Management Challenges," DOT's Inspector General noted that grade crossing collisions and deaths had declined, that FRA had strengthened its crossing program, and that FRA can do more by "effectively implementing the safety mandates in the RSIA." An independent study conducted as part of the FY 2009 Annual Enforcement Report states that "the data show that the safety program as a whole, including the effects of civil penalties, is highly effective."



Safety Measure	Percentage Reduction from Prior Year	
	FY 2009	FY 2010 (preliminary)
<b>All rail-related accidents and incidents</b>	<b>13.1</b>	<b>3.4</b>
<i>Train accidents</i>	<i>21.6</i>	<i>7.1</i>
<i>Casualties</i>	<i>13.0</i>	<i>2.2</i>
<i>Grade-crossing incidents</i>	<i>19.6</i>	<i>3.7</i>

- Data-Driven Inspections:** RRS plans its safety-related activities based upon statutory requirements, congressional directives, reviews of relevant safety statistics, findings in prior safety inspections and investigations, safety research and development, and recommendations by the National Transportation Safety Board (NTSB) and other oversight bodies, including the DOT Office of the Inspector General. Central to the success of the rail safety effort is the ability to understand the nature of rail-related accidents and to analyze trends in railroad safety.

**Organizational Excellence Strategic Objective:** FRA has two goals that support DOT’s Organizational Excellence strategic goal.

- Best Work Place:** The Office of Personnel Management (OPM) surveys Federal employees every two years regarding their satisfaction with their work, agency, supervisor, performance culture, and leadership. For 2010, DOT’s targets were to improve its average score in the Leadership and Performance Culture areas by 7 percent over the 2008 scores, that is, a target average score of 52.5 percent favorable responses for Leadership and a 44.2 percent target average score for Performance Culture. FRA actuals far exceeded the DOT target scores, averaging 73.1 percent positive responses for Leadership and 63.2 percent positive responses for Performance Culture. FRA also exceeded many government-wide averages in the survey. In fact, FRA exceeded the government-wide scores in 75 questions of 78 questions, and exceeded the DOT scores in 77 questions of 78 questions. Of the 38 government agencies whose scores were posted on OPM’s Web site, FRA scored the highest score government-wide in 12 questions, second highest in 16 questions, third highest in 17 questions, and fourth highest in 8 questions.
- Financial Performance:** FRA’s portfolio of discretionary grants is expanding significantly with ARRA, positive train control (PTC) requirements, and the Administration’s high-speed rail initiative. As a result, FRA has developed performance goals, starting in FY 2011, to establish a baseline and begin self-assessment of FRA’s management of its competitive, discretionary grant programs. Such post-award financial monitoring activities will allow FRA to catalog lessons learned and best practices from across the country, which FRA will then use to develop grantee-focused training and technical assistance.

**WHY DO WE WANT/NEED TO FUND THE PROGRAM AT THE REQUESTED LEVEL?**

The FY 2012 request funds costs for (1) baseline changes totaling \$4.863 million, and (2) program increases totaling \$45.901 million and 166 positions (83.0 FTE). This request also redirects \$4.271 million to cover obligatory payments as a result of the FY 2011 continuing resolution. Explanations of these changes follow:

Redirected funds of \$4.271 million are necessary to annualize salary and benefits totaling \$3.499 million for 45 new positions (22.5 FTE) that FRA received in FY 2010 and to pay increases of \$88 thousand for the GSA Rent and \$684 thousand for the Working Capital Fund bills. FRA has redirected \$1.749 million from travel and \$2.522 million from contract requirements in order to absorb these costs.

Baseline changes of \$4.863 million are necessary to sustain FRA’s workforce and current operations. These adjustments include:

***One-Less Compensable Day* .....-\$0.448M**  
Represents a reduction in personnel compensation and benefits as a result of one less compensable day in FY 2012.

***Working Capital Fund*..... \$4.711M**  
The Working Capital Fund (WCF) is a fully reimbursable fund that finances a range of administrative support services to DOT. This centrally managed account provides Department-wide functions such as information technology, facilities, operational support, and personnel administration. Centralizing administrative support functions has enabled DOT to achieve economies of scale, reducing costs and increasing operational efficiencies, and has allowed DOT operating administrations to focus on and accomplish their goals. WCF allocates costs based on the service provided. This request is associated with operating costs in these WCF activities. Request levels are based on estimates provided by the WCF, and determined by actual usage costs (including inflation).

***GSA Rent* ..... \$0.242M**  
Represents the proposed increase in costs for FRA rent. This request funds GSA lease space requirements and offsets costs exceeding non-pay inflation. The GSA Rent account is a demand account that reflects costs resulting from occupancy agreements established with GSA to meet specific facility requirements. The GSA Rent account is a “bill” that must be paid.

***Non-pay Inflation*..... \$0.358M**  
FRA relies upon contract support for certain goods and services. Price escalation for goods and services during FY 2011 must be accommodated. Funding is requested at the non-pay inflation rate of 0.5 percent to ensure that contracts are adequately funded to maintain essential services and enable FRA activities to execute their responsibilities in FY 2012.

The FY 2012 budget request reflects programmatic increases of \$45.901 million and 166 new positions (83.0 FTE). Explanations of these program changes are listed below.

***Personnel increases .....\$16.791 M and 166 positions (83.0 FTE)***

These increases are necessary to assist in the implementation of RSIA, PRIIA, and ARRA requirements and the Administration’s proposed National High Performance Rail System program. \$11.927 million reflects the cost for these new positions (personnel compensation and benefits funded for two quarters); \$601 thousand for increased rent for additional space; \$3.079 million for travel; and \$1.184 million for necessary training and IT equipment, as well as required safety equipment for safety inspectors. Positions will be distributed among program and support offices in the following manner:

- Office of Railroad Safety – 59 Regional Safety Inspectors (29.5 FTE) and 35 Headquarters and Regional staff (17.5 FTE);
- Office of Railroad Policy and Development – 42 positions (21.0 FTE) for the purposes of building the needed capacity to manage High-Speed and Intercity Passenger Rail Corridors grant programs, 6 positions (3.0 FTE) to staff FRA’s rail-related research and development activities, and 10 positions (5.0 FTE) for rail policy activities; and,
- Executive Leadership and Support – 14 positions (7.0 FTE) to build the infrastructure required to support the growth in program areas.
  - Office of the Administrator: 4 positions (2.0 FTE) (*1 position/0.5 FTE for the Immediate Office of the Administrator; 2 positions/1.0 FTE for the Office of Civil Rights 1 position/0.5 FTE for Office of Public Engagement*);
  - Office of Chief Counsel: 5 positions (2.5 FTE); and,
  - Office of Financial Management and Administration: 5 positions (2.5 FTE).

***Automated Track Inspection Program (ATIP)..... \$5.840M***

FRA requests a total of \$14.3 million for ATIP, which is \$5.840 million above the program’s current operating budget based on the FY 2010 enacted level. ATIP operations require an increase in funding to maintain effectively the geometry cars at maximum efficiency and to meet program and mission goals. This requested level includes costs associated with maintaining and coordinating FRA safety policies, regulations, guidance, and coordination of all matters related to automated track inspections. Since the start of the operation of ATIP cars in 1974, they have served an important role in FRA’s overall compliance programs. ATIP is a Government-sponsored track inspection program to reduce the accident rate on high-exposure priority (passenger and toxic-inhalation-hazard release) train routes. The primary safety-related use of ATIP is the supplemental assistance provided to all inspectors in identifying the most important noncompliant track geometry locations and conditions for evaluations and remediation. ATIP’s purpose is to provide accurate, comprehensive, and objective automated inspections. ATIP surveys (inspections) measure track geometry (gage, alignment, and track surface), assuring compliance with the Federal safety standards, and providing a vital and dynamic (under load) source of true overall track conditions. Since 2005, ATIP has helped reduce mainline derailments caused by track geometry by almost 45 percent and the overall train accident rate by over 32 percent.

***Risk Reduction Program (RRP)* ..... \$3.325M**

FRA requests a total of \$7.8 million for risk reduction program activities. In response to Section 103 of RSIA, FRA is promulgating a regulation requiring specific railroads to develop risk reduction program plans and, pending FRA approval of those plans, to carry out the risk mitigation programs outlined therein. RRP will reduce the number, frequency, and severity of accidents and crashes, fatalities, and injuries by developing innovative methods, processes, and technologies to identify and correct individual and systemic contributing factors using “upstream” predictive data. Further, the risk reduction program plans include pilot implementations that are carefully evaluated to determine their effectiveness and also include educational and outreach efforts. Existing rail safety data and certain types of data provided as a result of pilot activities will be used to develop mathematical models and analytical methods to identify rail safety trends. FRA will also conduct outreach and training activities to share knowledge throughout the industry about successful risk reduction programs and about effective methods of reducing the likelihood that railroad employees in safety-critical positions suffer from fatigue on the job. Particularly successful pilot programs may also be developed into nationwide non-regulatory safety improvement programs. RRP will also secure sensitive information, preventing inappropriate disclosure. RRP includes developing fatigue management strategies and conducting training and outreach within the FRA and throughout the industry. With RRP, FRA expects that there will be monetary savings due to eventual reductions in the number of accidents and incidents and lost productivity, and lives will be saved. The enhanced cooperation between FRA, the railroad industry, railroad labor groups, and other stakeholders will ensure the development of a culture where risk is identified and managed before accidents occur.

According to RSIA, the required effective date of the regulation is October 16, 2012, and FRA will develop analytical tools to identify all railroads required to submit RRP plans. FRA will also evaluate and approve plans submitted as a result of the regulation and will audit the railroads’ compliance with their own plans.

- 1. Pilot program development and implementation includes:** (1) establishing programs intended to identify new technologies, procedures, or data analyses that reduce risk; (2) developing processes and procedures to facilitate collaboration between FRA, labor, and railroad management; and (3) developing processes and procedures that enhance cooperation within FRA.
- 2. Pilot program evaluation includes:** (1) determining correlation between accident precursor incidents and accident occurrences; (2) determining effectiveness of risk countermeasures; and (3) developing best practices for industry-wide risk reduction.
- 3. Fatigue management development and outreach includes:** (1) minimizing the prevalence of fatigue as a factor in railroad accidents and injuries by refining FRA’s existing fatigue model; (2) minimizing the prevalence of fatigue as a factor in railroad accidents and injuries by providing guidance to railroads developing fatigue management programs as required by Section 103 of RSIA; and (3) reviewing industry fatigue-related proposals.

4. **Mathematical modeling and analysis includes:** (1) developing and using analytical tools and methods supporting evaluation of RRP pilot implementations; (2) developing and using analytical tools and methods to identify those railroads that must comply with the RRP regulation; (3) assisting railroads in developing analytical tools and data analysis methods that they can use to reduce risks in accordance with their own risk reduction program plans; and (4) providing analytical support as needed to other safety initiatives within FRA.
5. **Securing data includes:** (1) providing staff and infrastructure that ensure that confidential data provided to FRA as part of an RRP implementation will remain confidential and secure; (2) preventing disclosure of confidential data provided as a part of an RRP implementation due to Freedom of Information Act requests, as dictated by Section 109 of RSIA; and (3) providing protection from legal discovery to the extent allowed after completion of the study mandated in Section 109 of RSIA.
6. **Development and implementation of nationwide voluntary programs includes:** (1) improving railroad safety beyond the levels currently attainable through traditional enforcement efforts and (2) encouraging system-wide development of strong, collaborative rail safety cultures.
7. **Regulatory development and compliance includes:** (1) developing a regulated RRP for affected railroads that meets the requirements of the RRP outlined in RSIA; (2) providing expert staff and contractor support for risk reduction analysis for railroads required to provide a risk reduction program plan; (3) providing programs and guidance for FRA to meet the requirements in RSIA for risk reduction program plans; and (4) creating and executing an auditing program to ensure compliance with the risk reduction program.
8. **Waivers include:** (1) ensuring consistent and efficient processing of waivers associated with risk reduction and (2) ensuring consistent and efficient processing of waivers related to hours of service regulations.
9. **Training and oversight includes:** (1) providing training and guidance to FRA and industry stakeholders to ensure consistent application and interpretation of FRA RRP requirements; (2) coordinating RRP activities with all elements of FRA to ensure timely and consistent exchange of risk reduction information; (3) providing timely updates and guidance on new FRA safety initiatives; (4) coordinating between FRA and other stakeholders; and (5) sharing risk reduction best practices with FRA and other stakeholders.

***Railroad Safety Information System (RSIS)..... \$2.151M***  
 FRA requests funding for the RSIS and other related data management initiatives. The total requested amount is \$4.742 million, which is a \$2.151 million increase over the FY 2010 base. This increase will allow FRA to acquire needed contractual services and hardware/software to address the new and expanded data requirements under RSIA, which imposes very tight timelines on FRA to develop the necessary regulatory changes to achieve compliance with its provisions.

These new regulations require FRA to collect and compile information on railroad employee hours of service, conductor certifications, PTC, bridge safety, and other safety-sensitive data for the risk reduction program. The volume of rulemaking activity will require extensive data management support to accomplish the required regulatory analysis, implementation, and support. The inability to obtain the requisite data management support will adversely impact the agency's ability to affect rulemaking and will require technical work-arounds to produce the required supporting data.

RSIS is FRA's principal repository for data relating to railroad accidents and incidents, inspections, highway-rail grade crossings, and other rail safety-related information. RSIS is used extensively by FRA to monitor and report on the current state of safety in the railroad industry. The information in RSIS is made available to a variety of stakeholders including railroads; rail labor; other Federal, State, and local agencies; non-governmental organizations; academia; and the general public, primarily through FRA's Safety data Web site.

RSIS is used extensively by FRA for a variety of purposes including:

- Providing a central and authoritative source for rail safety information.
- Safety trends and risk analyses.
- Part 225 of Title 49 of the Code of Federal Regulations –accident/incident reporting compliance.
- Data/statistical/economic analysis for rulemaking support and regulatory evaluation.
- Supporting compliance monitoring and enforcement efforts.
- Performance/budget reporting under GPRA.
- Resource allocation through FRA's national inspection plan.
- Promoting highway-rail grade crossing safety and trespass prevention education, outreach, and communication efforts.
- Situational awareness/incident reporting of rail incidents and employee fatalities.
- E-gov and data interchange services for the rail industry and other Federal agencies.
- Inspector performance management through the inspection dashboard.

Without the RSIS contractor data management support, accident/incident, railroad inspection, and highway-rail crossing data would not be collected, validated, compiled, and made available for the agency's use. FRA managers and field inspectors would lose their access to data and analytical tools that are available on public and secure Web sites. FRA leadership's decision making capabilities would be adversely impacted by the lack of access to accurate, timely, and coherent safety and compliance information. FRA's enforcement efforts (focused inspections, audits, violations) would be missing the essential business intelligence and analytics that typically drive these activities. Rulemaking and regulatory activities would be severely hampered by the lack of access to essential railroad safety statistical data. External stakeholders, including the railroads, rail labor, and the general public, would be deprived of their access to current and reliable railroad safety information made available through FRA's electronic outlets.

RSIS is comprised of three principal systems:

- The **Railroad Accident Incident Reporting System** compiles accident/incident data that railroads submit as required by Part 225. About 35 years of data on railroad injuries and illnesses, train accidents, highway-rail grade crossing collisions, and operational statistics is contained in this system.
- The **Railroad Inspection Reporting System** is the record repository of all FRA and State railroad inspections, defects, and violations.
- The **Highway-Rail Grade Crossing Inventory System** is the principal database that contains the attributes of the Nation’s highway-rail grade crossing intersections.

***Crossing Safety and Trespasser Prevention..... \$3.315M***

FRA requests an increase of \$3.31 million for programs addressing grade crossing collisions and trespasser incidents, which typically account for over 95 percent of the railroad-related fatalities. In FY 2008, approximately 456 people lost their lives while trespassing on railroad property and another 289 lost their lives in highway-rail grade crossing collisions. This accounts for 56 percent and 36 percent respectively, of all rail-related fatalities that were reported to FRA. RSIA includes new mandatory reporting and updating of grade crossing information in the National Inventory and development of safety guidance for railroads on safety strategies and methods to prevent pedestrian incidents and fatalities at or near passenger stations. This funding is also for Operation Lifesaver, as well as other initiatives to prevent future loss of lives.

***RSIA and Other Contract Increases ..... \$5.246M***

RSIA requires that the Office of Railroad Safety perform numerous studies, reports, and rulemakings with very short deadlines in order to achieve maximum improvements in railroad safety. To ensure that RSIA mandates are met, the Office of Railroad Safety will need contractual support to help in all areas so that the required studies, reports, and rulemakings can be accomplished in the timeframe provided. A reduction in contract funding would result in a critical shortfall in FRA’s ability to implement many new safety initiatives found in RSIA, which could contribute to a material delay in implementation of RSIA.

In addition, the Office of Railroad Safety requires funds for contract support of activities, such as: High-speed Rail Safety Standards, fatigue prevention and management, county-based rural response surveys, Rail Safety Advisory Committee Web site maintenance, etc.

***Financial Management Business Transformation (FMBT)***

FRA is partnering with the Department to implement a standard, unified financial system across DOT. FMBT is also consolidating the Department’s procurement systems into a standard system that will integrate with DOT’s financial system. Consolidating and standardizing both these systems will significantly enhance Department-wide spending analysis; standardize reporting capabilities while reducing the cost of software maintenance, application support, and system hosting. Integrating the procurement system with the financial system will also enhance financial reports provided to DOT and operational program managers; streamline business

processes; eliminate the risk of human error that occurs because of duplicate manual data entries; and support commitment accounting.

- **Data Migration Preparation ..... \$3.00M**  
 Delphi is the computerized financial system for FRA. DOT plans to replace this system with the new version in FY 2014. Before FRA transfers ten years of data from the current version of Delphi to the new version, the data needs to be thoroughly reviewed for anomalies and exceptions; cleansed of unnecessary entries; and reconciled to subsidiary systems to ensure that the quality of data transferred into the new Delphi system supports FRA’s mission and meets FRA’s forward-going needs. This effort will require support from contract staff with specialized software and skills in data cleansing.
  
- **One-DOT Procurement Platform..... \$3.50M**  
 FRA is currently working with the Department to define the requirements for a new or enhanced procurement writing system. Program implementation varies from integrating an entirely new contract writing system to significantly enhancing the current system. Implementing any of the approaches being considered will require implementing system migration requirements at operational levels within the Department. Minimally, it will require matching and migrating years of existing contract data with the existing Delphi system entries, increased contract close-out activities, manual reconciliation of unique contract entries, cleansing unnecessary entries, manual payment validation, and reconciliation to subsidiary systems (i.e. invoicing). This non-recurring effort and associated costs are required to ensure that the quality of financial data is migrated seamlessly to support and maintain FRA’s historical and forward financial mission integrity. Accomplishing this effort will require temporary support from contractor staff with specialized software expertise in data cleansing, contract close-out, and revised process training.

**Acquisition/Build-out of FRA HQ space ..... \$2.50M**  
 For nearly two years, FRA has been working with the DOT Office of the Secretary to identify and develop a solution to accommodate FRA’s expanding workforce located at the 1200 New Jersey Avenue headquarters building. In FY 2010, FRA headquarters space requirements increased by 54 people, resulting in a shortfall of 55 office spaces. For FY 2012, FRA anticipates needing space for an additional 96 people, leading to FRA’s projected cumulative deficit of 151 office spaces. While OST and FRA are working collaboratively to find a solution, FRA is including an additional \$2.5 million in its FY 2012 budget to cover the added GSA rent and office build-outs it expects to pay once additional office space is provided.

**FRA Washington, DC, Staff and Space Requirements\***

Employees	DC Office Spaces (est.)	FY 2010 Actual		FY 2012	
		DC FTE	Unmet Requirements	DC FTE	Unmet Requirements
Federal Staff	352	366	14	462	110
Support Staff	44	85	41	85	41
<b>Total</b>	<b>396</b>	<b>451</b>	<b>55</b>	<b>547</b>	<b>151</b>

\* FY 2010 Federal staff total reflects all new DC positions received and requested.



***Mobile-DOT (mDOT) Secure Remote Access..... \$0.179M***

This mDOT project will provide an improved method of FRA field inspectors and travelers to remotely and securely connect to FRA and DOT IT networks and systems. The mDOT infrastructure will allow users to seamlessly access resources, file servers, applications, etc. using their normal user name and password authentication process.

***Alaska Railroad Liabilities ..... \$0.021M***

The FRA requests \$21 thousand to reimburse the Department of Labor for workers' compensation payments to former Federal employees of the Alaska Railroad who were on the rolls during the period of Federal ownership.

***Contract Support..... 0.033M***

The Contract Support program provides support for policy-oriented economic, industry, and systems analysis. This program includes recurring contracts for access to proprietary forecast databases which contain forecasts for rail equipment acquisitions, rail-carried commodity volumes, modal tons, ton-miles, and intermodal shipments; Association of American Railroads databases and publications pertaining to railroad traffic and operations; interagency agreement to DOT's Center for Climate Change, and dues to the European railroad association for publications, dues, and conferences.

Databases include:

- **Carload Waybill Sample:** This database is the most comprehensive database, providing approximately 700,000 records out of a universe of over 20 million shipments, for the geographic and commodity levels for the major freight railroads. Analyses include the impacts of natural disasters on railroads and shippers, and the movement of hazardous materials shipments. Without this FRA investment, information on rail commodity flows by origin and destination would not be available to perform these analyses and others that support the FRA mission of promoting safe and efficient rail transportation.
- **Railroad Network System** which supports the maintenance and ongoing development of Geographical Information System (GIS) data and applications to analyze rail economics, rail defense issues, rail safety, and rail environmental considerations in ways previously not possible (e.g., hazardous material routing and creation of the Strategic Rail Corridor Network). FRA's investment in the Rail Network System provides the 1:100k scale computerized network that accurately represents the route structure of the North American railroad system. The spatial data provided by FRA's Rail Network System is recognized by multidisciplinary groups to be the most comprehensive and up-to-date rail network data that serves as the government's primary rail layer. This dataset is used for several Safety regulations, currently to support the rail industry to provide alternative hazmat risk assessments.

**FEDERAL RAILROAD ADMINISTRATION  
SAFETY AND OPERATIONS**

**Program and Financing Schedule**

(In thousands of dollars)

Identification code 69-0700-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Salaries and expenses	173,875	173,719	141,445
00.02 Contract Support	1,103	1,291	608
00.03 Alaska Railroad Liabilities	769	1,432	981
01.00 Total direct program	175,747	176,442	143,034
09.01 Reimbursable program	864	0	80,000
09.00 Total obligations	176,611	176,442	223,034
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	7,451	4,172	0
10.21 Recover of prior year unpaid obligations	527	0	0
10.50 Total budgetary resources available for obligation	7,978	4,172	0
11.00 Appropriation	172,270	172,270	143,034
Appropriation (total)	172,270	172,270	143,034
Discretionary spending authority from offsetting collections:			
17.00 Offsetting collections (cash) (unexpired only)	1,045	0	80,000
17.01 Change in uncollected cust paymts fm Fed sources (unexp)	63	0	0
17.50 Spending authority fm offsetting collections (total)	1,108	0	80,000
19.00 Budget authority total	173,378	172,270	223,034
19.30 Total budgetary resources available	181,356	176,442	223,034
19.40 Unobligated balance expiring or withdrawn	-573	0	0
New obligations	-176,611	-176,442	-223,034
19.41 Unobligated balance available, end of year	4,172	0	0
<b>Change in Obligated Balance:</b>			
30.00 Obligated balance , start of year	203,367	210,219	152,031
30.10 Uncollected customer payments from Federal sources, brought for, Oct 1	-1,032	0	0
30.20 Obligated balance , start of year	202,335	210,219	152,031
30.30 Obligations incurred: Unexpired accounts	176,611	176,442	223,034
30.31 Obligations incurred: Expired accounts	6,995	0	0
30.40 Total outlays (gross)	-186,375	-234,630	-255,114
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	-63	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	775	0	0
30.61 Obligated balance transferred from other accounts	20,000	0	0
30.80 Recoveries of prior year obligations	-527	0	0
30.81 Recoveries, prior year unpaid obs, exp accts	-9,532	0	0
30.90 Unpaid Obligations (gross)	210,539	152,031	119,951
30.91 Uncoll customer payments from Federal sources, EOY	-320	0	0
31.00 Obligated balance, end of year	210,219	152,031	119,951
<b>Budget Authority and Outlay, Net</b>			
40.00 Budget Authority, gross	173,378	172,270	223,034
40.10 Outlays from new discretionary authority	149,567	137,816	186,427
40.11 Outlays from discretionary balances	36,808	96,814	68,687
40.20 Total outlays (gross)	186,375	234,630	255,114
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Collections, from Fed sources	-974	0	0
40.33 Collections, non-Fed sources (user fees)	-244	0	-80,000
40.40 Offsets against gross BA and outlays (total)	-1,218	0	-80,000
40.50 Portion of offsetting collection credited to unexpired accounts	63	0	0
40.52 Portion of offsetting collection credited to expired accounts	-173	0	0
40.60 Additional offsets against BA only (total)	-110		
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	172,270	172,270	143,034
40.80 Outlays (net)	185,157	234,630	175,114
Unpaid Obligations, EOY	210,219		

**FEDERAL RAILROAD ADMINISTRATION  
SAFETY AND OPERATIONS**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0700-0-1-401	2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	80,620	88,396	62,009
11.3 Other than full-time permanent .....	847	939	659
11.5 Other personnel compensation .....	2,988	3,313	2,324
11.9 Total personnel compensation .....	84,455	92,648	64,992
12.1 Civilian personnel benefits .....	25,604	26,285	17,548
13.0 Benefits for former personnel .....	175	0	0
21.0 Travel and transportation of persons .....	12,411	7,493	5,539
22.0 Transportation of things .....	37	175	176
23.1 Rental payments to GSA .....	5,798	5,990	8,199
23.2 Rental payments to others .....	0	0	0
23.3 Communications, utilities and miscellaneous charges .....	1,573	1,118	1,124
24.0 Printing and reproduction .....	347	187	188
25.1 Advisory and assistance services .....	340	384	305
25.2 Other services .....	3,958	4,260	3,382
25.3 Purchases of goods and services from Government accounts ..	29,599	27,094	27,639
25.7 Operation and maintenance of equipment .....	5,889	3,316	2,632
26.0 Supplies and materials .....	581	667	669
31.0 Equipment .....	1,256	638	890
41.0 Grants, subsidies, and contributions .....	3,724	1,015	8,746
42.0 Insurance claims and Indemnities .....	0	1,000	1,005
Subtotal, Direct obligations .....	175,747	172,270	143,034
99.0 Subtotal, Reimbursable obligations .....	864	0	80,000
99.9 Total new obligations .....	176,611	172,270	223,034

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**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**RAILROAD RESEARCH AND DEVELOPMENT  
APPROPRIATIONS LANGUAGE**

**【railroad research and development】** *RAILROAD RESEARCH AND  
DEVELOPMENT*

For necessary expenses for railroad research and development,  
\$40,000,000, to remain available until expended.

**Exhibit III-1**

**RAILROAD RESEARCH AND DEVELOPMENT  
Summary by Program Activity  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>	<b>CHANGE FY 2010-2012</b>
<b>Track Research Program</b>				
Track and Structures	5,450	5,450	5,450	-
Track and Train Interaction	3,600	3,600	3,800	200
R&D Facilities and Test Equipment	2,550	2,550	2,850	300
Railroad Cooperative Research Progræ	-	-	500	500
<b>Equipment and Operating Practices Research Program</b>				
Human Factors	3,270	3,270	3,670	400
Rolling Stock and Components	3,000	3,000	3,000	-
Hazardous Materials Transportation	1,550	1,550	1,550	-
Train Occupant Protection	4,600	4,600	4,700	100
Railroad System Issues	3,623	3,623	4,010	387
<b>Signal Train Control and Communications Research Program</b>				
Train Control	7,870	7,870	8,270	400
Grade Crossings	2,100	2,100	2,200	100
<b>TOTAL</b>	<b>37,613</b>	<b>37,613</b>	<b>40,000</b>	<b>2,387</b>
<b>Positions</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total Positions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**PROGRAM AND PERFORMANCE LANGUAGE**

Funding requested in the Railroad Research and Development Program provides science and technology support for FRA's rail safety rulemaking and enforcement efforts. It also stimulates technological advances in conventional and high-speed railroads. The program focuses on the following areas of research:

*Railroad system issues.* Provides for research in railroad system safety, performance-based regulations, railroad systems and infrastructure security, railroad environmental issues, and locomotive R&D.

*Human factors.* Provides for research in train operations, and yard and terminal accidents and incidents.

*Rolling stock and components.* Provides for research in on-board monitoring systems, wayside monitoring systems, and material and design improvements.

*Track and structures.* Provides for research in inspection techniques, material and component reliability, track and structure design and performance, and track stability data processing and feedback.

*Track and train interaction.* Provides for research in derailment mechanisms, and vehicle-track performance.

*Train control.* Provides for research in train control test and evaluation.

*Grade crossings.* Provides for research in grade crossing human factors and infrastructure.

*Hazardous materials transportation.* Provides for research in hazmat transportation safety, damage assessment and inspection, and tank car safety.

*Train occupant protection.* Provides for research in locomotive safety, and passenger car safety and performance.

*R&D facilities and test equipment.* Provides support to the Transportation Technology Center (TTC) and the track research instrumentation platform. TTC is a Government-owned facility near Pueblo, Colorado, operated by the Association of American Railroads under a contract for care, custody, and control.

*Rail Cooperative Research Program.* Enables the FRA to (1) efficiently gather inputs from all stakeholders (e.g., railroads, states, technology providers, and university researchers) in the Nation's rail transportation system to establish research priorities; and, (2) accelerate the real-world impact of FRA's Research and Development Program by strengthening and broadening the academic and industrial railroad technical communities.

**Exhibit III-1a**

**RAILROAD RESEARCH AND DEVELOPMENT  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>Item</b>	<b>Change from FY 2010 to 2012</b>	
	<b>FTE</b>	<b>(\$000)</b>
FY 2010 Actual	-	37,613
Redirected Funds	-	-
<b>Subtotal, FY 2011 CR Annualized</b>		<b>37,613</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	-
Annualization of FY 2011 Comparability Pay Increase (0.0%)	-	-
FY 2012 Comparability Pay Increase (0.0%)	-	-
Non-Pay Inflation (0.5%)	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Baseline Changes</b>	-	<b>0</b>
<b>Program Changes:</b>		
<b>Track Research Program</b>	-	<b>1,000</b>
Track and Structures	-	-
Track and Train Interaction	-	200
R&D Facilities and Test Equipment	-	300
Railroad Cooperative Research Program	-	500
<b>Equipment and Operating Practices Research Program</b>	-	<b>887</b>
Human Factors	-	400
Rolling Stock and Components	-	-
Hazardous Materials Transportation	-	-
Train Occupant Protection	-	100
Railroad System Issues	-	387
<b>Signals, Train Control, and Communications Research Program</b>	-	<b>500</b>
Train Control	-	400
Grade Crossings	-	100
<b>Subtotal, Program Changes</b>	-	<b>2,387</b>
<b>TOTAL FY 2012 REQUEST</b>	-	<b>40,000</b>



## **Exhibit III-2**

### **RAILROAD RESEARCH AND DEVELOPMENT Annual Performance Results and Targets**

The Federal Railroad Administration is in the process of developing performance measures to support the new DOT Strategic Plan. In addition, DOT is developing a new, 5-year research and development strategic plan.

## Detailed Justification for Railroad Research and Development

### WHAT IS THE REQUEST AND WHAT WILL WE GET FOR THE FUNDS?

#### FY 2012 - Railroad Research and Development - Budget Request (\$000)

	FY 2010 ACTUAL	FY 2012 REQUEST	CHANGE FY 2010-2012
<b>Track Research Program</b>			
Track and Structures	5,450	5,450	-
Track and Train Interaction	3,600	3,800	200
R&D Facilities and Test Equipment	2,550	2,850	300
Railroad Cooperative Research Program	-	500	500
<b>Subtotal, Track Research Program</b>	<b>11,600</b>	<b>12,600</b>	<b>1,000</b>
<b>Equipment and Operations Practices Research Program</b>			
Human Factors	3,270	3,670	400
Rolling Stock and Components	3,000	3,000	-
Hazardous Materials Transportation	1,550	1,550	-
Train Occupant Protection	4,600	4,700	100
Railroad System Issues	3,623	4,010	387
<b>Subtotal, Equipment and Operations Practices Research Program</b>	<b>16,043</b>	<b>16,930</b>	<b>887</b>
<b>Signals, Train Control, and Communications Research Program</b>			
Train Control	7,870	8,270	400
Grade Crossings	2,100	2,200	100
<b>Subtotal, Signals, Train Control, and Communications Research Program</b>	<b>9,970</b>	<b>10,470</b>	<b>500</b>
<b>TOTAL</b>	<b>37,613</b>	<b>40,000</b>	<b>2,387</b>

### WHAT IS THIS PROGRAM?

The Railroad Research and Development Program (R&D) provides science and technology support for FRA's rail safety rulemaking and enforcement efforts. It stimulates technological advances in conventional and high-speed railroads and serves as the catalyst for the Administration's vision and policy, and continues to advance the science of railroad safety into the 21st century. The program focuses on the following areas of research:

**Railroad system issues.** Provides for research in railroad system safety, performance-based regulations, railroad systems and infrastructure security, railroad environmental issues, and locomotive R&D.

**Human factors.** Provides for research to evaluate risks due to Human Factors related failures and identify, develop, and support the introduction of solutions.

**Rolling stock and components.** Provides for research in on-board monitoring systems, wayside monitoring systems, and material and design improvements to address equipment related risks.

**Track and structures.** Provides for research in inspection techniques, material and component reliability, track and structure design and performance, and track stability data processing and feedback.

**Track and train interaction.** Provides for research in derailment mechanisms, and vehicle-track performance.

**Train control.** Provides for research in train control test and evaluation.

**Grade crossings.** Provides for research in grade crossing human factors and infrastructure.

**Hazardous materials transportation.** Provides for research in hazmat transportation safety, damage assessment and inspection, and tank car safety.

**Train occupant protection.** Provides for research in locomotive safety, and passenger car safety and performance.

**R&D facilities and test equipment.** Provides support to the Transportation Technology Center (TTC) and the track research instrumentation platform. TTC is a government-owned facility near Pueblo, Colorado, operated by the Association of American Railroads under a contract for care, custody, and control.

**Rail Cooperative Research Program.** Enables the FRA to (1) efficiently gather inputs from all stakeholders (e.g., railroads, states, technology providers, and university researchers) in the Nation's rail transportation system to establish research priorities; and, (2) accelerate the real-world impact of FRA's R&D by strengthening and broadening the academic and industrial railroad technical communities.

#### **Anticipated FY 2011 Accomplishments:**

##### **Train Control**

To advance train control technologies that improve safety, operational efficiency, and reduce fuel consumption, anticipated FY 2011 accomplishments include:

- TTC completion of testing Higher Performance Digital Radio for use in PTC systems.

- Vital Consist and Rear End Position Determination. The accurate determination of train weight and length as well as an accurate determination of rear end position is critical to implementation of moving block operation, besides further enhancing the operating efficiency of PTC.
- Data Encryption and Key Management. This is a follow-on phase of the FY 2010 effort to develop a standard data encryption and key management for the industry-wide PTC data network. The focus is for the transparency and ease of key distribution and replacement for the data encryption scheme adopted for the interoperable train operation specification.
- Employee-in-charge Portable Terminal. The funding is to complete the final phase of the development of an employee-in-charge portable terminal as a safety critical device for the roadway workers to protect their work zones from train intrusion, in a PTC operating environment.

### **Grade Crossings**

- Grade Crossing Obstruction Detection. Development of a low cost system to determine when a person or vehicle is in the grade crossing. The life cycle cost of the system must be less expensive than loop detectors. The system will be tested and compared to loop detectors in terms of installation, maintenance, and operation costs, as well as safety, effectiveness, and reliability.
- Automated Extraction of Grade Crossing Features from LIDAR Data. A prototype system, utilizing LIDAR technology was developed in FY 2010. Due to the success of this previous work and its potential, in FY 2011 FRA plans to investigate the feasibility of automated extraction of additional grade crossing parameters, such as sight lines and the angle of intersection between the roadway and rails.

### **Track and Train Interaction**

The objective of this program is to determine the influence of track geometry characteristics and vehicle speeds on extreme lateral and vertical dynamic forces and accelerations that can lead to derailment or compromise passenger safety. A comprehensive computer program for modeling and simulating railway vehicle/track systems is being developed, with an emphasis on the dynamic performance of both vehicle and track and their interactions through the wheel/rail interface.

- Simulation of Multi-body Railroad Vehicle/Track Dynamics. The detailed wheelset model provides capabilities for performing simulations that address safety issues associated with passenger and freight operations, at both low and high speeds. FY 2011 Planned Accomplishment is to review feedback from the FY 2010 beta-version of SAMS-RAIL. Recommendations from the eight user groups currently testing the software will be evaluated and the software will be developed further as required.
- Cooperative Agreement with National Research Council (NRC)-Canada. Researchers from NRC-Canada are cooperating with FRA and Amtrak to enhance the performance and safety of Amtrak services in the Northeast Corridor, by improving wheel/rail profile, grinding, and lubrication practices. A new wheel profile has been designed for Amtrak's high-speed Acela cars. The new design has been installed under an Acela power and

coach cars for the last couple of years. Preliminary analysis indicates that the new profile has improved the wheel life for the both test cars significantly. In addition, FRA supported Amtrak's rail grinding program for the last couple of years and we developed new grinding templates for Amtrak.

In FY 2011, we plan to conduct further monitoring and develop recommendations to support Amtrak in optimizing wheel/rail interface system management, including rail grinding. Also, in FY 2011, studies will be completed to plan future development of FRA's Transportation Technology Center near Pueblo, Colorado. Test track enhancements are being considered to enable next generation equipment to be qualified for safe operation in the U.S.

### **Track and Structures**

A component of this program is to develop and improve inspection technologies to assess track conditions from mobile platform.

- Autonomous Track Geometry Measurement System (ATGMS). A prototype was designed that will allow for testing geometry characteristics remotely up to 90 days without user intervention. Track anomaly data will be detected and shipped to a secure website to assist maintenance personnel in locating track defects. In FY 2011, we plan continued data collection and system improvements on ATGMS installed on Amtrak Autotrain service (300,000 miles) and to migrate the prototype system to Amtrak's Northeast Corridor regional service.
- Improved Ground Penetrating Radar (GPR). This joint FRA and railroad industry project for track subsurface evaluation using GPR has been in process for the last couple of years. FY 2011 anticipated accomplishments are the investigation of the feasibility of soil type determination/classification (track-bed structure materials) and the measurement of related parameters such as in-situ density and moisture content.
- Laser-Based Rail Flaw Inspection System. The FRA has developed a laboratory prototype capable of detecting rail defects from a moving platform without physical contact with the rail, as current systems require. The next stage of development is to produce a prototype that can be used in service.

A component of this program is to provide testing and analytical support for FRA's safety mission, and the development of performance based track safety standards. As new technologies emerge and train speeds increase, the timely development of technical information, data, and expertise is crucial to making sound decisions on issues affecting the safe operation of rail vehicles.

- Modification to High-speed Track Safety Standard (Rail Safety Advisory Committee). FRA and the Volpe Center are supporting the rulemaking for High-speed Track Safety Standards by explaining the new rule to stakeholders and assisting them in implementing it.

- Training FRA's Field Inspectors. FRA will deliver the new vehicle-track interaction training course to FRA inspectors.

### **Hazardous Material Transportation**

Anticipated FY 2011 accomplishments include completion of a robust risk analysis that identifies the current major contributors of risk to hazmat operations involving toxic inhalation material. The analysis will also focus on short term changes to industry and FRA standards, hazmat routing, improved tank car technologies, and the implementation of PTC systems. Progress is expected in research funded under the cooperative Advanced Tank Car Cooperative Research Program.

### **Railroad Systems Issues**

A component of this program is to evaluate the benefits to energy consumption and environmental impact of alternative fuels and new technologies. The planned FY 2011 accomplishments are completing revenue service demonstration/evaluations of bio-diesel and launching a cooperative effort with the Department of Energy to identify and evaluate opportunities for improving the energy efficiency. A further component of this program is to identify areas of safety risk within existing or proposed rail operations and to develop and refine techniques to manage effectively those risks. We also plan develop and apply proven evaluation methods to assess R&D program effectiveness in terms of real world risk reduction. We will continue to provide technical input to the Risk Reduction Program, Rail Safety Advisory Committee, and compliance with the ADA requirements for passenger boarding.

### **Human Factors**

The Confidential Close Call Reporting System, which has been successfully demonstrated to improve safety in pilot projects involving Labor and Management on several railroads, is now being expanded to include others. Other focus areas include reduction in risks due to fatigue and distractions and assuring the safety and effectiveness of locomotive displays and controls.

### **WHY IS THIS PARTICULAR PROGRAM NECESSARY?**

The R&D program is essential to address those areas that affect the safety, energy efficiency, and environmental sustainability in the railroad industry, while assuring that safety is maintained. With expanded intercity passenger rail service – including high-speed regional and emerging corridor services – operating on infrastructure shared with freight railroads and freight rail traffic projected to grow at the same time, R&D support to safety and capacity building is essential.

**Track:** The Track Research program contributes vital inputs to the FRA's safety regulatory processes by maintaining a significant knowledge base within FRA to address effectively the agency's proposed changes in rules and performance-based regulations. The program performs significant development, testing and training of staff on rail equipment. FRA-owned facilities provide the infrastructure necessary to conduct experiments and test theories, concepts, and new technologies in support of the R&D program.

In addition, the Track Research program is closely partnered with the railroad industry in developing new alternative inspection technologies necessary to reduce costs and provide

positive impact on the efficiency and effectiveness of the railroads. Currently, all Class 1 Railroads utilize technologies developed under the Track Research program to locate high-risk track defects. This program is vital for understanding the science behind railroad track and structures, and is essential for reducing the risk of derailments and other accidents attributable to the dynamic interaction between the track and moving vehicle through the development of more capable and more efficient technologies. As train speeds increase with the development of high-speed rail, research in this area will be essential to maintaining precise engineering and safety regulations. The Track Research program performs research within the areas of railroad system safety and railroad systems and infrastructure. Activity areas under Track Research are:

- **Track and Structures:** Researches railroad engineering and design, which includes track inspection technologies and techniques, rail material, fastener component reliability, and the stability of the track foundation.
- **Track and Train Interaction:** Conducts research of preventative derailment mechanisms and mitigation methods. In addition, this program generates the fundamental science of the wheel and rail dynamic interactions.
- **R&D Facilities and Test Equipment:** Supports testing, research and implementation at the Transportation Technology Center (TTC) and track research test vehicles. TTC is a Government-owned facility near Pueblo, CO, operated under a contract for care, custody, and control by a subsidiary of the Association of American Railroads.
- **Rail Cooperative Research Program:** Enables FRA to (1) efficiently gather inputs from all stakeholders (e.g.: railroads, States, technology providers, and university researchers) in the Nation's rail transportation system to establish research priorities; and (2) accelerate the real-world impact of FRA's R&D program by strengthening and broadening the academic and industrial railroad technical communities.

**Equipment and Operating Practices:** The Equipment and Operating Practices Research Division focuses on safety improvements. The railroad depends on the reliability of people, as well as infrastructure, equipment, and control systems to keep the rails safe. Railroad operating workers need knowledge, training, tools, and alertness to do their jobs properly and to ensure the public, their coworkers, and their own safety. The transportation of passengers and hazardous materials by railroads present situations that require special attention to ensure that we maintain a high level of safety. Activity areas under Equipment and Operating Practices Research are:

- **Human Factors:** Focuses on areas where individuals can affect the safe performance of rail operations. Without the necessary funding, safety in the railroad industry would degrade. In part, due to success in the reduction of equipment and track related accidents, human factors-causes now account for over a third of all accidents. With the introduction of new technologies, like PTC and Electronically Controlled Pneumatic Brakes and the expansion of high-speed rail, emphasis on human factors, R&D is essential to prevent growth in human factors caused accident rates.
- **Rolling Stock and Components:** Researches locomotive and railcar vehicles, components, and methods to improve the inspection and monitoring of such equipment. Automated inspection technology will be playing a broader and more significant role in safety assurance in the future. This program will help assure the benefits of such technology are realized without introducing any new sources of safety risk.
- **Hazardous Material Transportation:** Researches hazardous materials transportation safety, damage assessment and inspection, and tank car safety.

- Train Occupant Protection: Researches locomotive safety and passenger car safety and performance.
- Railroad Systems Issues: Researches railroad system safety, performance-based regulations, railroad systems and infrastructure security, and railroad environmental issues.

**Signals, Train Control, and Communication:** The Signals, Train Control, and Communication Research program plays an important role in advancing vital and non-vital train control safety technologies used by freight, intercity passenger, and commuter railroads. The program provides a venue for fostering promising new research ideas by providing funding to universities and small businesses to spearhead safety and performance issues facing the industry using alternative and innovative ways. In addition, the research conducted by this program supports FRA's safety regulatory processes and rule makings. Activity areas under Signals, Train Control, and Communications Research are:

- Train Control: The Train Control program in general is a cooperative effort between FRA, Class 1 railroads, the Association of American Railroads, and other interested entities. Through this cooperative effort, which includes technology exchanges and field-testing on the railroads, the framework for system integration and interoperability is being developed.

Rail industry stakeholders rely upon this program to conduct the testing necessary to prove the safety, interoperability, and performance of new technologies, products, and methodologies. One of its key elements is establishing cooperative relationships with the Transportation Technology Center (TTC) and freight railroads to perform tests in a controlled environment, as well as in live revenue service to insure the proper functioning and reliability of the new technology and products.

The Train Control program will assist in achieving the statutory mandate of nationwide deployment of PTC systems by December 31, 2015. PTC will prevent train-to-train collisions, over-speed derailments, worker injuries from train incursion in the work zones, and incidents from wrong track switch position. However, even though PTC systems have been proven in FRA demonstration programs, the past development efforts revealed some necessary enhancement and improvement in the technology, especially in the area of braking distance prediction for trains, communication throughput and robustness, and interoperability. This research program will focus on these areas to provide technology solutions to insure both safety and operating efficiency for Class 1 railroad and commuter agency reliance on standards for PTC designs. With the implementation of an interoperability standard in 2011, the Class 1 railroads and commuter agencies will be able to adopt a much improved braking algorithm in their PTC systems. In addition, in 2012, we will design and produce prototypes for standard 220 MHz data radios.

- Grade Crossing: The objectives of the Grade Crossing program are to identify technologies, methodologies, and hardware that will increase safety and lower collisions and fatalities.



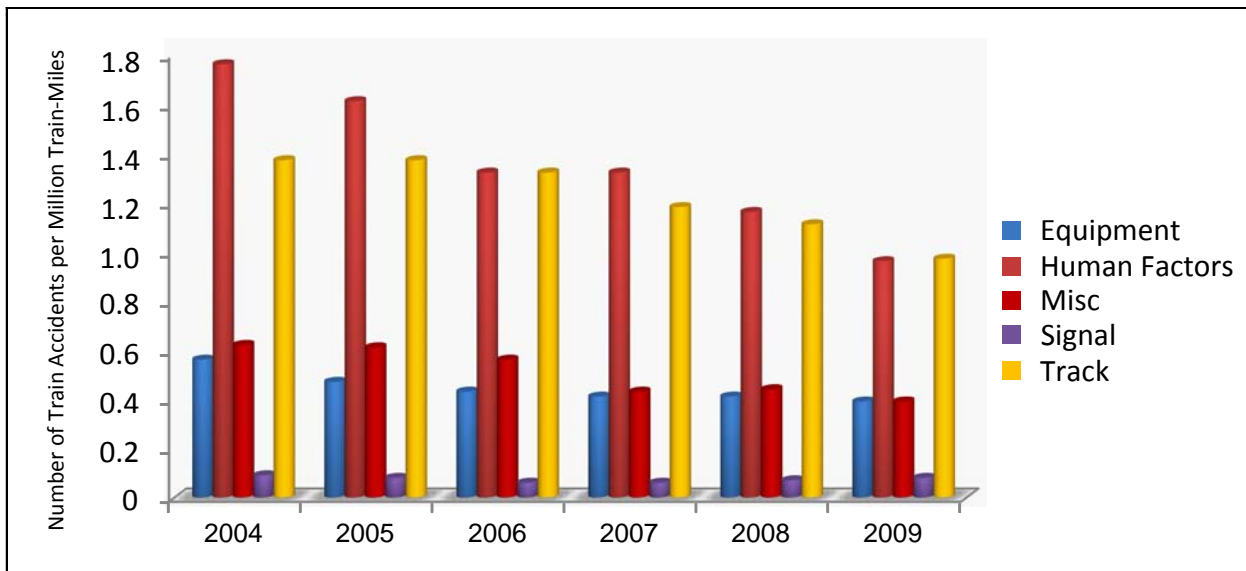
The Grade Crossing and Trespassing Prevention Program is another vital program focused at advancing safety technologies, education, and outreach to reduce accidents and fatalities at grade crossings. Grade crossings present a major hazard to motor vehicle drivers, as well as pedestrians, and are the second greatest cause of fatalities and injuries in the railroad industry. Many grade crossing accidents are directly due to motorist and commercial vehicle operator behavior, with 53 percent of accidents occurring at passive grade crossings. In 10 percent of accidents, the motorists and commercial vehicle operators breached through lowered gates. This program area focuses on vehicular operators risk behaviors (motivation, expectations, and perceptions) and grade crossing and train systems design changes to enhance safety. On-going projects in this program area include Evaluation of Acoustic Warnings, Causal Analysis of Driver Behavior, and Development of a Grade Crossing Data Collection Device. These projects aim at reduction of grade crossing accidents to protect both the public and the railroads.

**HOW DO YOU KNOW THE PROGRAM WORKS?**

FRA uses the GPRA process to establish performance metrics and evaluate program performance. The Office of Research and Development focuses on supporting three Departmental Goals: Safety, State of Good Repair, and Economic Competitiveness. However, the ultimate indication that the program works is the successful adaption and implementation of new technologies by the rail industries. Having railroad industries adopt and implement multiple technologies for daily use improves the safety and operational efficiency of railroads and reduces costs.

**Safety Goal:** The Office of Research and Development provides the science and technology in the rule-makings process to support the Safety Goal of reducing accidents and incidents. The table below reflects a reduction in reportable train accidents over the last six years.

**Reportable Train Accidents, 2004 to 2009**



Source: FRA safety database

- **Track Research:** Research in this area aims to reduce the risk of derailments and other accidents attributable to the dynamic interaction between the track and moving vehicles, and to identify causes which are generally not evident from the lone examination of track or equipment. This program reduces transportation-related injuries and accidents through the science of engineering development and testing of railroad inspection technologies, and analytical support to the Office of Railroad Safety program.

Over the last six years, there has been a 29 percent decrease in track-related train accidents. Railroads have adopted developing technologies contributed by the Track Research program, such as:

- Gage Restraint Measurement System (GRMS), which is a technology used to assess tie and fastener;
- Vehicle/track interaction (VTI) monitoring system developed for Amtrak and all Class I;
- Joint Bar Inspection System, which is an image-based inspection technology that assesses joint bar systems effectively and efficiently.

In addition, the Track Research program's refinements in the rules have aided in increased productivity and decreased derailments.

- **Equipment and Operating Practices Research:** Human Factors research aims to reduce the risk of injury and fatalities and support a safer environment for rail workers to perform their duties. Research in the Hazardous Materials program is to continue to support transportation safety, damage assessment and inspection, and tank car safety.

The number of accidents and incidents in the railroad industry has decreased by over 24 percent from 2005 to 2009. This program continues to produce the scientific and engineering data and analysis which is used by railroads, rail car builders, locomotive manufacturers, shippers and both Federal and State Governments to continue to develop and apply new safety procedures and technologies which have, in part, fueled this trend. This research has directly resulted in new Federal safety standards for conventional rail, high-speed rail, and hazmat transportation, which again has contributed to the reduction of accidents.

Human Factors today account for nearly 33 percent of all railroad accidents. Behavioral and work environment research and development has produced pilot programs which are enabling the railroads and rail labor to work together to identify ways to solve this problem area. Because of these successful pilots, other railroads and industry sectors are embracing the lessons learned and adopting many of the new procedures to further improve safety. Fatigue continues to be an area of concern. Split shifts for commuter service crews, irregular shifts for extra board crews and lack of effective guidance and enforcement for rest requirements are areas that need further assessment and are very likely to require either rule changes or voluntary changes in industry recommended

practice to avoid increased probability and consequences of fatigue related accidents. Continued research in human factors is necessary to reduce railroad accidents.

- **Signals, Train Control, and Communication Research:** FRA's Signals, Train Control, and Communication program is aimed at improving operating safety through PTC to prevent train to train collision, over-speed protection, protect roadway works, and provide for remote switch monitoring capability. Grade Crossing research programs aim to reduce fatalities and injuries involving accidents between trains and motor vehicles and pedestrians.

The research programs target the needs of the rail industry and are committed to advancing technologies to improve safety and operational efficiencies. To date, many technologies have been developed to enhance PTC systems and improve grade crossing safety, such as:

- Adaptive Enforcement Algorithm
- Roadway worker protection Employees In Charge wireless device
- Interoperability standards

With these developments, the railroads were able to implement PTC systems, such as Amtrak's Incremental Train Control System in Michigan and BNSF Electronic Train Management System in Illinois and Texas. Other railroads have adopted the technologies in their pilot PTC systems. Also, through our sponsorship, the industry is working to establish the interoperability standard by the end of 2010. All these will enable a steady rollout of the mandated PTC deployment on close to 70,000 route miles of operating railroad by 2015.

#### **State of Good Repair Goal:**

- **Track Research:** The Track Research program acts as the science behind the development of performance-based track safety standards needed to keep the U.S. railroads safe and efficient. New developments and engineering occur to provide new and effective methods to enhance rail inspection techniques. In addition, this program ensures continuation of site improvements for the TTC, a state of the art research facility in Pueblo, CO.

**Economic Competiveness Goal:** R&D focuses on improving operational efficiencies, increasing capacity, and lowering operating costs.

- **Track Research:** This program improves inspection efficiency by reducing required track time and improves planning and economic effectiveness.
- **Equipment and Operating Practices Research:** The objective of this program includes: (1) the definition of equivalent safety for new foreign-built designs, (2) active accident investigations for both passenger and freight operations to help clarify existing mechanisms of injury and fatality to better define performance scenarios of interest, and (3) understanding new injury mechanisms possibly introduced by new equipment.

- **Signals, Train Control, and Communication Research:** Enhancements to the PTC system will help improve operating efficiencies, increase capacity, and lower operating costs.

**WHY DO WE WANT/NEED TO FUND THE PROGRAM AT THE REQUESTED LEVEL?**

In FY 2012, FRA requests \$40 million for the Railroad Research and Development appropriation to support activities in (1) the Track Research Program, (2) the Equipment and Operating Practices Research Program, and (3) the Signals, Train Control and Communications Research Program. This request is a \$2.387 million increase over the enacted FY 2010 base.

***Track Research Program: ..... \$1.000M***

Track requests a total of \$12.6 million to support research activities that focus on and provide improved safety, efficiency, and cost savings by improving track inspection technologies, and wheel/rail and vehicle/track interaction. As new technologies continue to emerge and train speeds increase, the timely development of technical information, data, and expertise is crucial to issues affecting the safe operation of rail vehicles on U.S. tracks. With increased emphasis on building and operating a nationwide high-speed passenger rail service and infrastructure, the requested FY 2012 resources will also help to support the qualification, implementation, and acceptance of any new high-speed vehicle/track operations in the country.

This request will enable FRA to focus on fundamental research and development of tools and simulation programs such as the vehicle/track interaction system. We will deploy inspection technologies like the autonomous geometry measurement system (ATGMS) on the Amtrak Northeast Corridor and the rail temperature measurement system. We will develop a Track Data Integrated Display with Geographic Information System (GIS) capabilities that will enhance research, policy, and safety activities through improved access and data integration. The program will continue to support the Office of Railroad Safety in rule making and qualification vehicle/track operation and support in Cant Deficiency Waivers, Railroad Safety Advisory Committee/Notice of Proposed Rule-Making (NPRM), and Acela Autonomous Ride Monitor (ARM) Monitoring.

This program will continue to support real-world tests and research demonstrations performed by major universities across the country. By enabling partnerships with railroads, States, technology providers and university researchers, FRA will minimize the time from concept identification to measurable industry implementation and results.

Specific increases to this program are as follows.

***Track and Train Interaction..... \$0.200M***

Research in this area aims to reduce the risk of derailments and other accidents attributable to the dynamic interaction between the track and the moving vehicles, as well as, identifying causes which are generally not evident from the lone examination of track. Other benefits include the reduction of undesirable impact forces and vibrations that increase safety-critical wear and fatigue defects. Research in this program will focus on fundamental research, development of tools and simulation programs, development of inspection technologies and support of the Office of Railroad Safety in rule making and

qualification vehicle/track operation. The additional funds requested will support research activities that will provide improved safety, efficiency, and cost saving by improving wheel/rail interface, improving safer and faster operation of trains and improve the inspection and maintenance of the system.

*R&D Facilities and Test Equipment*..... \$0.300M

The R&D Facilities and Test Equipment programs play an important role in rail transportation technology development, standards-development, testing, and training. The Transportation Technology Center (TTC) is the inter-modal FRA-owned research facility located near Pueblo, Colorado. This unique and valuable facility covers almost 52-square miles of laboratories, and 48-square miles of railroad testing track. Over the years, TTC has been utilized by the FRA and the railroad community for full-scale railroad equipment and track testing, such as crashworthiness of various types of equipment, track research testing, and new and untried equipment dynamics evaluations.

The primary goals of this program are to maintain the one of a kind infrastructure at TTC that accommodates the testing and evaluation of intelligent railroad systems technologies. The additional funds requested will be used for site investment and improvement projects needed to ensure that TTC remains a viable facility with state of the art research/testing/training capabilities; and for continued demonstration of R&D research products/ideas to advance and improve track inspection technologies while maintaining capabilities to independently evaluate railroad infrastructure integrity. Funding will also be used for the purchase of new wheel truing machines for the TTC facility, and the development and demonstration of autonomous track geometry measurement systems (ATGMS), which is an unattended real-time track geometry measurement system with immediate web-based reporting capability.

Continued funding of this program is critical to maintain FRA’s unique capabilities for the R&D facilities and equipment, especially with increased focus on high-speed intercity passenger rail programs. However, due to limited funding available for the TTC facility, many elements of the facility have reached the end of or are near the end of their useful lifecycle. Appropriate funding on an annual basis is required to achieve its mission goals, and recurring funding for R&D equipment is also required to prevent any delays in technology demonstrations.

*National Cooperative Rail Research Program*..... \$0.500M

Recognizing the potential benefits to energy consumption, environmental stewardship, and transportation safety, Congress and the Administration have directed FRA to begin to establish high-speed rail operations across the Nation and to foster the introduction of new technology for all rail transport so that safety continues to be assured while increasing demands are met. Specifically, the National Cooperative Rail Research Program (NCRRP) is authorized under section 306 of PRIIA.

FRA established NCRRP, similar to the aviation, highway, and transit cooperative research programs at the Transportation Research Board of the National Academy of Sciences. NCRRP will enable the FRA to gather inputs efficiently from all stakeholders

in the Nation's rail transportation system to establish research priorities. It is also expected to help accelerate the real-world impact of FRA's R&D by strengthening and broadening the academic and industrial railroad technical communities. Partnerships that include railroads, states, technology providers, and university researchers will minimize the time from concept identification to measurable industry impact. While the initial funding (through the Network Development program) and focus of NCRRP will be high-speed intercity passenger rail, these funds will permit NCRRP to begin to address other key railroad research needs.

***Equipment and Operations Practices Research Program: ..... \$0.887M***

Equipment and Operating Practices requests a total of \$16.9 million that will enable FRA to provide the support necessary to address the Administration's top priorities for transportation safety including the safety of passenger rail, hazmat transportation, and human factors related safety such as fatigue and distraction, as well as the appropriate introduction of technology in a manner to enhance safety and avoid unintended consequences. Some of the key contributions anticipated in FY 2012 include the implementation and assessment of new standards and guidelines for crashworthiness and train occupant protection. Additionally, FRA will implement standards and procedures to identify and address risk due to fatigue and distraction in rail transportation and human-centered design methods for PTC. FRA will develop the next generation hazmat tank car design (working with the Advanced Tank Car Research Program) and guidelines for the implementation of automated wayside inspection systems to assure freight car safety. Specific program increases are as follows.

***Human Factors: ..... \$0.400M***

The Human Factors program focuses on areas where individuals can impact the safe performance of rail operations. Without the necessary funding, safety in the railroad industry would degrade and result in human factors accidents. Research work is divided among three major subprogram areas.

Railway Worker & Operator Performance: Individuals and groups of workers perform safety critical jobs in the railroad industry under a variety of personal, environmental, and social conditions that may affect job performance and safety. This program examines these factors to identify those that have significant impacts on job performance and safety and to suggest strategies to enhance safety and job performance.

Technology, Automation, and Systems Research: The introduction of new communications and computer technology in the railroad industry will change how workers in railroad operations perform their jobs. Automation and the management and control of information are becoming essential components of railroad operations. This program examines the safety implications of new technology and automation from a human-centered design perspective. Specific areas of research include Human Factors Issues of PTC, General Control and Display Configurations for Freight and High-speed Passenger Locomotives, and Advanced and Future Technology, such as the feasibility of Moving-Map and Head-Up Displays in the cab.

Organizational Culture and Safety Performance: Organizational culture, defined as shared values, norms, and perceptions that are expressed as common expectations, assumptions and views of rationality within an organization, plays a critical role in safety. Organizations with a positive safety culture have been shown to be strongly correlated with positive safety outcomes – fewer errors, accidents, injuries, and fatalities. This subprogram focuses on pilot intervention projects to enhance railroad safety by encouraging the development of a positive safety culture within the railroad industry.

*Train Occupant Protection* ..... \$0.100M

The train occupant protection program performs research in the areas of structural crashworthiness, interior occupant protection, risk, emergency preparedness and response, as well as fire safety. These program elements are critical to assessing the current baseline levels of performance for both the passenger and freight systems, developing new or alternative strategies to improve the performance of such systems, and assessing the impact of introducing new systems across the North American rail corridors. Since the 1930s, the approach to railroad occupant protection in this country has been based on building a “strong box” to surround the passengers. All passenger railcars approved for interchange service must be able to sustain an 800,000-pound load without permanent deformation. This approach has served the industry well for the last 75 years; however, new technology for Crash Energy Management has been developed and successfully applied elsewhere around the world. The technology incorporates energy dissipating crush zones at the end of rail vehicles, which enables the railcars to be much lighter yet provides significantly better occupant protection and greatly improved post accident train performance eliminating buckling and rollover that can result in serious secondary collisions with wayside structures and trains on adjacent tracks. With the American Recovery and Reinvestment Act providing funds for expanded high-speed and intercity service, it is vitally important to assess the changes to the rail network and the resulting risks that are introduced. Without this funding, it will not be possible to develop new performance standards that can potentially allow innovative, new, lighter robust car designs that will significantly improve energy efficiency.

*Railroad System Issues:* ..... \$0.387M

The Railroad Systems program develops information about operations at the systems/cross disciplinary level to help assess the safety of different types of operation, environmental impacts of different technologies currently in use or being developed for the rail industry, implementation of technology and development or refinement of industry standards and Federal regulations, and assesses the impact of increasing rail congestion on capacity and safety across the national rail network.

The program elements contained within the Railroad System Safety research program are critical to assessing the impact of introducing new technologies and operational practices on the North American rail network. For example, research needs include such things as improving energy efficiency and reducing emissions to meet the new EPA requirements. With the renewed emphasis from both Congress and the Administration on energy and the environment, this area has been expanded to enable expanded and more rapid

evaluation and demonstration of new technologies to facilitate the earliest possible real world impact and adoption by industry.

Without this additional funding it will not be possible to develop the technical information necessary to assess safety impacts due to a number of significant rulemaking activities as a result of SAFETEA-LU and the Railroad Safety Improvement Act of 2008 (RSIA), which mandate many changes to how railroad operations will take place in the future. Additionally without this funding, it will not be possible to advance technology for alternative energy or assess improvements in environmental impact.

***Signals, Train Control, and Communications Research Program: ..... \$0.500M***  
Signals, Train Control, and Communication requests a total of \$10.5 million to ensure the continuation of existing programs such as the Adaptive Enforcement Algorithm (AEA), which is vital for the successful deployment of PTC systems. In FY 2012, FRA will publish the Interoperability Standards to ensure seamless operational handover among all PTC systems around the country. Key outcomes include the deployment of High Performance Digital Radio to enhance Locomotive-Wayside wireless communications, and identifying grade crossing technologies, methodologies, and hardware that will increase safety and continue the decrease in collisions and fatalities.

In FY 2012, the program will develop applications of advanced railroad right of way technologies, such as low cost technologies to upgrade passive crossings and develop strategies to integrate crossing activation with highway traffic control and train control. In addition, this program will develop a set of automated crossing profile measurement systems to accurately map crossing layouts in three dimensions. Global positioning system (GPS) stamped data will be collected and integrated into the FRA crossing database to identify unique characteristics of crossings, including the severity of the hump and the road orientation with respect to the tracks. FRA will communicate the outcomes of these programs as part of outreach to Federal, State, and Local agencies to develop cooperative research and education programs aimed at identifying and eliminating dangerous crossings.

Specific program increases are as follows.

***Train Control ..... \$0.400M***  
The Rail Safety Improvement Act of 2008 (RSIA) set far reaching goals to improve railroad safety and risk reduction aiming at reducing the number and rates of accident, incidents, injuries, and fatalities involving railroads train-to-train collisions, derailments, and human factors. RSIA requires improving research efforts to enhance and promote railroad safety and performance. In addition, RSIA mandated the deployment of PTC system nationwide by December 31, 2015.

PTC is a new generation of train control system that employs modern digital technology to integrate command, control, communications, and information systems for controlling train movements with safety, security, precision, and efficiency. This system is to be deployed on approximately 100,000 miles of high density mainline and dual use (freight



and passenger) tracks and 20,000 locomotives. PTC relies on real time wireless digital communication schemes between trains, control centers, and wayside infrastructure to maintain up-to-date train positions, movement authority transmission/reception, and temporary speed restrictions. Global positioning systems, inertial navigation systems, or radio frequency transponders are used to track the movement and location of the trains. Databases and information processing equipment are also used for various decision-making functions. By employing all these technologies, the trains can be continuously monitored to ensure that they comply with the movement authorities and speed limits, resulting in the following benefits:

- Prevention of train to train collisions
- Prevention of over-speed derailments
- Protection of roadway workers
- Ensuring that the switch positions are correct for safe movement

In addition, back office computer systems integrate data collected from PTC systems to update other IT systems like scheduling to optimize train operation and management.

This program has two objectives: 1) to advance existing technologies and access new technologies to implement PTC systems; and 2) to enhance the performance and throughput of digital wireless communication systems to support the additional requirements needed to implement PTC systems. Activities to accomplish advancing control technologies include contracting technical support to develop and implement the interoperability standards of PTC systems used by freight and passenger railroads; to develop and integrate the adaptive braking algorithms to enhance precise braking predictions under variety of operating conditions; and to develop a methodology to determine the position of rear end of a train. Activities to accomplish enhancing communications include contracting technical support to develop high performance digital radio hardware and associated software and communication protocols; and to assess the need for additional radio frequency spectrum to accommodate the additional demand for throughput. With the High-Speed initiative, efficient and robust communication is vital not just for safety but for increasing railroad operating efficiency. All of these technologies are critical to successful PTC deployment by the mandated deadline.

*Grade Crossings* ..... \$0.100M

Grade crossings present a major hazard to motor vehicle drivers, as well as pedestrians, and are the second greatest cause of fatalities and injuries in the railroad industry. Many grade crossing accidents are directly due to motorist and commercial vehicle operator behavior. About 53 percent of accidents occur at passive grade crossings because motorists and commercial vehicle operators do not stop when a train is in the proximity of the crossing. In 10 percent of accidents, the motorists and commercial vehicle operators actually went around or through lowered gates. This program area focuses on why motorists and commercial vehicle operators would take such risks (motivation, expectations, and perceptions) and on changes to grade crossing and train systems design to enhance safety. On-going projects in this program area include Evaluation of Acoustic

## Warnings, Causal Analysis of Driver Behavior, and Development of a Grade Crossing Data Collection Device.

The Rail Safety Improvement Act of 2008 (RSIA) set far reaching goals to improve railroad safety and risk reduction aiming at reducing the number and rates of accident, incidents, injuries, and fatalities involving grade crossing. To that effect, RSIA requires:

- Improving research efforts to enhance and promote railroad safety and performance.
- Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.
- Preventing railroad trespasser accidents, incidents, injuries, and fatalities.

The objective of this program is to identify technologies, methodologies, and hardware that will increase safety and continue the downward trend of collisions and fatalities. Areas of focus will include developing and implementing research studies to improve countermeasures and regulations to promote congestion mitigation and reduction of incidents and casualties on our Nation's rail network. The program will develop applications of advanced railroad right of way technologies, such as low cost technologies to upgrade passive crossings and develop strategies to integrate crossing activation with highway traffic control and train control. Also, this program will develop a set of automated crossing profile measurement systems to accurately map crossing layouts in three dimensions. GPS stamped data will be collected and integrated into the FRA crossing database to identify unique characteristics of the crossing including the severity of the hump and the road orientation with respect to the tracks. The outcomes of these programs will be communicated as part of the outreach to Federal, State and Local agencies to develop cooperative research and education programs aimed at identifying and eliminating dangerous crossings.

This program area is being expanded to allow for additional technology demonstrations and to develop, define and facilitate the path to implementation in cooperation with the highway and railroad communities and stakeholders. The majority of the effort anticipated in this area will be for contracted technical support, cooperative agreements and grants with limited equipment and materials acquisitions.

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD RESEARCH AND DEVELOPMENT**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 690745-0-1-401	FY 2010 Actual	FY 2011 Cont. Res.	FY 2012 Pres. Bud.
<b>Obligations by program activity:</b>			
0.01 Railroad system issues	3,795	4,251	4,010
0.02 Human factors	3,466	3,416	3,670
0.03 Rolling stock and components	5,467	3,767	3,000
0.04 Track and structures	5,158	5,948	5,450
0.05 Track and train interaction	4,092	4,549	3,800
0.06 Train control	5,572	10,420	8,270
0.07 Grade crossings	1,249	2,780	2,200
0.08 Hazardous materials transportation	1,450	2,497	1,550
0.09 Train occupant protection	4,510	5,035	4,700
0.10 R&D facilities and test equipment	2,719	3,268	2,850
0.11 Railroad Cooperative Research Program	0	0	500
0.12 Center for Commercial Deployment of Transp Tech CA	0	82	0
0.13 PEERS, IL	487	0	0
0.14 WVU Constructed Facilities Center	243	0	0
0.15 METROLINK - PTC	487	0	0
0.14 WVU Constructed Facilities Center	1,250	0	0
0.13 Ohio Hub Cleveland - Columbus Rail Corridor	0	475	0
0.91 Total direct program	39,945	46,488	40,000
8.00 Reimbursable program	1,503	2,000	0
9.00 Total obligations	41,448	48,488	40,000
<b>Budgetary resources</b>			
<b>Unobligated Balance:</b>			
10.00 Unobligated balance available, start of year	9,937	8,875	0
10.21 Recoveries of prior year unpaid obligations	1,261	0	0
10.50 Unobligated balance (total)	11,198	8,875	0
<b>Budget Authority:</b>			
11.00 Appropriation	37,613	37,613	40,000
<b>Spending Authority from Offsetting Collections:</b>			
17.00 Collected	652	2,000	0
17.01 Change in uncollected cust paymtns fm Fed sources (unexp)	860	0	0
17.50 Spending authority fm offsetting collections (total)	1,512	2,000	0
19.00 Budget authority (total)	39,125	39,613	40,000
19.30 Total budgetary resources available for obligation	50,323	48,488	40,000
New obligations	-41,448	-48,488	-40,000
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	8,875	0	0
<b>Change in obligated balances:</b>			
30.00 Unpaid obligations brought forward, Oct 1 (gross)	52,074	50,245	58,923
30.10 Uncollected customer payments from Federal sources, brought forward, Oct 1	-992	-1,852	-1,852
30.20 Obligated balance, start of year (net)	51,082	48,393	57,071
30.30 Obligations incurred, unexpired account	41,448	48,488	40,000
30.40 Outlays (gross) (-)	-42,016	-39,810	-42,168
30.50 Chg in Uncollected cust payments fm Fed Sources (unexpired)	-860	0	0
30.51 Chg in Uncollected cust payments fm Fed Sources (expired)	0	0	0
30.80 Recoveries of unpaid prior year obligations, unexpired account	-1,261	0	0
30.90 Unpaid obligations, end of year (gross)	50,245	58,923	56,755
30.91 Uncollected cust payments fm Fed Sources, end of year	-1,852	-1,852	-1,852
31.00 Obligated balance, end of year	48,393	57,071	54,903
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	18,384	13,284	12,000
40.11 Outlays from discretionary balances	23,632	26,526	30,168
40.20 Total outlays (gross)	42,016	39,810	42,168
<b>Offsets Against Gross Budget Authority and Outlays:</b>			
Offsetting collections (cash) from:			
40.30 Federal sources	652	2,000	0
40.50 Change in uncollected customer payments fm Fed Sources (unexpired)	860	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	37,613	37,613	40,000
40.80 Outlays (net)	41,364	37,810	42,168
Unpaid Obligations, EOY	50,245		

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD RESEARCH AND DEVELOPMENT**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0745-0-1-401	2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:			
25.3 Other purchases of goods and services from Government . . . . .	13,510	3,650	3,650
25.4 Operation and maintenance of facilities . . . . .	2,271	3,850	3,850
25.5 Research and development contracts . . . . .	15,017	31,498	31,000
41.0 Grants, subsidies, and contributions . . . . .	9,147	7,450	1,500
Subtotal, Direct obligations . . . . .	39,945	46,448	40,000
99.0 Subtotal, Reimbursable obligations . . . . .	1,503	2,000	0
99.9 Total new obligations . . . . .	41,448	48,448	40,000

**Exhibit III-1**

**GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)  
Summary by Program Activity**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>	<b>CHANGE FY 2010-2012</b>
Operating Grants to the National Railroad Passenger Corporation <sup>1/</sup>	563,000	563,000	0	<b>(563,000)</b>
Capital / Debt Service Grants to the National Railroad Passenger Corporation <sup>1/</sup>	1,001,625	1,052,000	0	<b>(1,052,000)</b>
<b>TOTAL</b>	<b>1,564,625</b>	<b>1,615,000</b>	<b>-</b>	<b>(1,615,000)</b>
<b>Positions</b>				
Direct Funded	0	0	0	0
Reimbursable, Allocated, Other	0	0	0	0
<b>Total Positions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

**PROGRAM AND PERFORMANCE LANGUAGE**

The National Railroad Passenger Corporation (Amtrak) was established in 1970 through the Rail Passenger Service Act. Amtrak is operated and managed as a for profit corporation with all Board members appointed by the Executive Branch of the Federal Government, with the advice and consent of the Senate. Amtrak is not an agency or instrument of the U.S. Government. Since 2006, federal resources specifically for Amtrak have been provided through separate appropriation accounts for capital, operating, and efficiency incentive grants.

In 2009, the American Recovery and Reinvestment Act (ARRA) provided \$1.3 billion to Amtrak for capital grants of which \$450 million was designated for capital security grants to fund enhancements in situational awareness, improvised explosive devices and Vehicle Borne Improvised Explosive Device detection, risk assessment/risk reduction cycle optimization (when vulnerabilities are discovered), and quick response communications within the intercity passenger rail network. The remaining \$850 million funds projects that remediate vulnerabilities in the system's physical infrastructure and enhance national incident management and risk mitigation capabilities in the intercity passenger rail network.

As part of the Administration's surface transportation authorization proposal, Federal support for the National Railroad Passenger Corporation will be included in the System Preservation account, financed by mandatory contract authority out of the Rail account of the Transportation Trust Fund.

**Exhibit III-1a**

**GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>Item</b>	<b>Change from FY 2010 to FY 2012</b>	
	<b>FTE</b>	<b>(\$000)</b>
<b>FY 2010 Actual</b>	-	<b>1,615,000</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	-
Annualization of FY 2011 Comparability Pay Increase (0.0%)	-	-
FY 2012 Comparability Pay Increase (0.0%)	-	-
Non-Pay Inflation (0.5%)	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Baseline Changes</b>	<b>0.0</b>	<b>0</b>
<b>Program Changes</b>		
Operating Grants to the National Railroad Passenger Corporation	-	<b>(563,000)</b>
Capital / Debt Service Grants to the National Railroad Passenger Corporation	-	<b>(1,052,000)</b>
<b>Subtotal, New/Expanded Programs</b>	<b>0.0</b>	<b>(1,615,000)</b>
<b>TOTAL FY 2012 REQUEST</b>	<b>0.0</b>	<b>0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**GRANTS TO THE NATIONAL RAILROAD PASSENGER  
CORPORATION APPROPRIATIONS LANGUAGE**

**【OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER  
CORPORATION】**

**【To enable the Secretary of Transportation to make quarterly grants to the National Railroad Passenger Corporation for the operation of intercity passenger rail, as authorized by section 101 of the Passenger Rail Investment and Improvement Act of 2008 (division B of Public Law 110-432), \$563,000,000, to remain available until expended: *Provided*, That each grant request shall be accompanied by a detailed financial analysis, revenue projection, and capital expenditure projection justifying the Federal support to the Secretary's satisfaction: *Provided further*, That concurrent with the President's budget request for fiscal year 2012, the Corporation shall submit to the House and Senate Committees on Appropriations a budget request for fiscal year 2012 in similar format and substance to those submitted by executive agencies of the Federal Government.】**

**Explanation of Proposed Language Change:**

Under the Administration's surface transportation authorization proposal, operating, capital, and debt service activities of the National Railroad Passenger Corporation (Amtrak) will be eligible for competitive grants under the System Preservation and Renewal component of the new National Rail System program, funded within the Rail Account of the Transportation Trust Fund. No funds are requested in this account for 2012.



**FEDERAL RAILROAD ADMINISTRATION  
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 69-0121-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Operating subsidy grants	563,000	563,000	0
00.91 Total direct program	563,000	563,000	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	563,000	563,000	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	0	0	0
New budget authority (gross)	563,000	563,000	0
19.30 Total budgetary resources available for obligation	563,000	563,000	0
New obligations	(563,000)	(563,000)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	0	0	0
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	563,000	563,000	0
Appropriation (total)	563,000	563,000	0
19.00 Total new budget authority (gross)	563,000	563,000	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.30 New obligations	563,000	563,000	0
30.40 Total outlays (gross)	(563,000)	(563,000)	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	563,000	563,000	0
40.11 Outlays from discretionary balances	0	0	0
40.20 Total outlays (gross)	563,000	563,000	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	563,000	563,000	0
40.80 Outlays (net)	563,000	563,000	0
Unpaid Obligations, EOY	0		

**Program and Performance Language**

Under the Administration's surface transportation authorization proposal, Federal support for the National Railroad Passenger Corporation (Amtrak) operations will be an eligible activity for competitive grants under the System Preservation and Renewal component of the new National Rail System program, funded within the Rail Account of the Transportation Trust Fund.

**FEDERAL RAILROAD ADMINISTRATION  
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-0121-0-1-401		Actual	Annualized	Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	563,000	563,000	-
99.9	Total new obligations .....	563,000	563,000	-

**FEDERAL RAILROAD ADMINISTRATION  
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Amounts included in Baseline Projection of Current Policy  
(In thousands of dollars)**

Identification code 69-0121-7-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	0	(563,000)	0
11.60 Appropriation (total)	0	(563,000)	0
Mandatory:			
12.00 Appropriation	0	563,000	0
12.60 Appropriation (total)	0	563,000	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	(571,000)
31.00 Obligated balance, end of year	0	0	(571,000)
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	(563,000)	0
40.11 Outlays from discretionary balances	0	0	0
40.20 Total outlays (gross)	0	(563,000)	0
41.00 Outlays from new mandatory authority	0	563,000	571,000
41.01 Outlays from mandatory balances	0	0	0
41.10 Total outlays (gross)	0	563,000	571,000
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	0	(563,000)	0
40.80 Outlays (net)	0	(563,000)	0
Mandatory			
41.60 Budget authority (net)	0	563,000	0
41.70 Outlays (net)	0	563,000	571,000
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	571,000
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President's National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2011 estimate and baseline budget authority and outlays as mandatory, for comparability purposes, and to calculate the spending increase above the baseline subject to PAYGO.

**FEDERAL RAILROAD ADMINISTRATION  
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Adjustments for Year-to-Year Comparability  
(In thousands of dollars)**

Identification code 69-0121-9-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	(563,000)	0	0
11.60 Appropriation (total)	(563,000)	0	0
Mandatory:			
12.00 Appropriation	563,000	0	0
12.60 Appropriation (total)	563,000	0	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	(563,000)	0	0
40.11 Outlays from discretionary balances	0	0	0
40.20 Total outlays (gross)	(563,000)	0	0
41.00 Outlays from new mandatory authority	563,000	0	0
41.01 Outlays from mandatory balances	0	0	0
41.10 Total outlays (gross)	563,000	0	0
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	(563,000)	0	0
40.80 Outlays (net)	(563,000)	0	0
Mandatory			
41.60 Budget authority (net)	563,000	0	0
41.70 Outlays (net)	563,000	0	0
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	0
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President's National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2010 enacted budget authority and outlays as mandatory, for comparability purposes.

**FEDERAL RAILROAD ADMINISTRATION  
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Legislative Proposal, Subject to PAYGO**  
(In thousands of dollars)

Identification code 69-0121-4-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Appropriations, mandatory:</b>			
12.00 Appropriation	0	0	(571,000)
12.60 Appropriation (total)	0	0	(571,000)
19.00 Budget authority (total)	0	0	(571,000)
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	571,000
31.00 Obligated balance, end of year	0	0	571,000
<b>Outlays (gross), detail:</b>			
41.00 Outlays from new mandatory authority	0	0	(571,000)
41.10 Total outlays (gross)	0	0	(571,000)
<b>Net budget authority and outlays:</b>			
41.60 Budget authority (net)	0	0	(571,000)
41.70 Outlays (net)	0	0	(571,000)
Unpaid Obligations, EOY	0		

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**CAPITAL AND DEBT SERVICE GRANTS TO THE  
NATIONAL RAILROAD PASSENGER CORPORATION  
APPROPRIATIONS LANGUAGE**

**【CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION】**

【To enable the Secretary of Transportation to make grants to the National Railroad Passenger Corporation for capital investments as authorized by section 101(c) and 219(b) of the Passenger Rail Investment and Improvement Act of 2008 (division B of Public Law 110-432), \$1,052,000,000, to remain available until expended, of which not to exceed \$288,000,000 shall be for debt service obligations as authorized by section 102 of such Act: *Provided*, That after an initial distribution of up to \$200,000,000 which shall be used by the Corporation as a working capital account, all remaining funds shall be provided to the Corporation only on a reimbursable basis: *Provided further*, That the Secretary may retain up to one-half of 1 percent of the funds provided under this heading to fund the costs of project management oversight of capital projects funded by grants provided under this heading, as authorized by subsection 101(d) of division B of Public Law 110-432: *Provided further*, That the Secretary shall approve funding for capital expenditures, including advance purchase orders of materials, for the Corporation only after receiving and reviewing a grant request for each specific capital project justifying the Federal support to the Secretary's satisfaction: *Provided further*, That none of the funds under this heading may be used to subsidize operating losses of the Corporation: *Provided further*, That none of the funds under this heading may be used for capital projects not approved by the Secretary of Transportation or on the Corporation's fiscal year 2010 business plan: *Provided further*, That in addition to the project management oversight funds authorized under section 101(d) of division B of Public Law 110-432, the Secretary may retain up to an additional one-half of one percent of the funds provided under this heading to fund expenses associated with implementing section 212 of division B of Public Law 110-432, including the amendments made by section 212 to section 24905 of title 49, United States Code, and other mandates of Division B of Public Law 110-432.】

**Explanation of Proposed Language Change:**

Under the Administration's surface transportation authorization proposal, operating, capital, and debt service activities of the National Railroad Passenger Corporation (Amtrak) will be eligible for competitive grants under the System Preservation and Renewal component of the new

National Rail System program, funded within the Rail Account of the Transportation Trust Fund.  
No funds are requested in this account for 2012.

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL AND DEBT SERVICE GRANTS TO THE  
NATIONAL RAILROAD PASSENGER CORPORATION**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 69-0125-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 General Capital Improvements	727,609	703,480	0
00.02 Debt Service Grants	264,000	288,000	0
00.03 Contract Oversight	631	12,529	0
00.05 Northeast Corridor Improvement (PRIA Sec 212)	365	10,155	0
00.91 Total direct program	992,605	1,014,164	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	992,605	1,014,164	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	3,519	12,539	0
New budget authority (gross)	1,001,625	1,001,625	0
19.30 Total budgetary resources available for obligation	1,005,144	1,014,164	0
New obligations	(992,605)	(1,014,164)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	12,539	0	0
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	1,001,625	1,001,625	0
11.30 Appropriation permanently reduced	0	0	0
11.21 Transfers from other accounts	0	0	0
Appropriation (total)	1,001,625	1,001,625	0
Discretionary spending authority from offsetting collections:			
17.00 Offsetting collections (cash) (unexpired only)	0	0	0
17.01 Change in uncollected cust paymts fm Fed sources (unexp)	0	0	0
17.50 Spending authority fm offsetting collections (total)	0	0	0
19.00 Total new budget authority (gross)	1,001,625	1,001,625	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	105	75,097	0
30.30 New obligations	992,605	1,014,164	0
30.40 Total outlays (gross)	(917,613)	(1,089,261)	0
Unobligated balance transferred from other acct	0	0	0
Adjustments in expired accounts (net)	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	75,097	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	917,508	1,001,625	0
40.11 Outlays from discretionary balances	105	87,636	0
40.20 Total outlays (gross)	917,613	1,089,261	0
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Federal sources	0	0	0
40.33 Non-federal sources	0	0	0
40.50 Portion of offsetting collection credited to unexpired accounts	0	0	0
40.52 Portion of offsetting collection credited to expired accounts	0	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	1,001,625	1,001,625	0
40.80 Outlays (net)	917,613		
Unpaid Obligations, EOY	75,097		



**Program and Performance Language**

Under the Administration’s surface transportation authorization proposal, capital and debt service activities of the National Railroad Passenger Corporation (Amtrak) will be eligible for competitive grants under the System Preservation and Renewal component of the new National Rail System program, funded within the Rail Account of the Transportation Trust Fund.

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0125-0-1-401		2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:				
21.0	Travel and transportatio of persons .....	1	-	-
25.2	Other services .....	995	23	-
41.0	Grants, subsidies, and contributions	991,609	991	-
99.9	Total new obligations .....	992,605	1,014	-

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL AND DEBT SERVICE GRANTS TO THE  
NATIONAL RAILROAD PASSENGER CORPORATION**

**Amounts included in Baseline Projection of Current Policy  
(In thousands of dollars)**

Identification code 69-0125-7-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	0	(1,001,625)	0
11.60 Appropriation (total)	0	(1,001,625)	0
Mandatory:			
12.00 Appropriation	0	1,001,625	0
12.60 Appropriation (total)	0	1,001,625	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	(1,016,000)
31.00 Obligated balance, end of year	0	0	(1,016,000)
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	(1,001,625)	0
40.11 Outlays from discretionary balances	0	(87,636)	0
40.20 Total outlays (gross)	0	(1,089,261)	0
41.00 Outlays from new mandatory authority	0	1,001,625	1,016,000
41.01 Outlays from mandatory balances	0	87,636	0
41.10 Total outlays (gross)	0	1,089,261	1,016,000
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	0	(1,001,625)	0
40.80 Outlays (net)	0	(1,089,261)	0
Mandatory			
41.60 Budget authority (net)	0	1,001,625	0
41.70 Outlays (net)	0	1,089,261	1,016,000
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	1,016,000
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President's National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2011 estimate and baseline budget authority and outlays as mandatory, for comparability purposes, and to calculate the spending increase above the baseline subject to PAYGO.

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL AND DEBT SERVICE GRANTS TO THE  
NATIONAL RAILROAD PASSENGER CORPORATION**

**Adjustments for Year-to-Year Comparability  
(In thousands of dollars)**

Identification code 69-0125-9-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	(1,001,625)	0	0
11.60 Appropriation (total)	(1,001,625)	0	0
Mandatory:			
12.00 Appropriation	1,001,625	0	0
12.60 Appropriation (total)	1,001,625	0	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	(917,508)	0	0
40.11 Outlays from discretionary balances	(105)	0	0
40.20 Total outlays (gross)	(917,613)	0	0
41.00 Outlays from new mandatory authority	917,508	0	0
41.01 Outlays from mandatory balances	105	0	0
41.10 Total outlays (gross)	917,613	0	0
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	(1,001,625)	0	0
40.80 Outlays (net)	(917,613)	0	0
Mandatory			
41.60 Budget authority (net)	1,001,625	0	0
41.70 Outlays (net)	917,613	0	0
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	0
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President's National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2010 enacted budget authority and outlays as mandatory, for comparability purposes.

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL AND DEBT SERVICE GRANTS TO THE  
NATIONAL RAILROAD PASSENGER CORPORATION**

**Legislative Proposal, Subject to PAYGO  
(In thousands of dollars)**

Identification code 69-0125-4-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Appropriations, mandatory:</b>			
12.00 Appropriation	0	0	(1,016,000)
12.60 Appropriation (total)	0	0	(1,016,000)
19.00 Budget authority (total)	0	0	(1,016,000)
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	1,016,000
31.00 Obligated balance, end of year	0	0	1,016,000
<b>Outlays (gross), detail:</b>			
41.00 Outlays from new mandatory authority	0	0	(1,016,000)
41.10 Total outlays (gross)	0	0	(1,016,000)
<b>Net budget authority and outlays:</b>			
41.60 Budget authority (net)	0	0	(1,016,000)
41.70 Outlays (net)	0	0	(1,016,000)
Unpaid Obligations, EOY	0		

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**HIGH-SPEED RAIL CORRIDORS AND INTERCITY  
PASSENGER RAIL SERVICE, RECOVERY ACT  
APPROPRIATIONS LANGUAGE**

**CAPITAL ASSISTANCE FOR HIGH SPEED RAIL CORRIDORS AND INTERCITY  
PASSENGER RAIL SERVICE, RECOVERY ACT**

【To enable the Secretary of Transportation to make grants for high-speed rail projects as authorized under section 26106 of title 49, United States Code, capital investment grants to support intercity passenger rail service as authorized under section 24406 of title 49, United States Code, and congestion grants as authorized under section 24105 of title 49, United States Code, and to enter into cooperative agreements for these purposes as authorized, \$2,500,000,000, to remain available until expended: *Provided*, That \$50,000,000 of funds provided under this paragraph are available to the Administrator of the Federal Railroad Administration to fund the award and oversight by the Administrator of grants and cooperative agreements for intercity and high-speed rail: *Provided further*, That up to \$30,000,000 of the funds provided under this paragraph are available to the Administrator for the purposes of conducting research and demonstrating technologies supporting the development of high-speed rail in the United States, including the demonstration of next-generation rolling stock fleet technology and the implementation of the Rail Cooperative Research Program authorized by section 24910 of title 49, United States Code: *Provided further*, That up to \$50,000,000 of the funds provided under this paragraph may be used for planning activities that lead directly to the development of a passenger rail corridor investment plan consistent with the requirements established by the Administrator or a state rail plan consistent with chapter 227 of title 49, United States Code: *Provided further*, That the Secretary may retain a portion of the funds made available for planning activities under the previous proviso to facilitate the preparation of a service development plan and related environmental impact statement for high-speed corridors located in multiple States: *Provided further*, That the Secretary shall issue interim guidance to applicants covering application procedures and administer the grants provided under this heading pursuant to that guidance until final regulations are issued: *Provided further*, That not less than 85 percent of the funds provided under this heading shall be for cooperative agreements that lead to the development of entire segments or phases of intercity or high-speed rail corridors: *Provided further*, That the Secretary shall submit to Congress the national rail plan required by section 103(j) of title 49,

United States Code, no later than September 15, 2010:】 *Provided further*, That at least 30 days prior to issuing a letter of intent or cooperative agreement pursuant to Section 24402(f) of title 49, United States Code, for a major corridor development program, the Secretary shall provide to the House and Senate Committees on Appropriations written notification consisting of a business and public investment case for the proposed corridor program which shall include: a comprehensive analysis of the monetary and non-monetary costs and benefits of the corridor development program; an assessment of ridership, passenger travel time reductions, congestion relief benefits, environmental benefits, economic benefits, and other public benefits; operating financial forecasts for the program; a full capital cost estimation for the entire project, including the amount, source and security of non-Federal funds to complete the project; a summary of the grants management plan and an evaluation of the grantee's ability to sustain the project: *Provided further*, That the Federal share payable of the costs for which a grant or cooperative agreements is made under this heading shall not exceed 80 percent: *Provided further*, That in addition to the provisions of title 49, United States Code, that apply to each of the individual programs funded under this heading, subsections 24402(a)(2), 24402(f), 24402(i), and 24403(a) and (c) of title 49, United States Code, shall also apply to the provision of funds provided under this heading: *Provided further*, That a project need not be in a State rail plan developed under Chapter 227 of title 49, United States Code, to be eligible for assistance under this heading: *Provided further*, That recipients of grants under this paragraph shall conduct all procurement transactions using such grant funds in a manner that provides full and open competition, as determined by the Secretary, in compliance with existing labor agreements.】

**Explanation of Proposed Language Change:**

No funds are requested in this account for 2012, as the Administration is proposing to include passenger rail (including high-speed rail) within its surface transportation authorization proposal. As part of that authorization, a new National Rail System program would be created, funded out a dedicated Rail Account of the Transportation Trust Fund. Activities currently carried out in this account would be continued in 2012 within a new Network Development account.

## Exhibit III-1

### CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND INTERCITY PASSENGER RAIL SERVICE Summary by Program Activity Appropriations, Obligation Limitations, and Exempt Obligations (\$000)

	FY 2010 ACTUAL	FY 2011 CR ANNUALIZED	FY 2012 REQUEST	CHANGE FY 2010- FY 2012
Capital Assistance for HSR Corridors (ARRA)	-	-	-	0
Capital Assistance for HSR Corridors	2,500,000	2,500,000	-	(2,500,000)
<b>TOTAL</b>	<b>2,500,000</b>	<b>2,500,000</b>	<b>-</b>	<b>(2,500,000)</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

### PROGRAM AND PERFORMANCE LANGUAGE

Through this program, FRA provides capital grants to States to invest and improve intercity passenger rail services, including the development of new high-speed rail capacity. Activity in this account includes the \$8 billion provided by the American Recovery and Reinvestment Act and an additional \$2.5 billion provided in the 2010 enacted appropriations.

No funds are requested in this account for 2012, as the Administration is proposing to include passenger rail (including high-speed rail) within its surface transportation authorization proposal. As part of that authorization, a new National Rail System program would be created, funded out of a dedicated Rail Account of the Transportation Trust Fund. Activities currently carried out in this account would be continued in 2012 within a new Network Development account.

**Exhibit III-1a**

**CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND  
INTERCITY PASSENGER RAIL SERVICE  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

Item	Change from FY 2010 to FY 2012	
	FTE	(\$000)
<b>FY 2010 Actual</b>	-	<b>2,500,000</b>
<b>Adjustments to Base:</b>		
Annualization of FY 2010 FTE	-	-
Annualization of FY 2010 Comparability Pay Increase	-	-
FY 2011 Comparability Pay Increase	-	-
Non-Pay Inflation	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Adjustments to Base</b>	-	<b>0</b>
<b>Program Changes</b>		
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	-	<b>(2,500,000)</b>
<b>Subtotal, New/Expanded Programs</b>	-	<b>(2,500,000)</b>
<b>TOTAL FY 2012 Request</b>	-	<b>0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).



**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND  
INTERCITY PASSENGER RAIL SERVICE**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 69-0719-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.03 Capital Assistance - High Speed Rail Corridors & IPR Service Grants	0	4,740,000	0
00.04 Capital Assistance - High Speed Rail Corridors & IPR Service Oversight	8,487	91,513	0
00.05 Capital Assistance - High Speed Rail Corridors & IPR Service Research & Demonstrating Technologies	6,242	53,758	0
00.06 Capital Assistance - High Speed Rail Corridors & IPR Service Planning Activities	0	100,000	0
00.91 Total direct program	14,729	4,985,271	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	14,729	4,985,271	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	0	2,485,271	0
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	2,500,000	2,500,000	0
11.30 Appropriation permanently reduced	0	0	0
11.21 Transfers from other accounts	0	0	0
Appropriation (total)	2,500,000	2,500,000	0
Discretionary spending authority from offsetting collections:			
17.00 Offsetting collections (cash) (unexpired only)	0	0	0
17.01 Change in uncollected cust paymts fm Fed sources (unexp)	0	0	0
17.50 Spending authority fm offsetting collections (total)	0	0	0
19.00 Total new budget authority (gross)	2,500,000	2,500,000	0
19.30 Total budgetary resources available for obligation	2,500,000	4,985,271	0
New obligations	(14,729)	(4,985,271)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	2,485,271	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	13,374	4,976,145
30.30 New obligations	14,729	4,985,271	0
30.40 Total outlays (gross)	(1,355)	(22,500)	(112,750)
Unobligated balance transferred from other acct	0	0	0
Adjustments in expired accounts (net)	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	13,374	4,976,145	4,863,395
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	1,355	2,000	0
40.11 Outlays from discretionary balances	0	20,500	112,750
40.20 Total outlays (gross)	1,355	22,500	112,750
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Federal sources	0	0	0
40.33 Non-federal sources			
40.50			
Portion of offsetting collection credited to unexpired accounts	0	0	0
40.52 Portion of offsetting collection credited to expired accounts	0	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	2,500,000	2,500,000	0
40.80 Outlays (net)	1,355	22,500	112,750
Unpaid Obligations, EOY	13,374		

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND  
INTERCITY PASSENGER RAIL SERVICE**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0719-0-1-401	2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:			
25.2 Other services .....	9,729	245,271	-
41.0 Grants, subsidies, and contributions	5,000	4,740,000	-
99.9 Total new obligations .....	14,729	4,985,271	-

**Amounts included in Baseline Projection of Current Policy  
(In thousands of dollars)**

Identification code 69-0719-7-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	0	(2,500,000)	0
11.60 Appropriation (total)	0	(2,500,000)	0
Mandatory:			
12.00 Appropriation	0	2,500,000	0
12.60 Appropriation (total)	0	2,500,000	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	(2,000)
31.00 Obligated balance, end of year	0	0	(2,000)
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	(2,000)	0
40.11 Outlays from discretionary balances	0	(20,500)	(112,750)
40.20 Total outlays (gross)	0	(22,500)	(112,750)
41.00 Outlays from new mandatory authority	0	2,000	2,000
41.01 Outlays from mandatory balances	0	20,500	112,750
41.10 Total outlays (gross)	0	22,500	114,750
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	0	(2,500,000)	0
40.80 Outlays (net)	0	(22,500)	(112,750)
Mandatory			
41.60 Budget authority (net)	0	2,500,000	0
41.70 Outlays (net)	0	22,500	114,750
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	2,000
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President’s National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2011 estimate and baseline budget authority and outlays as mandatory, for comparability purposes, and to calculate the spending increase above the baseline subject to PAYGO.

**Adjustments for Year-to-Year Comparability**  
(In thousands of dollars)

Identification code 69-0719-9-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	(2,500,000)	0	0
11.60 Appropriation (total)	(2,500,000)	0	0
Mandatory:			
12.00 Appropriation	2,500,000	0	0
12.60 Appropriation (total)	2,500,000	0	0
19.00 Budget authority (total)	0	0	0
19.30 Total budgetary resources available	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	0	0	0
40.20 Total outlays (gross)	0	0	0
41.00 Outlays from new mandatory authority	0	0	0
41.01 Outlays from mandatory balances	0	0	0
41.10 Total outlays (gross)	0	0	0
<b>Net budget authority and outlays:</b>			
Discretionary			
40.70 Budget authority (net)	(2,500,000)	0	0
40.80 Outlays (net)	0	0	0
Mandatory			
41.60 Budget authority (net)	2,500,000	0	0
41.70 Outlays (net)	0	0	0
Total			
41.80 Budget authority (net)	0	0	0
41.90 Outlays (net)	0	0	0
Unpaid Obligations, EOY	0		

The Administration proposes to reclassify all surface transportation outlays as mandatory, consistent with the recommendations of the President’s National Commission on Fiscal Responsibility and Reform, and to also move a number of current General Fund programs into the Transportation Trust Fund. This schedule reclassifies 2010 enacted budget authority and outlays as mandatory, for comparability purposes.

**Legislative Proposal, Subject to PAYGO**  
(In thousands of dollars)

Identification code 69-0719-4-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Appropriations, mandatory:</b>			
12.00 Appropriation	0	0	(2,535,000)
12.60 Appropriation (total)	0	0	(2,535,000)
19.00 Budget authority (total)	0	0	(2,535,000)
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.40 Total outlays (gross)	0	0	2,000
31.00 Obligated balance, end of year	0	0	2,000
<b>Outlays (gross), detail:</b>			
41.00 Outlays from new mandatory authority	0	0	(2,000)
41.10 Total outlays (gross)	0	0	(2,000)
<b>Net budget authority and outlays:</b>			
41.60 Budget authority (net)	0	0	(2,535,000)
41.70 Outlays (net)	0	0	(2,000)
Unpaid Obligations, EOY	0		

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND  
INTERCITY PASSENGER RAIL SERVICE - ARRA**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0719-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Capital Assistance - High Speed Rail (ARRA) Grants	869,770	7,110,230	0
00.02 Capital Assistance - High Speed Rail (ARRA) Oversight	10,793	4,278	0
00.91 Total direct program	880,563	7,114,508	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	880,563	7,114,508	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	7,995,071	7,114,508	0
19.30 Total budgetary resources available for obligation	7,995,071	7,114,508	0
New obligations			
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	7,114,508	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	3,068	868,811	7,061,081
30.30 New obligations	880,563	7,114,508	0
30.40 Total outlays (gross)	(14,820)	(922,238)	(1,002,038)
Unobligated balance transferred from other acct			
	0	0	0
Adjustments in expired accounts (net)			
	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	868,811	7,061,081	6,059,043
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	14,820	922,238	1,002,038
40.20 Total outlays (gross)	14,820	922,238	1,002,038
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Federal sources	0	0	0
40.33 Non-federal sources			
40.50			
Portion of offsetting collection credited to unexpired accounts			
	0	0	0
40.52 Portion of offsetting collection credited to expired accounts	0	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	14,820	922,238	1,002,038
Unpaid Obligations, EOY	868,811		

**FEDERAL RAILROAD ADMINISTRATION  
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND  
INTERCITY PASSENGER RAIL SERVICE - ARRA**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0719-0-1-401	2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:			
21.0 Travel and transportatio of persons	22	-	-
23.2 Other services .....	6	-	-
23.3 Other services .....	2	-	-
25.1 Other services .....	100	-	-
25.3 Other services .....	12,693	4,278	-
26.0 Other services .....	6	-	-
31.0 Equipment	1	-	-
41.0 Grants, subsidies, and contributions	869,770	7,110,230	-
99.9 Total new obligations .....	882,600	7,114,508	-

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
APPROPRIATIONS LANGUAGE**

*Network Development*

*(Limitation on Obligations)  
(Transportation Trust Fund)*

*Contingent upon enactment of multi-year surface transportation authorization legislation, funds available for the implementation or execution of Network Development programs authorized under title 49, United States Code, as amended by such authorization, shall not exceed total obligations of \$4,000,000,000 for Railroad Network Development Programs, including \$3,137,000,000 for High-Speed Corridor Development; \$240,000,000 for Station Development and Rail Relocation; \$245,000,000 for U.S. Rail Equipment Development; and \$378,000,000 for Capacity Building and Transition Assistance, to remain available until expended.*

*(Liquidation of Contract Authorization)  
(Transportation Trust Fund)*

*Contingent upon enactment of multi-year surface transportation authorization legislation, \$1,000,000,000, to be derived from the Rail Account of the Transportation Trust Fund and to remain available until expended, for payment of obligations incurred in carrying out Network Development programs authorized under title 49, United States Code, as amended by such authorization.*

*System Preservation*

*(Limitation on Obligations)  
(Transportation Trust Fund)*

*Contingent upon enactment of multi-year surface transportation authorization legislation, funds available for the implementation or execution of programs for railroad system preservation and renewal authorized under title 49, United States Code, as amended by such authorization, shall not exceed \$4,046,000,000 for railroad system preservation and renewal programs, including \$2,982,000,000 for Public*

*Asset Backlog Retirement, of which \$1,200,000,000 shall remain available until September 30, 2013; \$914,000,000 is for National Network Service; and \$150,000,000 is for State of Good Repair and Recapitalization, which shall be available until expended.*

*(Liquidation of Contract Authorization)  
(Transportation Trust Fund)*

*Contingent upon enactment of multi-year surface transportation authorization legislation, \$2,600,000,000, to be derived from the Rail Account of the Transportation Trust Fund and to remain available until expended, for payment of obligations incurred in carrying out railroad system preservation and renewal programs authorized under title 49, United States Code, as amended by such authorization.*



**Exhibit III-1**

**NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
Summary by Program Activity  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

	FY 2010 ACTUAL	FY 2011 CR ANNUALIZED	FY 2012 REQUEST	CHANGE FY 2010-2012
<b>NETWORK DEVELOPMENT (CA) (TF, Oblim) <sup>1/</sup></b>				
High Speed Corridor Development	2,418,000	2,418,000	3,137,000	719,000
Station Development	0	0	240,000	240,000
U.S. Rail Equipment Development	2,000	2,000	245,000	243,000
Capacity Building and Transition Assistance	80,000	80,000	378,000	298,000
<b>Subtotal, Network Development</b>	<b>2,500,000</b>	<b>2,500,000</b>	<b>4,000,000</b>	<b>1,500,000</b>
<b>SYSTEM PRESERVATION (CA) (TF, Oblim) <sup>1/</sup></b>				
Amtrak Operating & Capital	1,279,625	1,279,625	0	(1,279,625)
Public Asset Capital Backlog Retirement	285,000	285,000	2,982,000	2,697,000
National Network Service	0	0	914,000	914,000
State-of-Good Repair & Recapitalization	0	0	150,000	150,000
<b>Subtotal, System Preservation</b>	<b>1,564,625</b>	<b>1,564,625</b>	<b>4,046,000</b>	<b>2,481,375</b>
<b>TOTAL, NATIONAL RAIL SYSTEM</b>	<b>4,064,625</b>	<b>4,064,625</b>	<b>8,046,000</b>	<b>3,981,375</b>
<b>Positions</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total Positions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

## **PROGRAM AND PERFORMANCE LANGUAGE**

For the first time, the Administration proposes to include passenger rail programs within surface transportation authorization, with a new National Rail System program, funded out of a dedicated Rail Account of the Transportation Trust Fund.

**Network Development:** Funding requested in the Network Development account will be used to transform high-speed and intercity passenger rail service using federal leadership, coordinated with State, local, and private sector partners. The FY 2012 budget request includes \$4.0 billion for this account, and over six years, the Administration proposes to invest \$37.6 billion. The program's goal will be to develop robust passenger rail service in areas it makes economic sense, to enhance mobility options for America's congested cities, foster environmentally-favorable mass transportation, and to decrease energy consumption. This will be accomplished through four program areas:

*High-Speed Corridor Development:* to plan and develop a national system of corridors with the goal of connecting at least 80 percent of Americans to efficient and viable passenger rail transportation within 25 years. This will include the development of Core Express, Regional, and Emerging/Feeder corridors.

*Station Development:* to plan and develop intermodal stations that will connect passenger rail services to other transportation modes, including public transit, airports, and non-motorized facilities.

*U.S. Rail Equipment Development:* to promote interoperability of passenger rail equipment and create economies of scale for domestic passenger equipment manufacturing.

*Capacity-building and Transition Assistance:* to develop governmental and private institutional capacity and expertise in passenger rail transportation and relieve the financial burden on states and rail service operators during start-up of new operations. This program also funds activities to support the implementation of positive train control (PTC).

*Up-Front Investments:* To spur job growth and allow States to initiate sound multi-year investments, the Budget includes a \$50 billion boost above current law spending for roads, railways, and runways. Within this account total, \$3 billion is provided for additional high-speed rail network planning and construction.

**System Preservation and Renewal:** Funding requested in the System Preservation account will ensure safe and reliable passenger rail assets are maintained. The FY 2012 budget request included \$4.0 billion for this account, and over six years, the Administration proposes to invest \$15.0 billion. Three program areas provide the framework necessary to preserve and renew existing infrastructure:

*Public Asset Backlog Retirement:* eliminate the backlog of needed railroad and railroad asset repairs and upgrades, including those necessary for Americans with Disabilities Act (ADA) compliance; replace obsolete infrastructure, facilities, and equipment; and fund costs associated with early buyouts of existing capital equipment loans and leases.

*National Network Service:* fund operating and capital costs associated with the National Railroad Passenger Corporation's (Amtrak) long-distance rail passenger services; capital projects to maintain national reservations, security, mechanical facilities, training centers, and other assets; and high priority congestion mitigation investments to reduce bottlenecks to reliable long-distance or state-supported corridor service.

*State of Good Repair and Recapitalization:* fund a share of the annualized life-cycle costs of publicly owned infrastructure and equipment. Amtrak is the primary passenger rail service provider in the U.S. Funding in this account will ensure those services are uninterrupted and benefit the condition of the existing network.

*Up-Front Investments:* To spur job growth and allow States to initiate sound multi-year investments, the budget includes a \$50 billion boost above current law spending for roads, railways, and runways. Within this account total, \$2.5 billion is provided to reduce the maintenance backlog for Amtrak fleet and infrastructure, particularly station compliance with the Americans with Disability Act.

The Administration proposes to move a number of current General Fund programs into the Transportation Trust Fund, as part of surface transportation authorization. Amounts reflected in this schedule represent the new mandatory contract authority and outlays supporting these programs.

**Exhibit III-1a**

**NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>Item</b>	<b>Change from FY 2010 to FY 2012</b>	
	<b>FTE</b>	<b>(\$000)</b>
<b>FY 2010 Actual</b>		
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service <sup>1/</sup>	-	<b>2,500,000</b>
Operating Grants to the National Railroad Passenger Corporation <sup>1/</sup>	-	<b>563,000</b>
Capital / Debt Service Grants to the National Railroad Passenger Corporation <sup>1/</sup>	-	<b>1,001,625</b>
<b>Total FY 2011 CR Annualized</b>	<b>0.0</b>	<b>4,064,625</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	-
Annualization of FY 2011 Comparability Pay Increase (0.0%)	-	-
FY 2012 Comparability Pay Increase (0.0%)	-	-
Non-Pay Inflation (0.5%)	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Baseline Changes</b>	<b>0.0</b>	<b>0</b>
<b>Program Changes:</b>		
Network Development	-	1,500,000
System Preservation	-	2,481,375
<b>Subtotal, Program Changes</b>	<b>0.0</b>	<b>3,981,375</b>
<b>TOTAL FY 2012 REQUEST</b>	<b>0.0</b>	<b>8,046,000</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

The following table compares the financial structure of the FY 2010 grant programs for passenger rail to FRA's proposed structure.

**CROSSWALK FROM FY 2010 PASSENGER RAIL GRANTS TO  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM**

PASSENGER RAIL GRANTS		NATIONAL HIGH-PERFORMANCE RAIL SYSTEM		Financial Assistance D = Direct C = Competitive
Appropriations Account	FY 2010 Actual (\$ Millions)	FY 2012 Request (\$ Millions)	Program Area Network Development (N) System Preservation and Renewal (S)	
<b>Amtrak Operating Grants</b>	<b>\$563</b>	<b>\$659</b>		
		\$459	National Network Service (S)	D
		\$200	Capacity Building & Transition Assistance to States (N)	D
<b>Amtrak Capital / Debt Service Grants</b>	<b>\$1,002</b>	<b>\$3,742</b>		
National long-distance network		\$445	National Network Service (S)	D
Northeast Corridor state of good repair backlog		\$684 †	Public Asset Backlog Retirement (S)	D *
Northeast Corridor state of good repair annual	\$584	\$150	State of Good Repair & Recapitalization (S)	D *
State corridor, Northeast Corridor equipment overhauls		\$155	U.S. Rail Equipment Development (N)	D *
State corridor, Northeast Corridor equipment replacement	--	\$634 †	Public Asset Backlog Retirement (S)	D *
Americans with Disabilities Act compliance	\$144	\$1,184 †	Public Asset Backlog Retirement (S)	D
<b>Debt Service</b>	<b>\$264</b>	<b>\$280</b>	Public Asset Backlog Retirement (S)	D
<b>Federal Oversight</b>	<b>\$10</b>	<b>\$10</b>	National Network Service (S)	FRA
<b>Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail</b>	<b>\$2,500</b>	<b>\$3,645</b>		
		\$3,137 †	High-Speed Corridor Development (N)	C
		\$240	Station Development (N)	C
		\$90	U.S. Rail Equipment Development (N)	C
		\$178 †	Capacity Building & Transition Assistance (N)	C and FRA
<b>Total FY 2010 Passenger Rail Grants</b>	<b>\$4,066</b>	<b>\$8,046</b>	<b>Total FY 2012 National High-Performance Rail System</b>	

† Includes part of DOT's \$50 billion upfront investment--\$2.5 billion for ADA compliance, corridor equipment replacement, and state of good repair backlog reduction; \$3 billion for high-speed corridor development and capacity building and transition assistance.

\* Competitive financial assistance in future.

## Exhibit III-2

### NATIONAL HIGH PERFORMANCE RAIL SYSTEM Annual Performance Results and Targets

To achieve the Administration's goal of providing 80 percent of Americans convenient access to a passenger rail system, featuring high-speed service, within 25 years, FRA is currently developing annual and interim NHPRS performance targets aligned with DOT strategic goals.

Using funds requested in the FY 2012 budget, FRA expects to complete several critical activities that will enable achievement of the 25-year goal to develop a 30,000-mile NHPRS, of which about 25 percent to 30 percent will be core express corridors, 50 percent will be regional corridors, and 20 percent to 25 percent will be emerging corridors.<sup>3</sup> These activities include—

- Establishing the framework for regional and state passenger rail development planning. This framework will guide investment and system phasing decisions and will include corridor- and regional-level cost-benefit analyses.
- Formalizing technical assistance and training initiatives. FRA will work with stakeholders to define curriculums and identify delivery venues and methods, such as Webinars, classroom-based training, on-line materials.
- Refining the program's post-award monitoring and oversight protocols and practices.
- Advancing essential rulemakings related to program policies, procedures, and administration.

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<sup>3</sup> Mileage totals are preliminary estimates pending more detailed national, regional, and state planning efforts.

## Detailed Justification for the National High Performance Rail System

### WHAT IS THE REQUEST AND WHAT WILL WE GET FOR THE FUNDS?

#### FY 2012 – National Rail System - Budget Request (\$000)

	FY 2010 ACTUAL	FY 2012 REQUEST	CHANGE FY 2010-2012
<b>NETWORK DEVELOPMENT</b> <sup>1/</sup>			
High Speed Corridor Development	2,418,000	3,137,000	719,000
Station Development	0	240,000	240,000
U.S. Rail Equipment Development	2,000	245,000	243,000
Capacity Building and Transition Assistance	80,000	378,000	298,000
<b>Subtotal, Network Development</b>	<b>2,500,000</b>	<b>4,000,000</b>	<b>1,500,000</b>
<b>SYSTEM PRESERVATION</b> <sup>1/</sup>			
Amtrak Operating & Capital	1,279,625	0	(1,279,625)
Public Asset Capital Backlog Retirement	285,000	2,982,000	2,697,000
National Network Service	0	914,000	914,000
State-of-Good Repair & Recapitalization	0	150,000	150,000
<b>Subtotal, System Preservation</b>	<b>1,564,625</b>	<b>4,046,000</b>	<b>2,481,375</b>
<b>TOTAL, NATIONAL RAIL SYSTEM</b>	<b>4,064,625</b>	<b>8,046,000</b>	<b>3,981,375</b>

**Notes:**

1. In FY 2012, FRA has realigned all passenger rail program activities and resources. As a result, all resources previously provided under Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts are proposed to be consolidated under the new National Rail System. These resources will be distributed between two new accounts: (1) Network Development and (2) System Preservation. Funds will be available for competitive and non-competitive financial assistance.

The Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service, Operating Grants to the National Railroad Passenger Corporation, and the Capital and Debt Services Grants to the National Railroad Passenger Corporation accounts were previously financed with discretionary, General Fund budget authority. In FY 2012, these activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

## **WHAT IS THIS PROGRAM?**

As part of its surface transportation authorization proposal, the Administration proposes to invest \$53 billion in passenger rail activities, including the development of new, dedicated high-speed rail service. These activities will be financed with mandatory contract authority, out of a new dedicated Rail Account of the Transportation Trust Fund (formerly the Highway Trust Fund).

FY 2012 represents the first year of a comprehensive initiative to transform America's passenger rail services into a national system of integrated passenger rail corridors that will give 80 percent of Americans convenient access to a passenger rail system, featuring high-speed service, within 25 years—the **National High Performance Rail System (NHPRS)**. The system will (1) provide additional transportation capacity using cleaner energy sources to accommodate future population growth; (2) promote livable communities and efficient land-use; and (3) create a foundation for long-term economic growth. FRA's FY 2012 request also includes \$5.5 billion, part of the Administration's \$50 billion up-front investment package.

The request also consolidates and integrates previously disconnected passenger rail programs, thereby creating a cohesive and comprehensive approach to developing new passenger rail corridors, while preserving and enhancing the Nation's existing infrastructure. This sustainable, long-term framework, with a more predictable Federal role and commitment, will provide greater clarity and certainty to the public and private industry, States, and other stakeholders. The request streamlines existing programs and accounts into two new program accounts: Network Development, and System Preservation.

**Network Development** consists of \$4 billion in financial assistance for planning and developing infrastructure, equipment, and capacity necessary to continue implementation of the NHPRS. These initiatives focus on (1) planning and developing core express, regional, and emerging corridors; (2) developing intermodal stations to connect intercity passenger rail service to communities and other transportation options; (3) facilitating the design, procurement, manufacturing, and demand management of standardized passenger rail equipment; and (4) delivering training and technical assistance services to develop government and private expertise, promoting research and development in the rail industry, and providing temporary transitional operating support during the launch of new services and for existing State-supported corridors. The following table summarizes the program areas, funding, and eligibility under this account.



**NATIONAL HIGH PERFORMANCE RAIL SYSTEM ACCOUNTS  
NETWORK DEVELOPMENT (\$4,000M)**

**FY 2012 Program Description, Funding, and Eligibility**

<b>Program Area and FY 2012 Request</b>	<b>Objective</b>	<b>Eligible Activities</b>	<b>Eligible Recipients</b>
High-Speed Corridor Development \$3,137M	Build a national system of passenger rail corridors: <ul style="list-style-type: none"> <li>• Core Express– 125 to 250+ mph on dedicated track</li> <li>• Regional – 90-125 mph service on dedicated or shared track</li> <li>• Emerging – Up to 90 mph service on shared track</li> </ul>	<ul style="list-style-type: none"> <li>• Feasibility studies</li> <li>• Planning studies</li> <li>• Environmental studies</li> <li>• Right-of-way acquisition</li> <li>• Preliminary engineering</li> <li>• Design and construction</li> </ul>	<ul style="list-style-type: none"> <li>• States</li> <li>• Interstate compacts</li> <li>• Amtrak</li> <li>• Regional rail development authorities</li> <li>• Private entities identified in State and regional plans</li> </ul>
Station Development \$240M	Link passenger rail services to public transit, other transportation options, residential and commercial areas, and communities	<ul style="list-style-type: none"> <li>• Capital improvements for stations</li> <li>• Station area planning</li> </ul>	<ul style="list-style-type: none"> <li>• States</li> <li>• Amtrak</li> <li>• Regional rail development authorities</li> <li>• Municipalities and municipal planning organizations</li> <li>• Transit operators</li> <li>• Private entities identified in State and regional plans</li> </ul>
U.S. Rail Equipment Development \$245M	Promote interoperability and cost efficiencies of passenger rail equipment	<ul style="list-style-type: none"> <li>• Development of passenger rail equipment designs and specifications</li> <li>• Acquisition</li> <li>• Life-cycle maintenance and overhaul</li> </ul>	<ul style="list-style-type: none"> <li>• States</li> <li>• Amtrak</li> <li>• Regional rail development authorities</li> <li>• Equipment entity, e.g., PRIIA §305</li> </ul>
Capacity-Building & Transition Assistance \$378M	Develop U.S. rail institutional capacity and expertise	<ul style="list-style-type: none"> <li>• Technical assistance and training</li> <li>• Railroad Safety Technology Grants</li> <li>• Research and development to speed rail innovation</li> <li>• Transitional funding for States to help defray operating losses from new services and existing services affected by PRIIA §209</li> </ul>	<ul style="list-style-type: none"> <li>• States</li> <li>• Amtrak</li> <li>• Regional rail development authorities</li> <li>• Railroads</li> <li>• Passenger rail operators</li> <li>• Universities</li> <li>• Transportation Research Board</li> </ul>

**System Preservation and Renewal** consists of \$4.046 billion to (1) replace aging national rail assets and equipment that have deteriorated due to historical underinvestment; (2) provide operating, capital, and debt resources to the National Railroad Passenger Corporation (Amtrak) for long-distance intercity passenger rail service and other nationally-important assets; and (3) fund state of good repair and asset recapitalization of publicly-owned rail infrastructure and fleet. Specifically, this program continues to provide resources for Amtrak debt service outlined in Amtrak’s Five Year Financial Plan, the Northeast Corridor infrastructure backlog, and station ADA-compliance and state of good repair projects. This account will also provide competitive grants to reduce bottlenecks affecting existing corridors and long distance services modeled after Section 302 of PRIIA. While the new appropriations accounts replace the Amtrak appropriation

accounts, the new financial structure ensures that the national assets for which Amtrak is custodian are improved and maintained. Moreover, the System Preservation and Renewal resources that reduce Amtrak's large capital and debt loads will position Amtrak to play a central role in development of the NHPRS, including competing for future Network Development financial assistance. The following table illustrates the major activities under this account.

**NATIONAL HIGH PERFORMANCE RAIL SYSTEM ACCOUNTS  
SYSTEM PRESERVATION AND RENEWAL (\$4,046M)**

**FY 2012 Program Description, Funding, and Eligibility**

<b>Program Area and FY 2012 Request</b>	<b>Objective</b>	<b>Eligible Activities</b>	<b>Eligible Recipients</b>
Public Asset Backlog Retirement \$2,982M	Achieve ADA compliance and eliminate state of good repair projects of public infrastructure	<ul style="list-style-type: none"> <li>• Infrastructure, equipment, and facilities</li> <li>• Legacy debt service and principle</li> </ul>	<ul style="list-style-type: none"> <li>• Amtrak</li> <li>• States *</li> <li>• Municipalities *</li> <li>• Regional rail development authorities *</li> </ul>
National Network Service \$914M	Operating and capital assistance to maintain national long-distance passenger rail services and facilities	<ul style="list-style-type: none"> <li>• National reservations system, security, mechanical facilities, training centers, and other national backbone systems</li> <li>• Long-distance equipment</li> <li>• Congestion mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• Amtrak</li> </ul>
State of Good Repair & Recapitalization \$150M	Ensure public assets are maintained and renewed to ensure state of good repair and reserves for replacement	<ul style="list-style-type: none"> <li>• Share of annualized life cycle costs</li> </ul>	<ul style="list-style-type: none"> <li>• Amtrak</li> <li>• States *</li> <li>• Municipalities *</li> <li>• Regional rail development authorities *</li> </ul>

\* After FY 2012

**FY 2010 Base:**

In FY 2010, FRA continued to mature the high-speed and intercity passenger rail program beyond its successful launch of the \$8 billion High-Speed Intercity Passenger Rail program funded under ARRA. FRA received applications seeking over \$50 billion to implement new and improve existing services, far exceeding the available funding. President Obama and Vice President Biden later announced the selection of 82 applications from 31 States and the District of Columbia to receive the first round of funding. For the FY 2010 appropriation of \$2.5 billion, FRA received 132 applications seeking \$8.8 billion. Moreover, FRA far exceeded its FY 2010 target for obligating ARRA funds and published the *National Rail Plan Progress Report* in September 2010. At the same time, FRA hired 12 new employees, with 10 other active recruitments open and in various stages in the hiring process.

**Anticipated FY 2011 Accomplishments:**

Secretary LaHood announced the selection of 54 applications from 23 States on October 28, 2010. During FY 2011, FRA will continue obligating funds for significant projects and

negotiating critical agreements with host railroads. In addition, FRA will publish grant guidance, process applications, and announce selections –contingent upon availability of appropriations. To protect the taxpayers’ investments, FRA will establish and implement a rigorous post-award monitoring and oversight program.

### **WHY IS THIS PARTICULAR PROGRAM NECESSARY?**

NHPRS is a transformational initiative that provides an innovative approach to address the Nation’s passenger and freight mobility challenges and demands, including:

- **Population growth:** By 2035, the U.S. Census Bureau projects that an additional 70 million people will reside in the United States. The vast majority of this growth will be concentrated in a relatively small number of “mega-regions.” This growth in population – and the ensuing economic output created – will rely on new and enhanced mobility options.
- **Energy consumption:** The U.S. uses 13.8 million barrels of oil daily for transportation; overall, U.S. citizens consume twice the oil per capita as European Union citizens, and nearly two-thirds of oil is imported. This reliance on oil to move America’s people and goods has substantial implications for our environment, economy, and national security.
- **Environmental protection:** As of 2008, the U.S. emitted 14 percent more greenhouse gases than it did in 1990. Twenty-eight percent of all greenhouse gas emissions are from transportation, 82 percent of which are from cars and trucks. With growing concern about climate change and other air pollutants, reducing emissions from the transportation sector is a national imperative.
- **Congestion:** Aviation congestion has risen in recent years, with an estimated economic impact of \$10 billion annually, according to the Air Transport Association.

High-speed passenger rail is uniquely well suited for addressing these challenges. Rail can help alleviate mobility needs of the projected growth using cleaner energy sources while also promoting livable communities and efficient land-use development. Moreover, rail can create a new economic base for highly skilled, good-paying jobs. These benefits have been proven in other countries, but they have also been proven in the United States. The Northeast Corridor, for instance, carries 65 percent of the air-rail market between Washington, D.C., and New York, and is a vital transportation mode to the region’s \$2.4 trillion economy.

To be realize these – and other – benefits on corridors throughout the country, the NHPRS includes the development of a three-tiered passenger rail network that allows for proper phasing of investment over the next 25 years – as communities grow and markets mature. Each tier has unique geographic, financial, and technological issues associated with the planning and development of specific corridors.

- Core express corridors that offer electric-powered service operating primarily on dedicated track at peak speeds of 125 to 250 miles per hour or greater, and

that primarily connect major metropolitan centers in the United States that are generally up to 500 miles apart within a three-hour travel time;

- Regional corridors that offer service operating on a mix of dedicated and shared use track at peak speeds of 90 to 125 miles per hour, and that primarily connect mid-size urban areas to larger and smaller communities that are generally up to 500 miles apart; and
- Emerging corridors that are State- or regionally-designated, that offer service operating on shared-use track at peak speeds of up to 90 miles per hour, and that connect large, mid-sized, and small urban areas generally less than 750 miles apart.

**National High Performance Rail System: Mileage, Speed, Power, Track, and Population Served by 2035**

<b>Corridor</b>	<b>Percentage of 30,000-mile Network *</b>	<b>Speed (miles per hour)</b>	<b>Power</b>	<b>Track</b>	<b>Percentage of Population Served **</b>
Core Express	25% to 30%	125 to 250+	Electrified	Dedicated	60%
Regional	50%	90 to 125	Electrified and Diesel	Dedicated and Shared	75%
Emerging	20% to 25%	Up to 90	Diesel	Shared	80%
<b>TOTAL</b>	--	--	--	--	<b>80%</b>

\* Preliminary estimates pending the outcome of more detailed national, regional, and state planning efforts.

\*\* These estimates were developed by aggregating the population estimates for all Census-designated metropolitan areas that include a potential station on the network.

A critical first step in executing this ambitious plan is to ensure that America’s existing passenger rail system works well. In addition to developing new, high-speed corridors, the NHPRS establishes a framework for maintaining and enhancing the existing network. This proposal ensures that public assets are maintained and renewed by assuming a share of the annual life cycle costs of rail infrastructure and equipment, while also responsibly funding infrastructure backlogs and Amtrak’s legacy debt.

The Recovery Act and FY 2010 appropriations provided the “down payment” on high-speed rail development. The FY 2012 proposal continues the transformation of the program into a comprehensive national vision that includes:

- More emphasis on long-term planning to ensure near-term investment decisions are consistent with national and regional objectives.
- Distinct funding opportunities for high-speed rail infrastructure, stations, and equipment with eligibility structures, selection criteria, and funding matches that support a coordinated approach to developing this complex system.
- Making private entities eligible recipients for some financial assistance opportunities, thereby encouraging more direct and substantial private sector participation in developing and operating passenger rail corridors.

- Selection criteria focused on (1) inclusion of projects in national and regional planning documents and (2) the project business cases.
- Providing funding to Amtrak by business line (long-distance routes, State corridors, and the Northeast Corridor) to increase the program’s transparency and accountability.

**WHY DO WE WANT/NEED TO FUND THE PROGRAM AT THE REQUESTED LEVEL?**

**NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
Proposed Contract Authority, FY 2012 through FY 2017  
(\$ in millions)**

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TOTAL
<b>National High Performance Rail System</b>							
Network Development	4,000	4,967	6,002	7,242	7,532	7,867	<b>\$37,610</b>
System Preservation and Renewal	4,046	2,479	2,504	1,864	2,024	2,063	<b>\$14,980</b>
<b>National Railroad Passenger Corporation (Amtrak)</b>							
Operating Grants	--	--	--	--	--	--	--
Capital and Debt Service Grants	--	--	--	--	--	--	--
<b>Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service</b>							
	--	--	--	--	--	--	--
<b>TOTAL – NATIONAL HIGH PERFORMANCE RAIL SYSTEM</b>	<b>8,046</b>	<b>7,446</b>	<b>8,506</b>	<b>9,106</b>	<b>9,556</b>	<b>9,930</b>	<b>\$52,590</b>

In FY 2012, FRA requests \$8.046 billion in obligation limitation for the National High Performance Rail System (NHPRS). This request is \$3.981 billion over the combined FY 2010 enacted levels for (1) Capital Assistance for High-speed Rail Corridors and Intercity Passenger Rail Service and (2) Grants to the National Railroad Passenger Corporation (Amtrak).

This funding level represents a national commitment to developing world-class passenger rail services. FRA will focus these resources on developing the infrastructure, stations, equipment, and institutional capacity needed to plan and deliver the NHPRS, including providing financial assistance for planning, engineering, and environmental analyses; right-of-way acquisition; and design and construction.

In addition, this requested level will fully fund Amtrak’s operating and capital needs (including a commitment to remedy years of underinvestment by eliminating the backlog of public infrastructure needs, replacing aging and obsolete equipment, and accelerating the retirement of legacy debt). As a result, Amtrak will be positioned to play a central role in the long-term implementation of NHPRS. These funding levels are derived from three Amtrak documents: Five Year Financial Plan, Report on State of Good Repair (April 2009), and the Fleet Plan.

Moreover, by eliminating the backlog of state of good repair projects on publicly owned or controlled infrastructure (including the vital Northeast Corridor) and bringing all stations into compliance with ADA standards, this proposal will enhance the safety and comfort of current passengers, improve reliability and trip times on the Northeast Corridor, and ensure that our public assets last for generations.

The FY 2012 request will also provide temporary operating support directly to the States for State corridors, and provide States access to Federal assistance for capital needs. These funds will further strengthen the Federal-State partnership in supporting passenger rail and creates an environment for greater competition on State corridors.

Included in this request are funds to develop the financial and organization framework for U.S. Rail Equipment. By providing a substantial and coordinated investment in procuring new rail equipment, this proposal will stimulate domestic equipment manufacturing, lower costs by achieving economies of scale, promote interoperability, and position the United States to compete globally.

Finally, FRA proposes \$50 million in Railroad Safety Technology Grants within the Capacity Building & Transition Assistance program area. RSIA authorized \$50 million annually for these grants and FRA believes that this level of funding will help identify common issues and solutions that will facilitate national deployment of positive train control (PTC). Moreover, this funding will facilitate resolution of critical hardware and software issues associated with PTC development, implementation, and deployment among multiple railroads. Common issues include interoperability in a high-speed rail environment, limited shared communications in a single high-density infrastructure, security and identity management standards, and a rapid and reliable track database verification system. In FY 2010, FRA received approximately \$230 million of viable grant applications for the \$50 million program. Implementation of PTC represents the biggest fundamental change in railroad operations since the introduction of cab signal systems in the 1920s and early 1930s.

When compared to the size of the economy, the initial investments in NHPRS – as well as the expected peak years of NHPRS investments – would be smaller than the same periods in the interstate highway system development process. The U.S. spent an average of \$8.6 billion (in 2010 dollars) each year in the early years of the interstate construction (FY 1954 to FY 1959).

The FY 2012 budget request for NHPRS is also substantially lower than the rail programs of some U.S. competitors. Under the six-year authorization proposal, the U.S. would invest about \$8.7 billion per year (approximately 0.05 percent of our 2012 gross domestic product)<sup>4</sup> in new infrastructure and the existing system. In contrast, China is spending approximately \$70 billion to \$100 billion per year (more than 1.2 percent of its 2010 gross domestic product) to develop its high-speed rail system. Spain is investing roughly \$13 billion per year (about 0.9 percent of its gross domestic product) to develop its high-speed system, and has found that this level of investment is needed to achieve early successes and economies of scale in the rail industry. These countries previously had limited passenger rail service, and are simultaneously advancing multiple corridors and service types.

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<sup>4</sup> U.S. Congressional Budget Office, *The Budget and Economic Outlook*, Summary Table 1, August 2010.

**FEDERAL RAILROAD ADMINISTRATION  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
NETWORK DEVELOPMENT**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 69-8310-4-7-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 High Speed Corridor Development	0	0	3,137,000
00.02 Station Development	0	0	240,000
00.03 U.S. Rail Equipment Development	0	0	245,000
00.04 Capacity Building & Transition Assistance	0	0	378,000
01.00 Total direct program	0	0	4,000,000
09.01 Reimbursable program	0	0	0
09.00 Total obligations	0	0	4,000,000
11.02 Appropriation (trust fund)	0	0	1,000,000
11.37 Appropriations applied to liquidate contract authority	0	0	-1,000,000
Appropriation (total)	0	0	0
Contract Authority, mandatory			
16.00 Contract authority	0	0	4,000,000
<b>Change in Obligated Balance:</b>			
30.00 Obligated balance , start of year	0	0	0
30.30 Obligations incurred: Unexpired accounts	0	0	4,000,000
30.40 Total outlays (gross)	0	0	-635,580
31.00 Obligated balance, end of year	0	0	3,364,420
<b>Budget Authority and Outlay, Net Mandatory</b>			
40.90 Budget Authority, gross	0	0	4,000,000
41.00 Outlays from new mandatory authority	0	0	635,580
<b>Net budget authority and outlays:</b>			
41.80 Budget authority (net)	0	0	4,000,000
41.90 Outlays (net)	0	0	635,580
50.53 Obligated balance, EOY: Contract authority			3,000,000

**FEDERAL RAILROAD ADMINISTRATION  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
NETWORK DEVELOPMENT**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-8310-0-1-401		Actual	Annualized	Request
Direct Obligations:				
25.1	Advisory & assistance service	-	-	130,000
41.0	Grants, subsidies, and contributions	-	-	3,870,000
99.9	Total new obligations . . . . .	-	-	4,000,000



**FEDERAL RAILROAD ADMINISTRATION  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
SYSTEM PRESERVATION AND RENEWAL**

**Program and Financing Schedule**  
(In thousands of dollars)

Identification code 69-8320-0-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Public Asset Backlog Retirement	0	0	2,982,000
00.02 National Network Service	0	0	914,000
00.03 State of Good Repair and Recapitalization	0	0	150,000
01.00 Total direct program	0	0	4,046,000
09.01 Reimbursable program	0	0	0
09.00 Total obligations	0	0	4,046,000
11.02 Appropriation (trust fund)	0	0	2,600,000
11.37 Appropriations applied to liquidate contract authority	0	0	-2,600,000
Appropriation (total)	0	0	0
Contract Authority, mandatory			
16.00 Contract authority	0	0	4,046,000
<b>Change in Obligated Balance:</b>			
30.00 Obligated balance , start of year	0	0	0
30.30 Obligations incurred: Unexpired accounts	0	0	4,046,000
30.40 Total outlays (gross)	0	0	-2,252,500
31.00 Obligated balance, end of year	0	0	1,793,500
<b>Budget Authority and Outlay, Net Mandatory</b>			
40.90 Budget Authority, gross	0	0	4,046,000
41.00 Outlays from new mandatory authority	0	0	2,252,500
<b>Net budget authority and outlays:</b>			
41.80 Budget authority (net)	0	0	4,046,000
41.90 Outlays (net)	0	0	2,252,500
Unpaid Obligations, EOY	0		

**FEDERAL RAILROAD ADMINISTRATION  
NATIONAL HIGH PERFORMANCE RAIL SYSTEM  
SYSTEM PRESERVATION AND RENEWAL**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-8310-0-1-401		Actual	Annualized	Request
Direct Obligations:				
25.1	Advisory & assistance services	-	-	48,460
41.0	Grants, subsidies, and contributions	-	-	3,997,540
99.9	Total new obligations .....	-	-	4,046,000

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**RAILROAD REHABILITATION AND IMPROVEMENT  
FINANCING PROGRAM APPROPRIATIONS LANGUAGE**

RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM

The Secretary of Transportation is authorized to issue to the Secretary of the Treasury notes or other obligations pursuant to section 512 of the Railroad Revitalization and Regulatory Reform Act of 1976 (Public Law 94-210), as amended, in such amounts and at such times as may be necessary to pay any amounts required pursuant to the guarantee of the principal amount of obligations under sections 511 through 513 of such Act, such authority to exist as long as any such guaranteed obligation is outstanding: *Provided*, That pursuant to section 502 of such Act, as amended, no new direct loans or loan guarantee commitments shall be made using Federal funds for the credit risk premium during fiscal year **【2011】2012**.

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT FINANCING  
PROGRAM**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-X-0750	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.05 Upward Reestimate	16,457	18,509	0
00.06 Interest on re-estimates of direct loan subsidy	1,984	5,183	0
00.91 Total direct program	18,441	23,692	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	18,441	23,692	0
<b>New budget authority (gross), detail:</b>			
Mandatory:			
12.00 Appropriation	18,441	23,692	0
19.30 Total budgetary resources available for obligation	18,441	23,692	0
New obligations	-18,441	-23,692	0
19.41 Unobligated balance available, end of year	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	0
30.30 New obligations	18,441	23,692	0
30.40 Total outlays (gross)	-18,441	-23,692	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new mandatory authority	18,441	23,692	0
40.11 Outlays from mandatory balances	0	0	0
40.20 Total outlays (gross)	18,441	23,692	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	18,441	23,692	0
40.80 Outlays (net)	18,441	23,692	0

**Program and Performance Language**

The Transportation Equity Act of the 21st Century of 1998 established the Railroad Rehabilitation and Improvement Financing (RRIF) loan and loan guarantee program. SAFETEA-LU amended the program to allow direct loan and loan guarantees up to \$35,000,000,000 and required that no less than \$7,000,000,000 be reserved for projects primarily benefiting freight railroads other than class I carriers. The funding may be used: (1) to acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, or shops; (2) to refinance debt; or (3) to develop and establish new intermodal or railroad facilities.

No federal appropriation is required, since a non-Federal infrastructure partner may contribute the subsidy amount (in the form of a credit risk premium) required by the Credit Reform Act of 1990. Once received, statutorily established investigation charges are immediately available for appraisals and necessary determinations and findings.

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT FINANCING  
PROGRAM**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-0750-0-1-401		Actual	Annualized	Request
Direct Obligations:				
33.0	Investments and loans	16,457	18,509	-
43.0	Interest and dividends	<u>1,984</u>	<u>5,183</u>	<u>-</u>
99.9	Total new obligations . . . . .	18,441	23,692	-

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
GUARANTEED LOAN FINANCING ACCOUNT**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification Code 69-4288-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Budgetary resources available for obligation</b>			
21.40 Unobligated balance carried forward, start of year. ....	...	...	3,000
22.00 New budget authority (gross) .....	...	3,000	3,000
23.90 Total budgetary resources available for obligation .....	...	3,000	6,000
24.40 Unobligated balance carried forward, end of year. ....	...	3,000	6,000
<b>New budget authority (gross), detail</b>			
<b>Mandatory</b>			
69.00 Offsetting collections (cash) .....	...	3,000	3,000
<b>Offsets:</b>			
Against gross budget authority and outlays			
Offsetting collections (cash) from:			
88.40 Non-Federal sources .....	...	3,000	3,000
<b>Net budget authority and outlays:</b>			
89.00 Budget authority .....	...	...	...
90.00 Outlays .....	...	-3,000	-3,000

**Status of Guaranteed Loans  
(in thousands of dollars)**

Identification Code 69-4288-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Position with respect to appropriations act</b>			
<b>limitation on commitments:</b>			
2111 Limitation on guaranteed loans made by private lenders. ....	...	100,000	100,000
2131 Guaranteed loan commitments exempt from limitation. ....	...	...	...
2150 Total guaranteed loan commitments. ....	...	100,000	100,000
<b>Cumulative balance of guaranteed loans outstanding:</b>			
2210 Outstanding, start of year. ....	...	...	95,000
2231 Disbursements of new guaranteed loans. ....	...	100,000	100,000
2251 Repayments and prepayments. ....	...	-5,000	-5,000
2290 Outstanding, end of year. ....	...	95,000	190,000
<b>Memorandum:</b>			
2299 Guaranteed amount of guaranteed loans outstanding, end of year. ....	...	95,000	190,000

As required by the Federal Credit Reform Act of 1990, as amended, this non-budgetary account records all cash flows to and from the Government resulting from loan guarantees committed in 1992 and beyond (including modifications of loan guarantees that resulted from commitments in any year). The amounts in this account are a means of financing and are not included in the budget totals.

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
LIQUIDATING ACCOUNT**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification Code 69-4411-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Obligations by program activity</b>			
07.13 Interest paid to Treasury .....	297	157	11
09.00 Total new obligations (object class 43.0) .....	297	157	11
<b>Budget Resources:</b>			
<b>Budgetary authority</b>			
<b>Spending authority from offsetting collections, mandatory:</b>			
18.00 Collections .....	3,622	3,622	124
18.20 Capital transfer of spending authority from offsetting collections to general fund. ....	-3,325	-3,465	-113
18.50 Spending authority from offsetting collections (total mandatory) .....	297	157	11
19.00 Budgetary authority .....	-297	-157	-11
19.30 Total Budgetary resources available .....	-297	-157	-11
<b>Change in obligated balances:</b>			
30.30 Obligations incurred, unexpired accounts .....	297	157	11
30.40 Outlays (gross) .....	-297	-157	-11
<b>Budget authority and outlays (net), detail:</b>			
<b>Mandatory:</b>			
40.90 Budget authority .....	297	157	11
41.00 Outlays from new mandatory balances .....	297	157	11
<b>Offsets:</b>			
Against gross budget authority and outlays			
Offsetting collections (collected) from:			
41.23 Non-Federal sources .....	-3,622	-3,622	-124
41.60 Budget authority, net (mandatory) .....	-3,622	-3,622	-124
41.70 Outlays, net (mandatory) .....	-3,622	-3,622	-124
41.80 Budget authority, net (total) .....	-3,325	-3,465	-124
41.90 Outlays, net (total) .....	-3,325	-3,465	-124

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
LIQUIDATING ACCOUNT**

**Status of Direct Loans**

Identification Code 69-4411-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Cumulative balance of direct loans outstanding:</b>			
1210 Outstanding, start of year . . . . .	7,053	3,728	263
1251 Repayments: Repayments and prepayments . . . . .	<u>-3,325</u>	<u>-3,465</u>	<u>-113</u>
1290 Outstanding, end of year . . . . .	3,728	263	150

**Program and Performance Language**

This account records credit activity that occurred prior to the passage of the Federal Credit Reform Act, including:

Section 505—*Redeemable preference shares* - Authority for the section 505 redeemable preference shares program expired on September 30, 1988. The account reflects actual and projected outlays resulting from payments of principal and interest as well as repurchases of redeemable preference shares and the sale of redeemable preference shares to the private sector.

Section 511—*Loan repayments* - This program reflects repayments of principal and interest on outstanding borrowings by the railroads to the Federal Financing Bank under the section 511 loan guarantee program.

As required by the Federal Credit Reform Act of 1990, these account records, for this program, all cash flows to and from the Government resulting from direct loans obligated and loan guarantees committed prior to 1992. All new activity in this program (including modifications of direct loans or loan guarantees that resulted from obligations or commitments in any year) is recorded in corresponding program accounts and financing accounts.



**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
LIQUIDATING ACCOUNT**

**Balance Sheet**

	2010 Actual
Identification Code 69-4411-0-3-401	
<b>Assets:</b>	
Net value of assets related to post-1991 direct loans receivable	
1601 Direct loans , gross .....	3,728
1602 Interest receivable .....	297
1699 Value of assets related to direct loans .....	4,025
1999 Total Assets .....	4,025
 <b>Liabilities:</b>	
Federal liabilities:	
2102 Interest payable .....	297
2103 Debt .....	3,728
2999 Total liabilities .....	4,025
4999 Total liabilities and net position .....	4,025

FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
LIQUIDATING ACCOUNT

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-4411-0-1-401		Actual	Annualized	Request
Direct Obligations:				
43.0	Interest and dividends	297	157	-
99.9	Total new obligations . . . . .	297	157	-

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
DIRECT LOAN FINANCING ACCOUNT**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification Code 69-4420-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Obligations by program activity:</b>			
07.10 Direct loans .....	172,000	600,000	600,000
07.13 Interest paid to Treasury .....	20,213	38,000	38,000
07.42 Downward reestimate .....	1,908	5,949	...
07.43 Interest on Downward reestimate .....	13,909	14,695	...
09.00 Total new obligations .....	<u>208,030</u>	<u>658,644</u>	<u>638,000</u>
<b>Budgetary resources available for obligation:</b>			
<b>Unobligated balance:</b>			
10.00 Unobligated balance carried forward, start of year .....	3,264	2,000	0
10.21 Recoveries of prior year unpaid obligations .....	18,334	0	0
10.50 Unobligated balance (total) .....	<u>21,598</u>	<u>2,000</u>	<u>0</u>
<b>New budget authority (gross), detail:</b>			
<b>Mandatory:</b>			
14.00 Borrowing authority .....	168,864	600,000	600,000
<b>Mandatory:</b>			
18.00 Offsetting collections (interest on uninvested funds) .....	1,785	3,000	3,000
18.00 Offsetting collections (principal-borrowers) .....	9,752	60,000	60,000
18.00 Offsetting collections (Upward Re-estimate) .....	18,441	23,692	...
18.00 Offsetting collections (interest-borrowers) .....	16,077	27,000	27,000
18.00 Collections .....	1,388	6,000	6,000
18.25 Spending authority from offsetting collections .....			
applied to repay debt .....	<u>-26,605</u>	<u>-63,000</u>	<u>-58,000</u>
18.50 Spending authority from offsetting collections .....			
(total mandatory) .....	<u>20,838</u>	<u>56,692</u>	<u>38,000</u>
19.00 Financing authority (total) .....	<u>189,702</u>	<u>656,692</u>	<u>638,000</u>
19.30 Total budgetary resources available .....	210,540	658,692	638,000
<b>Memorandum (non-add) entries:</b>			
19.41 Unexpired unobligated balance, end of year .....	2,000		
<b>Change in obligated balances:</b>			
30.00 Obligated balance, brought forward, Oct. 1 (gross) .....	89,633	199,247	223,891
30.20 Obligated balance, start of year (net) .....	89,633	0	0
30.30 Obligations incurred, unexpired accounts .....	208,030	660,644	638,000
30.40 Financing disbursements (gross) .....	-80,082	-636,000	-636,000
30.80 Recoveries of prior year unpaid .....	-18,334	0	0
30.90 Obligated balance, end of year .....	<u>199,247</u>	<u>223,891</u>	<u>225,891</u>
<b>Financing authority and disbursements, net:</b>			
<b>Mandatory:</b>			
40.90 Financing authority, gross .....	189,702	656,692	638,000
<b>Financing disbursements:</b>			
41.10 Financing disbursements, gross .....	80,082	636,000	636,000
<b>Offsets against gross financing authority and disbursements:</b>			
41.20 Federal sources .....	-18,441	-23,692	...
41.22 Interest on uninvested funds .....	-1,785	-3,000	-3,000
41.23 Credit Risk Premium .....	-1,388	-6,000	-6,000
41.23 Principal repayment .....	-9,752	-60,000	-60,000
41.23 Interest repayment .....	-16,077	-27,000	-27,000
41.30 Offsets against gross financing auth and .....			
disbursements, (total) .....	<u>-47,443</u>	<u>-119,692</u>	<u>-96,000</u>
41.60 Financing authority, net (mandatory) .....	<u>142,259</u>	<u>537,000</u>	<u>542,000</u>
41.70 Financing disbursements, net (mandatory) .....	<u>32,639</u>	<u>516,308</u>	<u>540,000</u>
41.80 Financing authority, net (total) .....	142,259	537,000	542,000
41.90 Financing disbursements, net (total) .....	32,639	516,308	540,000

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
DIRECT LOAN FINANCING ACCOUNT**

**Status of Direct Loans**

Identification Code 69-4420-0-3-401	2010 Estimate	2011 CR Annualized	2012 Request
<b>Position with respect to appropriations act limitation on obligations</b>			
1111 Limitation on direct loans .....	...	...	...
1131 Direct loan obligations exempt from limitation .....	<u>172,000</u>	<u>600,000</u>	<u>600,000</u>
1150 Total direct loan obligations .....	172,000	600,000	600,000
<b>Cumulative balance of direct loans outstanding:</b>			
1210 Outstanding, start of year .....	375,639	409,939	949,939
1231 Disbursements; Direct loan disbursements .....	44,052	600,000	600,000
1251 Repayments: Repayments and prepayments .....	<u>-9,752</u>	<u>-60,000</u>	<u>-60,000</u>
1290 Outstanding, end of year .....	409,939	949,939	1,489,939

**Program and Performance Language**

This non-budgetary account, as required by the Federal Credit Reform Act of 1990, records all cash flows to and from the Government resulting from direct loans. The amounts in this account are a means of financing and are not included in the budget totals.

**Balance Sheet**

Identification Code 69-4420-0-3-401	2010 Actual
<b>Assets:</b>	
Net value of assets related to post-1991 direct loans receivable	
1401 Direct loans receivable, gross .....	<u>409,939</u>
1499 Net present value of assets related to direct loans .....	<u>409,939</u>
1999 Total assets .....	409,939
<b>Liabilities:</b>	
2105 Federal liabilities: Other .....	<u>409,939</u>
2999 Total liabilities .....	<u>409,939</u>
4999 Total liabilities and net position .....	409,939

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD REHABILITATION AND IMPROVEMENT  
DIRECT LOAN FINANCING ACCOUNT**

**Receipts – Policy/Baseline**

Identification Code 69-276030-0-3-401		2010 Estimate	2011 CR Annualized	2012 Request
<b>Receipts - Policy</b>				
2004	All other offsetting receipts	15,817	20,645	...
2004	Mandatory, authorizing committee, regular. ....	15,817	20,645	...
<b>Receipts - Baseline</b>				
2004	All other offsetting receipts	15,817	20,645	...
2004	Mandatory, authorizing committee, regular. ....	15,817	20,645	...

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**FEDERAL RAILROAD ADMINISTRATION  
EFFICIENCY INCENTIVE GRANTS TO THE NATIONAL RAILROAD  
PASSENGER CORPORATION**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0120-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	21,562	0	0
30.40 Total outlays (gross)	(21,562)	0	0
31.00 Obligated balance, end of year	0	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	21,562	0	0
40.20 Total outlays (gross)	21,562	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	21,562	0	0
Unpaid Obligations, EOY	0		

**Program and Performance Language**

Resources in this account are provided to the Secretary of Transportation for grants to the National Passenger Railroad Corporation (Amtrak) for operating expenses contingent upon efficiency gains. No new funds are requested for this program in 2012.

**FEDERAL RAILROAD ADMINISTRATION  
NORTHEAST CORRIDOR IMPROVEMENT PROGRAM**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0123-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Northeast Corridor Improvement Program	633	5,419	0
00.91 Total direct program	633	5,419	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	633	5,419	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	3,595	5,419	0
10.21 Recoveries	2,457		
New budget authority (gross)	0	0	0
19.30 Total budgetary resources available for obligation	6,052	5,419	0
New obligations	(633)	(5,419)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	5,419	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	2,457	633	0
30.30 New obligations	633	5,419	0
30.40 Total outlays (gross)	0	(6,052)	0
30.80 Recoveries	(2,457)		
31.00 Obligated balance, end of year	633	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	0	6,052	0
40.20 Total outlays (gross)	0	6,052	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	0	6,052	0
Unpaid Obligations, EOY	633		

**Program and Performance Language**

This program provided funds to continue the upgrade of passenger rail service in the corridor between Washington, D.C., and Boston. Since 2001, capital funding has been provided in the Amtrak appropriation. Under the Administration's surface transportation authorization proposal, Federal resources for capital improvements to the Northeast Corridor will be an eligible activity under the new National Rail System program, funded within the Rail Account of the Transportation Trust Fund.



**FEDERAL RAILROAD ADMINISTRATION  
NORTHEAST CORRIDOR IMPROVEMENT PROGRAM**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011	2012
Identification Code 69-0123-0-1-401		Actual	Estimate	Estimate
Direct Obligations:				
25.2	Other services	633	5,419	-
99.9	Total new obligations . . . . .	633	5,419	-

**FEDERAL RAILROAD ADMINISTRATION  
EMERGENCY RAILROAD REHABILITATION AND REPAIR**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0124-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Emergency Railroad Rehabilitation and Repair	14,772	5,228	0
00.91 Total direct program	14,772	5,228	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	14,772	5,228	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	20,000	5,228	0
New budget authority (gross)	0	0	0
19.30 Total budgetary resources available for obligation	20,000	5,228	0
New obligations	(14,772)	(5,228)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	5,228	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	6,361	0
30.30 New obligations	14,772	5,228	0
30.40 Total outlays (gross)	(8,411)	(11,589)	0
31.00 Obligated balance, end of year	6,361	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	8,411	11,589	0
40.20 Total outlays (gross)	8,411	11,589	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	8,411	11,589	0
Unpaid Obligations, EOY	6,361		

**Program and Performance Language**

Funding for this program was provided in a supplemental appropriation in 2008. This program provides discretionary grants to States to repair and rehabilitate Class II and Class III railroad infrastructure damaged by hurricanes, floods, and other natural disasters in areas for which the President declared a major disaster under title IV of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974. In 2012, no new funding is requested for this program.

**FEDERAL RAILROAD ADMINISTRATION  
EMERGENCY RAILROAD REHABILITATION AND REPAIR**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011	2012
Identification Code 69-0124-0-1-401		Actual	Estimate	Estimate
Direct Obligations:				
41.0	Grants, subsidies, and contributions	<u>14,772</u>	<u>5,228</u>	<u>-</u>
99.9	Total new obligations .....	14,772	5,228	-

**Exhibit III-1**

**RAILROAD SAFETY TECHNOLOGY PROGRAM  
Summary by Program Activity  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

	<b>FY 2010 ACTUAL</b>	<b>FY 2011 CR ANNUALIZED</b>	<b>FY 2012 REQUEST</b>	<b>CHANGE FY 2010-2012</b>
Railroad Safety Technology Program	50,000	50,000	0	<b>(50,000)</b>
<b>TOTAL</b>	<b>50,000</b>	<b>50,000</b>	<b>0</b>	<b>(50,000)</b>
<b>Positions</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total Positions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**PROGRAM AND PERFORMANCE LANGUAGE**

The Railroad Safety Technology Program provides competitive grants for the deployment of train control technologies to passenger and freight rail carriers, railroad suppliers, and State and local governments for projects that have a public benefit of improved railroad safety and efficiency. Projects may include the deployment of train control technologies, train control component technologies, processor-based technologies, electronically controlled pneumatic brakes, rail integrity inspection systems, rail integrity warning systems, switch position indicators and monitors, remote control power switch technologies, track integrity circuit technologies, and other new technologies to improve the safety of railroad systems.

Priority is given to projects that make technologies interoperable between railroad systems; accelerate the deployment of train control technology on high-risk corridors, such as those that have high volumes of hazardous materials shipments, or over which commuter or passenger trains operate; or benefit both passenger and freight safety and efficiency. Entities need not have developed plans required under 49 U.S.C. 20156(e)(2) and 20157. However, in order to qualify for a grant under this program, all applicants must demonstrate that they are currently developing the required plans.

No new funds are requested in this account for fiscal year 2012.

**Exhibit III-1a**

**RAILROAD SAFETY TECHNOLOGY PROGRAM  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

<b>Item</b>	<b>Change from FY 2010 to FY 2012</b>	
	<b>FTE</b>	<b>(\$000)</b>
<b>FY 2010 Actual</b>	<b>0.0</b>	<b>50,000</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	-
Annualization of FY 2011 Comparability Pay Increase (0.0%)	-	-
FY 2012 Comparability Pay Increase (0.0%)	-	-
Non-Pay Inflation (0.5%)	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Baseline Changes</b>	<b>0.0</b>	<b>0</b>
<b>Program Changes</b>		
Positive Train Control Grants	-	(50,000)
<b>Subtotal, Program Changes</b>	<b>0.0</b>	<b>(50,000)</b>
<b>TOTAL</b>	<b>0.0</b>	<b>0</b>

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD SAFETY TECHNOLOGY PROGRAM**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0701-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Railroad Safety Technology Program	0	50,000	50,000
01.00 Total direct program	0	50,000	50,000
09.00 Total new obligations	0	50,000	50,000
Budgetary Resources available for obligation			
1000 Unobligated balance, brought forward, start of year	0	50,000	50,000
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	50,000	50,000	0
Appropriation (total)	50,000	50,000	0
Discretionary spending authority from offsetting collections:			
17.00 Offsetting collections (cash) (unexpired only)	0	0	0
17.01 Change in uncollected cust paymts fm Fed sources (unexp)	0	0	0
17.50 Spending authority fm offsetting collections (total)	0	0	0
19.00 Total new budget authority (gross)	50,000	50,000	0
19.30 Total budgetary resources available for obligation	50,000	100,000	50,000
New obligations	0	-50,000	-50,000
19.41 Unobligated balance available, end of year	50,000	50,000	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	0	0	20,000
30.30 New obligations	0	50,000	50,000
30.40 Total outlays (gross)	0	-30,000	-50,000
Obligated balance transferred from other accounts	0	0	0
Adjustments in expired accounts (net)	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	0	20,000	20,000
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	0	30,000	50,000
40.20 Total outlays (gross)	0	30,000	50,000
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Federal sources	0	0	0
40.33 Non-federal sources	0	0	0
40.50 Portion of offsetting collection credited to unexpired accounts	0	0	0
40.52 Portion of offsetting collection credited to expired accounts	0	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	50,000	50,000	0
40.80 Outlays (net)	0	30,000	50,000
Unpaid Obligations, EOY	0	0	0

**FEDERAL RAILROAD ADMINISTRATION  
RAILROAD SAFETY TECHNOLOGY PROGRAM**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0701-0-1-401	2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:			
21.0 Travel and Transportation of persons . . . . .	0	0	0
25.2 Other services . . . . .	0	0	0
41.0 Grants, subsidies, and contributions . . . . .	<u>0</u>	<u>50,000</u>	<u>50,000</u>
Subtotal, Direct obligations . . . . .	0	50,000	50,000
99.0 Subtotal, Reimbursable obligations . . . . .	<u>0</u>	<u>0</u>	<u>0</u>
99.9 Total new obligations . . . . .	0	50,000	50,000

**FEDERAL RAILROAD ADMINISTRATION  
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION - ARRA**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0704-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Capital Grants - Recovery Act Capital Investment	1,491	0	0
00.02 Capital Grants - Recovery Act Security Investment	789	0	0
00.05 Capital Grant - Recovery Act - Oversight	4,155	0	0
00.91 Total direct program	6,435	0	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	6,435	0	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	6,435	0	0
New budget authority (gross)	0	0	0
19.30 Total budgetary resources available for obligation	6,435	0	0
New obligations	(6,435)	0	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	1,194,868	322,783	0
30.30 New obligations	6,435	0	0
30.40 Total outlays (gross)	(884,864)	(322,783)	0
Obligated balance transferred from other acct	6,344	0	0
31.00 Obligated balance, end of year	322,783	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	884,864	322,783	0
40.20 Total outlays (gross)	884,864	322,783	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	884,864	322,783	0
Unpaid Obligations, EOY	322,783		

**Program and Performance Language**

In 2009, the American Recovery and Reinvestment Act (ARRA) provided \$1.3 billion to Amtrak for capital grants of which \$50 million was designated for capital security grants to fund enhancements in situational awareness, improvised explosive devices (IED) and Vehicle Borne Improvised Explosive Device detection, risk assessment/risk reduction cycle optimization (when vulnerabilities are discovered), and quick response communications within the intercity passenger rail network. The remaining \$850 million funds projects that remediate vulnerabilities in the system's physical infrastructure and enhance national incident management and risk mitigation capabilities in the intercity passenger rail network.



**FEDERAL RAILROAD ADMINISTRATION  
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION - ARRA**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011	2012
Identification Code 69-0704-0-1-401		Actual	Estimate	Estimate
Direct Obligations:				
21.0	Travel and transportation of persons	5	-	-
25.3	Purchases of goods and services from Government Accounts	4,150	-	-
41.0	Grants, subsidies, and contributions	<u>2,280</u>	<u>-</u>	<u>-</u>
99.9	Total new obligations . . . . .	6,435	-	-

**FEDERAL RAILROAD ADMINISTRATION  
GRANTS TO THE NATIONAL RAILROAD PASSENGER  
CORPORATION**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0704-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.04 Amtrak Asset Valuation	0	972	0
00.91 Total direct program	0	972	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	0	972	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	972	972	0
New budget authority (gross)	0	0	0
19.30 Total budgetary resources available for obligation	972	972	0
New obligations	0	(972)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	972	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	8,039	4,654	0
30.30 New obligations	0	972	0
30.40 Total outlays (gross)	(3,385)	(5,626)	0
Adjustments in expired accounts (net)	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	4,654	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	3,385	5,626	0
40.20 Total outlays (gross)	3,385	5,626	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	3,385	5,626	0
Unpaid Obligations, EOY	4,654		

**Program and Performance Language**

The National Railroad Passenger Corporation (Amtrak) was established in 1970 through the Rail Passenger Service Act. Amtrak is operated and managed as a for profit corporation with all Board members appointed by the Executive Branch of the Federal Government, with the advice and consent of the Senate. Amtrak is not an agency or instrument of the U.S. Government. Since 2006, federal resources specifically for Amtrak have been provided through separate appropriation accounts for capital, operating, and efficiency incentive grants.

Under the Administration's surface transportation authorization proposal, the National Railroad Passenger Corporation (Amtrak) will be an eligible grantee for competitive grants under the System Preservation and Renewal component of the new National Rail System program, funded within the Rail account of the Transportation Trust Fund.

**FEDERAL RAILROAD ADMINISTRATION  
GRANTS TO THE NATIONAL RAILROAD PASSENGER  
CORPORATION**

**Object Classification Schedule (in thousands of dollars)**

Identification Code 69-0704-0-1-401		2010 Actual	2011 CR Annualized	2012 Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	-	972	-
99.9	Total new obligations . . . . .	-	972	-

**FEDERAL RAILROAD ADMINISTRATION  
INTERCITY PASSENGER RAIL**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0715-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Intercity Passenger Rail	13,471	78,422	0
00.91 Total direct program	13,471	78,422	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	13,471	78,422	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	91,893	78,422	0
New budget authority (gross)	0	0	0
19.30 Total budgetary resources available for obligation	91,893	78,422	0
New obligations	(13,471)	(78,422)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	78,422	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	28,107	31,303	91,725
30.30 New obligations	13,471	78,422	0
30.40 Total outlays (gross)	(10,275)	(18,000)	(60,000)
31.00 Obligated balance, end of year	31,303	91,725	31,725
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	10,275	18,000	60,000
40.20 Total outlays (gross)	10,275	18,000	60,000
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	10,275	18,000	60,000
Unpaid Obligations, EOY	31,303		

**Program and Performance Language**

This competitive grant program encourages state participation in its passenger rail service. Under this program, a State or States may apply for grants for up to 50 percent of the cost of capital investments necessary to support improved intercity passenger rail service that either requires no operating subsidy or for which the State or States agree to provide any needed operating subsidy. To qualify for funding, States must include intercity passenger rail service as an integral part of Statewide transportation planning as required under 23 U.S.C. 135. Additionally, the specific project must be on the Statewide Transportation Improvement Plan at the time of application.

No new funds are requested for this program in 2012.

**FEDERAL RAILROAD ADMINISTRATION  
INTERCITY PASSENGER RAIL**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-0715-0-1-401		Actual	Annualized	Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	<u>13,471</u>	<u>78,422</u>	<u>-</u>
99.9	Total new obligations .....	13,471	78,422	-

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**RAIL LINE RELOCATION AND IMPROVEMENT  
PROGRAM APPROPRIATIONS LANGUAGE**

**【RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM】**

**【For necessary expenses of carrying out section 20154 of title 49, United States Code, \$34,532,000, to remain available until expended.】**

## Exhibit III-1

### RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM Summary by Program Activity

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

	FY 2010 ACTUAL	FY 2011 CR ANNUALIZED	FY 2012 REQUEST	CHANGE FY 2010-2012
<b>Rail Line Relocation</b>	<b>10,013</b>	<b>34,532</b>	-	<b>(10,013)</b>
<b>Rail Line Relocation Earmarks</b>				
Blue Ridge & KC Southern Railroad Rail Line Rehabilitation & Improvement, MO	800	-	-	(800)
COLT Overpass over U.S. 63, Boone County, MO	-	-	-	-
Detroit/Wayne County Port Authority Rail Access Improvement Program, MI	500	-	-	(500)
Downeast Rail Rehabilitation, ME	-	-	-	-
East Belt Railroad Grade Crossing Safety Improvements, Houston, TX	-	-	-	-
Elevated Railroad Track Project, Claremore, OK	-	-	-	-
Grade Crossing Mitigation, Galesburg, IL	2,922	-	-	(2,922)
Grade Separated Railroad Crossing, TX	500	-	-	(500)
Grand Rapids Amtrak Railroad Relocation, MI	-	-	-	-
High Speed Railraod Passenger Service, Duluth, MN	-	-	-	-
Hoquiam Horn Spur Railroad Track Improvement Project, WA	350	-	-	(350)
Industrial Park Rail Project, Greene County, AL	400	-	-	(400)
Lackawaxen Interchange Rehabilitation, Pike County, PA	-	-	-	-
MN Valley Regional Rail Authority Rehabilitation Project, MN	1,000	-	-	(1,000)
Mt. Vernon RR Cut, NY	-	-	-	-
North Rail Relocation Project, Cameron County, TX	400	-	-	(400)
Ogden Avenue Grade Separation, Aurora, IL	1,000	-	-	(1,000)
Passenger Rail Corridor CREATE Projects, Chicago, IL	-	-	-	-
Pecos St. Grade Crossing, Adams Cty, CO	-	-	-	-
Phase 3 Rail Rehabilitation in Redwood Falls, MN	-	-	-	-
Port of Alexandria Rail Spur, City of Alexandria, LA	487	-	-	(487)
Port of Monroe Dock & Industrial Park, Monroe County, IL	500	-	-	(500)
Quad Cities Track Improvemnet, IL	-	-	-	-
Rail Safety Improvements, Tualatin, OR	250	-	-	(250)
Rail Safety Upgrades, Coos Cty, NH	800	-	-	(800)
Rail Spur Extension, Greater Ouachita Parish, LA	2,000	-	-	(2,000)
Railroad Bridge Rehabilitation, El Dorado, AR	-	-	-	-
Railroad Bridge Rehabilitation, Perry County, IN	-	-	-	-
Railroad Grade Crossing Safety Improvements, Huntington, NY	-	-	-	-
Railroad Overpass, Blytheville, AR	500	-	-	(500)
Railroad Relocation Planning, Terre Haute, IN	-	-	-	-
Railway-Highway Grade Crossing Mitigation, Northeastern IL	1,948	-	-	(1,948)
Sacramento Intermodal Terminal Facility Track Reloc., CA	750	-	-	(750)
Shelby Intermodal Hub, MT	974	-	-	(974)
Short Line Rehabilitation, Salem , NJ	750	-	-	(750)
South Orient Rail Line Rehabilitation in San Angelo, TX	1,000	-	-	(1,000)
South Orient Rail Line Rehabilitation, TX	1,000	-	-	(1,000)
Southeast 44th Avenue Railroad Crossing Improvements, Des Moines, IA	-	-	-	-
Southern Rail Corridor, MN	487	-	-	(487)
Springfield Rail Relocation, IL	250	-	-	(250)
Stourbridge Line Maintenance and Repair, Honesdale, PA	-	-	-	-
Transbay Transit Center, San Francisco, CA	750	-	-	(750)

**RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM**  
**Summary by Program Activity (cont'd)**  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)

	FY 2010 ACTUAL	FY 2011 CR ANNUALIZED	FY 2012 REQUEST	CHANGE FY 2010-2012
Waterfront Rail Reconstruction Project, Kawasaki SWIMO, NY	779	-	-	(779)
West Freight Access Project, Fort of Vancouver, WA	2,922	-	-	(2,922)
West Wye Rail Line Relocation, City of Springfield, MO	500	-	-	(500)
Zanesville-Muskingum County Port Authority, OH	-	-	-	-
<b>Subtotal, Rail Line Relocation Earmarks</b>	<b>24,519</b>	<b>0</b>	<b>0</b>	<b>(24,519)</b>
<b>TOTAL, NATIONAL RAIL SYSTEM</b>	<b>34,532</b>	<b>34,532</b>	<b>0</b>	<b>(34,532)</b>
<b>Positions</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total Positions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>FTE</b>				
Direct Funded	0.0	0.0	0.0	0.0
Reimbursable, Allocated, Other	0.0	0.0	0.0	0.0
<b>Total FTE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**PROGRAM AND PERFORMANCE LANGUAGE**

This program provides Federal assistance to States for relocating or making necessary improvements to local rail lines.

No new funds are requested for this program in 2012.



**Exhibit III-1a**

**RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM  
Summary Analysis of Change from FY 2010 Actual to FY 2012  
Appropriations, Obligation Limitations, and Exempt Obligations  
(\$000)**

Item	Change from FY 2010 to FY 2012	
	FTE	(\$000)
<b>DIRECT:</b>		
<b>FY 2010 Actual</b>	<b>0.0</b>	<b>34,532</b>
<b>Baseline Changes:</b>		
Annualization of FY 2011 FTE	-	-
FY 2012 Comparability Pay Increase (0.0%)	-	-
One Less Compensable Day	-	-
Non-Pay Inflation (0.5%)	-	-
GSA Rent	-	-
WCF	-	-
<b>Subtotal, Baseline Changes</b>	<b>0.0</b>	<b>0</b>
<b>Program Changes</b>		
Rail Line Relocation	<b>0.0</b>	<b>(10,013)</b>
Rail Line Relocation Earmarks	<b>0.0</b>	<b>(24,519)</b>
<b>Subtotal, New/Expanded Programs</b>	<b>0.0</b>	<b>(34,532)</b>
<b>TOTAL FY 2012 Request</b>	<b>0.0</b>	<b>0</b>

**FEDERAL RAILROAD ADMINISTRATION  
RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM**

**Program and Financing Schedule  
(in thousands of dollars)**

Identification code 69-X-0716	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Intercity Passenger Rail	6,657	107,055	0
00.91 Total direct program	6,657	107,055	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	6,657	107,055	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	44,648	72,523	0
<b>New budget authority (gross), detail:</b>			
Discretionary:			
11.00 Appropriation	34,532	34,532	0
11.30 Appropriation permanently reduced	0	0	0
11.21 Transfers from other accounts	0	0	0
Appropriation (total)	34,532	34,532	0
Discretionary spending authority from offsetting collections:			
17.00 Offsetting collections (cash) (unexpired only)	0	0	0
17.01 Change in uncollected cust paymts fm Fed sources (unexp)	0	0	0
17.50 Spending authority fm offsetting collections (total)	0	0	0
19.00 Total new budget authority (gross)	34,532	34,532	0
19.30 Total budgetary resources available for obligation	79,180	107,055	0
New obligations	(6,657)	(107,055)	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	72,523	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	392	6,742	56,898
30.30 New obligations	6,657	107,055	0
30.40 Total outlays (gross)	(307)	(56,899)	(39,632)
Obligated balance transferred from other acct	0	0	0
Adjustments in expired accounts (net)	0	0	0
30.50 Chg in Uncollected cust orders fm Fed Sources (unexpired)	0	0	0
30.51 Chg in Uncollected cust orders fm Fed Sources (expired)	0	0	0
31.00 Obligated balance, end of year	6,742	56,898	17,266
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	17,266	0
40.11 Outlays from discretionary balances	307	39,633	39,632
40.20 Total outlays (gross)	307	56,899	39,632
<b>Offsets:</b>			
<i>Against gross budget authority and outlays</i>			
Offsetting collections (cash) from:			
40.30 Federal sources	0	0	0
40.33 Non-federal sources	0	0	0
40.50 Portion of offsetting collection credited to unexpired accounts	0	0	0
40.52 Portion of offsetting collection credited to expired accounts	0	0	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	34,532	34,532	0
40.80 Outlays (net)	307	56,899	39,632
Unpaid Obligations, EOY	6,742	56,898	17,266

**FEDERAL RAILROAD ADMINISTRATION  
RAIL LINE RELOCATION AND IMPROVEMENT PROGRAM**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011 CR	2012
Identification Code 69-0716-0-1-401		Actual	Annualized	Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	6,657	107,055	-
99.9	Total new obligations .....	6,657	107,055	-

**FEDERAL RAILROAD ADMINISTRATION  
NEXT GENERATION HIGH-SPEED RAIL**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-X-0722	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 High Speed Non-Electric Locomotives	990	0	0
00.03 Grade Crossing Hazard Mitigation/Low Cost Innovative Tect	0	4,115	0
00.05 Corridor Planning	576	4,115	0
00.91 Total direct program	1,566	8,230	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	1,566	8,230	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	8,748	8,230	0
10.21 Recoveries	1,048		
19.30 Total budgetary resources available for obligation	9,796	8,230	0
New obligations	-1,566	-8,230	0
19.40 Unobligated balance expiring or withdrawn	0	0	0
19.41 Unobligated balance available, end of year	8,230	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	12,459	9,561	8,739
30.30 New obligations	1,566	8,230	0
30.40 Total outlays (gross)	-3,416	-9,052	-8,739
30.80 Recoveries	-1,048	0	0
31.00 Obligated balance, end of year	9,561	8,739	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	3,416	9,052	8,739
40.20 Total outlays (gross)	3,416	9,052	8,739
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	3,416	9,052	8,739
Unpaid Obligations, EOY	9,561		

**Program and Performance Language**

The Next Generation High-Speed Rail Program funds: research, development, and technology demonstration programs and the planning and analysis required to evaluate high-speed rail technology proposals.

No new funds are requested for this program in 2012.

**FEDERAL RAILROAD ADMINISTRATION  
NEXT GENERATION HIGH-SPEED RAIL**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011	2012
Identification Code 69-0722-0-1-401		Actual	Estimate	Estimate
Direct Obligations:				
25.3	Other purchases of goods and services from Government accounts	1,566	8,230	-
99.9	Total new obligations .....	1,566	8,230	-

**FEDERAL RAILROAD ADMINISTRATION  
PENNSYLVANIA STATION REDEVELOPMENT PROJECT**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0723-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Obligations by program activity:</b>			
00.01 Pennsylvania Station redevelopment project	0	59,827	0
00.91 Total direct program	0	59,827	0
08.00 Reimbursable program	0	0	0
09.00 Total obligations	0	59,827	0
Budgetary resources available for obligation			
10.00 Unobligated balance available, start of year	59,827	59,827	0
19.30 Total budgetary resources available for obligation	59,827	59,827	0
New obligations			
19.40 Unobligated balance expiring or withdrawn	0	-59,827	0
19.41 Unobligated balance available, end of year	0	0	0
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	19	19	55,041
30.30 New obligations	0	59,827	0
30.40 Total outlays (gross)	0	-4,805	-23,931
31.00 Obligated balance, end of year	19	55,041	31,110
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	0	4,805	23,931
40.20 Total outlays (gross)	0	4,805	23,931
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	0	4,805	23,931
Unpaid Obligations, EOY	19		

**Program and Performance Language**

Funds are used to redevelop the Pennsylvania Station in New York City, which involves renovating the James A. Farley Post Office building. Funding for this project was included in the Grants to the National Railroad Passenger Corporation appropriation in 1995 through 1997, and the Northeast Corridor Improvement Program in 1998. In 2000, an advance appropriation of \$20 million was provided for 2001, 2002, and 2003. In 2001, Congress specified that the \$20 million advance appropriation provided in 2000 for the Farley Building was to be used exclusively for fire and life safety initiatives.

No new funds are requested for this program in 2012.

**FEDERAL RAILROAD ADMINISTRATION  
PENNSYLVANIA STATION REDEVELOPMENT PROJECT**

**Object Classification Schedule (in thousands of dollars)**

		2010	2011	2012
Identification Code 69-0723-0-1-401		Actual	Estimate	Estimate
Direct Obligations:				
41.0	Grants, subsidies, and contributions	-	59,827	-
99.9	Total new obligations .....	-	59,827	-

**FEDERAL RAILROAD ADMINISTRATION  
ALASKA RAILROAD REHABILITATION**

**Program and Financing Schedule  
(In thousands of dollars)**

Identification code 69-0730-0-1-401	FY 2010 Actual	FY 2011 CR Annualized	FY 2012 Request
<b>Change in obligated balances:</b>			
30.20 Obligated balance , start of year	539	47	0
30.40 Total outlays (gross)	-492	-47	0
31.00 Obligated balance, end of year	47	0	0
<b>Outlays (gross), detail:</b>			
40.10 Outlays from new discretionary authority	0	0	0
40.11 Outlays from discretionary balances	492	47	0
40.20 Total outlays (gross)	492	47	0
<b>Net budget authority and outlays:</b>			
40.70 Budget authority (net)	0	0	0
40.80 Outlays (net)	492	47	0
Unpaid Obligations, EOY	47		

**Program and Performance Language**

These funds have historically been earmarked under the Department of Defense Appropriation for direct payments to the Alaska railroad.

No new funds are requested for this program in 2012.



**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

ADMINISTRATIVE PROVISIONS—FEDERAL RAILROAD ADMINISTRATION

Sec. 151. The Secretary of Transportation may receive and expend cash, or receive and utilize spare parts and similar items, from non-United States Government sources to repair damages to or replace United States Government owned automated track inspection cars and equipment as a result of third party liability for such damages, and any amounts collected under this section shall be credited directly to the **【Railroad】** *Safety and Operations* account of the Federal Railroad Administration, and shall remain available until expended for the repair, operation and maintenance of automated track inspection cars and equipment in connection with the automated track inspection program.

Sec. 152. (a) Schedule of Railroad Safety User fees. The Secretary of Transportation shall prescribe by regulation, for application in the current fiscal year and in subsequent fiscal years, a schedule of rail safety fees for railroad carriers subject to Part A of Subtitle V of title 49, United States Code. The fees shall cover the costs of carrying out such Part and Chapter 51 of title 49, United States Code, (transportation of hazardous materials) and shall be imposed fairly on railroad carriers, in reasonable relationship to appropriate criteria to be developed by the Secretary. The Secretary shall amend this regulation periodically so as to ensure that the schedule of fees covers such costs.

(b) Collection Procedures. The Secretary shall prescribe procedures to collect the fees. The Secretary may use the services of a department, agency, or instrumentality of the United States Government or a State or local authority to collect the fees, and may reimburse the department, agency, **【or】** instrumentality, *or authority* a reasonable amount for its services.

(c) Collection, Deposit, and Use.-

(1) Fees collected under this section shall be deposited in the Federal Railroad Administrations **【Federal Railroad】***Safety and Operations* account as offsetting collections.

(2) Such fees shall be collected and available to the extent provided in appropriations acts.

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**HISTORY OF APPROPRIATIONS  
FY 2002 to 2011  
(in thousands of dollars)**

<u>Account</u>	<u>FY 2002</u>	<u>FY 2003</u> <sup>3/</sup>	<u>FY 2004</u> <sup>4/</sup>	<u>FY 2005</u> <sup>5/</sup>	<u>FY 2006</u> <sup>6/</sup>
<b><u>Appropriations Realized:</u></b>					
Safety and Operations	116,398 <sup>1/</sup>	116,300	129,536	138,117	144,490
Railroad Safety Technology Program	--	686	--	--	--
Local Rail Freight Assistance	29,000	29,134	--	--	--
Railroad Research and Development	--	--	33,824	35,737	54,524
Rail Line Relocation and Improvement	--	--	--	--	--
Pennsylvania Station	20,000	19,870	--	--	--
Amtrak	826,476 <sup>2/</sup>	1,043,175	1,217,773	1,207,264	1,293,633 <sup>7/</sup>
Amtrak Reform Council	225	--	--	--	--
Intercity Passenger Rail Grants	--	--	--	--	--
Next Generation High-Speed Rail	32,300	30,252	37,179	19,493	--
Alaska Railroad Rehabilitation	20,000	21,857	24,853	24,800	9,900
Capital Assistance for HSR Corridors and IPR	--	--	--	--	--
Subtotal	1,044,399	1,261,274	1,443,165	1,425,411	1,502,547
<b><u>Other New Authority:</u></b>					
Railroad Rehab and Improvement Program	--	7,470	5,713	--	--
Emergency Railroad Rehabilitation & Repair					
Capital Grants to the Natl' Railroad Passenger Corp	--	--	--	--	--
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	--	--	--	--	--
<b>Total FRA Budget Authority</b>	<b>1,044,399</b>	<b>1,268,744</b>	<b>1,448,878</b>	<b>1,425,411</b>	<b>1,502,547</b>

**Notes:**

1/ FY 2002 Safety and Operations appropriation reflects \$110.587M (P.L. 107-87) and \$6.0M (P.L. 107-117).

2/ FY 2002 Amtrak appropriation reflects \$521.476M (P.L. 107-87), \$100.0M (P.L. 107-117), and \$205.0M (P.L. 107-206).

3/ FY 2003 appropriations (P.L. 108-7) reflect a 0.65% across-the-board rescission.

4/ FY 2004 appropriations (P.L. 108-199) reflect a 0.59% across-the-board rescission.

5/ FY 2005 appropriations (P.L. 108-447) reflect a 0.80% across-the-board rescission.

6/ FY 2006 appropriations (P.L. 109-115) reflect a 1.0% across-the-board rescission.

7/ FY 2006 Amtrak total appropriation includes Operating Grants (\$495.0M), Capital/Debt Service Grants (\$780.0M), and Efficiency Grants (\$40.0M), of which \$8.3M of Efficiency Grants is available for revenue service demonstration only.

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**HISTORY OF APPROPRIATIONS (cont'd)  
FY 2002 to 2011  
(in thousands of dollars)**

<u>Account</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 CR Annualized</u> <sup>15/</sup>
<b><u>Appropriations Realized:</u></b>					
Safety and Operations	150,271	150,193	159,445	172,270	172,270
Railroad Safety Technology Program	--	--	--	50,000	50,000
Local Rail Freight Assistance	--	--	--	--	--
Railroad Research and Development	34,524	35,964	33,950	37,613	37,613
Rail Line Relocation and Improvement	--	20,040 <sup>9/</sup>	25,000	34,532	34,532
Pennsylvania Station	--	--	--	--	--
Amtrak	1,293,550 <sup>8/</sup>	1,325,000 <sup>10/</sup>	1,490,000 <sup>12/</sup>	1,564,625 <sup>14/</sup>	1,564,625
Amtrak Reform Council	--	--	--	--	--
Intercity Passenger Rail Grants	--	30,000	90,000	--	--
Next Generation High-Speed Rail	--	--	--	--	--
Alaska Railroad Rehabilitation	--	--	--	--	--
Capital Assistance for HSR Corridors and IPR	--	--	--	2,500,000	2,500,000
Subtotal	1,478,345	1,561,197	1,798,395	4,359,040	4,359,040
<b><u>Other New Authority:</u></b>					
Railroad Rehab and Improvement Program	3,294	20,751	16,753	18,441	23,692
Emergency Railroad Rehabilitation & Repair	--	20,000 <sup>11/</sup>	--	--	--
Capital Grants to the Nat'l Railroad Passenger Corp	--	--	1,300,000 <sup>13/</sup>	--	--
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	--	--	8,000,000 <sup>13/</sup>	--	--
<b>Total FRA Budget Authority</b>	<b>1,481,639</b>	<b>1,601,948</b>	<b>11,115,148</b>	<b>4,377,481</b>	<b>4,382,732</b>

**Notes:**

8/ FY 2007 full year CR appropriations (P.L. 110-5) reflects Amtrak total appropriation, which includes Operating Grants (\$495.0M), Capital/Debt Service Grants (\$780.0M), and Efficiency Grants (\$31.3M).

9/ FY 2008 Rail Line Relocation and Improvement appropriation (P.L. 110-161) reflects a 2% rescission on \$5.24M in earmarks.

10/ FY 2008 appropriations (P.L. 110-161) reflects Amtrak total appropriation, which includes Operating Grants (\$475.0M) and Capital/Debt Service Grants (\$850.0M).

11/ FY 2008 Emergency Supplemental (P.L. 110-329).

12/ FY 2009 appropriations (P.L. 111-8) reflects Amtrak total appropriation, which includes Operating Grants (\$550.0M) and Capital/Debt Service Grants (\$940.0M).

13/ FY 2009 ARRA appropriations (P.L. 111-5) reflects \$1.3B for Amtrak and \$8.0B for HSIPR.

14/ FY 2010 appropriations (P.L. 111-117) reflects Amtrak total appropriation, which includes Operating Grants (\$563.0M) and Capital/Debt Service Grants (\$1,001.625M).

15/ FY 2011 reflects a full-year CR at FY 2010 level for all appropriations.

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**DISCUSSION OF EXHIBIT 300s**

The Exhibit 300 is designed to coordinate OMB's collection of agency information for its reports to the Congress required by the Federal Acquisition Streamlining Act of 1994 (FASA Title V) and the Clinger-Cohen Act of 1996; to ensure the business case for investments are made and tied to the mission statements, long-term goals and objectives, and annual performance plans developed pursuant to the GPRA. For IT, exhibit 300s are designed to be used as one-stop documents for many of IT management issues such as business cases for investments, IT security reporting, Clinger Cohen Act implementation, E-Gov Act implementation, Government Paperwork Elimination Act implementation, agency's modernization efforts, and overall project investment management. FRA has completed exhibit 300s for each of our IT Projects; they can be found online at [www.dot.gov](http://www.dot.gov).

**DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

**SECTION 4: RESEARCH, DEVELOPMENT, AND TECHNOLOGY**

RESEARCH, DEVELOPMENT, AND TECHNOLOGY  
BUDGET AUTHORITY  
(in thousands of dollars)

EXHIBIT IV-1

**FEDERAL RAILROAD ADMINISTRATION**

Program	FY 2010 Actual	FY 2012 Request	FY 2012 Applied	FY 2012 Development
<b>Railroad Research and Development</b>	<b>37,613</b>	<b>40,000</b>	<b>7,725</b>	<b>29,425</b>
<i>Track Research</i>	<i>11,600</i>	<i>12,600</i>	<i>3,250</i>	<i>6,500</i>
Track and Structures	5,450	5,450	1,550	3,900
Track and Train Interaction	3,600	3,800	1,200	2,600
R&D Facilities and Test Equipment	2,550	2,850	N/A	N/A
Rail Cooperative Research Program	0	500	500	0
<i>Equipment and Operating Practices</i>	<i>16,043</i>	<i>16,930</i>	<i>3,125</i>	<i>13,805</i>
Human Factors	3,270	3,670	375	3,295
Rolling Stock and Components	3,000	3,000	300	2,700
Hazardous Materials Transportation	1,550	1,550	250	1,300
Train Occupant Protection	4,600	4,700	1,200	3,500
Railroad Systems Issues	3,623	4,010	1,000	3,010
<i>Signals, Train Control and Communication</i>	<i>9,970</i>	<i>10,470</i>	<i>1,350</i>	<i>9,120</i>
Train Control	7,870	8,270	1,000	7,270
Grade Crossings	2,100	2,200	350	1,850
<b>Network Development</b> (formerly Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service)	<b>30,000</b>	<b>50,000</b>	<b>10,000</b>	<b>40,000</b>
High-Speed Rail R&D	30,000	50,000	10,000	40,000
<b>Safety and Operations</b>	<b>3,974</b>	<b>5,454</b>	<b>1,200</b>	<b>4,254</b>
Salaries & Expenses				
Salaries & Expenses (R&D)	3,974	5,454	1,200	4,254
<b>Subtotal, Research and Development</b>	<b>69,037</b>	<b>92,604</b>	<b>18,925</b>	<b>73,679</b>
<b>Subtotal, Technology Investment (T)</b>	<b>0</b>	<b>0</b>		
<b>Subtotal, Facilities (F)</b>	<b>2,550</b>	<b>2,850</b>		
<b>Total, FRA</b>	<b>71,587</b>	<b>95,454</b>	<b>18,925</b>	<b>73,679</b>

## Exhibit IV-2

### Federal Railroad Administration FY 2012 RD&T Budget Request by DOT Goal (\$000)

RD&T Program	FY 2012 Request	Safety	Livable Comm.	State of Good Repair	Economic Comp	Environ. Sustain.	Org. Excellence
<b>Research and Development</b>							
<b>Railroad Research and Development</b>	<b>40,000</b>	<b>29,335</b>	<b>0</b>	<b>5,256</b>	<b>2,647</b>	<b>2,762</b>	<b>0</b>
<b>Track Research</b>	<b>12,600</b>	<b>9,195</b>	<b>0</b>	<b>2,218</b>	<b>1,187</b>	<b>0</b>	<b>0</b>
Track and Structures	5,450	3,815		1,363	272		
Track and Train Interaction	3,800	3,420			380		
R&D Facilities and Test Equipment	2,850	1,710		855	285		
Rail Cooperative Research Program	500	250			250		
<b>Equipment and Operating Practices</b>	<b>16,930</b>	<b>12,397</b>	<b>0</b>	<b>1,771</b>	<b>0</b>	<b>2,762</b>	<b>0</b>
Human Factors	3,670	3,670					
Rolling Stock and Components	3,000	2,100		900			
Hazardous Materials Transportation	1,550	1,395				155	
Train Occupant Protection	4,700	4,230		470			
Railroad Systems Issues	4,010	1,002		401		2,607	
<b>Signals, Train Control and Communication</b>	<b>10,470</b>	<b>7,743</b>	<b>0</b>	<b>1,267</b>	<b>1,460</b>	<b>0</b>	<b>0</b>
Train Control	8,270	6,203		827	1,240		
Grade Crossings	2,200	1,540		440	220		
<b>Network Development (formerly Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service)</b>	<b>50,000</b>	<b>4,500</b>	<b>9,000</b>	<b>0</b>	<b>21,500</b>	<b>12,500</b>	<b>2,500</b>
High-Speed Rail R&D	50,000	4,500	9,000	0	21,500	12,500	2,500
<b>Safety and Operations</b>	<b>5,454</b>	<b>3,328</b>	<b>0</b>	<b>554</b>	<b>925</b>	<b>647</b>	<b>0</b>
Salaries & Expenses							
Salaries & Expenses (R&D)	5,454	3,328	0	554	925	647	0
<b>Subtotal, Administrative Expenses</b>	<b>5,454</b>	<b>3,328</b>	<b>0</b>	<b>554</b>	<b>925</b>	<b>647</b>	<b>0</b>
<b>Subtotal, Research and Development</b>	<b>87,150</b>	<b>32,125</b>	<b>9,000</b>	<b>4,401</b>	<b>23,862</b>	<b>15,262</b>	<b>2,500</b>
<b>Subtotal, Technology Investment (T)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal, Facilities (F)</b>	<b>2,850</b>	<b>1,710</b>	<b>0</b>	<b>855</b>	<b>285</b>	<b>0</b>	<b>0</b>
<b>Total, FRA</b>	<b>95,454</b>	<b>37,163</b>	<b>9,000</b>	<b>5,810</b>	<b>25,072</b>	<b>15,909</b>	<b>2,500</b>

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

# **Railroad Safety Strategy: FY 2012**



**February 2011**

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## INTRODUCTION

Section 102 of the Rail Safety Improvement Act of 2008 (RSIA) directed the Federal Railroad Administration (FRA) to develop a Railroad Safety Strategy and submit it at the same time as the President's budget. This report's organization mirrors the legislation language structure.

Section 102 of the RSIA reads as follows:

### ***"SEC. 102. RAILROAD SAFETY STRATEGY***

*"(a) SAFETY GOALS—In conjunction with existing federally-required and voluntary strategic planning efforts ongoing at the Department and the Federal Railroad Administration as of the date of enactment of this Act, the Secretary shall develop a long-term strategy for improving railroad safety to cover a period of not less than 5 years. The strategy shall include an annual plan and schedule for achieving, at a minimum, the following goals:*

*"(1) Reducing the number and rates of accidents, incidents, injuries, and fatalities involving railroads including train collisions, derailments, and human factors.*

*"(2) Improving the consistency and effectiveness of enforcement and compliance programs.*

*"(3) Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.*

*"(4) Improving research efforts to enhance and promote railroad safety and performance.*

*"(5) Preventing railroad trespasser accidents, incidents, injuries and fatalities.*

*"(6) Improving the safety of railroad bridges, tunnels, and related infrastructure to prevent accidents, incidents, injuries, and fatalities caused by catastrophic failures and other bridge and tunnel failures.*

*"(b) RESOURCE NEEDS.—The strategy and annual plan shall include estimates of the funds and staff resources needed to accomplish the goals established by subsection (a). Such estimates shall also include the staff skills and training required for timely and effective accomplishment of each such goal.*

*"(c) SUBMISSION WITH THE PRESIDENT'S BUDGET.—The Secretary shall submit the strategy and annual plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure at the same time as the President's budget submission.*

*"(d) ACHIEVEMENT OF GOALS.—*

*"(1) PROGRESS ASSESSMENT.—No less frequently than annually, the Secretary shall assess the progress of the Department toward achieving the strategic goals described in subsection (a). The Secretary shall identify any deficiencies in achieving the goals within the strategy and develop and institute measures to remediate such deficiencies. The Secretary and the Administrator shall convey their assessment to the employees of the Federal Railroad Administration*

*and shall identify any deficiencies that should be remediated before the next progress assessment.*

*"(2) REPORT TO CONGRESS.—Beginning in 2009, not later than November 1 of each year, the Secretary shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure on the performance of the Federal Railroad Administration containing the progress assessment required by paragraph (1) toward achieving the goals of the railroad safety Strategy and annual plans under subsection (a).*

This report is FRA's strategy for fiscal year (FY) 2012. FRA will provide an evaluation of its performance one year from this budget submission.

## **BACKGROUND**

FRA promotes and regulates safety throughout the Nation's railroad industry. Most of its regulatory authority is codified under Parts 200 to 299 of Title 49 of the Code of Federal Regulations (49 CFR 200-299). FRA has numerous enforcement tools under its authority, including defect and deficiency warnings, civil penalties, compliance and emergency orders, special notices, and directives.

FRA executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts who share their experience with the industry. The staff includes more than 400 inspectors and other safety professionals across the Nation who are assigned to eight regional offices. FRA safety inspectors specialize in five safety disciplines consisting of Track and Structures, Signal and Train Control, Motive Power and Equipment (MP&E), Operating Practices (OP), and Hazardous Materials (HM). In addition, FRA's field complement includes program managers for highway-rail grade crossing safety and trespass prevention, bridge structure specialists, and industrial hygienists.

The railroad industry experienced a significant improvement in safety from calendar year (CY) 2000 through 2009, with the total number of all reportable rail-related accidents and incidents declining 34 percent (16,919 vs. 11,120, respectively). During this period, train accidents also fell by 36 percent (2,983 vs. 1,895), casualties (deaths and injuries) dropped 32 percent (12,580 vs. 8,601), and highway-rail grade crossing incidents decreased 45 percent (3,502 vs. 1,924). These actual number results are all the more impressive because, until the recent economic decline, they occurred during a period when train-miles increased between 6 and 7 percent through 2008.

As remarkable as these numbers are, several major freight and passenger train accidents in 2004 and 2005 raised concerns about railroad safety. In addition to several national rail safety initiatives that FRA has championed since 2005, the agency has also devoted four of its six safety performance measures to evaluate train accidents under the Government Performance and Results Act of 1993 (GPRA).

## LONG-TERM STRATEGY MEASURES

FRA believes that the long-term strategy achievements expected from RSIA in Sec. 102 and other FRA safety efforts are best evaluated using GPRA results. FRA has been using these goals to measure regional performance and FRA’s overall safety performance since GPRA was officially implemented at the agency in 2003.<sup>1</sup>

At this time, FRA’s GPRA goals for FY 2012 through FY 2016 assume FRA staffing increases of 5 FTE (full-time equivalents)/10 positions for Positive Train Control (PTC) and HM routing in FY 2011. When additional field staffs are hired, the impact on safety improvements will not be immediate. Our experience shows to expect at least a one-year lag in safety improvement as a result of hiring new staff. During this one-year period, new inspectors are being trained to perform safety enforcement duties.

Increases in headquarters positions focus on ways to achieve safety improvements through rulemakings, enforcement oversight, and alternative methods such as the Risk Reduction Program (RRP). RRP looks for ways to improve safety by identifying areas through industry collaboration that achieve safety results in ways not previously identified.

FRA’s GPRA goals are listed below.<sup>2</sup>

### 1: Grade Crossing Incidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	3.300	3.100	2.900	2.700	2.500

### 2: Human Factors-Caused Train Accidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	1.200	1.163	1.121	1.106	1.099

<sup>1</sup> FRA revises its GPRA goals on an annual basis.

<sup>2</sup> FRA began developing and tracking safety performance goals under GPRA in the mid-1990s. Time-series models form the baseline of FRA’s forecasts that help setting the GPRA goals. In addition, impacts from various safety programs based on cost and benefit analyses are integrated in the safety performance forecasts. Past programs and initiatives contributed to FRA’s continuing safety improvements. Between FY 2005 and FY 2009, major program initiatives such as the rail integrity program, bridge standards, the Human Factors Rule, the Train Horn Rule, and others were major contributors that led to drops in the track-caused accident rate by 25 percent, the human factor-caused accident rate by 37 percent, and the equipment-caused accident rate by 22 percent.

New regulations and initiatives in the coming years may affect various safety performances differently. New safety improvements projected through FY 2014 assume an additional 51 FRA inspectors to carry out the mandates of RSIA. Beyond FY 2014, current safety programs will be considered part of FRA’s baseline and are projected to have minimal additional impact on track and equipment safety performances. FRA reevaluates and updates GPRA goals annually when newer safety data are available. As such, future GPRA goals could improve further with new safety initiatives and additional resources to carry out those initiatives.

### 3: Track-Caused Train Accidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	1.080	1.059	1.037	1.037	1.037

### 4: Equipment-Caused Train Accidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	0.430	0.421	0.412	0.412	0.412

### 5: Signal/Miscellaneous Train Accidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	0.560	0.540	0.520	0.500	0.480

### 6: Non-Accident Hazardous Materials Releases

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles	0.760	0.740	0.720	0.700	0.680

FRA also has an overall performance measure that reports on accidents/incidents per million train-miles as part of the U.S. Department of Transportation (DOT) Safety Performance Goals. These goals, like other safety goals, are based on available data for analysis. Programs such as the National Safety Program Plan (NSPP), the National Inspection Plan (NIP), rulemakings, RRP, and inspections contribute to achieving these safety goals.

### DOT Safety Performance Goal: Rail Accidents/Incidents

	2012	2013	2014	2015	2016
Rate Per Million Train-Miles *	16.300	16.050	15.800	15.600	15.400

\* This projection assumes that all five of the Automatic Track Inspection Program (ATIP) cars will be in service.

## RSIA SAFETY GOALS

**Goal #1: Reducing the number and rates of accidents, incidents, injuries, and fatalities involving railroads, including train collisions, derailments, and human factors.**

### National Safety Program Plan (NSPP)

The NSPP is the FRA Office of Railroad Safety's annual (fiscal year) document designed to ensure the sound implementation of the National Safety Program, including identification of recurring and nonrecurring special-emphasis activities for the year. FY 2006 was the first year that FRA produced a unified NSPP with submissions from all of the safety disciplines, regions, and Railroad System Oversight Managers (RSOM) for each Class I railroad. The NSPP is issued

to every employee in the Office of Railroad Safety. Employees are advised that quarterly assessments of all regional, RSOM, and FRA headquarters initiatives will occur.

The NSPP provides a mechanism for planning recurring activities (e.g., dispatch-center assessments performed triennially on a rotating basis). At the national level, it identifies emphasis areas based on data analyses, including interregional initiatives directed at particular system-level issues of concern for major railroads operating in multiple regions. The NSPP for FY 2010 integrates safety planning for all elements of the Office of Railroad Safety into a single document, and fully supports GPRA and DOT goals.

### National Inspection Plan (NIP)

In December 2004, the Office of Inspector General recommended that FRA submit to the Secretary of the Department of Transportation a comprehensive rail safety plan for implementing a program that, among other things, makes meaningful use of available data on which to focus inspection activities. In 2005, FRA issued the National Rail Safety Action Plan, which contains the development and implementation of a new NIP. Under this approach, FRA inspectors focus their efforts on locations that, according to data-driven models, are likely to have safety problems.

The purpose of the NIP is to optimize FRA's ability to reduce the rates of various types of train accidents, releases of hazardous materials, and casualties from human factor errors. The plan provides guidance to each regional office on how its inspectors, who each specialize in one of the five inspection disciplines, should divide their work by railroad and by State.

The NIP is a process that involves three steps. In the first step, FRA headquarters produces an initial baseline plan for each of the agency's eight regions. In the second step, the Regional Administrators may adjust the goals for their respective regions based on local knowledge and emerging issues. In the third step, once the fiscal year starts, FRA monitors how the regions are meeting their inspection goals. The NIP is implemented through a Web-based interface that allows FRA headquarters and the regions to monitor progress in field inspections during a fiscal year.

### Dashboard

In 2008, FRA deployed a Dashboard tool on its secure Web site to provide its leadership, regional management, and inspection workforce multiple views of the agency's current and historical enforcement efforts. Inspection data from the field is compiled in near-real time fashion and a nightly process creates the data stores to display detail and aggregated data graphically (bar graphs and gauges). The Dashboard is also used as an effective performance management tool. It maintains over 15 different metrics (e.g., inspection days, defect ratios, violations) at the inspector, discipline, and regional levels. Finally, the Dashboard serves as a central launch pad for several complex query and report programs from the main secure Web site that have been integrated into the output displays and allows users to "drill down" when additional detail is required. It is a decision-support tool in managing limited inspection resources when scheduling enforcement activities such as focused inspections and audits. It also

allows FRA headquarters managers to monitor inspection activities in the regions to ensure that enforcement and compliance policy is applied uniformly.

Additionally, using the Dashboard “cube,” an online analytical processing data-mining tool, headquarters and regional staffers are able to view inspections summarized by a variety of categories (e.g., inspector activity) and correlate this with information on what types of accidents and incidents are occurring in the region. This allows headquarters and the regions to jointly address where the safety hazards are being identified and plan inspection activities accordingly. The regional managers also use the data to ensure that each discipline and each inspector is maintaining the goals and to address outliers in the data.

### Positive Train Control (PTC)

FRA is continuing to support national deployment of advanced signal and train control technology to improve the safety, security, and efficiency of freight, intercity passenger, and commuter rail service through regulatory reform, project safety oversight, technology development, review and approval of PTC Implementation Plans, and financial assistance. PTC refers to processor-based/communication-based technology that is capable of preventing train-to-train collisions, overspeed derailments, incursion into established roadway worker work zone limits, and the movement of a train through a switch not properly lined. PTC systems vary widely in complexity and sophistication based on the level of automation and functionality they implement, the system architecture utilized, and the degree of train control they are capable of assuming. Current PTC system designs serve as either non-vital or vital safety overlays for existing methods of rail operations, or as stand-alone systems that provide the functionality necessary to implement new methods of rail operations. PTC technology also has the potential capability to limit adverse consequences of events such as hijackings and runaways that are of special concern in an era of heightened security. As a result of the requirements of the RSIA and with the assistance of the Railroad Safety Advisory Committee (RSAC) PTC Working Group, FRA published a new Federal regulation on January 15, 2010, addressing the statutory mandate for PTC. Pursuant to the requirements of the rule, 41 railroads submitted plans for implementing PTC as required. During CY 2010, FRA reviewed each plan and provided written notification of its decision regarding approval, approval with conditions, or disapproval. Since then, FRA has received plans that were revised and corrected. The review and approval process of PTC plans was completed in CY 2010.

Thirty-six railroads will be implementing PTC on their property (with the other 5 having been deemed compliant with the allowable exceptions from having to install PTC as written into the rule). The timelines for system implementation are as individually presented in each respective PTC Implementation Plan. For most of the 36 railroads, pilot testing of the systems will be completed by the end of CY 2013. These same railroads will be completing full implementation during CY 2014 and CY 2015. According to the congressional mandate, full implementation must be completed by the end of CY 2015. The scope of deployment (approximately one-half of all route miles of track in the United States), and the statutory deadline of December 31, 2015, will require railroads to begin deployment prior to completion of their pilot programs.



## Rail Route Analysis Requirements for Security-Sensitive Hazardous Materials

On November 25, 2008, the Pipeline and Hazardous Materials Safety Administration (PHMSA), in close consultation with FRA, published a final rule implementing the 9/11 Commission Act of 2007, requiring DOT to issue a final rule that would require rail carriers of security-sensitive hazardous materials to “select the safest and most secure route to be used in transporting” those materials, based on the rail carrier’s analysis of the safety and security risks on primary and alternate transportation routes. FRA is administering the PHMSA rule and may force a carrier to use routes other than those selected if it finds that: (1) the carrier failed to conduct an adequate analysis, or (2) the carrier failed to select the safest and most secure route. This action would only be taken after consulting with PHMSA, the Transportation Security Administration (TSA), and the Surface Transportation Board.

PHMSA’s rail routing rule requires rail carriers of security-sensitive hazardous materials to compile annually traffic data on shipments of these materials. The Department of Homeland Security (DHS) and DOT have determined that security-sensitive materials are bulk shipments of poison by inhalation materials; certain explosive materials that pose a hazard of mass explosion, fragment projectile or fire hazard; and certain high-level radioactive material shipments. Railroads are required to annually analyze and assess the safety and security of the routes used to transport these security-sensitive materials and all available practicable alternative routes over which they have authority to operate, and to solicit input from State, local and tribal officials regarding security risks to high-consequence targets along or in proximity to the routes. The route assessment must consider a minimum of 27 risk factors, including rail infrastructure characteristics along the route, proximity to iconic targets, environmentally sensitive or significant areas, population densities, and emergency response capabilities. After considering mitigation measures to reduce safety and security risks, the railroads are to select the practicable routes that pose the least overall safety and security risks.

Using funding from DHS, the Railroad Research Foundation developed a risk management tool that had assisted rail carriers in performing the safety and security analyses mandated by RSIA. The Rail Corridor Risk Management System (RCRMS), a Web-based interactive tool, enables rail carriers to identify route characteristics using the 27 factors and to weigh safety and security impacts. RCRMS provides a standardized, consistent approach to the process of selecting the rail routes posing the least overall safety and security risks for security-sensitive hazardous materials.

In FY 2010, FRA created a Routing Rule Compliance Team (Team) consisting of members from FRA’s Office of Railroad Safety, Office of Policy, and Office of Chief Counsel, as well as representatives from PHMSA and TSA. The purpose of this Team is to verify that carriers are in compliance with this new regulation. The Team met with all Class I carriers, who briefed FRA on their routing plan. This was followed by a compliance inspection at each carrier’s facilities. During the inspection, the Team examined the carrier’s decision making process for selecting routes to ensure that (1) the carrier conducted an adequate analysis of the route, and (2) the carrier selected the safest and most secure route, given economic viability. Class II and Class III carriers that transport security sensitive hazardous material are required to follow the Routing Rule Regulation as well. The American Short Line and Regional Railroad briefed FRA in August of 2010 regarding Class II and III carriers. This process will be repeated annually.

## Rulemakings

### *Railroad Safety Advisory Committee (RSAC)*

Through its RSAC, FRA works collaboratively with Government entities, railroads, unions, trade associations, suppliers, and other stakeholders to fashion mutually satisfactory solutions on safety regulatory issues. Recent RSAC efforts include rules regarding passenger train emergency systems, hours of service, bridge safety standards, and PTC. Its schedule for 2010 included passenger equipment crashworthiness, medical standards for safety-critical personnel, hours of service recordkeeping for passenger trains, critical incident stress plans, and minimum training standards and plans for each class or craft of safety-related employee.

FRA has worked to implement several other new regulations through the traditional rulemaking process. These recent rulemakings include restrictions on use of electronic/electrical devices (cell phone and texting restrictions), emergency notification systems for highway-rail grade crossings, and modifications of FRA's drug and alcohol regulation to include maintenance-of-way employees. Finally, FRA has also begun traditional rulemakings that establish (1) minimum standards for employee sleeping quarters to ensure that the sleeping quarters are clean, safe, and sanitary, give employees and individuals an opportunity for rest free from the interruptions caused by noise under the control of the carrier, and provide indoor toilet facilities, potable water, and other features to protect the health of employee, as specified in Section 420 of RSIA; and (2) standards requiring the railroads to provide emergency escape breathing apparatus suitable to provide head and neck coverage with respiratory protection for all crew members in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release, as specified in Section 413 of RSIA.

### *Hours of Service Recordkeeping for Passenger Trains*

The RSAC accepted this task on April 2, 2009, to provide advice regarding development of implementing regulations for the hours of service of operating employees of commuter and intercity passenger railroads under the RSIA. This RSAC Working Group was tasked to review available data concerning the effects of fatigue on the performance of subject employees and consider the role of fatigue prevention in determining maximum hours of service. The group has also been tasked to consider the potential for alternative approaches to hours of service using available tools for evaluating the impact of various crew schedules and determine the effect of alternative approaches on the availability of employees to support passenger service. This RSAC Working Group met for six multi-day meetings during 2009 and 2010. FRA will be publishing a notice of proposed rulemaking (NPRM) during FY 2011.

### *Conductor Certification*

The RSAC accepted this task on December 10, 2008, to develop regulations for certification of railroad conductors, as required by Section 402 of RSIA. The RSAC Working Group met for six multi-day meetings over a period of several months. After a series of detailed discussions, the RSAC Working Group achieved consensus on a draft proposed rule in January 2010. The full RSAC approved and recommended its consensus on March 18, 2010.

The resulting NPRM in this nonsignificant rulemaking is currently in final coordination, and is expected to be published in late September 2010. FRA's proposed regulation for conductor certification is intended to ensure that only certified persons serve as train conductors, and it accomplishes this by establishing Federal requirements for railroads to have conductor certification programs. These programs must meet or exceed FRA's minimum standards for the eligibility, training, testing, certification and monitoring of persons who serve as conductors. Included in the eligibility determination for new or recertifying conductors are vision and hearing acuity tests. In addition, for these individuals, the consideration of prior conduct as a motor vehicle operator; substance abuse and alcohol drug rules compliance; and prior safety conduct at a different railroad, if applicable. FRA's proposed regulation also prescribes minimum standards for revocation of certification and the dispute resolution procedures for appealing certification denial or revocation.

#### *Minimum Training Standards and Plans*

The RSAC accepted this task on March 18, 2010, to establish minimum training standards for each class and craft of safety-related railroad employee and their railroad contractor and subcontractor equivalents, as required by RSIA. This group has been tasked to assist FRA in developing regulations responsive to the legislative mandate, while ensuring generally accepted principles of adult learning are employed in training/development and delivery; determine a reasonable method of submission and FRA review of training plans which takes human resource limitations into account; and establish reasonable oversight criteria to ensure training plans are effective, using the operational tests and inspections requirements in 49 CFR Part 217 as a model. This RSAC Working Group met multiple times in 2010 and anticipates publishing an NPRM in CY 2011.

#### Risk Reduction Program (RRP)

The RRP is an FRA-led, industry wide initiative to reduce accidents and injuries, and build strong safety cultures by developing innovative methods, processes, and technologies to identify and correct individual and systemic contributing factors using "upstream" predictive data. RRP will incorporate developing knowledge of precursors to actual accidents, confidential reporting, effective problem analysis, and corrective actions. The adoption of new non-regulatory approaches creates the opportunity for accelerated improvement but does not supersede current regulatory approaches. Since FRA initiated this program on its own, the RSIA has mandated it and made it mandatory by October 2012.

FRA envisions a wide variety of projects that could fit under the RRP umbrella. Some examples include the close-call reporting systems, peer observation programs, management development systems, and the Collision Hazard Analysis currently in place on some commuter railroads. In addition, use of the Track Quality Index or innovative use of wayside equipment monitors and sensors for predictive maintenance or capital investment might qualify as RRP programs. In fact, any innovative use of predictive data could be seen as a potential pilot.

In October 2009, FRA's RRP Division provided grant funds to several projects submitted by Amtrak and Class I freight railroads. The projects listed below were chosen for their likeliness to improve safety, reduce risk, and applicability for collaborative transfer to other railroads.

- Safety Culture Change (Amtrak)
- Reduce Grade Crossing Fatalities (Amtrak)
- Cross-functional Risk Reduction (Amtrak)
- Track Substructure Risk Mitigation and Reliability Improvement Project (Amtrak)
- Behavioral Accident Prevention Process (PRIDE) (BNSF)
- Unattended Track Geometry Inspection (Soo Line Railroad)
- Continuous High-Speed Rail Test (CSXT)
- Broken Rail Risk Reduction (NS)
- Fatigue Risk Management System (UP)

Before September 2010, FRA selected from among these projects those that showed the greatest ability to affect risk levels, and provided additional grant funding.

In addition to the voluntary programs, by October 2012, FRA will promulgate a regulation requiring certain railroads to develop and implement risk reduction programs, and to file RRP plans with the FRA. Once the regulation is in effect, FRA will approve the plans and will monitor railroads' compliance with the plans to ensure that railroads proactively identify and address risks. Given that this program is in its infancy and will not be an industry wide requirement for several years, the ability to estimate or predict the impacts on future improvements on safety are difficult to accomplish. In addition, given that this program will not be required industry wide, it might take several years for the benefits to materialize. To initiate the process for developing a regulation for the risk reduction programs, FRA published an Advance Notice of Proposed Rulemaking in CY 2010.

### Passenger Rail Division

In 2009, FRA formally established the Passenger Rail Division (PRD) to support the RSIA initiative for the development of passenger rail programs throughout the United States by October 16, 2012, and to support the American Recovery and Reinvestment Act of 2009 (ARRA) initiative for high-speed rail (HSR) and commuter/passenger rail development. PRD is coordinating and maintaining FRA safety policies, regulations, and guidance for all matters related to HSR, intercity rail, commuter rail, and shared-use rail operations.

The primary focus of PRD is to develop new Federal standards for rail passenger equipment, training, and operations. The program will also help to evaluate proposed rail operations to determine if they are safe and whether the proposed equipment meets Federal standards. This Division concentrates on the many issues associated with the selection, implementation, and evaluation of passenger rail projects pertaining to System Safety and Emergency Response Plans. PRD will also address the many issues associated with the selection, implementation, and evaluation of "new start" railroads and the associated planning and determination of compliance with existing Federal regulations. PRD is currently working with new start railroads in Florida, Colorado, California, Texas, Michigan, Minnesota, North Carolina, New Jersey, and New York. The Division's responsibilities also include a focus on pilot projects that involve application of new technologies to improve safety.

Some of the most important work administered by PRD is passenger rail system safety. PRD directs an outreach program to provide passenger railroads training and information on system safety techniques. PRD staff also collaborates with the American Public Transportation Association to conduct system safety audits on passenger rail operations. System safety for passenger rail operations is currently a voluntary program. PRD staff, however, is working with an RSAC group to develop a System Safety Regulation that will require all passenger railroads to develop and implement System Safety Programs (SSP) that satisfy the RSIA requirements for a risk reduction program.

System Safety uses innovative hazard management techniques to proactively identify and address safety issues before accidents occur. The use of System Safety supports the FRA Railroad Safety Strategy in that the hazard management techniques can reduce the number, frequency, and severity of all passenger rail related accidents, injuries, and fatalities, including those related to trespassing and highway-rail grade crossings. The PRD goals include issuance of an NPRM on System Safety in early 2012.

The Division will continue to provide training and information on system safety and FRA requirements to all passenger rail new starts. The PRD goal is for all passenger rail new starts to have adequate training and information to establish their own System Safety Plans.

Another important initiative for the PRD is to provide program management for the development of HSR standards, regulations, and rules of particular applicability, and to address HSR mandates contained in RSIA and ARRA for HSR corridors. FRA regulations for HSR currently support maximum train speeds of 150 miles per hour (mph). The HSR vision contained in RSIA and ARRA contemplates train speeds of up to 220 mph.

The PRD is currently working with three HSR operators—Florida HSR, DesertXpress, and California HSR—to identify appropriate safety requirements for those applications. The PRD expects to have requirements fully defined for Florida HSR, DesertXpress, and California HSR by the end of CY 2011. However, identification and funding of additional projects in the coming year may require the PRD to both broaden and focus its efforts to address the variety of projects that might eventually be funded.

## **Goal #2: Improving the consistency and effectiveness of enforcement and compliance programs.**

### Industrial Hygiene

The Industrial Hygiene Division has a dual role within FRA. The Division is responsible for performing activities in support of Administration enforcement in the railroad industry as well as for implementing internal Occupational Safety and Health Administration (OSHA) compliance programs in safety and health for the benefit of those who work in the railroad industry.

In regulatory enforcement, the Division has primary responsibility for ensuring compliance with the regulations governing occupational noise exposures in locomotive cabs and exposures to

contaminants in the cabs of maintenance-of-way equipment. As the occupational noise exposure regulation for the locomotive cab occupants is fully implemented, more enforcement efforts are expected to take place there. The Division supports the MP&E, Track, OP, HM, and Signal disciplines in the areas of the use of fall protection for railroad bridge work, diesel exhaust in locomotive cabs, and non-occupational noise rules, in addition to Environmental Protection Agency (EPA) noise rules from 40 CFR Part 201 under 49 CFR Part 210 and 49 CFR Section 229.129, Audible Warning Device.

The Division also has primary responsibility for FRA internal safety and health compliance programs including blood borne pathogens, confined space entry, hearing conservation, radiation protection, and injury and illness reporting. The Division develops the structure of the programs, develops and provides the training associated with them, provides guidance for compliance, and maintains all necessary records.

### Discipline-Specific Technical Training

The Safety Improvement and Development Team (SIDT) is staffed with discipline-specific trainers that train inspectors throughout the year on FRA safety regulations. The primary mission of the SIDT is to manage the Office of Railroad Safety's Technical Training Program for the 600 Federal and participating State railroad safety inspectors and specialists of the five technical disciplines. To accomplish this mission, the team designs, develops, and delivers specialized internal courses, and administers contract training from external sources as necessary. A test is given before and after each class to confirm that inspectors are learning skills to effectively enforce safety regulations. Classroom training using established training modules includes enforcement directives from newly issued technical bulletins, enforcement manuals, and rule modifications. This focus improves uniformity of enforcement nationwide and is a way of determining that FRA inspectors meet agency qualification requirements.

Technical training is based on organizational needs and is therefore considered mandatory. Various types of analyses are performed to determine the organizational needs, including feedback from headquarters, the regions, and the inspectors. On average, the team manages approximately 45 classes in 22 different courses of study each year. SIDT also develops and delivers general training to all Federal and State employees who may be assigned to perform accident investigations or write specialized reports, and to meet special agency needs such as steam locomotive inspections, using radar to monitor train speeds, and fatigue-related assessments for safety-related railroad employees. On average, new inspectors attend seven weeks of classroom training during their first two years of employment, and all inspectors and regional specialists attend at least 1 week of classroom training per year.

The SIDT also develops and administers on-the-job training standards for new railroad safety inspectors and inspector trainees. These standards, based on a model used by the Department of Defense, are specific to FRA inspection tasks. They are designed to ensure that the tasks are fully described, that conditions for learning transfer are present, and that standards of proficiency are met before an inspector is deemed qualified.

FRA held discipline-specific training conferences focused on uniformity of enforcement for all five disciplines in FY 2010. The guidance provided reduces variations among inspectors in their enforcement of Federal safety regulations.

### Technical Bulletins

Technical bulletins are internal documents (usually memoranda) issued to FRA's regional personnel by FRA's Director for Safety Assurance and Compliance. The bulletins provide interpretive guidance and they help clarify specific issues under the rail safety regulations and other safety issues. Technical bulletins improve the awareness of inspectors and industry persons in terms of what is expected from them when enforcing or complying with existing safety regulations. The intermediate outcome is more uniform compliance, which improves the quality of compliance and data used to measure achievement of safety goals. Newly produced bulletins are immediately distributed to inspectors by email, added to REG-Trieve disks every quarter (which are distributed to inspectors for easy access to these documents on their laptop computers), and incorporated into training classes.

### Compliance Manuals

The Office of Railroad Safety uses six manuals to establish and clarify organizational expectations for railroad safety inspectors, safety specialists, and regional managers. All of the manuals are primary source documents for both classroom and on-the-job training.

The General Manual describes the organization of DOT, of FRA generally, and of the Office of Railroad Safety specifically. This manual includes step-by-step instructions that regions and inspectors must use when performing accident investigations, clarifies general expectations for use of enforcement and other compliance tools, explains in general terms other safety mechanisms and investigations the Office of Railroad Safety uses to ensure a higher level of safety in the United States, and provides interviewing guidance.

The Office of Railroad Safety also publishes compliance manuals on the FRA public Web site for the five railroad safety inspection disciplines. These manuals establish organizational expectations for inspection tasks, establish specialized investigation requirements, and explain application of FRA safety regulations.

### Performance Evaluations

Performance evaluations for regional administrators include GPRA safety goals. Quarterly progress reports are provided to regions showing their progress toward their share of annual national goals. The intermediate outcome provides a means for evaluating what the region is doing to improve safety and a way to check on what their region is doing to succeed at improving safety.

## Rail Integrity

The Rail Integrity Group within the Track and Structures Division was established to provide FRA oversight on rail maintenance programs. The Rail Integrity Group maintains FRA safety policies and provides guidance for all rail-related issues as determined by 49 CFR Part 213, Track Safety Standards; including non-destructive rail inspection programs, defective rail remedial action, rail inspection frequencies, and rail inspection records. The group is the primary representative for the Office of Railroad Safety and other FRA divisions concerning rail-related incidents that impact railway safety.

The purpose of the Rail Integrity Group is to provide expert advice and assistance to FRA headquarters, regional track safety staff and Regional Administrators on safety issues relating to management, inspection, and maintenance of railroad rail; railroad safety issues related to rail and components; and issues concerning rail defect development, rail failure, and rail-caused train accidents.

The Rail Integrity Group analyzes the current non-destructive rail inspection programs and processes, rail maintenance programs, and make recommendations on those analyses. They perform onsite inspections, investigations, and/or evaluations to determine the effectiveness of railroad safety programs that address the inspection, maintenance, and replacement of rail. They also provide oversight into the capabilities of the various non-destructive detection systems, the training and experience of the flaw detector car operators, and the accuracy of the defect verification process utilized by the test car operator.

The Rail Integrity Group is actively engaged in training the regional and State track inspectors annually through the FRA SIDT Training Program and has developed a class that provides specific training to the inspectors concerning the rail inspection processes, rail inspection technologies, rail defect development and identification, and rail manufacturing. They also oversee the FRA review and acceptance process concerning the recently required 49 CFR Part 213 modifications to Railroad Continuous Welded Rail policies and procedures.

## Automated Track Inspection Program (ATIP)

In the field of track geometry technology, FRA currently oversees a fleet of five track geometry rail cars: three cars under ATIP and two cars under FRA's Office of Railroad Policy and Development (RPD). These advanced, specially designed cars provide accurate track geometry information and intelligence data to assess compliance with CFR Part 213, Federal Track Safety Standards. Since 2000, the ATIP fleet has inspected 409,853 miles<sup>3</sup> of the U.S. rail network over a span of 2,610 days. Collectively, the cars average about 157 miles per day out of approximately 140,000 miles of main and siding track, with major priorities given to passenger, hazardous material (hazmat), and defense-related routes. FRA's two newest full-production geometry cars came online in 2007. Combined with a third full-time production geometry car, the ATIP goal is to increase survey miles to approximately 100,000 miles per year. Since the addition of three cars, ATIP has achieved a 359 percent increase in inspection frequency over previous years.

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<sup>3</sup> Source: Track Data Management System



The track data collected under ATIP is used by FRA’s railroad inspectors and by railroads to ensure track safety and to assess track safety trends within the industry. The railroads often use ATIP data as a way of checking quality assurance on their inspection and maintenance. To facilitate use of the collected data, ATIP will originate and distribute quarterly survey reports to agency and railroad managers to promote consistent application. ATIP will place additional emphasis on Amtrak and commuter routes to promote passenger safety. To support this goal, ATIP will identify track segment locations based on quality index for additional attention by ATIP, regions, and railroads.

**Goal #3: Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.**

During the past 4 calendar years for which complete data is available, grade crossing collisions have decreased 34.6 percent, from 2,941 in 2006 to 1,924 in 2009. Casualties have likewise declined, with fatalities and injuries down 33.1 percent and 34.1 percent, respectively. While these are encouraging trends, the number of accidents and casualties remains a concern for FRA.

FRA will promote and enhance public safety over the next 5 years by reducing rail-related deaths and injuries due to collisions at highway-rail grade crossings. This will be achieved by using additional public outreach and educational programs and increasing law enforcement partnerships.

During the 5-year period, FRA will partner with national organizations (e.g., Operation Lifesaver, Inc. (OLI)), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA), and non-Federal law enforcement agencies to increase awareness and enforcement of highway-rail grade crossing violations. In 1972, when OLI began, there were approximately 12,000 collisions between trains and motor vehicles annually. On August 31, 2010, the NTSB commended OLI as a leader in reducing highway-rail grade crossing accidents. By 2009, the most recent year for which preliminary statistics are available, the number of train/motor vehicle collisions had been reduced by approximately 84 percent from the 1972 level to 1,924. The following briefly describes some of the organizations and how FRA will work with them:

ORGANIZATION	DESCRIPTION AND FRA ACTIVITIES
OLI	A nonprofit, international, continuing public education program first established in 1972 to end collisions, deaths, and injuries at places where roadways cross train tracks, and on railroad rights-of-way. FRA will provide funding and assistance in program development.
FMCSA	Focuses on reducing crashes, injuries, and fatalities involving large trucks and buses. FRA will join forces with FMCSA outreach efforts and activities to prevent collisions at highway-rail grade crossings. FRA and FMCSA will provide assistance to OLI as it develops a sophisticated web-based, e-learning tool to provide crossing safety training to drivers of commercial motor vehicles.

ORGANIZATION	DESCRIPTION AND FRA ACTIVITIES
Law Enforcement	Increases partnerships between FRA and law enforcement through FRA's Law Enforcement Liaison Program. In addition, works with the National Sheriffs' Association and the International Chiefs of Police Association to foster a better relationship with law enforcement. FRA's Law Enforcement Liaison Program uses active and retired law officers to work with local law enforcement agencies to stress the importance of enforcement in the prevention of crossing collisions.
FHWA, NHTSA	FRA will continue to work with these agencies and FMCSA to encourage Departmental advocacy for improving crossing safety. FRA is a member of the Department's Intelligent Transportation Systems Management Council to facilitate the inclusion of crossing safety into the development of IntelliDrive.

Previously submitted and completed:

- Updated the *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings*.
- Issued a final rule of particular applicability that identifies the 10 States with the most collisions over the past 3 years and required them to develop State action plans with specific solutions for improving safety at highway-rail grade crossings.

Prior to FY 2012, FRA will have:

- Worked with FRA's Office of Chief Counsel to update model legislation for highway-rail grade crossing violations.
- Issued a rule that requires each railroad carrier to establish and maintain a toll-free telephone service for rights-of-way over which it dispatches trains for the reporting of emergencies or other problems.
- Provided two grant programs (assuming funding is provided as authorized) for States to improve crossing safety. One grant will be for enhanced public education and enforcement programs to reduce crossing collisions and reduce trespassing. The other grant will provide priority funding for crossing safety improvements (e.g., signals, gates, four-quadrant gates, medians, traffic signals, lighting, signs, and crossing surfaces). These programs will continue through FY 2013.

In FY 2012, FRA will:

1. Revise the DOT Crossing Inventory Form FRA F 6180.71 to include new fields that will enhance the ability of States, railroads, FRA, and others to evaluate safety at crossings. FRA anticipates that a rulemaking will be necessary for the new form and accompanying guides.
2. Explore issuing a rulemaking mandating the periodic updating of the Inventory by both railroads and States, per the RSIA.
3. Issue rules or establish policy and guidance on responsibility for safety at private crossings. This is an action identified in the 2004 Secretary's Action Plan and a continuation of efforts began in 2006.
4. Update the *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings*. This publication compiles the existing State laws concerning highway-rail grade crossings and will be made available to the public.

In FY 2013, FRA will:

1. Research the risk reduction associated with commonly used Alternative Safety Measures in quiet zones (e.g., escape medians) to determine appropriate standard effectiveness rates. This study will potentially expand the approved Supplementary Safety Measures while eliminating the cumbersome review process of Alternative Safety Measures.
2. FRA's Office of Chief Counsel will work with Office of Railroad Safety to review and revise the model State law on crossing violations compiled in FY 2012 for highway-rail grade crossing violations, which was issued on January 7, 2011. The RSIA requires FRA to update the model State law periodically.

In FY 2014, FRA will:

1. Conduct a study determining the effectiveness of the new Manual on Uniform Traffic Control Devices requirement for all passive crossings to be equipped with either stop or yield signs.

In FY 2015, FRA will:

1. Conduct a study accessing the impact of quiet zones on crossing safety.

In FY 2016, FRA will:

1. Analyze and evaluate highway-rail grade crossing treatments being installed on higher-speed rail crossings (80 mph to 110 mph).
2. Evaluate existing and potential practices for incorporating highway-rail grade crossing safety into IntelliDrive (ITS).

#### **Goal #4: Improving research efforts to enhance and promote railroad safety and performance.**

##### FRA Research and Development

The primary goals of the FRA research and development (R&D) program are to enhance railroad safety for conventional rail and to support the development and deployment of safe high-speed rail operations. FRA R&D assists in providing the foundation of facts upon which the safety assurance process is based. In order to improve the effectiveness of the FRA R&D program, FRA has:

- Implemented a process for selecting areas of investigation, with the highest priority given to activities that are most likely to reduce risk while improving performance.
- Expanded our cooperative research programs, both in conventional and high-speed rail, to ensure stakeholder support and ensure the maximum benefit at the earliest possible time.
- Improved alignment of our safety technology R&D with those of the industry stakeholders to speed results and better ensure adoption.
- Expanded the use of technology demonstrations and cooperative pilot programs to refine technology and develop procedures and recommended practice for its use.

- Implemented a process to track the adoption of FRA-sponsored safety technologies, assess the real-world impact on safety and performance, and provide feedback for R&D process improvement.

The process for selecting and evaluating R&D projects has been enhanced by adding additional “gates” for evaluation as safety technology progresses. This helps ensure the early identification of the most promising technologies and the timely termination of R&D activities, which no longer appear promising. An annual review of the entire research program is conducted by the independent Transportation Research Board. Once again, this review helps ensure the highest priorities are given to areas of investigation that have the greatest potential for improving safety and performance. Priorities for project selection include areas that present significant safety risks or unacceptable safety trends, where technology is most likely to have a positive impact on both safety and performance, and where there is a clear path to real-world implementation.

The R&D project evaluation and selection process has been used to identify those projects that have the potential for *significant safety impact, a positive impact on performance, and appropriate technology available*. For those projects, selected emphasis is placed on producing maximum possible real-world impacts at the earliest possible time. To accomplish this, the Office of Research and Development (OR&D) seeks to establish the partnerships with appropriate stakeholders (including railroads, rail labor, suppliers, and technology providers) early in the life of the project. Emphasis will also be placed on conducting cost-benefit analyses for emerging safety technologies to ensure the likelihood for adoption by the industry. This minimizes the time between a successful R&D “proof of concept” and the application in the field. Close collaboration with Office of Railroad Safety guarantees early identification and remediation of potential regulatory barriers to innovation.

FRA’s OR&D has expanded the use of targeted grants and cooperative agreements involving both railroads and technology providers to provide a fast start to establish stakeholder buy-in, and demonstrated real-world impact at the earliest possible time.

Key R&D results anticipated for FY 2012 include:

- **Fatigue**—A report on the fatigue status of the US railroad industry will be published. This report will be a baseline for future examinations of industry fatigue post-RSIA. It will generate estimates of conditional probabilities of accidents given a level of fatigue based on the data collected in the Fatigue Avoidance Scheduling Tool validation study. Risk estimates (risk = probability x \$) will be generated based on an economic analysis that resulted from the validation study.
- **Locomotive Cab Displays and Controls**—A report will be published documenting the net safety and performance impact achieved by the addition of advanced displays and controls for locomotive crews, along with guidance for their design
- **PTC**—Produce recommendation for PTC interoperability standards, which includes cab design layout, Edge Messaging Protocol, Advanced Message Queuing Protocol, Class C peer-to-peer messaging, Class D multicast messaging, and Locomotive Integration

Gateway. Produce deployable advanced braking algorithm to enable precision braking. Complete the 220 MHz radio development for PTC data communication. Complete the PTC-compatible Employee In Charge Portable Terminal development to enhance wayside worker safety.

- **Rail Integrity**–Pilot demonstrations and evaluations of laser-based ultrasonic rail defect inspection technology will be used to develop recommendations for procedures, industry recommended practices, and standards for their application to safety assurance.
- **Track Geometry**–Development of recommended practices and recommended safety standards for the use of autonomous track geometry inspection technology.
- **Track Buckling Prevention**–Development and implementation of industry recommended practice for deployment of rail temperature prediction technology to better prevent track buckling derailments.
- **Improved Hazardous Material Tank Car Designs**–Development of advanced test criteria for evaluating the effectiveness of new hazardous material tank car designs.
- **Improved Hazardous Material Car Inspection**–Evaluation of improved non-destructive tank car inspection techniques will support the development of improved industry recommended practice and Federal safety regulations.
- **Automated Wayside Vehicle Inspection**–Pilot demonstrations and analyses will be conducted to demonstrate and quantify the safety and performance benefits of automated wayside inspection systems. The program will focus on consistency of data, accurate interpretation of data results, and comparison against current regulations and inspection requirements. Procedures, recommended practices, and safety standards for their use will be developed as appropriate. Analyses will be conducted of emerging technologies in the area of machine vision (i.e., laser, infrared, etc.) sensors. This project will help validate the feasibility of using such systems in service operations, and explore potential integration of data from these systems and other sensor types. The program will focus on understanding the limits of the technology and documenting sensor accuracy and reliability, and it will propose optimal uses for the technology along the national railroad network.

### High-Speed Rail

Fostering the development of HSR in the United States has been an important part of FRA’s work since its creation in 1967. During the 1980s and 1990s, FRA played a central role in managing and facilitating the growth of high-speed service on the Northeast Corridor. Acting in response to the Intermodal Surface Transportation Efficiency Act of 1991, FRA began the formal process of designating HSR corridors for future development and providing limited funding for corridor improvements primarily directed at safety. With the passage of the ARRA, which provided \$8 billion in capital assistance for HSR corridors and intercity passenger rail service, and following President Obama’s announcement of a strategic plan for high-speed rail (“Vision

for High-Speed Rail in America”), FRA now takes on the important work of helping to make HSR a reality in markets across the Nation.

On June 17, 2009, FRA’s Administrator issued a Notice of Funding Availability and interim program guidance for the HSR Passenger Rail Program. The guidance identified transportation safety and safety planning as evaluation criteria for merit consideration of proposed projects and programs. The strategy described how FRA will provide specificity and additional safety guidance for development of HSR systems.

On January 28, 2010, President Obama announced the first recipients to receive grant funding under the High-Speed Intercity Passenger Rail (HSIPR) Program. This first round of selections under the HSIPR Program represents a down payment on the President’s vision of a passenger rail network that will help address the Nation’s 21<sup>st</sup> century transportation challenges.

The HSIPR Program has generated enormous interest and excitement across the country. FRA received 259 grant applications from 37 States and the District of Columbia requesting nearly \$57 billion in funding. In total, 82 applications from 31 States were selected for funding.

FRA is working with the California High-Speed Rail Authority to administer grants for the creation of a new HSR system operated predominantly on grade-separated, dedicated tracks with a top design speed of up to 250 mph and an operating speed of up to 220 mph. Grants include \$2.23 billion from ARRA for construction of an initial section in the Central Valley. The 800-mile, statewide program will provide reliable, high-speed electrified train service between the Bay Area, the Central Valley, Sacramento, and Southern California, providing an express travel time between Los Angeles and San Francisco of less than 2 hours 40 minutes. Phase I calls for a 520-mile system connecting Anaheim and Los Angeles through the Central Valley to San Francisco by 2020; Phase II would extend the system north to Sacramento and south to San Diego by 2026. FRA and the Authority have been working to plan and design this system for over a decade.

FRA is also working with the Florida Department of Transportation to administer a grant for \$1.25 billion from ARRA toward the creation of a new high-speed rail corridor that connects Tampa Bay, Orlando, Miami, and other communities in central and south Florida. The first phase of the service funded through ARRA will connect Orlando to Tampa, with intermediate service to several of central Florida’s major tourist destinations. This segment will cover 84 miles and completion is anticipated in 2014. A second phase will connect Orlando to Miami, following either an inland or a coastal route. This segment will cover 230 miles and is anticipated to be completed in 2017.

The hallmark of world-class, high-speed rail is safety. FRA believes that railroads conducting HSR operations in the United States can provide service as safe as, or safer than, any HSR operation being conducted elsewhere. In anticipation of such service, and to promote public safety, FRA has developed the High-Speed Passenger Rail Safety Strategy. The final version of the Safety Strategy was issued in November 2009 and is available on FRA’s Web site. The Strategy includes (1) establishing safety standards and program guidance for HSR, (2) applying a system safety approach to address safety concerns on specific rail lines, and (3) ensuring that

railroads involved in passenger train operations effectively and efficiently manage train emergencies. This strategy endeavors to achieve uniformly safe rail passenger service, regardless of speed. Since the severity of collisions and derailments increases with speed, safety performance targets for preventive measures are tiered to become more stringent as speed increases.

The strategy divides the safety issues into four categories: prevention, mitigation, emergency management, and System Safety Plans. Each category includes FRA initiatives to address the corresponding safety issues. Some initiatives are fully developed with specific goals in place to address issues. For example:

- Vehicle Track Interaction and key safety issues related to track and structures will be addressed through a final rule scheduled to be published in the first quarter of CY 2011.
- Standards for PTC systems that define increased functionalities for higher speeds were identified in 2010.
- Structural standards for Tier I trainsets (up to 125 mph) are under review in the RSAC Engineering Task Force. Initial guidance will be issued by the end of CY 2010.
- Structural standards for Tier II and above will commence in CY 2011 after Tier I guidelines are completed.

System safety is also identified as a Safety Strategy component. HSR systems and other new passenger rail service require development and evaluation of SSPs. SSPs seek to integrate the process of identifying safety needs and managing them over time. One key to success is effective hazard identification, which focuses attention on opportunities for risk reduction in the particular circumstances of the specific passenger railroad. The purpose of an SSP is to improve railroad safety through a structured, proactive program developed and implemented by passenger railroad operators. The SSP can also support development of a strong safety culture and requires processes and procedures to identify and manage hazards inherent to the passenger railroad.

Requirements for SSPs on HSR systems will be included in HSR Rules of Particular Applicability and will be formalized for all passenger operations in ongoing rulemaking activity. The goals for System Safety include completion of the RSAC portion of the System Safety Regulation by CY 2011 and issuing an NPRM for the System Safety Regulation by the end of 2012.

Longer-term initiatives that address specific issues related to the Safety Strategy will be developed throughout 2011. Work on these initiatives will commence as other projects are completed and technical resources become available.

## **Goal #5: Preventing railroad trespasser accidents, incidents, injuries and fatalities.**

Deaths among trespassers on railroad rights-of-way (3,021 in the 5-year period 2005 to 2009, or approximately 600 annually) are the leading cause of fatalities attributable to railroad operations in the United States. From a study completed in May 2008, FRA learned that trespassers who

die are an average of 38 years old and are most often Caucasian males. Approximately two-thirds were under the influence of alcohol and/or drugs. Coroners described the activity of more than 43 percent of the decedents as walking, standing, sleeping, lying, reclining, lounging, or sitting on the track or in the gauge, i.e., between the rails. Seven percent were walking or running across the track. Other activities included riding a recreational vehicle (all-terrain vehicle, dirt bike, snowmobile, etc.), standing outside the gauge but obviously too close, riding or getting on or off a train, driving a highway vehicle, or being on a bridge or trestle. Tunnels were not mentioned.

### Future Trespassing Strategies

FRA's future trespassing strategies include the following:

- Promote and enhance public safety by reducing rail-related deaths and injuries due to trespassing on railroad rights-of-way and other property, using increased public outreach and education programs. (Ongoing)
- Partner with national organizations to increase awareness and enforcement of railroad trespassing, including OLI. In addition, FRA will partner with Drug Abuse Resistance Education (D.A.R.E.) America to develop graffiti prevention programs with special focus on railroad trespassing.

Prior to FY 2012:

- FRA staff will host a Right-of-Way Trespass Reduction Workshop that will take an in-depth look at the issues surrounding trespassing and fatalities on railroad rights-of-way. The goal of the workshop will be to identify and share existing industry leading practices and to explore new strategies that the railroad industry can pursue to reduce the number of right-of-way and trespasser incidents and fatalities.
- FRA staff will review and update trespass and vandalism strategies and conduct a demographic study of profiles collected by the rail industry to provide information regarding the at-risk audience to be targeted for additional education and outreach activities.

In FY 2012, FRA will continue to promote and enhance public safety by reducing rail-related deaths and injuries due to trespassing on railroad rights-of-way and other property, using increased public outreach and education programs by:

1. Using data collected by the railroads and working with the Geographic Information System (GIS) to plot each trespassing incident and fatality. This information will be useful to direct additional outreach, educational resources, and law enforcement activities to areas in need.
2. Updating the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossing.

In FY 2013, FRA will:

1. Review and update model trespass legislation and vandalism model legislation.



In FY 2014, FRA will:

1. Review and update trespass and vandalism prevention strategies.
2. Study the impact of the Rails-to-Trails program on trespasser and pedestrian safety.

In FY 2015, FRA will:

1. Host a Right-of-Way Trespass Reduction Workshop (as in 2011).
2. Conduct a demographic study of profiles (as in 2011).

In FY 2016, FRA will:

1. Use the new data being collected under Part 225 to conduct an analysis on suicides on railroad rights-of-way.
2. Use the GIS information being collected on trespassing incidents being reported under Part 225 to conduct an analysis to locate “hot spots” where trespassing is likely to occur.

## **Goal #6: Improving the safety of railroad bridges, tunnels, and related infrastructure to prevent accidents, incidents, injuries, and fatalities caused by catastrophic failures and other bridge and tunnel failures.**

### FRA Bridge Safety Program

FRA has been conducting evaluations of railroad bridge management programs since the 1980s, before the Bridge Safety Policy was issued as an interim statement in 1995 and in final form in August 2000. The policy issues guidelines by which railroads should implement bridge safety management programs, and by which FRA evaluates those programs. FRA issued a revised bridge policy statement in January 2009 to add recommendations developed by the Railroad Bridge Working Group of the RSAC in 2008.

In September 2007, FRA also issued Safety Advisory 2007-03 to further explain and amplify important aspects of the agency’s bridge safety policy and to re-emphasize the need for railroads to adopt and implement safe maintenance practices to prevent bridge failures.

Following enactment of RSIA, FRA’s RSAC undertook the task of developing a recommended text for a Federal railroad bridge safety regulation which would govern railroads’ bridge management programs. The RSAC Working Group completed that task in April 2009. In August 2009, FRA published an NPRM based on the RSAC recommendation. The final rule was published on July 15, 2010, and became effective on September 13, 2010.

Meanwhile, FRA continues to evaluate bridge management practices on a representative sampling of the Nation’s railroads, including Class I, II, and III freight railroads, and passenger carriers. The evaluations generally compare a railroad’s program with the guidelines in the FRA Bridge Safety Policy, and include observations of individual bridges to determine their general condition, as well as the accuracy of the railroad’s inspection reports. Most large railroads generally conform to the FRA guidelines, but FRA has discovered instances in which management had not adequately evaluated or addressed critical items delineated in railroad bridge inspection reports before they developed into critical failures or near-failures. Many of

the smaller railroads evaluated also conformed generally to the guidelines, but a considerable number either fell short by a large degree or showed no evidence of bridge inspection, management, or maintenance.

FRA has examined reports from January 1, 1982, through December 31, 2006, of 51 train accidents caused by the catastrophic structural failure<sup>4</sup> of railroad bridges, an average of two per year. During that 25-year period, two people were injured and no fatalities were attributed to structural bridge failure. Since that period, four instances have been reported to FRA in which lack of adherence to the guidelines in the Bridge Safety Policy resulted in trains operating over structural deficiencies in steel bridges that could very easily have resulted in serious train accidents.

In CY 2007, five train accidents occurred due to catastrophic structural failure of bridges, all of which were timber trestles. The most severe of those accidents occurred on the M&B Railroad near Myrtlewood, Alabama, where a train of solid fuel rocket motors derailed when a timber trestle railroad bridge collapsed under the train. Several cars, including one car carrying a rocket motor, rolled onto their sides and six people were injured. FRA also recently evaluated the bridge management practices of several small railroads and found that some had no bridge management or inspection programs whatsoever.

In CY 2008, FRA had reports of two train accidents due to catastrophic structural failure of bridges, both of which were timber trestles. One railroad employee was injured from this cause. In CY 2009, four reportable train accidents were related to bridge structural failures. Two involved timber trestles, one a steel pile trestle, and one was caused by failure of the mechanism of a moveable bridge.

Besides the development of regulations and the evaluation of railroad bridge management programs, FRA is cooperating with the American Short Line and Regional Railroad Association and all of the Class I railroads in the development of model programs that can be adopted by small railroads to enable the safe, effective, and efficient management of their bridges.

## **RESOURCES NEEDED**

The resources needed to meet the safety programs and goals in this strategy plan for FY 2012 are found in FRA's budget request for FY 2012.

## **PROGRESS ASSESSMENT**

A historic review of FRA's safety program including information from GPRA measures over a 5-year period are provided to show the progress made leading up to the RSIA requirements.

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<sup>4</sup> FRA uses the term "catastrophic failure" to describe an incident in which a bridge collapses or directly causes a train accident. A "bridge failure" is a situation in which a bridge is no longer capable of safely performing its intended function.

## FRA Safety Performance Measures

### 1. GRADE CROSSING INCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	3,078	764,846	4.02	NA
2005	2,984	785,882	3.80	3.90
2006	3,071	805,340	3.81	3.85
2007	2,805	793,800	3.54	3.75
2008	2,537	781,708	3.25	3.75
2009	2,036	683,562	2.99	3.65
2010	1,970	689,140	2.86	3.65

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

### 2. HUMAN FACTORS-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	1,315	764,846	1.72	NA
2005	1,295	785,882	1.65	1.66
2006	1,115	805,340	1.38	1.66
2007	1,034	793,800	1.30	1.66
2008	957	781,708	1.23	1.66
2009	708	683,562	1.04	1.35
2010	623	689,140	0.90	1.35

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

### 3. TRACK-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	1,006	764,846	1.32	NA
2005	1,099	785,882	1.40	1.27
2006	1,063	805,340	1.32	1.27
2007	1,003	793,800	1.26	1.15
2008	859	781,708	1.10	1.15
2009	704	683,562	1.03	1.15
2010	653	689,140	0.95	1.15

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

#### 4. EQUIPMENT-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	419	764,846	0.548	NA
2005	392	785,882	0.499	0.521
2006	350	805,340	0.435	0.521
2007	333	793,800	0.419	0.521
2008	339	781,708	0.436	0.521
2009	250	683,562	0.369	0.450
2010	250	689,140	0.362	0.450

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

#### 5. OTHER (SIGNAL AND MISCELLANEOUS) TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	529	764,846	0.692	NA
2005	556	785,882	0.707	0.647
2006	517	805,340	0.642	0.647
2007	403	793,800	0.509	0.647
2008	391	781,708	0.499	0.647
2009	329	683,562	0.484	0.647
2010	335	689,140	0.486	0.593

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

#### 6. NON-ACCIDENT RAIL HAZMAT RELEASES

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	669	764,846	0.875	NA
2005	684	785,882	0.870	0.965
2006	632	805,340	0.785	0.940
2007	697	793,800	0.878	0.915
2008	686	781,708	0.895	0.900
2009	629	683,562	0.927	0.800
2010	666	689,140	0.966	0.800

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

## CONCLUSION

FRA's Railroad Safety Strategy includes a variety of approaches to achieve industry safety improvements. The NSPP is focused on critical safety projects that are designed to advance safety improvements. The NIP focuses Federal inspector efforts toward areas on railroads needing the most attention and monitors progress made achieving inspection goals.

Rulemakings are improving industry actions by providing improved methods to achieve safety advancements. The RRP is a process that brings industry and FRA together to build a strong safety culture. Highway-rail grade crossing and trespass prevention programs promote enhancing public safety through public outreach, educational programs, and increased law enforcement partnerships. FRA's research and development has potential for significant safety impact, a positive impact on performance, and identifying promising available technology. Emphasis is placed on producing the maximum possible real-world impact at the earliest possible time.

GPRA requires Federal agencies to develop strategic plans with long-term, outcome-oriented goals and objectives, annual goals linked to achieving the long-term goals, and annual reports on the results achieved. FRA uses this process to evaluate all aspects of its safety programs with the overall focus on six GPRA goals that are designed to support two of DOT's safety strategic objectives (to reduce transportation-related accidents and incidents, and to reduce all transportation-related hazardous materials incidents), as well as its current strategic objective to reduce deaths and injuries. RRS has consistently achieved safety improvements using GPRA as a method in reducing highway-rail grade crossing incidents, human factors-caused train accidents, track-caused train accidents, equipment-caused train accidents, other (signal and miscellaneous) train accidents, and rail non-accident hazardous materials releases per million train-miles. In the FY 2009 "Top Management Challenges," DOT's Inspector General noted that grade crossing collisions and deaths had declined, that FRA had strengthened its crossing program, and that FRA can do more by "effectively implementing the safety mandates in the RSIA."

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**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION**

# **Railroad Safety Strategy: Progress Assessment - FY 2011**



**February 2011**

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## INTRODUCTION

Section 102 of the Rail Safety Improvement Act of 2008 (RSIA) directed the Federal Railroad Administration (FRA) to develop a Railroad Safety Strategy and submit it at the same time as the President's budget. FRA has incorporated this requirement with the fiscal year (FY) 2011 budget request to ensure consistency between this strategy and funding requests to achieve our safety goals. This report's organization mirrors the legislation language structure.

This report of FRA's Railroad Safety Strategy submitted with the President's budget for FY 2011 covers Long-Term Strategy Measures and each of the six safety goals followed by a progress assessment.

Section 102 of RSIA reads as follows:

### ***"SEC. 102. RAILROAD SAFETY STRATEGY***

*"(a) SAFETY GOALS —In conjunction with existing federally-required and voluntary strategic planning efforts ongoing at the Department and the Federal Railroad Administration as of the date of enactment of this Act, the Secretary shall develop a long-term strategy for improving railroad safety to cover a period of not less than 5 years. The strategy shall include an annual plan and schedule for achieving, at a minimum, the following goals:*

*"(1) Reducing the number and rates of accidents, incidents, injuries, and fatalities involving railroads including train collisions, derailments, and human factors.*

*"(2) Improving the consistency and effectiveness of enforcement and compliance programs.*

*"(3) Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.*

*"(4) Improving research efforts to enhance and promote railroad safety and performance.*

*"(5) Preventing railroad trespasser accidents, incidents, injuries and fatalities.*

*"(6) Improving the safety of railroad bridges, tunnels, and related infrastructure to prevent accidents, incidents, injuries, and fatalities caused by catastrophic failures and other bridge and tunnel failures.*

*"(b) RESOURCE NEEDS.—The strategy and annual plan shall include estimates of the funds and staff resources needed to accomplish the goals established by subsection (a). Such estimates shall also include the staff skills and training required for timely and effective accomplishment of each such goal.*

*"(c) SUBMISSION WITH THE PRESIDENT'S BUDGET.—The Secretary shall submit the strategy and annual plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure at the same time as the President's budget submission.*

*"(d) ACHIEVEMENT OF GOALS.—*

*"(1) PROGRESS ASSESSMENT.—No less frequently than annually, the Secretary shall assess the progress of the Department toward achieving the strategic goals described in subsection (a). The Secretary shall identify any deficiencies in achieving the goals within the strategy and develop and institute measures to remediate such deficiencies. The Secretary and the Administrator shall convey their assessment to the employees of the Federal Railroad Administration and shall identify any deficiencies that should be remediated before the next progress assessment.*

*"(2) REPORT TO CONGRESS.—Beginning in 2009, not later than November 1 of each year, the Secretary shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure on the performance of the Federal Railroad Administration containing the progress assessment required by paragraph (1) toward achieving the goals of the railroad safety Strategy and annual plans under subsection (a).*

This report contains both the safety strategy submitted to Congress with the President's FY 2011 budget and FRA's assessment of progress towards meeting the goals presented in the strategy. Each section of this report contains the text of the strategy followed by an assessment of the progress made during FY 2010 towards achieving each goal.

## **BACKGROUND**

FRA promotes and regulates safety throughout the Nation's railroad industry. Most of its regulatory authority is codified under Parts 200 to 299 of Title 49 of the Code of Federal Regulations (49 CFR 200-299). FRA has numerous enforcement tools under its authority, including defect and deficiency warnings, civil penalties, compliance and emergency orders, special notices, and directives.

FRA executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts who share their experience with the industry. The staff includes more than 400 inspectors and other safety professionals across the Nation who are assigned to eight regional offices. FRA safety inspectors specialize in five safety disciplines consisting of Track and Structures, Signal and Train Control, Motive Power and Equipment (MP&E), Operating Practices (OP), and Hazardous Materials (HM). In addition, FRA's field complement includes program managers for highway-rail grade crossing safety and trespass prevention, bridge structure specialists, and industrial hygienists.

The railroad industry experienced a significant improvement in safety from calendar year (CY) 2000 to 2008, with the total number of all reportable rail-related accidents and incidents declining 26 percent. During this period, train accidents also fell by 18 percent, casualties (deaths and injuries) dropped 24 percent, and highway-rail grade crossing incidents decreased 32

percent. These actual number results are all the more impressive because they occurred during an era where train miles increased 6 percent.

As remarkable as these numbers are, several major freight and passenger train accidents in 2004 and 2005 raised concerns about railroad safety. In addition to several key national rail safety initiatives that FRA has championed since 2005, the agency has also devoted four of its six safety performance measures to evaluate train accidents under the Government Performance and Results Act of 1993 (GPRA).

## LONG-TERM STRATEGY MEASURES

FRA believes that the long-term strategy achievements expected from RSIA in Sec. 102 and other FRA safety efforts are best evaluated using GPRA results. FRA has been using these goals to measure regional performance and FRA’s overall safety performance since GPRA was officially implemented at the agency.

FRA’s GPRA goals for FY 2012 through FY 2015 at this time only assume FRA inspector staffing increases of 5 FTE/10 positions for FY 2011. When additional field inspectors are hired, the impact on safety improvements is not immediate. Our experience shows to expect at least a 1-year lag in safety improvement from new inspectors. This time is used to train them on performing safety enforcement duties.<sup>1</sup>

Increases in headquarters positions focus on ways to achieve safety improvements through rulemakings, enforcement oversight, and alternative methods such as the Risk Reduction Program (RRP). RRP looks for ways to improve safety by identifying areas through industry collaboration that achieve safety results in ways not previously identified.

FRA’s six GPRA goals and one Department of Transportation goal as of October 2009, which is when the Railroad Safety Strategy covering FY 2011 – 2015 was developed, are listed in the tables below. Note that FRA reviews these goals annually and adjusts them as necessary to reflect new regulations and other safety initiatives as well as resources available. The goals presented below were last reviewed in 2010. However, since these were the goals in place during FY 2010, these are the goals that FRA worked towards during the period covered by this Railroad Safety Progress Assessment.

### 1: Grade Crossing Incidents

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	3.500	3.350	3.200	3.050	2.900

### 2: Human Factors-Caused Train Accidents

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	1.250	1.245	1.232	1.232	1.232

<sup>1</sup> FRA revises its GPRA goals on an annual basis.

**3: Track-Caused Train Accidents**

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	1.120	1.120	1.120	1.120	1.120

**4: Equipment-Caused Train Accidents**

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	0.450	0.450	0.450	0.450	0.450

**5: Signal/Miscellaneous Train Accidents**

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	0.590	0.585	0.580	0.575	0.570

**6: Non-Accident Hazardous Materials Releases**

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles	0.780	0.760	0.740	0.720	0.700

FRA also has an overall performance measure that reports on accidents/incidents per million train miles as part of the U.S. Department of Transportation (DOT) Safety Performance Goals. These goals, like other safety goals, are based on available data for analysis. Programs such as the National Safety Program Plan (NSPP), the National Inspection Plan (NIP), rulemakings, RRP, and inspections contribute to achieving these safety goals.

**DOT Safety Performance Goal: Rail Accidents/Incidents**

	2011	2012	2013	2014	2015
Rate Per Million Train-Miles *	16.40	16.25	16.05	15.80	15.50

\* This projection assumes that all five of the Automatic Track Inspection Program (ATIP) cars will be in service (including T17, T19, and T20) and that the Track Integrity Group will be fully staffed by 2010.

FRA exceeded its five accident goals (Goal 1 through Goal 5 below) as well as the DOT Safety Performance goal. This indicates that the efforts made by FRA inspectors, coupled with our regulatory and other safety program initiatives, have positively impacted railroad safety.

<b>FY 2010 Goals and Results for Six FRA Internal Goals and One DOT Goal under GPR</b>							
<b>2010 Rate Per Million Train-Miles</b>	<b>Goal 1</b>	<b>Goal 2</b>	<b>Goal 3</b>	<b>Goal 4</b>	<b>Goal 5</b>	<b>Goal 6</b>	<b>DOT Goal</b>
Goal	3.65	1.35	1.15	0.45	0.59	0.80	16.40
Actual	2.86	0.90	0.95	0.36	0.49	0.97	16.13

Regarding Goal 6—Non-Accident Hazardous Material Releases—the number of hazmat releases has been relatively consistent over the last six years, while number of train miles has decreased.

There are two reasons for this. First, demand for hazardous materials is inelastic, relative to that for other commodities transported by rail, as was evidenced during the recent economic recession. Second, FRA is using new tools that allow us to gather information on hazmat releases and begin the investigative progress earlier. FRA is also more effectively using precursor data.

## **RSIA SAFETY GOALS**

### **Goal #1: Reducing the number and rates of accidents, incidents, injuries, and fatalities involving railroads, including train collisions, derailments, and human factors.**

#### National Safety Program Plan (NSPP)

The NSPP is the FRA Office of Railroad Safety's annual (fiscal year) document designed to ensure the sound implementation of the National Safety Program, including identification of recurring and nonrecurring special-emphasis activities for the year. The NSPP provides a mechanism for planning recurring activities (e.g., dispatch-center assessments performed triennially on a rotating basis). At the national level, it identifies emphasis areas based on data analyses, including interregional initiatives directed at particular system-level issues of concern for major railroads operating in multiple regions. The NSPP for FY 2010 integrates safety planning for all elements of the Office of Railroad Safety into a single document.

#### National Inspection Plan (NIP)

In December 2004, the Office of Inspector General (OIG) recommended that FRA submit to the Secretary of the Department of Transportation a comprehensive rail safety plan for implementing a program that, among other things, makes meaningful use of available data on which to focus inspection activities. In 2005, FRA issued the National Rail Safety Action Plan, which contains the development and implementation of a new NIP. Under this approach, FRA inspectors focus their efforts on locations that, according to data-driven models, are likely to have safety problems.

The purpose of the NIP is to optimize FRA's ability to reduce the rates of various types of train accidents, releases of hazardous materials, and casualties from human factor errors. The plan provides guidance to each regional office on how its inspectors, who each specialize in one of the five inspection disciplines, should divide their work by railroad company and State.

The NIP is a process that involves three steps. In the first step, FRA headquarters produces an initial baseline plan for each of the agency's eight regions. In the second step, the regional administrators may adjust the goals for their respective regions based on local knowledge and emerging issues. In the third step, once the fiscal year starts, FRA monitors how the regions are meeting their inspection goals. The NIP is implemented through a Web-based interface that allows FRA headquarters and the regions to monitor progress in field inspections during a fiscal year.

## Dashboard

In 2008, FRA deployed a Dashboard tool on its secure Web site to provide its leadership, regional management, and inspection workforce multiple views of the agency's current and historical enforcement efforts. Inspection data from the field is compiled in near-real time fashion and a nightly process creates the data stores to display detail and aggregated data graphically (bar graphs and gauges). The Dashboard is also used as an effective performance management tool. It maintains over 15 different metrics (e.g., inspection days, defect ratios, violations) at the inspector, discipline, and regional levels. Finally, the Dashboard serves as a central launch pad for several complex query and report programs that have been integrated into the output displays and allows users to "drill down" when additional detail is required. It is a useful decision support tool in managing limited inspection resources when scheduling enforcement activities such as focused inspections and audits. It also allows FRA headquarters managers to monitor inspection activities in the regions to ensure that enforcement and compliance policy is applied uniformly.

Staff directors of the various disciplines at FRA headquarters conduct regularly occurring Web meetings with regional specialists in their respective disciplines to go over the data that is compiled in the Dashboard. Using the Dashboard "cube," an online analytical processing data-mining tool, headquarters staffers are able to view inspections summarized by activity category (Top 10 categories) and correlate this with information on what types of accidents and incidents are occurring in the region. This allows headquarters and the regions jointly to address where the safety hazards are being identified and plan inspection activities accordingly. The regional managers also use the compiled data to ensure that each discipline and each inspector is maintaining the goals and to address outliers in the data.

## Rulemakings

### *Railroad Safety Advisory Committee (RSAC)*

Through its RSAC, FRA works collaboratively with Government entities, railroads, unions, trade associations, suppliers, and other stakeholders to fashion mutually satisfactory solutions on safety regulatory issues. Recent RSAC efforts include rules regarding passenger train emergency systems, accident/incident reporting, and railroad operating rules. Its schedule for 2009 included additional protection for roadway workers, passenger equipment crashworthiness, medical standards for safety-critical personnel, hours of service recordkeeping, bridge safety standards, and advanced signal and train control technology, i.e., positive train control (PTC).

FRA has worked to implement several other new regulations through the traditional rulemaking process. These recent rulemakings include electronically controlled pneumatic brakes, poison inhalation hazard (PIH) tank car crashworthiness (with the Pipeline and Hazardous Materials Safety Administration (PHMSA)), and rail-routing rule for hazardous materials (also with PHMSA).



FRA has also begun a rulemaking that establishes minimum training standards for each class or craft of safety-related employee and equivalent railroad contractor and subcontractor employee, as specified in Section 401 of RSIA.

#### *Rail Route Analysis Requirements for Security Sensitive Materials*

The Implementing Recommendations of the 9/11 Commission Act of 2007 required DOT to issue a final rule that would require rail carriers of security-sensitive hazardous materials to “select the safest and most secure route to be used in transporting” those materials, based on the rail carrier’s analysis of the safety and security risks on primary and alternate transportation routes. On November 25, 2008, PHMSA, in close consultation with FRA, published a final rule implementing these requirements. FRA administers the PHMSA rule and may force a carrier to use routes other than those selected if it finds that: (1) the carrier failed to conduct an adequate analysis; or (2) the carrier failed to select the safest and most secure route. This action would only be taken after consulting with PHMSA, the Transportation Security Administration (TSA), and the Surface Transportation Board.

PHMSA’s rail routing rule requires rail carriers of security-sensitive hazardous materials to compile annually traffic data on shipments of these materials. The Department of Homeland Security (DHS) and DOT have determined that security-sensitive materials are bulk shipments of PIH materials; certain explosive materials that pose a hazard of mass explosion, fragment projectile, or a fire hazard; and certain high-level radioactive material shipments. Railroads are required to annually analyze and assess the safety and security of the routes used to transport these security-sensitive materials and all available practicable alternative routes over which they have authority to operate, and to solicit input from State, local and tribal officials regarding security risks to high-consequence targets along or in proximity to the routes. The route assessment must consider a minimum of 27 risk factors, including rail infrastructure characteristics along the route, proximity to iconic targets, environmentally sensitive or significant areas, population densities, and emergency response capabilities. After considering mitigation measures to reduce safety and security risks, the railroads are to select the practicable routes that pose the least overall safety and security risks. Railroads can elect to make their initial routing decisions by September 1, 2009, based on analysis of 6-month data (from July to December 2008), or make their decisions by March 31, 2010 (based on calendar year 2008 data).

Using funding from DHS, the Railroad Research Foundation developed a risk management tool that will assist rail carriers in performing the safety and security analyses mandated by RSIA. The Rail Corridor Risk Management System (RCRMS), a Web-based interactive tool, will enable rail carriers to identify route characteristics using the 27 factors and to weigh safety and security impacts. The RCRMS thus provides a standardized, consistent approach to the process of selecting the rail routes posing the least overall safety and security risks for security-sensitive hazardous materials.

#### *Railroad Operating Rules (ROR)*

The ROR final rule is already making a significant impact in the improvement of railroad transportation safety at the national, State, and local levels, while dramatically enhancing the safety of all railroad employees. The new rule directly addresses 49 percent of the human factor accident causes and enhances transportation safety for railroad employees and the public by

bringing responsibility and accountability for compliance with critical railroad operating rules to the industry.

The final rule covers both railroad operational testing programs and railroad operating practices related to the handling of equipment, switches, and fixed derails. The rule establishes greater accountability for implementation of sound operating rules necessary for safety. The theme of the final rule is accountability. It embodies a broad strategy intended to promote better administration of railroad programs, on the one hand, and a highly targeted strategy designed to improve compliance with railroad operating rules addressing three critical subject matters, on the other. Within this framework, FRA is taking responsibility to set certain requirements heretofore left to private action and will be monitoring compliance with those requirements through appropriate inspections and audits. Railroad management is held accountable for putting in place appropriate rules, instructions, and programs of operational tests. Railroad supervisors are held accountable for doing their part to administer operational tests and establish appropriate expectations with respect to rules compliance. Railroad employees are held accountable for complying with specified operating rules and will have a right to challenge if they are instructed to take actions that, in good faith, they believe would violate the rules. This framework of accountability is intended to promote good discipline, prevent train accidents, and reduce serious injuries to railroad employees.

In CY 2004, 32 people were injured as a result of 646 accidents, but by 2007, the number of injuries was reduced to 5. For 2004, the industry suffered \$30,458,185 in damages as a result of human factor-caused accidents, but through 2007, the total cost to the industry was \$18,801,398. The 2008 figures through April (117 human factor-caused accidents, 0 injuries or deaths, and \$4,888,372 in damages) bode well for continued improvement. Furthermore, the reduction of human factor-caused accidents and employee injuries was a key objective of FRA and DOT's National Safety Plan, and the team's activities over the last 3.5 years have accelerated the drive to accomplish this primary objective.

#### *Electronically Controlled Pneumatic (ECP) Brakes*

In CY 2005, 14 percent of train accidents on mainline track caused by human error involved the improper handling or misuse of the automatic braking system. Today's air-brake systems are built on 19th century pneumatic technology that has been progressively refined to support current railroad operations. Broad agreement exists among railroads, suppliers, and users of these systems that they have serious limitations that cannot be remedied with further incremental changes.

In 2006, FRA released the final report, "ECP Brake System for Freight Service." The study addresses the issues surrounding this technology, presents alternative plans for ECP brake implementation, and offers a recommended approach.

On October 16, 2008, FRA issued revisions to regulations governing freight power brakes to provide for and encourage the safe implementation and use of ECP brake systems. This rule allows railroads to take advantage of productivity-enhancing technologies to achieve very significant long-term cost savings. This technology has the potential to alleviate congestion on many rail corridors and, thus, increase rail capacity and economic growth for the Nation. The economic analysis and information collection package were key to obtaining Office of

Management and Budget clearance for issuance of this rule. The MP&E Division had processed this rulemaking on an expedited basis starting in FY 2007. The new rule has encouraged the safe implementation and use of new ECP brake systems by providing specific requirements relating to the design, interoperability, training, inspection, testing, handling defective equipment and periodic maintenance related to ECP brake systems. Since the issuance of the new rule, FRA has continued to meet with the railroads and provide safety oversight for new ECP brake-equipped train starts. To date, BNSF Railway has successfully deployed two ECP brake-equipped standalone “pilot” coal trains (Alabama to Wyoming), Norfolk Southern Railway has two such trains (in Pennsylvania and West Virginia) and Union Pacific Railroad has one intermodal ECP brake-equipped train (Long Beach, CA to Dallas, TX). These ECP brake-equipped trains provide for significantly enhanced safety, which includes shorter stopping distances (up to 30 percent reduction), reduced train slack action, reduced brake shoe/rigging wear, and better train handling as well as enhanced energy conservation/fuel savings.

#### *Positive Train Control (PTC)*

FRA is continuing to support national deployments of advanced signal and train control technology to improve the safety, security, and efficiency of freight, intercity passenger, and commuter rail service through regulatory reform, project safety oversight, technology development, and financial assistance. “Positive Train Control” refers to technology that is capable of preventing train-to-train collisions, overspeed derailments, and casualties or injuries to roadway workers (e.g., maintenance-of-way workers, bridge workers, signal maintainers) operating within their limits of authority. PTC systems vary widely in complexity and sophistication based on the level of automation and functionality they implement, the system architecture utilized, and the degree of train control they are capable of assuming. Current PTC system designs either act as a safety overlay for existing methods of rail operations or provide the functionality necessary to implement new methods of rail operations. PTC technology also has the potential capability to limit adverse consequences of events such as hijackings and runaways that are of special concern in an era of heightened security. Because of the requirements of RSIA, FRA has tasked the RSAC with a new Federal regulation requiring each Class I railroad and any entity that provides regular scheduled intercity or commuter rail passenger transportation to submit a plan for implementing a PTC system.

#### Risk Reduction Program (RRP)

The RRP is an FRA-led, industry wide initiative to reduce accidents and injuries, and build strong safety cultures by developing innovative methods, processes, and technologies to identify and correct individual and systemic contributing factors using “upstream” predictive data. RRP will incorporate developing knowledge of precursors to actual accidents, confidential reporting, effective problem analysis, and corrective actions. The adoption of new non-regulatory approaches creates the opportunity for accelerated improvement but does not supersede current regulatory approaches. Since FRA initiated this program on its own, RSIA has mandated it and made it mandatory by October 2012.

FRA envisions a wide variety of projects that could fit under the RRP umbrella. Some examples include the close-call reporting systems, peer observation programs, management development systems, and the Collision Hazard Analysis currently in place on some commuter railroads. In

addition, use of the Track Quality Index or innovative use of wayside equipment monitors and sensors for predictive maintenance or capital investment might qualify as RRP programs. In fact, any innovative use of predictive data could be seen as a potential pilot.

In addition to the voluntary programs, by October 2012, FRA will implement a regulation requiring certain railroads to develop and implement risk reduction programs, and to file RRP plans with the FRA. Once the regulation is in effect, FRA will approve the plans and will monitor railroads' compliance with the plans to ensure that railroads proactively identify and address risks. Given that this program is in its infancy and will not be an industry wide requirement for several years, the ability to estimate or predict the impacts on future improvements on safety are difficult to accomplish. In addition, given that this program will not be required industry wide, it might take several years for the benefits to materialize.

### Passenger Rail Division

In 2009, FRA formally established the Passenger Rail Division (PRD) to support the RSIA initiative for the development of passenger rail programs throughout the United States by October 16, 2012, and the American Recovery and Reinvestment Act of 2009 (ARRA) to support high-speed rail (HSR) and commuter/passenger rail development. PRD is coordinating and maintaining FRA safety policies, regulations, and guidance for all matters related to HSR, intercity rail, commuter rail, and shared-use rail operations.

The primary focus of PRD will be to develop new Federal standards for rail passenger equipment, training, and operations. The program will also help to evaluate proposed rail operations to determine if they are safe and whether the proposed equipment meets Federal standards.

More specifically, this division will concentrate on the many issues associated with the selection, implementation, and evaluation of passenger rail projects pertaining to System Safety and Emergency Response Plans, and PRD will also address the many issues associated with the selection, implementation, and evaluation of "new start" railroads and the associated planning and determination of compliance with existing Federal regulations. The division's responsibilities would also include a focus on pilot projects that involve application of new technologies to improve safety.

Some of the most important work administered by PRD is passenger rail system safety. The PRD directs an outreach program to provide passenger railroads training and information on system safety techniques. PRD staff also collaborates with the American Public Transportation Association to conduct system safety audits on passenger rail operations. System safety for passenger rail operations is currently a voluntary program. PRD staff, however, is working with an RSAC group to develop a System Safety Regulation that will require all passenger railroads to develop and implement System Safety Programs (SSP) that satisfy the RSIA requirements for a risk reduction program.

System safety uses innovative hazard management techniques to proactively identify and address safety issues before accidents occur. Use of system safety supports the FRA Railroad Safety

Strategy in that the hazard management techniques can reduce the number, frequency, and severity of all passenger rail related accidents, injuries, and fatalities, including those related to trespassing and highway-rail grade crossings.

The PRD goals include completion of the RSAC portion of the System Safety Regulation by February 2010 and issuing a notice of proposed rulemaking (NPRM) for the System Safety Regulation by September 2010.

The division will continue to provide training and information on system safety and FRA requirements to all passenger rail new starts. The PRD goal is for all passenger rail new starts to have adequate training and information to establish its own SSP.

Another important initiative for the PRD is to provide program management for the development of HSR standards, regulations, and rules of particular applicability, and to address HSR mandates contained in RSIA and ARRA for HSR corridors. FRA regulations for HSR currently support maximum train speeds of 150 miles per hour (mph). The HSR vision contained in RSIA and ARRA contemplates train speeds of up to 220 mph.

The PRD is currently working with two potential HSR operators, DesertXpress and California HSR, to identify appropriate safety requirements for those applications. The PRD goal is to have requirements fully defined for DesertXpress and California HSR by 2011. However, identification and funding of additional projects in the coming year may require the PRD to both broaden and focus its efforts to address the variety of projects that may eventually be funded.

### ***Progress Assessment for RSIA Safety Goal #1***

#### National Safety Program Plan (NSPP), National Inspection Plan (NIP), and Dashboard

These three tools work together to ensure optimal short-, mid-, and long-term planning at all levels of the organization. The FY 2010 NSPP was issued in October 2009 and includes both recurring and nonrecurring special-emphasis activities for the year. It was updated on a quarterly basis to reflect progress and revisions. In October 2009, the NIP was updated to cover FY 2010 based on accident data and safety goals, and FRA is now developing the NIP for FY 2011.

During FY 2010, FRA enhanced the Dashboard to show individual inspector activity, GPRA goals, and NIP targets. The Dashboard, which reflects real-time information was developed in 2008, and has become an integral part of FRA's self-auditing program. Managers and specialists in both headquarters and the regions are able to identify quickly and easily trends and other useful information regarding safety issues to refine inspection plans and/or to refocus resources to address developing issues. Inspectors also have access to the tool and are able to measure their work against goals and the national average. Regional managers are ensuring that the tool provides incentives for the inspectors to deliver quality and legitimate inspections and do not simply inflate their activity levels. The Dashboard also identifies errors associated with inspection reports so corrective action can be taken in a timely manner. The Dashboard is one of many tools that can be used to help both managers and inspectors to identify potential issues.

## Rulemaking Activities

FY 2010 was very productive for FRA in the safety rulemaking arena. FRA focused on the development of regulations mandated by RSIA as well as other high-priority regulations aimed at reducing accidents, incidents, injuries and fatalities. The most significant regulations issued this year, Positive Train Control Systems and Restrictions on Railroad Operating Employees' Use of Cellular Telephones and Other Electronic Devices, addressed human factor-caused accidents and incidents. Both of these were developed in near record time with the issuance of NPRMs and final rules occurring within less than 6 months of each other. FRA also advanced the regulatory framework necessary for introducing new high-speed trainsets and advancing our High-Speed Rail Safety Strategy.

During FY 2010, the full RSAC met four times, and various working groups and their task forces met 24 times to discuss regulatory issues and develop recommendations for addressing them. Some issues affected the entire industry, while others focused on passenger operations. The issues discussed addressed the following areas:

- Positive Train Control Systems
- Conductor Certification
- Railroad Bridges
- Training Standards
- Track Standards, Including Rail Integrity and Concrete Crossties
- Passenger Car Engineering Standards
- Passenger Hours of Service
- Passenger Vehicle/Track Interaction
- Passenger Rail System Safety Programs
- General Passenger Safety Issues

As a result, during the year, FRA completed rulemakings on PTC and Railroad Bridge Safety, Front-End Strength of Passenger Cab Cars and Multiple-Unit Locomotives, and issued NPRMs on Concrete Crossties, Roadway Worker Protection—Adjacent Track On-Track Safety, and Passenger Train Vehicle/Track Interaction. FRA also completed regulations developed in-house addressing State Grade Crossing Action Plans, Reclassification of Locomotive Engineers, and Restrictions on Railroad Operating Employees' Use of Cellular Telephones and Other Electronic Devices, and issued NPRMs on Safety Appliances, and Emergency Escape Breathing Apparatus.

Progress was also made in the areas of medical standards, conductor certification, and accident reporting. FRA anticipates issuance of a final rule revising accident reporting requirements and a NPRM on conductor certification early in FY 2011.

FRA was also diligent in implementing recently issued regulations, including the ones discussed below.

### Railroad Operating Rules (ROR)

In CY 2004, 32 people were injured as a result of 646 accidents, but by CY 2009, the number of injuries and deaths were reduced to 9, as a result of 282 accidents. For 2004, the industry suffered \$30,458,185 in damages as a result of human factors-caused accidents, but through CY 2009, the total cost to the industry was down to \$13,880,103. The CY 2010 figures through June (121 human factors-caused accidents, 6 injuries and 0 deaths, and \$6,342,448 in damages) bode well for continued improvement. The reduction of human factors-caused accidents and employee injuries was a key objective of FRA and DOT's National Safety Plan, and the FRA's activities over the last 4.5 years have accelerated the drive to accomplish this primary objective.

### Rail Hazardous Materials Routing Rule

FRA established a Routing Rule Compliance Team (Team) to verify compliance with the requirements of the 2008 Final Rule on Rail Hazardous Materials Routing. This Team consists of members from FRA's Office of Railroad Safety, Office of Policy, and Office of Chief Counsel, as well as PHMSA and TSA staff. The Team met with all Class I railroads and was briefed on their routing plans. Subsequently, the team conducted compliance inspections at railroad facilities and reviewed the decision processes used for selecting routes to ensure that carriers conducted an adequate analysis of available viable routes and selected the safest and most secure routes. The Team also met with the American Short Line and Regional Railroad Association to coordinate review of routes for Class II and III railroads. The majority of these railroads have a single route and a single interchange point. FRA plans to complete review of these routes in CY 2010.

### Electronically Controlled Pneumatic (ECP) Brake Systems

The ECP Brake Systems rule that FRA issued in 2008 is to provide for and encourage the safe implementation and use of this new capacity-enhancing, safer operating and fuel conserving technology. BNSF Railway and Norfolk Southern Railway (NS) have successfully deployed ECP brake-equipped standalone pilot coal trains. NS also has three pilot coal trains deployed with ECP brakes. On May 18, 2010, FRA granted a waiver to both carriers for a joint move from the Powder River Basin to Southern Company's Plant Scherer outside of Atlanta, GA. The waiver extends the current Class I brake inspection maximum interval for ECP brake-equipped trains in service to this plant from Powder River Basin originations from 3,500 miles (in the final rule) to 5,000 miles. During FY 2010, FRA met with railroads interested in using ECP brake systems for some double-stack train movements and actively monitored the safe use of ECP brake systems where it has been deployed.

### Positive Train Control (PTC)

RSIA mandates that interoperable PTC systems must be fully implemented by the end of 2015. On January 12, 2010, FRA issued historic safety regulations requiring that PTC technology be installed on many of the Nation's major rail lines as well as commuter and intercity passenger rail routes. PTC is an integrated set of technologies that are to prevent train-to-train collisions,

derailments caused by excessive speed, unauthorized incursion into roadway worker work zones, and movement of a train through a switch in the wrong position. FRA expects initial cost to implement PTC to be approximately \$15 billion. This final rule, as mandated by Congress, is a giant step forward toward ensuring the safety and reliability of our freight, commuter, and intercity passenger rail routes. The final rule included specifications that allowed railroads to begin immediately finalizing their PTC Implementation Plans, required by statute to be submitted to FRA by April 16, 2010.

FRA received 41 PTC Implementation Plans in total, and has completed its detailed review of all plans and provided written notice to each submitting railroad of the outcome of that review within the allotted 90 days specified by subpart I of 49 CFR Part 236. During FY 2010, FRA also created a PTC Branch dedicated to providing ongoing PTC implementation oversight within the Signal and Train Control Division, consisting of a PTC supervisory specialist, two PTC senior test monitors, and one PTC specialist in each of FRA's eight regions.

FRA also published a Notice of Funds Availability, Solicitation of Applications for PTC-Related Projects in March 2010. The program makes available \$50 million in Federal funds for cost sharing projects under the Rail Safety Technology Program, which is a newly authorized program under the Rail Safety Improvement Act of 2008. FRA is currently reviewing applications and expects to award funds soon.

#### Risk Reduction Program (RRP)

Although the RRP is still in its infancy, FRA made significant progress in this area FY 2010. FRA issued grants to further fund pilot projects on five railroads. The projects were chosen for their likeliness to improve safety and reduce risk and for the applicability for collaborative transfer to other railroads. The selected projects include the following:

1. Amtrak: *Safety Culture Change, Reduce Grade Crossing Fatalities, and Cross-Functional Risk Reduction Teams*
2. BNSF: *Personal Responsibility in Decreasing Exposure (PRIDE) Program*
3. CSX: *Continuous Internal Rail Flaw Detection*
4. Norfolk Southern Railway: *Continuous Rail Defect Testing Evaluation Project*
5. Union Pacific Railroad: *Fatigue Risk Management Plan*

#### Passenger Rail Division

In FY 2010, FRA worked with RSAC to promulgate regulations enhancing its minimum standards for the performance of collision post and corner post structures on cab cars and multiple-unit (MU) locomotives. In addition to codifying enhanced safety standards for front-end frame structures and specifying how the structures are required to perform quasi-statically, the final rule includes dynamic performance criteria as an alternative means of demonstrating compliance. The alternative requirements will help to open up the passenger train market to innovative designs and crash energy managements systems, while assuring the maintenance of high levels of crashworthiness and safety. A final rule was published on January 8, 2010.



FRA established an RSAC Engineering Task Force to facilitate the regulation of passenger rail equipment built to alternative standards, while maintaining high levels of crashworthiness and occupant protection. Beginning in September 2009, the task force met on four separate occasions to develop a set of technical criteria and procedures for alternatively evaluating the crashworthiness and occupant protection performance of passenger rail equipment, intended to be applied to alternatively -designed equipment for use in passenger rail service at speeds up to 125 miles per hour (mph)—Tier I service. The approach taken in formulating these criteria and procedures will help guide the development of new crashworthiness and occupant protection performance standards for passenger equipment operated at higher speeds.

Despite many efforts, FRA was not able to propose system safety regulations as planned in September of 2010. Although the RSAC was able to make recommendations for a proposed regulation at that time, the commuter rail industry has expressed concerns regarding duplication of effort that may result from similar regulations issued by other agencies as well as requirements under future FRA Risk Reduction regulations and protection of information provided as part of their System Safety Program Plans. RSIA required FRA to conduct a study to determine whether it would be in the public interest to protect such industry information; completion of that study is expected in about one year.

PRD has worked extensively with new start commuter railroads, providing outreach, guidance, and training to incorporate hazard analysis and system safety into their work processes. These efforts ensure safety from the start of commuter service and promote a positive safety culture. In FY 2010, FRA worked with the Southeast Michigan Council of Governments on their operations between Detroit and Ann Arbor, the Capital Metro in Downtown Austin, and the Virginia Railway Express, which changed its contractor for operations in 2010.

PRD is also assisting both Florida and California in the development of specifications for their HSR programs.

## **Goal #2: Improving the consistency and effectiveness of enforcement and compliance programs.**

### Industrial Hygiene

The Industrial Hygiene Division has a dual role within FRA. The division is responsible for performing activities in support of Administration enforcement in the railroad industry as well as for implementing internal Occupational Safety and Health Administration compliance programs in safety and health for the benefit of our coworkers.

In regulatory enforcement, the Division has primary responsibility for ensuring compliance with the regulations governing occupational noise exposures in locomotive cabs and exposures to contaminants in the cabs of maintenance-of-way equipment. As the Occupational Noise Exposure regulation for the locomotive cab occupants is fully implemented, more enforcement efforts are expected to take place there. The Division supports the MP&E, Track, OP, HM, and Signal disciplines in the areas of the use of fall protection for railroad bridge work, diesel

exhaust in locomotive cabs, and non-occupational noise rules; as well as Environmental Protection Agency noise rules from 40 CFR Part 201 under 49 CFR Part 210, and 49 CFR Section 229.129, *Audible warning device*. In the future, the Division will also play a role in the enforcement of a future regulation on fitness-of-duty (medical standards) of railroad safety employees.

The Division also has primary responsibility for FRA internal safety and health compliance programs including blood borne pathogens, confined space entry, hearing conservation, radiation protection, and injury and illness reporting. The Division develops the structure of the programs, develops and provides the training associated with them, provides guidance for compliance, and maintains all necessary records.

### Discipline-Specific Technical Training

The Safety Improvement and Development Team (SIDT) is staffed with discipline-specific trainers that train inspectors throughout the year on FRA safety regulations. The primary mission of the SIDT is to manage the Office of Railroad Safety's Technical Training Program for the 600 Federal and participating State railroad safety inspectors and specialists of the five technical disciplines. To accomplish this mission, the team designs, develops, and delivers specialized internal courses and administers contract training from external sources as necessary. A test is given before and after each class to confirm that inspectors are learning skills to enforce effectively safety regulations. Classroom training using established training modules includes enforcement directives from newly issued technical bulletins, enforcement manuals, and rule modifications. This focus improves uniformity of enforcement nationwide and is a way of determining that FRA inspectors meet agency qualification requirements.

Technical training is based on organizational needs and is mandatory. Various types of analyses are performed to determine the organizational needs, including feedback from headquarters, the regions, and the inspectors. On average, the team manages approximately 45 classes in 22 different courses of study each year. SIDT also develops and delivers general training to all Federal and State employees who may be assigned to perform accident investigations or write specialized reports, and to meet special agency needs such as steam locomotive inspections, using radar to monitor train speeds, and fatigue-related assessments for safety-related railroad employees. On average, new inspectors attend 7 weeks of classroom training during their first 2 years of employment, and all inspectors and regional specialists attend at least 1 week of classroom training per year.

The SIDT also develops and administers on-the-job training standards for new railroad safety inspectors and inspector trainees. These standards, based on a model used by the Department of Defense, are specific to FRA inspection tasks. They are designed to ensure that the tasks are fully described, that conditions for learning transfer are present, and that standards of proficiency are met before an inspector is deemed qualified.

FRA held discipline-specific training conferences focused on uniformity of enforcement for all five disciplines in FY 2009. The guidance provided reduces variations among inspectors in their enforcement of Federal safety regulations.

## Technical Bulletins

Technical bulletins are internal documents (usually memoranda) issued to FRA's regional personnel by FRA's Director for Safety Assurance and Compliance. The bulletins provide interpretive guidance and they help clarify specific issues under the rail safety regulations and other safety issues. Technical bulletins improve the awareness of inspectors and industry persons in terms of what is expected from them when enforcing or complying with existing safety regulations. The intermediate outcome is more uniform compliance, which improves the quality of compliance and data used to measure achievement of safety goals. Newly produced bulletins are immediately distributed to inspectors by e-mail, added to REG-Trieve disks every quarter (which are distributed to inspectors for easy access to these documents on their laptop computers), and incorporated into training classes.

## Compliance Manuals

The Office of Railroad Safety uses six manuals to establish and clarify organizational expectations for railroad safety inspectors, safety specialists, and regional managers. All of the manuals are primary source documents for both classroom and on-the-job training.

The General Manual describes the organization of DOT, of FRA generally, and of the Office of Railroad Safety specifically. This manual includes step-by-step instructions that regions and inspectors must use when performing accident investigations, clarifies general expectations for use of enforcement and other compliance tools, explains in general terms other safety mechanisms and investigations the Office of Railroad Safety uses to ensure a higher level of safety in the United States, and provides interviewing guidance.

The Office of Railroad Safety also publishes compliance manuals for the five railroad safety inspection disciplines. These manuals establish organizational expectations for inspection tasks, establish specialized investigation requirements, and explain application of FRA safety regulations.

## Performance Evaluations

Performance evaluations for regional administrators include GPRA safety goals. Quarterly progress reports are provided to regions showing their progress toward their share of annual national goals. The intermediate outcome provides a means for evaluating what the region is doing to improve safety and a way to check on what their region is doing to succeed at making a difference in safety.

## Rail Integrity

The Rail Integrity Group within the Track and Structures Division was established to provide FRA oversight on railway non-destructive inspection programs and other rail-related maintenance programs. The Rail Integrity Group maintains FRA safety policies and provides guidance for all rail-related issues as determined by 49 CFR Part 213, Track Safety Standards.

The group is the primary representative for the Office of Railroad Safety and other FRA divisions concerning rail-related incidents that impact railway safety.

The purpose of the Rail Integrity Group is to provide expert advice and assistance to headquarters, regional safety staff and regional administrators on safety issues relating to management, inspection, and maintenance of railroad rail; railroad safety issues related to rail and components; and issues concerning rail defect development, rail failure, and rail-caused train accidents.

The Rail Integrity Group analyzes the current non-destructive rail inspection programs and processes, rail maintenance programs, and make recommendations on those analyses. They perform onsite inspections, investigations, and evaluations to determine the effectiveness of railroad safety programs that the inspection, maintenance, and replacement of rail. They also provide oversight into the capabilities of the various non-destructive detection systems, the training and experience of the flaw detector car operators, and the accuracy of the defect verification process utilized by the test car operator.

#### Automated Track Inspection Program (ATIP)

In the field of technology, FRA oversees a fleet of track geometry rail cars under its ATIP. These advanced, specially designed cars provide accurate track geometry data to assess compliance with our Federal Track Safety Standards. Currently, the fleet inspects roughly 30,000 miles a year out of approximately 220,000 miles of track, with major priorities given to passenger, hazardous materials, and defense-related routes. With the full production of the new geometry cars, ATIP intends to increase survey miles to approximately 100,000 miles per year. The track data collected under ATIP is used by FRA's railroad inspectors and by railroads to ensure track safety and to assess track safety trends within the industry. The railroads often use ATIP data as a way of checking quality assurance on their inspection and maintenance. To facilitate use of the collected data, ATIP intends to originate and distribute quarterly survey reports to agency and railroad managers to promote consistent application. ATIP will place additional emphasis on Amtrak and commuter routes to promote passenger safety. To support this goal, ATIP intends to identify track segment locations based on quality index for additional attention by ATIP, regions and railroads.

### ***Progress Assessment for RSIA Safety Goal #2***

#### Industrial Hygiene

The Industrial Hygiene Division had many accomplishments in FY 2010. Staff in this division completed initial training for hazard communication and refresher training covering blood-borne pathogens, and confined space entry as part of the agency's Safety and Health program. Staff also conducted training sessions for all safety disciplines at all of the Office of Railroad Safety's regional conferences held throughout the year.

The Industrial Hygiene Division addressed various compliance issues industry wide regarding Section 229.129 of the train horn rule. The division prepared a "frequently asked questions"

(FAQ) document that will form compliance guidance for MP&E inspectors, and presented these at the regional and multi-discipline conferences held this year.

The Industrial Hygiene Division has continued monitoring noise exposure for all discipline inspectors to determine if FRA needs to establish a hearing conservation program. This effort will continue for at least another year until sufficient data is collected to ensure FRA has properly identified any excessive noise exposures, or established that there are none. Staff audited two large railroads for compliance with 49 CFR Part 227, the Occupational Noise Rule. These audits were conducted to confirm the field elements of compliance, including provision of personal protective equipment and posting of exposure measurements.

Staff also investigated reports of issues ranging from community noise complaints (40 CFR Part 210 / 49 CFR Part 210) to potential asbestos and diesel exhaust exposures of railroad employees.

The Industrial Hygiene Division also drafted a report for Congress on Railroad Carrier Employee Exposure to Radiation in response to a mandate in section 411 of RSIA. This report is in the final stages of clearance.

**Emergency Escape Breathing Apparatus (EEBA)** – Pursuant to RSIA, FRA issued an NPRM on EEBA. FRA proposed to require railroads to provide an appropriate atmosphere-supplying emergency escape breathing apparatus in proper working order to members of train crews, direct supervisors of train crewmembers, and certain other employees while these employees are occupying the cabs of freight train locomotives transporting hazardous material that would pose an inhalation hazard in the event of release during an accident. This includes material poisonous by inhalation (“poisonous inhalation hazard” or PIH materials) and asphyxiates such as flammable gases; non-flammable, nonpoisonous compressed gases; gases poisonous by inhalation; and certain other materials classified as poisonous by inhalation.

The purpose of the proposed rule is to protect the occupational health and safety of employees whose predominant risk of exposure to hazardous materials due to a railroad accident may occur in or during escape from the locomotive cab. This rule is intended to prescribe minimum Federal standards for providing emergency escape breathing apparatus suitable to provide eye and respiratory protection for all crew members in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release.

The proposed rule would also require railroads that transport PIH materials and asphyxiates on the general railroad system of transportation to establish and carry out a series of programs for inspection and maintenance of the devices; instruction of employees in the use of the devices; and selection, procurement, and provision of the devices. Railroads would be required to identify individual employees or positions to be placed in their EEBA programs so that a sufficient number of EEBA's are available and that the identified employees or incumbents of the identified positions know how to use the devices. Finally, the proposed rule would require that convenient storage be provided for EEBA's in the locomotive to enable employees to access such apparatus quickly in the event of a release of a hazardous material that poses an inhalation hazard.

## Discipline-Specific Technical Training

As in past years, FRA held several discipline-specific technical training classes focused on areas within its five disciplines: Motive Power and Equipment, Hazardous Materials, Operating Practices, Signal and Train Control, and Track and Structures. These training courses were held in various locations throughout the United States, and provided our inspectors with an opportunity to understand new practices. New inspectors attend seven weeks of training in their first two years. All other inspectors receive a minimum of 1 week of training during the year, with the ability to request more training if desired. Our inspectors have found this training to be an excellent opportunity to increase their knowledge and share their experiences.

FRA also hosted a multi-discipline conference in August of 2010. This conference was divided into 2 weeks in which inspectors and specialists of each discipline attended one of the weeks offered. The staff directors of the various disciplines assessed the needs of each division to determine what topics should be presented or discussed at the conference. The agenda was driven by the needs of the field operations, and the majority of the topics discussed involved regulatory issues. During this conference, the inspectors heard not only from FRA specialists, but also from leaders of the railroad industry and rail labor representatives. There was a robust discussion among all parties and stakeholders; FRA Regional Administrators, Deputy Regional Administrators, specialists, and inspectors all participated in these discussions.

## Technical Bulletins

FRA issued three Technical Bulletins during FY 2010, one for MP&E and two general bulletins. These bulletins have provided clarity to regulations and other safety issues. As new bulletins are posted via e-mail and online, inspectors are able to apply these principles and procedures instantly to their work product. FRA has also supplied CD disks with this and new regulatory information on a quarterly basis, allowing inspectors to access these documents easily on their laptop computers. Technical bulletins were also incorporated where applicable in the discipline-specific technical training sessions.

## Compliance Manuals

Compliance manuals play an important role in the Office of Railroad Safety. The manuals from the five disciplines are currently being updated and should be completed this calendar year. These manuals provide the inspectors, specialists, and managers with the most up-to-date information in their areas of responsibility. The Hazardous Materials compliance manual was updated in FY 2010 and distributed during the annual discipline conference as well as posted on FRA's internal SharePoint Web site, making updates available instantly.

FRA has continued to include GPRA goals in the Performance Evaluations of Regional Administrators, providing further incentive to track progress and make necessary adjustments to meet the goals in FY 2010. As discussed earlier, the Dashboard has also allowed Regional Administrators to monitor safety levels and activities locally on a real-time basis. Trends can be detected early enough for Administrators to shift resources or take other responsive action.

## Rail Integrity

FRA has been working with industry through the RSAC process to develop proposed regulations for a new performance based model for scheduling rail flaw detection, adjusted remedial actions for rail flaws, and a significantly improved reporting of the rail inspection information.

FRA developed a methodology for the review of railroad plans and procedures for the installation, maintenance, and inspection of continuous welded rail and to assure compliance with new regulations recently issued in that area.

In addition, FRA developed a Track Inspector Rail Defect Reference Manual for use by inspectors and a Rail Integrity Fundamentals Training course to enhance inspector knowledge of non-destructive test methods, rail flaw detection processes, rail flaw development, rail manufacturing processes, and characteristics of different rail types. The manual will be distributed in early FY 2011.

## Automated Track Inspection Program (ATIP)

FRA currently oversees a fleet of five track geometry rail cars, three cars under ATIP, and two cars under the Office of Policy and Development. These advanced, specially designed cars provide accurate track geometry information and data to assess compliance with CFR Part 213, Federal Track Safety Standards. Since 2000, the ATIP fleet has inspected 409,853 miles<sup>2</sup> of the U.S. rail network over a span of 2,610 days. Collectively, the cars average about 157 miles per day out of approximately 140,000 miles of main and siding track, with major priorities given to passenger, hazardous material, and defense-related routes. FRA's two newest full-production geometry cars came on line in 2007. Combined with a third full-time production geometry car, This new equipment will allow ATIP to achieve its goal of increasing survey miles to approximately 100,000 miles per year, of which FRA surveyed 93,336 miles this fiscal year. With the addition of three cars, ATIP has more than tripled its inspection frequency over previous years.

**TABLE 1: TYPICAL PRODUCTION MILES, FY 2009 to FY 2010**

Geometry Car ID	Application Type	FY 2009		FY 2010*	
		Total Miles	Amtrak Miles	Total Miles	Amtrak Miles
DOTX-216	ATIP Enforcement	915	699	10,067	3,351
DOTX-217	ATIP Enforcement	15,838	3,728	14,734	4,033
DOTX-218	ATIP Enforcement	9,203	4,127	0	0
DOTX-219	ATIP Enforcement	9,872	2,723	17,941	6,762
DOTX-220	ATIP Enforcement	20,966	14,212	12,771	10,587
DOTX-220	Amtrak Assessment			37,823	37,823
<b>Total</b>		<b>56,793</b>	<b>25,489</b>	<b>93,336</b>	<b>62,556</b>

\*Actual Mileage for October 1, 2009 to August 13, 2010, and estimated mileage for August 14, 2010 to September 30, 2010.

<sup>2</sup> Source: Track Data Management System

Table 1 illustrates typical production miles for the past 2 years and illustrates FRA’s commitment to Amtrak and commuter routes with emphasis on passenger comfort (ride quality) and overall passenger safety. The track data collected under ATIP is used by FRA’s railroad inspectors and by railroads to ensure track safety and to assess track safety trends within the industry. To support this objective, the ATIP track geometry inspection report, generated daily by each car, identifies specific track geometry noncompliance and provides statistical exceptions per mile, exceptions per foot, and Track Quality Index information (based on 528-foot track segment locations) for additional attention and remediation by FRA headquarters, FRA regional, and railroad managers.

To facilitate use of the collected data, ATIP has originated (begun in December 2009) and distributed quarterly summary reports and degradation trending to agency and railroad managers to promote consistent application. ATIP has also been providing online geometry car data management and information via a secure Web site since 2003. Since ATIP cars are certified by the International Organization of Standardization (ISO) as a “rolling laboratory,” as an end product, the railroad industry often uses ATIP data as a way of checking their own inspection cars and performing track maintenance quality assurance and assessments.

**Goal #3: Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.**

During the past six calendar years for which complete data is available, grade crossing incidents have decreased 20 percent, from 2,977 in 2003 to 2,373 in 2008. Casualties have likewise declined, with fatalities and injuries down 14 percent and 12 percent, respectively. While these are encouraging trends, the number of accidents and casualties remains a concern for FRA.

FRA will promote and enhance public safety over the next 5 years by reducing rail-related deaths and injuries due to collisions at highway-rail grade crossings. This will be achieved by using additional public outreach and educational programs, and increasing law enforcement partnerships.

During the 5-year period, FRA will partner with national organizations (e.g., Operation Lifesaver, Inc. (OLI), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA), and non-Federal law enforcement agencies, to increase awareness and enforcement of highway-rail grade crossing violations. The following briefly describes some of the organizations and how FRA will work with them:

ORGANIZATION	DESCRIPTION AND FRA ACTIVITIES
OLI	A nonprofit, international, continuing public education program first established in 1972 to end collisions, deaths, and injuries at places where roadways cross train tracks, and on railroad rights-of-way. FRA will provide funding and assistance in program development.



ORGANIZATION	DESCRIPTION AND FRA ACTIVITIES
FMCSA	Focuses on reducing crashes, injuries, and fatalities involving large trucks and buses. FRA will join forces with FMCSA outreach efforts and activities to prevent collisions at highway-rail grade crossings.
Law Enforcement	Increases partnerships between FRA and law enforcement through FRA's Law Enforcement Liaison Program. In addition, works with the National Sheriffs' Association and the International Chiefs of Police Association to foster a better relationship with law enforcement.
FHWA, NHTSA	FRA will continue to work with these agencies and FMCSA to encourage Departmental advocacy for improving crossing safety.

Prior to FY 2011, FRA will have:

1. Updated the *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings*.
2. Issued a direct final rule of particular applicability that identifies the ten States with the most collisions over the past three years and required them to develop State action plans with specific solutions for improving safety at highway-rail grade crossings.
3. Worked with FRA's Office of Chief Counsel to update model legislation for highway-rail grade crossing violations.
4. Issued a rule that requires each railroad carrier to establish and maintain a toll-free telephone service for rights-of-way over which it dispatches trains for the reporting of emergencies or other problems.
5. Provided two grant programs (assuming funding is provided as authorized) for States to improve crossing safety.

One grant is for enhanced public education and enforcement programs to reduce crossing collisions and reduce trespassing. The other grant is to provide priority funding for crossing safety improvements (e.g., signals, gates, four-quadrant gates, medians, traffic signals, lighting, signs, and crossing surfaces). These programs will continue through 2013.

During FY 2011, FRA will:

1. Study the effectiveness of various highway-rail grade crossing treatments on designated high-speed rail corridors (e.g., Northeast Corridor, North Carolina, and Michigan) and evaluate the economic benefits of the treatments. The purpose of this study is to demonstrate the benefits of making improvements at crossings where passenger and commuter train speeds are being increased.

In FY 2012, FRA will:

1. Revise the DOT Crossing Inventory Form FRA F 6180.71 to include new fields that will enhance the ability of States, railroads, FRA, and others to evaluate safety at crossings. We anticipate that a rulemaking will be necessary for the new form and accompanying guides.
2. Explore issuing a rulemaking mandating the periodic updating of the Inventory by both railroads and States, per RSIA.

3. Issue rules or establish policy and guidance on responsibility for safety at private crossings. This is an action identified in the 2004 Secretary's Action Plan and a continuation of efforts began in 2006.
4. Update the *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings*. This publication compiles the existing State laws concerning highway-rail grade crossings and will be made available to the public.

In FY 2013, FRA will:

1. Research the risk reduction associated with commonly used Alternative Safety Measures in quiet zones (e.g., escape medians) to determine appropriate standard effectiveness rates. This study will potentially expand the approved Supplementary Safety Measures while eliminating the cumbersome review process of Alternative Safety Measures.
2. Work with FRA's Office of Chief Counsel to update model legislation for highway-rail grade crossing violations.

In FY 2014, FRA will:

1. Conduct a study determining the effectiveness of the new Manual on Uniform Traffic Control Devices requirement for all passive crossing to be equipped with either stop or yield signs.

### ***Progress Assessment for RSIA Safety Goal #3***

During FY 2010, FRA updated the compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings. FRA also completed a rule of particular applicability that identified the 10 States with the most collisions over the past 3 years and required them to develop State action plans with specific solutions for improving safety at highway-rail grade crossings.

FRA's partnership with Operation Lifesaver, Inc. (OLI) has been essential to the reduction of accidents at grade crossings in 2010. National Transportation Safety Board Chairman Deborah Hersman commended OLI for its leading role in efforts to reduce highway-rail grade crossing accidents by more than 80 percent since its founding in 1972. As 90 percent of all grade crossing accidents are driver-related, FRA will continue to partner with OLI to increase situational awareness and promote safety. The partnership in FY 2010 focused on increasing driver awareness and enforcing of highway-rail grade crossing regulations.

FRA was not able to provide two grant programs for States to improve crossing safety because funding was not appropriated for this.

FRA has made significant progress and is about to issue a NPRM on Emergency Notification Systems with requirements for railroads to establish and maintain toll-free telephone services for reporting emergencies or other problems in FY 2010. We plan to issue this proposal very early in FY 2011.

## **Goal #4: Improving research efforts to enhance and promote railroad safety and performance.**

### FRA Research and Development

The primary goal of the FRA Research and Development (R&D) program is to enhance railroad safety for conventional and HSR operations. The R&D program is managed by the FRA Office of Research and Development (OR&D) within the Office of Railroad Development. In order to improve the effectiveness of the FRA R&D program, a rigorous process for selecting and evaluating R&D projects has been established and an annual review of the entire research program is conducted by the independent Transportation Research Board. Priorities for project selection include areas that present significant safety risks or unacceptable safety trends, where technology is most likely to have a positive impact to both safety and performance, and where there is a clear path to real-world implementation.

The R&D project evaluation and selection process has been used to identify those projects that have the potential for *significant safety impact, a positive impact on performance and appropriate technology available*. For those projects, selected emphasis is placed on producing the maximum possible real-world impact at the earliest possible time. To accomplish this, OR&D seeks to establish the partnerships with appropriate stakeholders including railroads, rail labor, suppliers, and technology providers early in the life of the project. This minimizes the time between a successful research and development “proof of concept” and the application in the field. Close collaboration with Office of Railroad Safety assures early identification and remediation of potential regulatory barriers to innovation.

FRA OR&D has expanded the use of targeted grants and cooperative agreements, involving both railroads and technology providers, to provide a fast start to establish stakeholder buy-in and demonstrated real-world impact at the earliest possible time.

### High-Speed Rail

Fostering the development of HSR in the United States has been an important part of FRA’s work since its creation in 1967. During the 1980s and 1990s, FRA played a central role in managing or facilitating the growth of high-speed service on the Northeast Corridor. Acting in response to the Intermodal Surface Transportation Efficiency Act of 1991, FRA began the formal process of designating HSR corridors for future development and providing limited funding for corridor improvements primarily directed at safety. With the passage of the ARRA, which provides \$8 billion in capital assistance for HSR corridors and intercity passenger rail service, and following President Obama’s announcement of a Strategic Plan for High-Speed Rail (“*Vision for High-Speed Rail in America*”), FRA now takes on the important work of helping to make HSR a reality in markets across the Nation.

On June 17, 2009, FRA’s Administrator issued a notice of funding availability and interim program guidance for the HSR Passenger Rail Program. The guidance identified transportation safety and safety planning as evaluation criteria for merit consideration of proposed projects and

programs. This strategy describes how FRA will provide specificity and additional safety guidance for development of HSR systems.

The hallmark of world-class HSR is safety. FRA believes that railroads conducting HSR operations in the United States can provide service as safe as, or safer than, any HSR operation being conducted elsewhere. In anticipation of such service, and to promote public safety, FRA has developed a *High-Speed Passenger Rail Safety Strategy*. The final version of the Safety Strategy was issued in November 2009 and is now available on the FRA Web site. The Strategy includes (1) establishing safety standards and program guidance for HSR, (2) applying a system safety approach to address safety concerns on specific rail lines, and (3) ensuring that railroads involved in passenger train operations can effectively and efficiently manage train emergencies. This strategy endeavors to achieve uniformly safe rail passenger service, regardless of speed. Since the severity of collisions and derailments increases with speed, safety performance targets for preventive measures are tiered to become more stringent as speed increases.

The strategy divides the safety issues into four categories: prevention, mitigation, emergency management, and SSPs. Each category includes FRA initiatives to address the corresponding safety issues. Some initiatives are fully developed with specific goals in place to address issues. For example:

- Vehicle Track Interaction and key safety issues related to track and structures will be addressed through a final rule scheduled to be published in the first quarter of CY 2010.
- Standards for PTC systems that define increased functionalities for higher speeds will be identified during 2010.
- Structural standards for Tier I trainsets (up to 125 mph) are under review in the RSAC Engineering Task Force. Initial guidance will be issued during the first quarter of CY 2010.
- Structural standards for Tier II and above will commence in CY 2010 after Tier I guidelines are completed.

System safety is also identified as a Safety Strategy component. HSR systems and other new passenger rail service require development and evaluation of SSPs. SSPs seek to integrate the process of identifying safety needs and managing them over time. One key to success is effective hazard identification, which focuses attention on opportunities for risk reduction in the particular circumstances of the specific passenger railroad. The purpose of an SSP is to improve railroad safety through a structured, proactive program developed and implemented by passenger railroad operators. The SSP can also support development of a strong safety culture and requires processes and procedures to identify and manage hazards inherent to the passenger railroad.

Requirements for SSPs on HSR systems will be included in HSR Rules of Particular Applicability and will be formalized for all passenger operations in ongoing rulemaking activity. The goals for System Safety include completion of the RSAC portion of the System Safety Regulation by February 2010 and issuing an NPRM for the System Safety Regulation by September 2010.

Longer-term initiatives that address specific issues related to the Safety Strategy will be developed throughout 2010. Work on these initiatives will commence as other projects are completed and technical resources become available.

### ***Progress Assessment for RSIA Safety Goal #4***

#### FRA Research and Development

The primary goal of the FRA Research and Development (R&D) Program is to enhance railroad safety for conventional and high-speed rail operations. The FRA R&D process includes multiple phases involving problem/opportunity identification, concept identification/evaluation, technology demonstration, and implementation support, including development of procedures, industry best practices, and FRA safety standards, as necessary. The approach also involves early and appropriate partnerships with the railroads, railroad suppliers, technology providers, state and regional rail authorities, and railroad researchers at selected universities to enable maximum real-world impact at the earliest possible time while leveraging limited Government funding with in-kind support.

During FY 2010, FRA OR&D has been working in multiple areas in human factors and equipment research, which include train occupant protection, fatigue and distraction, safety culture and behaviors, grade crossing and trespasser safety, and hazardous material transportation. OR&D has provided technical support for the development of guidelines and standards for passenger equipment and locomotives for train occupant protection. The FRA R&D team is also providing leadership within the railroad stakeholder community to clarify the risks due to fatigue and distraction, and to identify, refine, and deploy methods for managing those risks.

Over the past several years, OR&D has worked closely with the Office of Railroad Safety, the railroad industry, and rail labor to identify ways in which safety culture contributes to overall safety. They then develop and deploy methods to strength safety. Several successful programs have been developed and their application to the industry is being expanded, including the Close Call Reporting program, which now covers Amtrak operations nationwide. Grade crossing and trespasser-related incidents account for 90 percent to 95 percent of the injuries and fatalities associated with railroad operations today. Consequently, they impact multiple safety goals. The focus has been on driver behavior, crossing configuration, sight distances, signage, public awareness, and development of enforcement programs. OR&D also focuses on the impact of more frequent trains running at higher speeds as passenger rail service expands and improves.

It is well recognized that hazardous materials are much safer to transport by rail than by truck. Advancements in tank car designs, inspection, and operating practices have brought further improvements to safety. Today the OR&D, in cooperation with the railroads, car builders and the shippers, is supporting the development of design standards for next-generation tank cars.

FRA's OR&D has been developing new technologies in track/component inspection and assessment, including: autonomous track inspection systems, vision-based switch and joint bar inspection technologies, rail stress measurement using ultrasonic guided waves, and laser-based

rail flaw inspection. FRA anticipates that each of these technologies will significantly change the way railroads evaluate their track and components. These systems will improve the efficiency and effectiveness of the inspection process by reducing the amount of time needed to inspect track while increasing the quality of the inspection. OR&D is providing the engineering and science to support the development and publication of the NPRM for the high-speed track safety standards. In addition, OR&D conducted a track inspector survey to provide data focused on understanding the inspection process and highlighting areas of potential improvement.

During FY 2010 there were several significant milestones in the development and deployment of safety technology from the equipment and human factors R&D program including:

- Delivery of Crash Energy Management equipped passenger cars based on the results of research, testing and analysis conducted by FRA,
- Issuance of an industry specification for the Passenger Investment and Improvement Act (PRIIA) 2008 Authorized Next Generation Equipment Committee with support from FRA to assure safety technologies such as push back couplers, anti-climbing features, and Crash Energy Management features were incorporated.
- Award of a grant to study grade crossing/trespasser safety-suicide countermeasures
- Publication of Switching Operations Fatality Analysis Program evaluation report
- Publication of two reports addressing fatigue issues.
  - Shift work Schedule Management Gap Analysis
  - “Work Schedules and Sleep Patterns of Railroad Train and Engine Service Workers”
  - Addition of New Jersey Transit and Amtrak as pilot demonstration sites for the Confidential Close Call Reporting System.

FRA’s OR&D continues to improve the safety systems related to PTC technologies to support the HSR safety strategy, which has a direct impact on the PTC implementation by mandated date of December 2015. For instance, in the area of PTC enforcement, OR&D has substantially improved the capability to improve safety and efficiency. In collaboration with the rail industry, OR&D formulated the interoperability standards to ensure safe and efficient operation under PTC control throughout the rail network.

Success is measured by actual implementation by the industry of the ideas or technology developed by the FRA OR&D program. The industry providing funding and support to a program or project is a strong indication that the activities have significant merit and strong potential for success and final implementation.

Over FY 2010, major many milestones have been achieved to support the PTC implementation by December 2015:

1. FRA/Michigan DOT/Amtrak Incremental Train Control System (ITCS) Project

On April 9, 2010, the Michigan Line equipped with the ITCS PTC system was approved for maximum speed of 110 mph, subject to several conditions with which Amtrak is willing to comply. This is the first intercity passenger operation outside the Northeast Corridor that has been approved for 110 mph operation.

## 2. Adaptive Braking Algorithm for PTC Enforcement

The adaptive braking algorithm project has completed a substantial improvement of the braking distance prediction for PTC systems. While the algorithm is still being further improved, the adaptive functions to correct for braking efficiency, brake propagation, and weight estimation are being incorporated to the Wabtec Electric Train Management System (ETMS) production system. The benefit of an improved braking algorithm is to prevent any loss of operating efficiency or capacity in PTC operation.

## 3. Employee-in-Charge Portable Terminal

The portable terminal, in collaboration with Transportation Technology Center, Inc., was demonstrated to the railroads and suppliers in RSAC meetings. It was well received and BNSF is integrating this portable terminal into their ETMS. The terminal is used to assure roadway worker protection in work zones during PTC operation.

## 4. PTC Interoperability Standards

The collaboration with the AAR on PTC Interoperability Standards has reached an intermediate milestone. AAR announced the release of the three Interoperable Train Control (ITC) draft specifications, Class C messaging specification 1.6, Class D messaging specification 3.2, and EMP message format specification 2.2 for comments.

## High-Speed Rail

Despite significant progress made in FRA's Vehicle/Track Interaction program, the agency was not able to complete this rulemaking as planned. FRA did issue an NPRM, dated May 10, 2010, proposing to modify and consolidate the safety criteria of 49 CFR parts 213 and 238, and is now addressing comments received in response. FRA expects to complete this rulemaking in early FY 2011.

With assistance from the RSAC, FRA develop a set of technical criteria and procedures for alternatively evaluating the crashworthiness and occupant protection performance of passenger rail equipment, intended to be applied to alternatively designed equipment for use in passenger rail service at speeds up to 125 mph (Tier I service). The approach taken in formulating these criteria and procedures will help guide the development of new crashworthiness and occupant protection performance standards for passenger equipment operated at higher speeds. FRA will begin working with RSAC to develop these standards in October 2010.

As noted earlier under the Performance Assessment for RSIA Safety Goal # 1, despite many efforts, FRA was not able to propose system safety regulations as planned this year. Although the RSAC was able to make recommendations for a proposed regulation in September 2010, the commuter rail industry has expressed concerns regarding duplication of effort that may result from similar regulations issued by other agencies as well as requirements under future FRA risk reduction regulations and protection of information provided as part of their System Safety Program Plans. RSIA required FRA to conduct a study to determine whether it would be in the public interest to protect such industry information; completion of that study is expected in about one year.

### **Goal #5: Preventing railroad trespasser accidents, incidents, injuries and fatalities.**

Deaths among trespassers on railroad rights-of-way (2,496 in the 5-year period 2000 to 2004, or approximately 500 annually) are the leading cause of fatalities attributable to railroad operations in the United States. From a study completed in May 2008, FRA learned that trespassers who die are an average of 38 years old and are most often Caucasian males. Approximately two-thirds were under the influence of alcohol and/or drugs.

Coroners described the activity of more than 43 percent of the decedents as walking, standing, sleeping, lying, reclining, lounging, or sitting on the track or in the gauge, i.e., between the rails. Seven percent were walking or running across the track. Other activities included riding a recreational vehicle (all-terrain vehicle, dirt bike, snowmobile, etc.), standing outside the gauge but obviously too close, riding or getting on or off a train, driving a highway vehicle, or being on a bridge or trestle. Tunnels were not mentioned.

#### Future Trespassing Strategies

FRA's future trespassing strategies include the following:

- Promote and enhance public safety by reducing rail-related deaths and injuries due to trespassing on railroad rights-of-way and other property, using increased public outreach and education programs. (Ongoing throughout the five years.)
- Partner with national organizations to increase awareness and enforcement of railroad trespassing, including OLI. In addition, FRA will partner with Drug Abuse Resistance Education (D.A.R.E.) America to develop graffiti prevention programs with special focus on railroad trespassing.

Prior to FY 2011, FRA staff will have reviewed and evaluated existing local, State, and Federal laws that address rail trespassing, vandalism, and violations at highway-rail grade crossing signal warning devices. In addition, FRA will have developed and made available to States model prevention and enforcement strategies. By 2011, FRA will have developed a Web site for educators and law enforcement officials that outlines facts, lesson plans, and State laws designed for them.



In FY 2011, FRA will:

1. Host a Right-of-Way Trespass Reduction workshop that will take an in depth look at the issues surrounding one of the more significant risk areas facing the rail community: trespassing and fatalities on the railroad rights-of-way. The goal of the workshop will be to identify and share existing industry-leading practices and explore new strategies that the rail industry could pursue to reduce the number of right-of-way and trespasser incidents and fatalities.
2. Conduct a demographic study of profiles collected by the rail industry to provide information regarding the at-risk audience to be target for additional education and outreach activities.
3. Seek additional funding to provide two additional grade crossing managers to assist with the growing needs of trespassing-related issues.
4. Review and update trespass and vandalism prevention strategies.

In FY 2012, FRA will continue to promote and enhance public safety by reducing rail-related deaths and injuries due to trespassing on railroad rights-of-way and other property, using increased public outreach and education programs by:

1. Using data collected by the railroads and working with the Geographic Information System to plot each trespassing incident and fatality. This information will be useful to direct additional outreach, educational resources, and law enforcement activities to areas in need.
2. Updating the *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossing*.

In FY 2013, FRA will:

1. Review and update model trespass legislation and vandalism model legislation.

In FY 2014, FRA will:

1. Review and update trespass and vandalism prevention strategies.

In FY 2015, FRA will:

1. Host a Right-of-Way Trespass Reduction workshop (as in 2011).
2. Conduct a demographic study of profiles (as in 2011).

### ***Progress Assessment for RSIA Safety Goal #5***

In FY 2010, FRA reviewed and evaluated local, State and Federal laws that addressed rail trespassing, vandalism, and violations of highway-rail grade crossing signal warning devices. FRA also developed a model for prevention and enforcement strategies. The agency expects to issue this model early in FY 2011 and make it available to States. In March 2010, FRA published a Trespassing and All-Terrain Vehicle (ATV) Usage on Railroad Property Fact Sheet. This document, which has been made available on the FRA's Web site, helps to educate the public regarding this issue, thereby reducing the number of rail trespass incidents. In addition, FRA has developed presentations discussing its trespassing strategies for law enforcement officials. These presentations will soon be available on our Web site.

FRA is encouraging communities and States to implement pilot programs under OLI's Railroad Safety Public Awareness Program. These programs address the need for targeted and sustained community outreach. In 2010, FRA helped to develop a crossing safety video for professional truck drivers. This video is available on FRA's Web site in both English and Spanish. FRA is also encouraging the development of community action plans that incorporate a problem-solving model designed to provide a step-by-step approach for addressing crossing safety issues.

**Goal #6: Improving the safety of railroad bridges, tunnels, and related infrastructure to prevent accidents, incidents, injuries, and fatalities caused by catastrophic failures and other bridge and tunnel failures.**

FRA Bridge Safety Program

FRA has been conducting evaluations of railroad bridge management programs since the 1980s, before the Bridge Safety Policy was issued as an interim statement in 1995 and in final form in August 2000. This Policy issues guidelines by which railroads should implement bridge safety management programs, and by which FRA evaluates those programs. FRA issued a revised bridge policy statement in January 2009 to add recommendations developed by the Railroad Bridge Working Group of the RSAC in 2008.

In September 2007, FRA also issued Safety Advisory 2007-03 to further explain and amplify important aspects of the agency's bridge safety policy and to re-emphasize the need for railroads to adopt and implement safe maintenance practices to prevent bridge failures.

Following enactment of RSIA, FRA's RSAC undertook the task of developing a recommended text for a Federal railroad bridge safety regulation that would govern railroads' bridge management programs. The RSAC Working Group completed that task in April 2009. In August 2009, FRA published an NPRM based on the RSAC recommendation.

Meanwhile, FRA continues to evaluate bridge management practices on a representative sampling of the Nation's railroads, including Class I, II, and III freight railroads, and passenger carriers. The evaluations generally compare a railroad's program with the guidelines in the FRA Bridge Safety Policy, and include observations of individual bridges to determine their general condition, as well as the accuracy of the railroad's inspection reports. Most large railroads generally conform to the FRA guidelines, but FRA has discovered instances where management had not adequately evaluated or addressed critical items delineated in railroad bridge inspection reports before they developed into critical failures or near-failures. Many of the smaller railroads evaluated also conformed generally to the guidelines, but a considerable number either fell short by a large degree or showed no evidence of bridge inspection, management, or maintenance.

FRA has examined reports from January 1, 1982, through December 31, 2006, of 51 train accidents caused by the catastrophic structural failure<sup>3</sup> of railroad bridges, an average of two per year. During that 25-year period, two people were injured and no fatalities were attributed to structural bridge failure. Since that period, four instances have been reported to FRA in which lack of adherence to the guidelines in the Bridge Safety Policy resulted in trains operating over structural deficiencies in steel bridges that could very easily have resulted in serious train accidents.

In CY 2007, five train accidents occurred due to catastrophic structural failure of bridges, all of which were timber trestles. The most severe of those accidents occurred on the M&B Railroad near Myrtlewood, Alabama, where a train of solid fuel rocket motors derailed when a timber trestle railroad bridge collapsed under the train. Several cars, including one car carrying a rocket motor, rolled onto their sides and six people were injured. FRA also recently evaluated the bridge management practices of several small railroads and found that some had no bridge management or inspection programs whatsoever.

In CY 2008, FRA had reports of two train accidents due to catastrophic structural failure of bridges, both of which were timber trestles. One railroad employee was injured from this cause.

Besides the development of regulations and the evaluation of railroad bridge management programs, FRA is cooperating with the American Short Line and Regional Railroad Association and all of the large railroads in the development of model programs that can be adopted by small railroads to enable the safe, effective, and efficient management of their bridges.

### ***Progress Assessment for RSIA Safety Goal #6***

#### **FRA Bridge Safety Program**

Maintaining bridges and tunnels are key to the infrastructure and safe operations of the railroad, and must be preserved in order prevent any catastrophic failure from occurring. In June 2010, FRA published the Bridge and Safety Final Rule. This rule established Federal requirements for railroad bridge management programs. Railroads are required to implement bridge management programs that include, among other things, annual inspections of railroad bridges by qualified persons. Track owners are required to know the safe load capacity of bridges and to conduct special inspections when the weather or other conditions warrant it. Bridge management programs must require adequate design and effective supervision of bridge modification and repairs that would materially modify the capacity of a bridge. Finally, railroads have to audit their bridge management programs and inspections. FRA is now developing a compliance manual that will be issued early in FY 2011.

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<sup>3</sup> FRA uses the term “catastrophic failure” to describe an incident in which a bridge collapses or directly causes a train accident. A “bridge failure” is a situation in which a bridge is no longer capable of safely performing its intended function.

## RESOURCES NEEDED

The resources needed to meet the safety programs and goals in this strategy plan for FY 2011 are found in FRA's budget request for FY 2011.

## PROGRESS ASSESSMENT

A historic review of FRA's safety program using information from GPRA measures over a 5-year period are provided for this initial strategy. FRA is providing these results to show the progress made leading up to the RSIA requirements.

### FRA Safety Performance Measures

#### 1. GRADE CROSSING INCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	3,078	764,846	4.02	NA
2005	2,984	785,882	3.80	3.90
2006	3,071	805,340	3.81	3.85
2007	2,805	793,800	3.54	3.75
2008	2,537	781,708	3.25	3.75
2009	2,036	683,562	2.99	3.65

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

#### 2. HUMAN FACTORS-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	1,315	764,846	1.72	NA
2005	1,295	785,882	1.65	1.66
2006	1,115	805,340	1.38	1.66
2007	1,034	793,800	1.30	1.66
2008	957	781,708	1.23	1.66
2009	708	683,562	1.04	1.35

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

### 3. TRACK-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	1,006	764,846	1.32	NA
2005	1,099	785,882	1.40	1.27
2006	1,063	805,340	1.32	1.27
2007	1,003	793,800	1.26	1.15
2008	859	781,708	1.10	1.15
2009	704	683,562	1.03	1.15

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

### 4. EQUIPMENT-CAUSED TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	419	764,846	0.548	NA
2005	392	785,882	0.499	0.521
2006	350	805,340	0.435	0.521
2007	333	793,800	0.419	0.521
2008	339	781,708	0.436	0.521
2009	250	683,562	0.369	0.450

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

### 5. OTHER (SIGNAL & MISC.) TRAIN ACCIDENTS

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	529	764,846	0.692	NA
2005	556	785,882	0.707	0.647
2006	517	805,340	0.642	0.647
2007	403	793,800	0.509	0.647
2008	391	781,708	0.499	0.647
2009	329	683,562	0.484	0.647

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

## 6. NON-ACCIDENT RAIL HAZMAT RELEASES

Fiscal Year	Incidents	Train-Miles (000s)	Rate per Million Train-Miles	
			Actual *	GPRA Goal
2004	669	764,846	0.875	NA
2005	684	785,882	0.870	0.965
2006	632	805,340	0.785	0.940
2007	697	793,800	0.878	0.915
2008	686	781,708	0.895	0.900
2009	629	683,562	0.927	0.800

\* Rounding of train-miles might cause minor differences in rate calculations.

NA: not available

## CONCLUSION

FRA's Railroad Safety Strategy includes a variety of approaches to achieve industry safety improvements. The NSPP is focused on critical safety projects that are designed to advance safety improvements. The NIP focuses Federal inspector efforts toward areas on railroads needing the most attention and monitors progress made achieving inspection goals. Rulemakings are improving industry actions by providing improved methods to achieve safety advancements. The RRP is a process that brings industry and FRA together to build a strong safety culture. Highway-rail grade crossing and trespass prevention programs promote enhancing public safety through public outreach, educational programs, and increased law enforcement partnerships. FRA's research and development has potential for significant safety impact, a positive impact on performance, and identifying promising available technology. Emphasis is placed on producing the maximum possible real-world impact at the earliest possible time.