BUDGET ESTIMATES

FISCAL YEAR 2014

FEDERAL RAILROAD ADMINISTRATION

SUBMITTED FOR THE USE OF
THE COMMITTEES ON APPROPRIATIONS

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD
ADMINISTRATION

FY 2014 CONGRESSIONAL BUDGET JUSTIFICATION

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

ADMINISTRATOR'S OVERVIEW

Agency Mission

Congress established the Federal Railroad Administration (FRA) in the *Department of Transportation Act of 1966*. FRA's mission is to enable the safe, reliable, and efficient transportation of people and goods for a strong America, now and in the future. FRA accomplishes this through enforcement of safety regulations, investment in passenger and freight rail services and infrastructure, and research and technology development.

FRA's activities, as well as those of its partners in the rail industry, have resulted in **one of the safest decades ever**—the number of rail-related accidents and incidents declined by 25 percent since fiscal year (FY) 2002; train accidents dropped by 41 percent; fatalities and injuries fell by 18 percent; and highway-rail grade crossing incidents decreased by 31 percent. Nevertheless, rail-related incidents caused 710 deaths and 7,585 injuries in FY 2012. FRA's efforts will continue to address this threat to public safety in 2014 and beyond.

FRA also works to improve the performance of existing passenger rail services, primarily by issuing and overseeing grants to Amtrak. With the enactment of the Passenger Rail Investment and Improvement Act (PRIIA) in 2008 and the American Recovery and Reinvestment Act in 2009, and subsequent appropriations, FRA's mission dramatically expanded to include managing a **high-performance passenger rail** program that makes market-based investments in regional networks of rail corridors. As a measure of progress, four major corridor programs and 27 individual projects were under construction or completed as of the end of FY 2012.

FY 2014 is a pivotal year for rail, as two core authorizations – Rail Safety Improvement Act (RSIA) and PRIIA – expire at the end of FY 2013. This presents an important opportunity to transform rail programs and policies and to accelerate the impressive progress the rail industry has made in recent years. In this context, FRA's FY 2014 budget offers an ambitious reauthorization vision and program proposals that are integral to the President's plan to spur immediate job creation and support long-term economic growth through investment in transportation infrastructure.

Overview of FRA's Reauthorization Priorities

The rail industry has changed dramatically since 2008 when Congress enacted important reforms in RSIA and PRIIA. After decades of decline due to underinvestment, rail is now becoming safer, more productive, and more responsive to the needs of the traveling public. Accidents and incidents are falling, while train ridership and reliability are at record highs. The public and private sectors have invested substantially in passenger rail equipment, corridor upgrades, freight capacity, and safety improvements. Despite this progress, significant work remains to improve the performance of the national rail network. For example, trespassing deaths are trending up,

freight congestion remains a serious issue, and intercity passenger rail service is not a practical or available alternative for travelers in many parts of the country.

The budget lays out a comprehensive reauthorization blueprint for moving forward. It presents a holistic, integrated strategy that addresses both safety issues and passenger and freight service improvements. This approach better reflects the complex reality of how rail works in the U.S. – most track is privately-owned and carries a mix of passenger and freight trains; safety is improved through regulations and inspections but also through capital investments; bottlenecks often hinder the efficient movement of intercity, commuter, and freight trains.

While transformational, the budget rooted in ideas and solutions that have received extensive discussion and debate in recent years. It builds on the core principles of RSIA and PRIIA, while reflecting the "on-the-ground" experiences of the past several years. It is based on the evolving needs of rail stakeholders, and acknowledges that demographic, economic, and environmental changes will drive growing demand for rail service for decades to come.

FRA's key reauthorization priorities are:

- **Enhancing world-class safety**. Rail is already among the safest modes of transportation, and safety has only been improving in recent years. Nevertheless, better safety performance is imperative, and with innovative safety practices and new technologies, the railroad industry can achieve this goal. FRA is leading several key initiatives, such as the system safety and risk reduction programs that enhance the ability to influence safety outcomes proactively and preemptively; expanding the successful Close Call Confidential Reporting System (C3RS) program; supporting implementation of Positive Train Control (PTC) technology. *This budget makes investments in advancing FRA's safety mission and supporting PTC implementation on Amtrak routes and commuter rail services.*

- **Meeting growing market demand**. With the U.S. expected to add 100 million people by 2050, the national transportation system must be prepared to handle substantial increases in the movement of people and goods. FRA's budget makes targeted investments to ensure America's rail system is prepared to meet this growing demand for rail. Investments must be strategic and reflect the needs of multiple stakeholders – passenger and freight rail operators, the traveling public and shippers, governments and private interests. *The budget will fund a range of projects, based on specific market needs and rigorous analyses of costs and benefits. The budget makes investments in both new and improved passenger rail services with varying frequencies and speeds, and also provides assistance to eliminate rail bottlenecks, add freight capacity, and conduct comprehensive planning.*

- **Modernizing our rail infrastructure**. Past generations of Americans invested heavily in building the infrastructure we rely on today. Most segments of the Northeast Corridor were initially built over a century ago, for example. Maintaining and modernizing these assets will lower long-term costs and result in a safer, more reliable rail system. *This budget makes investments in clearing the backlog of rail maintenance needs, replacing*

obsolete equipment, upgrading stations to be compliant with the Americans with Disabilities Act, and continuing vital long-distance passenger services.

- **Promoting innovation**. FRA's budget invests in research, development, and workforce training to ensure America's global lead in safety, productivity, and technological innovation. FRA's vision is for the domestic rail industry to again be world-leading – we want U.S. companies to develop patents for state-of-the-art rail technology, supply rail operators throughout the world, and employ the best engineers and railway workers. The United States should be exporting intellectual capital and rail products, not importing them. *This budget makes investments in America's workforce, manufacturing support, and critical research and development activities.*

- **Ensuring transparency and accountability**. Accomplishing the priorities described above can only occur if these programs are managed through a transparent process that makes it clear what public benefits and service improvements the American people are buying with their investments. The roles and responsibilities of the Federal government, States, Amtrak, freight railroads, and other stakeholders must be clear and based on sound public policy. *This budget provides a transparent structure that will ensure delivery of public benefits and, a high level of accountability for use of public resources.*

Budget Summary

The FY 2014 President's Budget requests $6.6 billion to make strategic investments in high-performance passenger and freight rail. The request is a $3.8 billion increase from FY 2012 enacted.

Safety and Operations: The President's Budget requests $184.5 million and 881.5 full-time equivalents (FTE) to fund FRA's portfolio of rail safety and development programs. This account also funds the organizational infrastructure—staff and operations (e.g., payroll, rent, telecommunications, information technology, and contract support)—that enables the safety and development programs to accomplish their goals. The request includes 22.5 additional FTE to support safety programs and help oversee the grant programs. FRA will also drive administrative efficiencies by continuously reviewing its internal policies and procedures.

In recent years, FRA's Office of Railroad Safety has worked to issue RSIA-authorized regulations. In FY 2014, it will focus in particular on implementing those rules as well as supporting new commuter rail operations and the NHPRS. FRA looks forward to working with Congress to update its safety authorities in the areas of hours-of-service, positive train control, uniform operating rules, and modernization of statutes governing locomotives, among others.

Railroad Research and Development: The President's Budget requests $35.3 million to continue core safety-related research and development activities. The request will advance technology with railroad operators for system integration, interoperability standards, and prototypes for PTC communications.

National High-Performance Rail System (NHPRS): The President's Budget requests $6.4 billion for this new program to maintain and strengthen the Nation's passenger and freight rail system. FY 2014 is the first year of a five-year $40 billion proposal, which will be funded from a new Rail Account of the Transportation Trust Fund. It includes:

- Current Passenger Rail Service: $2.7 billion to maintain existing rail operations and infrastructure so they continue producing public benefits. For the first time, FRA will provide grant support for passenger service by the lines of business: (1) Northeast Corridor, (2) State Corridors, (3) Long-Distance routes, and (4) National Assets. All funds in this account will be directed to Amtrak, except the State Corridors program.

- Rail Service Improvement Program: $3.7 billion to grow and improve the existing rail network to accommodate future population growth. These funds will (1) invest in infrastructure, stations, and equipment for new high-performance passenger rail corridors, substantially improved existing corridors, and PTC systems on commuter railroads; (2) address critical bottlenecks and relieve congestion in areas with mixed passenger and freight rail traffic; (3) increase the intermodal freight market share by building additional capacity on key corridors, connection points, and by implementing community mitigation strategies; and (4) develop comprehensive national, regional, state, corridor, and terminal area rail plans to identify and prioritize investment needs.

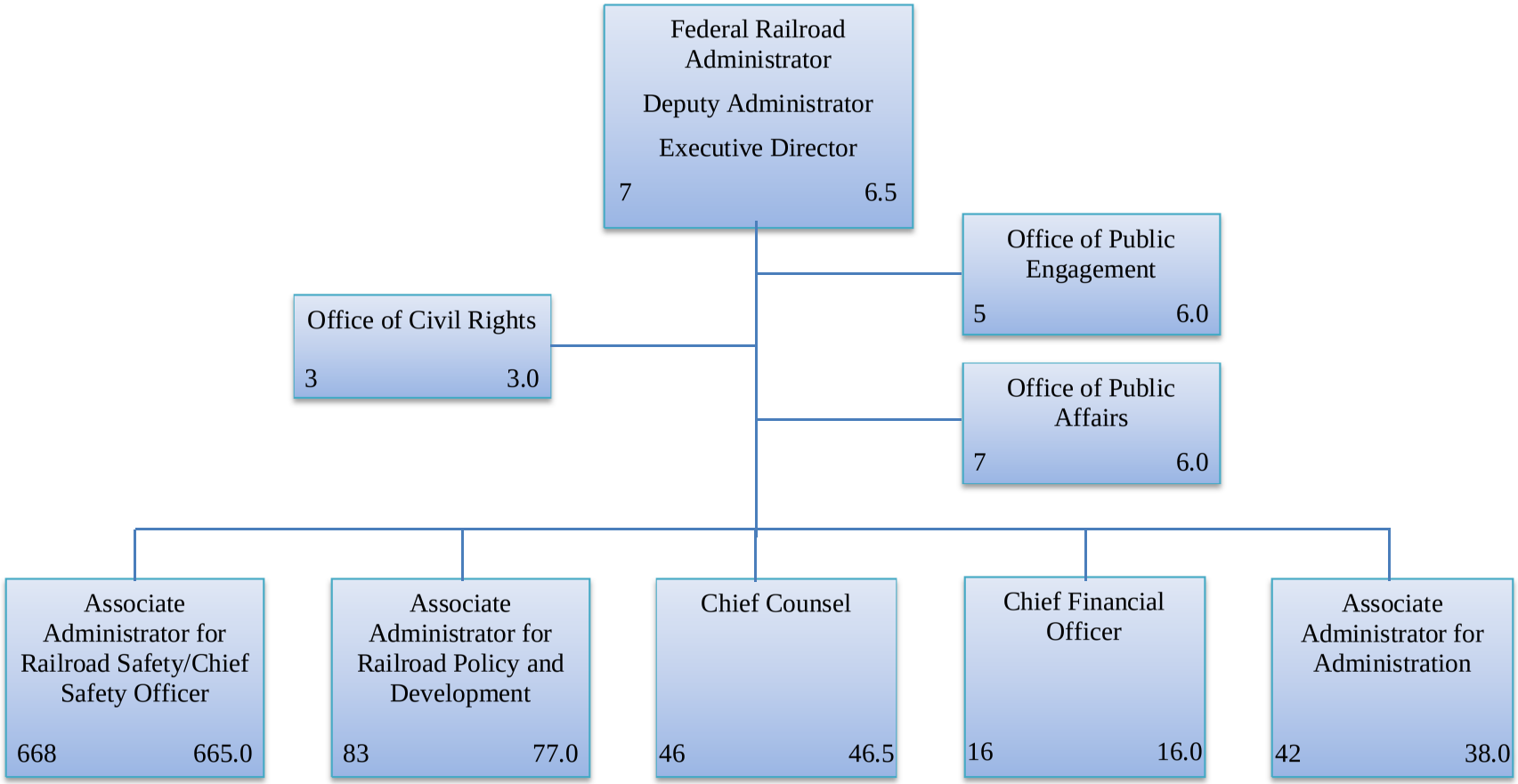
- Railroad Research, Development, and Technology: $54.7 million to stimulate technological advances for conventional and high-speed rail. The program includes: (1) High-Performance Rail Research and Development to ensure that the United States is at the forefront of passenger rail technology; (2) National Cooperative Research Program to support a partnership with the National Academy of Sciences; (3) Workforce Development to provide technical assistance and training to regional, local, and state agencies, support university transportation centers, and provide Buy America support for U.S. rail manufacturing.

Immediate Transportation Investments: For FY 2014, the President seeks $50 billion in Immediate Transportation Investments to support critical infrastructure projects that improve America's roads, bridges, transit systems, border crossings, railways, and runways. FRA's budget includes $5 billion of this amount to jump start spending on the state of good repair backlog of existing infrastructure and improving the Nation's rail services. This investment to improve the transportation system will spur job creation and support long-term economic growth.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FY 2013 Organization Chart

877 Full-time Positions (FTP); 864 Full-time Equivalents (FTE) *

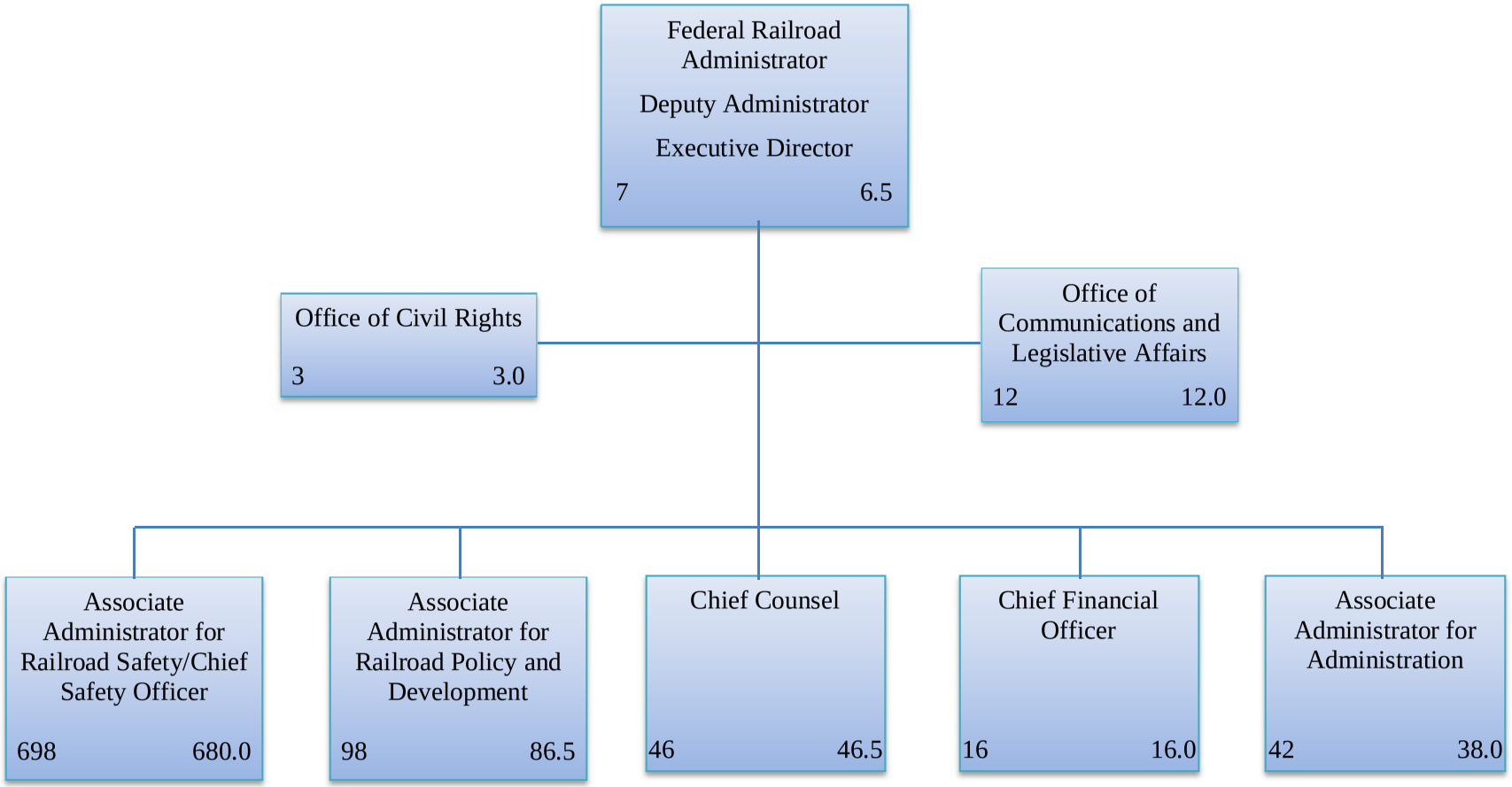


* Includes personnel funded from the Safety and Operations account and prior year balances in the High-Speed Corridors and Intercity Passenger Rail Service account. The number of positions listed is the number of employees on board at the end of the fiscal year.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FY 2014 Organization Chart

922 Full-time Positions (FTP); 888.5 Full-time Equivalents (FTE) *



* Includes personnel funded from the Safety and Operations account and prior year balances in the High-Speed Corridors and Intercity Passenger Rail Service account. The number of positions listed is the number of employees on board at the end of the fiscal year.

EXHIBIT II-1

FY 2014 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY
FEDERAL RAILROAD ADMINISTRATION
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Safety and Operations	178,596	179,689	184,500
Railroad Research and Development	35,000	35,214	35,250
Current Passenger Rail Service (TF, Oblim) [1/]	-	-	2,700,000
Rail Service Improvement Program (TF, Oblim) [1/]	-	-	3,660,000
Railroad Research, Development and Technology (TF, Oblim) [1/]	-	-	54,750
Grants to the National Railroad Passenger Corporation [2/]	-	118,000	-
Operating Subsidy Grants to National Railroad Passenger Corporation	466,000	468,852	-
Capital and Debt Service Grants to National Railroad Passenger Corporation	952,000	957,826	-
TOTAL NEW BUDGETARY AUTHORITY	**1,631,596**	**1,759,581**	**6,634,500**
Appropriations	1,631,596	1,759,581	6,634,500
Rescission	-	-	-
Immediate Transportation Investments	-	-	5,000,000

Notes:

1/ In FY 2014, FRA proposes new Current Passenger Rail Service, Rail Service Improvement Program, and Research, Development, and Technology accounts funded from a new dedicated Rail Account of the Transportation Trust Fund; TF = Trust Fund, Oblim = Obligation Limitation.

2/ The Disaster Relief Appropriations Act of 2013 (P.L. 113-2) provided funds for Amtrak, including $32 million for repair work and $86 million for disaster mitigation projects.

EXHIBIT II-2

FY 2014 TOTAL BUDGETARY RESOURCES BY APPROPRIATION ACCOUNT
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Safety and Operations	178,596	179,689	184,500
Railroad Research and Development	35,000	35,214	35,250
Current Passenger Rail Service (TF, Oblim) [1/]	-	-	2,700,000
Rail Service Improvement Program (TF, Oblim) [1/]	-	-	3,660,000
Railroad Research, Development, and Technology (TF, Oblim) [1/]	-	-	54,750
Grants to the National Railroad Passenger Corporation [2/]	-	118,000	-
Operating Subsidy Grants to the National Railroad Passenger Corporation	466,000	468,852	-
Capital and Debt Service Grants to the National Railroad Passenger Corporation	952,000	957,826	-
TOTAL BUDGETARY RESOURCES	**1,631,596**	**1,759,581**	**6,634,500**
Immediate Transportation Investments	-	-	5,000,000

Notes:

1/ In FY 2014, FRA proposes new Current Passenger Rail Service, Rail Service Improvement Program, and Research, Development, and Technology accounts funded from a new dedicated Rail Account of the Transportation Trust Fund; TF = Trust Fund, Oblim = Obligation Limitation.

2/ The Disaster Relief Appropriations Act of 2013 (P.L. 113-2) provided funds for Amtrak, including $32 million for repair work and $86 million for disaster mitigation projects.

EXHIBIT II-3

FY 2014 BUDGETARY RESOURCES BY DOT STRATEGIC GOALS AND OUTCOMES
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

STRATEGIC GOALS AND OUTCOMES	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
SAFETY			
Reduce transportation fatalities and injuries	171,439	172,488	1,127,302
STATE OF GOOD REPAIR			
Eliminate Amtrak's state of good repair backlog on the Northeast Corridor	-	-	491,250
Ensure the U.S. proactively maintains critical transportation infrastructure in a state of good repair	805,281	810,209	550,819
Subtotal, State of Good Repair	805,281	810,209	1,042,069
ECONOMIC COMPETITIVENESS			
Maximize economic returns from high-speed and intercity passenger rail	83,534	116,045	1,254,943
LIVABLE COMMUNITIES			
Increase access to convenient and affordable transportation choices	370,917	373,187	1,780,917
Improve access for people with disabilities and older adults	92,729	93,297	448,667
Subtotal, Livable Communities	463,646	466,484	2,229,584
ENVIRONMENTAL SUSTAINABILITY	73,114	159,561	942,944
ORGANIZATIONAL EXCELLENCE	34,583	34,794	37,658
TOTAL BUDGETARY RESOURCES	**1,631,596**	**1,759,581**	**6,634,500**

EXHIBIT II-3a

FY 2014 PRESIDENT'S BUDGET BY DOT STRATEGIC GOALS AND OUTCOMES
FEDERAL RAILROAD ADMINISTRATION
($000)

DOT STRATEGIC GOAL AND OUTCOME	ACCOUNT	FY 2014 REQUEST
SAFETY		**1,127,302**
Reduce transportation fatalities and injuries	Safety and Operations	150,023
	Current Passenger Rail Service	378,750
	Rail Service Improvement Program	557,500
	Research and Development	25,101
	Research, Development, and Technology	15,927
STATE OF GOOD REPAIR		**1,042,069**
Eliminate Amtrak's state of good repair backlog on the Northeast Corridor	Rail Service Improvement Program	491,250
Ensure the U.S. proactively maintains critical transportation infrastructure in a state of good repair	Safety and Operations	2,187
	Current Passenger Rail Service	544,000
	Research and Development	4,632
ECONOMIC COMPETITIVENESS		**1,254,943**
Maximize economic returns from high-speed and intercity passenger rail	Safety and Operations	4,275
	Current Passenger Rail Service	748,750
	Rail Service Improvement Program	478,000
	Research and Development	2,334
	Research, Development, and Technology	21,584
LIVABLE COMMUNITIES		**2,229,584**
Increase access to convenient and affordable transportation choices	Safety and Operations	1,667
	Current Passenger Rail Service	601,250

EXHIBIT II-3a (cont'd)

FY 2014 PRESIDENT'S BUDGET BY DOT STRATEGIC GOALS AND OUTCOMES
FEDERAL RAILROAD ADMINISTRATION
($000)

DOT STRATEGIC GOAL AND OUTCOME	ACCOUNT	FY 2014 REQUEST
ENVIRONMENTAL SUSTAINABILITY		**942,944**
Advance environmentally sustainable policies and investments that reduce carbon and other harmful emissions from transportation sources	Safety and Operations	3,232
	Current Passenger Rail Service	202,500
	Rail Service Improvement Program	733,000
	Research and Development	3,183
	Research, Development, and Technology	1,029
ORGANIZATIONAL EXCELLENCE		**37,658**
Develop a diverse and collaborative workforce	Safety and Operations	21,448
	Research, Development, and Technology	16,210
TOTAL FY 2014 PRESIDENT'S BUDGET		**6,634,500**

EXHIBIT II-4

FY 2014 BUDGET AUTHORITY
FEDERAL RAILROAD ADMINISTRATION
($000)

ACCOUNT	M/D	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Safety and Operations	**D**	**178,596**	**179,689**	**184,500**
Railroad Research and Development	**D**	**35,000**	**35,214**	**35,250**
Current Passenger Rail Service (TF, Oblim) [1/]	**M**	**0**	**0**	**2,700,000**
Northeast Corridor		-	-	675,000
State Corridors		-	-	300,000
Long-Distance Routes		-	-	800,000
National Assets		-	-	925,000
Rail Service Improvement Program (TF, Oblim) [1/]	**M**	**0**	**0**	**3,660,000**
Passenger Corridors		-	-	3,250,000
Congestion Mitigation (Passenger and Freight)		-	-	150,000
Freight Capacity		-	-	190,000
Planning		-	-	70,000
Railroad Research, Development, and Technology (TF, Oblim) [1/]	**M**	**0**	**0**	**54,750**
High-Performance Rail R&D		-	-	24,502
National Cooperative Research Program		-	-	4,950
Workforce Development		-	-	24,750
RD&T Oversight		-	-	548
Grants to the National Railroad Passenger Corporation [2/]	**D**	**0**	**118,000**	**0**
Operating Subsidy Grants to the National Railroad Passenger Corporation	**M**	**466,000**	**468,852**	**0**
Capital and Debt Service Grants to the National Railroad Passenger Corporation	**M**	**952,000**	**957,826**	**0**
Railroad Rehabilitation and Improvement Financing Fund - Program Account	**M**	**16,905**	**33,445**	**0**
Railroad Rehabilitation and Improvement Financing Fund - Liquidating Account	**M**	**(44)**	**(74)**	**(77)**
TOTAL GROSS BUDGET REQUEST		**1,648,457**	**1,792,952**	**6,634,423**
Mandatory	*M*	*1,434,861*	*1,460,049*	*6,414,673*
Discretionary	*D*	*213,596*	*332,903*	*219,750*
Immediate Transportation Investments	M	-	-	5,000,000

Notes:

1/ In FY 2014, FRA proposes new Current Passenger Rail Service, Rail Service Improvement Program, and Research, Development, and Technology accounts funded from a new dedicated Rail Account of the Transportation Trust Fund; TF = Trust Fund, Oblim = Obligation Limitation.

2/ The Disaster Relief Appropriations Act of 2013 (P.L. 113-2) provided funds for Amtrak, including $32 million for repair work and $86 million for disaster mitigation projects.

EXHIBIT II-5

FY 2014 OUTLAYS
FEDERAL RAILROAD ADMINISTRATION
($000)

ACCOUNT	M/D	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Safety and Operations	D	257,175	243,170	184,411
Railroad Research and Development	D	40,978	5,850	36,948
Grants to the National Railroad Passenger Corporation	D	781	89,347	29,500
Capital Grants to the National Railroad Passenger Corporation (ARRA)	D	3,058	1,654	
Operating Grants to the National Railroad Passenger Corporation	M	466,000	468,852	
Capital and Debt Service Grants to the National Railroad Passenger Corporation	M	951,309	991,879	
Intercity Passenger Rail Grant Program	D	8,389	13,031	19,775
Northeast Corridor Improvement Program	D		500	500
Pennsylvania Station Redevelopment Project	D	4,070	12,822	12,822
Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service (ARRA)	D	489,730	898,329	1,971,500
Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service	D	23,394	200,116	283,998
Railroad Rehabilitation and Improvement Program - Liquidating Account	M	44	74	77
Railroad Rehabilitation and Improvement Program - Program Account	M	16,704	33,445	
Next Generation High-Speed Rail	D	863	3,493	3,493
Emergency Railroad Rehabilitation and Repair	D	3,990	5,091	
Rail Line Relocation and Improvement Program	D	11,950	20,229	20,229
Railroad Safety Technology Program	D	16,764	12,651	12,651
Current Passenger Rail Service	M	-	-	1,555,208
Rail Service Improvement Program	M	-	-	224,764
Railroad Research, Development, and Technology	M	-	-	7,400
Total		**2,295,199**	**3,030,533**	**4,363,276**
Discretionary		*861,142*	*1,536,283*	*2,575,827*
Mandatory		*1,434,057*	*1,494,250*	*1,787,449*
Immediate Transportation Investments	M	0	0	1,000,000
ITI Current Passenger Rail Service	*M*	-	-	*1,000,000*
ITI Rail Service Improvement Program	*M*	-	-	

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

SAFETY AND OPERATIONS ($000)

Item	FY 2013 CR Annualized	Baseline Changes: Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
DIRECT:											
PERSONNEL RESOURCES											
Direct FTE	859.0	-	-	-	-	-	-	-	859.0	22.5	881.5
FINANCIAL RESOURCES											
Salaries and Benefits	116,656	-	-	836	-	-	-	-	117,492	3,059	120,551
Travel	10,840	-	-	-	-	-	-	55	10,895	-	10,895
Transportation	115	-	-	-	-	-	-	1	116	-	116
GSA Rent	6,895	-	-	-	-	34	-	-	6,929	-	6,929
Communications, Rent and Utilities	1,712	-	-	-	-	-	-	10	1,722	-	1,722
Printing	300	-	-	-	-	-	-	2	302	-	302
Contract Services	31,738	-	-	-	-	-	-	125	31,863	273	32,136
WCF	7,655	-	-	-	-	-	399	-	8,054	-	8,054
Supplies and Materials	400	-	-	-	-	-	-	2	402	-	402
Equipment	1,979	-	-	-	-	-	-	8	1,987	-	1,987
Grants, Subsidies, Contributions	1,379	-	-	-	-	-	-	7	1,386	-	1,386
Insurance Claims and Indemnities	20	-	-	-	-	-	-	-	20	-	20
TOTAL	**179,689**	-	-	**836**	-	**34**	**399**	**210**	**181,168**	**3,332**	**184,500**

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

RAILROAD RESEARCH AND DEVELOPMENT ($000)

Item	FY 2013 CR Annualized	Baseline Changes: Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel	174	-	-	-	-	-	-	-	174	-	174
Other Contracts	4,758	-	-	-	-	-	-	-	4,758	-	4,758
Operation and Maintenance of Facilities	2,609	-	-	-	-	-	-	-	2,609	392	3,001
Research and Development Contracts	18,265	-	-	-	-	-	-	-	18,265	(356)	17,909
Grants, Subsidies and Contributions	9,408	-	-	-	-	-	-	-	9,408	-	9,408
Admin Subtotal	**35,214**	-	-	-	-	-	-	-	**35,214**	**36**	**35,250**
PROGRAMS											
Research and Development (R&D)											
Track Program	10,838	-	-	-	-	-	-	-	10,838	591	**11,429**
Rolling Stock Program	8,574	-	-	-	-	-	-	-	8,574	(252)	**8,322**
Train Control and Communications	9,343	-	-	-	-	-	-	-	9,343	(1,257)	**8,086**
Human Factors Program	3,064	-	-	-	-	-	-	-	3,064	478	**3,542**
Railroad System Issues Program	3,395	-	-	-	-	-	-	-	3,395	476	**3,871**
Programs Subtotal	**35,214**	-	-	-	-	-	-	-	**35,214**	**36**	**35,250**
TOTAL	**35,214**	-	-	-	-	-	-	-	**35,214**	**36**	**35,250**

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

CURRENT PASSENGER RAIL SERVICE (TF,Oblim) ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel	-	-	-	-	-	-	-	-	-	236	236
Other Contracts	-	-	-	-	-	-	-	-	-	13,264	13,264
Grants, Subsidies and Contributions	-	-	-	-	-	-	-	-	-	2,686,500	2,686,500
Admin Subtotal	-	-	-	-	-	-	-	-	-	**2,700,000**	**2,700,000**
PROGRAMS											
Current Passenger Rail Service											
Northeast Corridor	-	-	-	-	-	-	-	-	-	675,000	675,000
State Corridors	-	-	-	-	-	-	-	-	-	300,000	300,000
Long-Distance Routes	-	-	-	-	-	-	-	-	-	800,000	800,000
National Assets	-	-	-	-	-	-	-	-	-	925,000	925,000
Program Subtotal	-	-	-	-	-	-	-	-	-	**2,700,000**	**2,700,000**
TOTAL	-	-	-	-	-	-	-	-	-	**2,700,000**	**2,700,000**

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

RAIL SERVICE IMPROVEMENT PROGRAM (TF,Oblim) ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel	-	-	-	-	-	-	-	-	-	640	640
Other Contracts	-	-	-	-	-	-	-	-	-	35,960	35,960
Grants, Subsidies and Contributions	-	-	-	-	-	-	-	-	-	3,623,400	3,623,400
Admin Subtotal	-	-	-	-	-	-	-	-	-	**3,660,000**	**3,660,000**
PROGRAMS											
Rail Service Improvement Program											
Passenger Corridors	-	-	-	-	-	-	-	-	-	3,250,000	3,250,000
Congestion Mitigation	-	-	-	-	-	-	-	-	-	150,000	150,000
Freight Capacity	-	-	-	-	-	-	-	-	-	190,000	190,000
Planning	-	-	-	-	-	-	-	-	-	70,000	70,000
Program Subtotal	-	-	-	-	-	-	-	-	-	**3,660,000**	**3,660,000**
TOTAL	-	-	-	-	-	-	-	-	-	**3,660,000**	**3,660,000**

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

RAILROAD RESEARCH, DEVELOPMENT, AND TECHNOLOGY (TF,Oblim) ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel		-	-	-	-	-	-	-	-	174	174
Other Contracts		-	-	-	-	-	-	-	-	374	374
Operation and Maintenance of Facilities		-	-	-	-	-	-	-	-	2,970	2,970
Research and Development Contracts		-	-	-	-	-	-	-	-	30,071	30,071
Grants, Subsidies and Contributions		-	-	-	-	-	-	-	-	21,161	21,161
Admin Subtotal		-	-	-	-	-	-	-	-	**54,750**	**54,750**
PROGRAMS											
Research and Development (R&D)		-	-	-	-	-	-	-	-	**29,452**	**29,452**
High Performance Rail R&D		-	-	-	-	-	-	-	-	24,502	24,502
National Cooperative Research Program		-	-	-	-	-	-	-	-	4,950	4,950
Workforce Development		-	-	-	-	-	-	-	-	**24,750**	**24,750**
Rail-Based University Transportation Center		-	-	-	-	-	-	-	-	3,960	3,960
Buy America Support		-	-	-	-	-	-	-	-	2,970	2,970
Technical Assistance & Training		-	-	-	-	-	-	-	-	17,820	17,820
RD&T Oversight		-	-	-	-	-	-	-	-	**548**	**548**
Program Subtotal		-	-	-	-	-	-	-	-	**54,750**	**54,750**
TOTAL		-	-	-	-	-	-	-	-	**54,750**	**54,750**

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

GRANTS TO NATIONAL RAILROAD PASSENGER CORPORATION ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel	10	-	-	-	-	-	-	-	10	(10)	-
Other Contracts	580	-	-	-	-	-	-	-	580	(580)	-
Grants, Subsidies and Contributions	117,410	-	-	-	-	-	-	-	117,410	(117,410)	-
Admin Subtotal	**118,000**	-	-	-	-	-	-	-	**118,000**	**(118,000)**	-
PROGRAMS											
Sandy Resiliency (Capital and Debt)	85,570	-	-	-	-	-	-	-	85,570	(85,570)	-
Sandy Repair (Operating Subsidy)	31,840	-	-	-	-	-	-	-	31,840	(31,840)	-
Oversight	590	-	-	-	-	-	-	-	590	(590)	-
Program Subtotal	**118,000**	-	-	-	-	-	-	-	**118,000**	**(118,000)**	-
TOTAL	**118,000**	-	-	-	-	-	-	-	**118,000**	**(118,000)**	-

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

OPERATING SUBSIDY GRANTS TO NATIONAL RAILROAD PASSENGER CORPORATION ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Grants, Subsidies and Contributions	468,852	-	-	-	-	-	-	-	468,852	(468,852)	-
Admin Subtotal	468,852	-	-	-	-	-	-	-	468,852	(468,852)	-
PROGRAMS											
Operating Subsidy Grants	468,852	-	-	-	-	-	-	-	468,852	(468,852)	-
Program Subtotal	**468,852**	-	-	-	-	-	-	-	**468,852**	**(468,852)**	-
TOTAL	**468,852**	-	-	-	-	-	-	-	**468,852**	**(468,852)**	-

EXHIBIT II-6

SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FEDERAL RAILROAD ADMINISTRATION
Appropriations, Obligation Limitations, and Exempt Obligations

CAPITAL AND DEBT SERVICE GRANTS TO NATIONAL RAILROAD PASSENGER CORPORATION ($000)

		Baseline Changes									
Item	FY 2013 CR Annualized	Annualization of 2013 Pay Raises	Annualization of 2013 FTE	2014 Pay Raises	One Additional Compensable Day	GSA Rent	WCF Increase/ Decrease	Inflation/ Deflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES											
Direct FTE	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL RESOURCES											
ADMINISTRATIVE EXPENSES											
Travel	25	-	-	-	-	-	-	-	25	(25)	-
Other Contracts	98	-	-	-	-	-	-	-	98	(98)	-
Grants, Subsidies and Contributions	957,703	-	-	-	-	-	-	-	957,703	(957,703)	-
Admin Subtotal	**957,826**	-	-	-	-	-	-	-	**957,826**	**(957,826)**	-
PROGRAMS											
Capital Grants	625,283	-	-	-	-	-	-	-	625,283	(625,283)	-
Debt Service Grants	272,659	-	-	-	-	-	-	-	272,659	(272,659)	-
American Disability Act (ADA)	50,306	-	-	-	-	-	-	-	50,306	(50,306)	-
Oversight	4,789	-	-	-	-	-	-	-	4,789	(4,789)	-
Northeast Corridor Infrastructure and Operational Improvements	4,789	-	-	-	-	-	-	-	4,789	(4,789)	-
Program Subtotal	**957,826**	-	-	-	-	-	-	-	**957,826**	**(957,826)**	-
TOTAL	**957,826**	-	-	-	-	-	-	-	**957,826**	**(957,826)**	-

EXHIBIT II-7

WORKING CAPITAL FUND
FEDERAL RAILROAD ADMINISTRATION
($000)

ITEM	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE 2013-2014
DIRECT:				
Safety and Operations	7,134	7,655	8,054	399
SUBTOTAL DIRECT	**7,134**	**7,655**	**8,054**	**399**
REIMBURSABLE:				
---	**-**	**-**	**-**	**-**
SUBTOTAL REIMBURSABLE	**0**	**0**	**0**	**0**
TOTAL WORKING CAPITAL FUND	**7,134**	**7,655**	**8,054**	**399**

EXHIBIT II-8

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

ITEM	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
DIRECT FUNDED BY APPROPRIATION			
Safety and Operations	859.0	859.0	881.5
High-Speed Rail [1]/	1.0	5.0	7.0
SUBTOTAL DIRECT FUNDED	860.0	864.0	888.5
TOTAL FULL-TIME EQUIVALENTS	**860.0**	**864.0**	**888.5**

Notes:

1/ These FTE are funded from prior year balances in the High-Speed Rail Corridors and Intercity Passenger Rail Service account.

EXHIBIT II-9

FEDERAL RAILROAD ADMINISTRATION
RESOURCE SUMMARY - STAFFING
FULL-TIME PERMANENT POSITIONS (FTP) [1/]

ITEM	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
DIRECT FUNDED BY APPROPRIATION			
Safety and Operations	870	870	915
High-Speed Rail [2/]	2	7	7
SUBTOTAL DIRECT FUNDED	872	877	922
TOTAL FULL-TIME POSITIONS	**872**	**877**	**922**

Notes:

1/ Positions represent the number of employees on-board at end of the fiscal year.

2/ These positions are funded from prior year balances in the High-Speed Rail Corridors and Intercity Passenger Rail Service account.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

SAFETY AND OPERATIONS
APPROPRIATIONS LANGUAGE

SAFETY AND OPERATIONS

For necessary expenses of the Federal Railroad Administration, not otherwise provided for, $184,500,000, of which $12,400,000 shall remain available until expended.

Note—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

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EXHIBIT III-1

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

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Safety and Operations	**178,596**	**179,689**	**184,500**	**4,811**
Full-time Equivalents (FTE)				
Direct Funded	859.0	859.0	881.5	22.5
Reimbursable, Allocated, Other	-	-	-	-
Total FTE	**859.0**	**859.0**	**881.5**	**22.5**

Program and Performance Statement

Funds requested in the Safety and Operations account support the Federal Railroad Administration's (FRA) personnel and administrative expenses, the cost of rail safety inspectors, and other safety-related program activities including contracts.

EXHIBIT III-1a

SAFETY AND OPERATIONS
SUMMARY ANALYSIS OF CHANGE FROM FY 2013 TO FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	Change from FY 2013 to FY 2014	
ITEM	**$000**	**FTE**
FY 2013 BASE	**179,689**	**859.0**
BASELINE CHANGES:		
FY 2014 Comparability Pay Increase (1.0%)	836	-
Non-Pay Inflation (0.5%)	210	-
GSA Rent	34	-
WCF	399	-
SUBTOTAL, ADJUSTMENTS TO BASE:	**1,479**	**-**
PROGRAM CHANGES:		
Personnel Increases	3,059	22.5
Contracts Efficiencies	(3,284)	-
Confidential Close Call Reporting System	1,000	-
Information Technology Security Program Services	987	-
High-Speed Rail Certification	872	-
Railroad Safety Information System	698	-
SUBTOTAL, PROGRAM CHANGES:	**3,332**	**22.5**
TOTAL FY 2014 REQUEST	**184,500**	**881.5**

EXHIBIT III-2

ANNUAL PERFORMANCE RESULTS AND TARGETS
FEDERAL RAILROAD ADMINISTRATION

FRA integrates performance results into its budget request in alignment with the Department of Transportation's strategic plan.

DOT Strategic Goal: Safety – Improve Public Health and Safety by Reducing Transportation-Related Fatalities and Injuries.

Outcome: Reduce rail-related accidents and incidents.

Measure: Rate of rail-related accidents and incidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	16.400	16.400	16.300	16.300	16.150
Actual *	16.664	15.991	14.557	--	--
Measure: Rate of grade crossing incidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	3.650	3.500	3.300	3.100	2.975
Actual *	2.89	2.876	2.726	--	--
Measure: Rate of human factors-caused train accidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	1.350	1.250	1.200	1.100	1.045
Actual *	0.946	0.979	0.873	--	--
Measure: Rate of track-caused train accidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	1.150	1.120	1.080	1.060	1.015
Actual *	0.971	0.951	0.793	--	--
Measure: Rate of equipment-caused train accidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	0.450	0.450	0.430	0.420	0.379
Actual *	0.368	0.342	0.279	--	--
Measure: Rate of signal/miscellaneous train accidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	0.593	0.590	0.560	0.530	0.510
Actual *	0.495	0.477	0.424*	--	--

* Actual results might differ from previous reports and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of December 2012. Data are available at www.fra.dot.gov.

EXHIBIT III-2 (cont'd)

ANNUAL PERFORMANCE RESULTS AND TARGETS
FEDERAL RAILROAD ADMINISTRATION

DOT Strategic Goal: Safety – Improve Public Health and Safety by Reducing Transportation-Related Fatalities and Injuries.

Outcome: Reduce rail-related accidents and incidents.

Measure: Rate of non-accident hazardous material releases per 200-million hazmat ton-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	1.278	1.249	1.220	1.218	1.200
Actual *	1.063	1.079	0.883*	--	--

* Actual results might differ from previous reports and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of December 2012. Data are available at www.fra.dot.gov.

DETAILED JUSTIFICATION FOR THE SAFETY AND OPERATIONS

What Do I Need To Know Before Reading This Justification?

FRA employs nearly 900 professionals to ensure the safety of the railroad industry and to administer rail development programs that support passenger and freight rail transportation.

The Nation's railroad industry consists of more than 760 railroads (including 30 passenger, eight switching and terminal yard railroads, approximately 134 tourist/excursion/historical railroads, and 640 freight railroads). It serves as a major U.S. economic driving force and in 2012 it:

- Hauled the Nation's freight over 741 million train-miles.
- Carried more than 670 million passengers over 20 billion miles.
- Employed approximately 233,000 workers who logged more than 465 million employee-hours.

What Is The Request And What Will We Get For The Funds?

FY 2014 - Safety and Operations - Budget Request
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	Difference from FY 2013 CR Annualized
Safety and Operations	**178,596**	**179,689**	**184,500**	**4,811**

What Is The Program?

FRA requests $184.5 million and 881.5 FTE in FY 2014 for the Safety and Operations account. This is a $5.9 million increase compared to FY 2012 enacted, and a 22.5 increase in FTE.

The Safety and Operations (S&O) account includes funding for nearly all of FRA's personnel costs.[1] Employees are the backbone of the organization and are vital to accomplishing the agency's **safety and investment missions**. FRA professional staff also provides sound stewardship over the thriving portfolio of rail safety and development programs.

For FY 2014, FRA requests $3.06 million for 22.5 new FTE: 15 FTE for the Office of Railroad Safety – 5 FTE would be highly-trained regional safety inspectors to implement major provisions of RSIA. 10 FTE would be for railroad safety specialists reporting to headquarters but distributed throughout the Nation to directly support implementation of RSIA regulations addressing risk reduction and railroad employee training and certification as well as to provide technical assistance for new start commuter railroad operations, and 7.5 FTE for the Office of Railroad Policy and Development – 2.5 FTE would be engineers, 1 FTE as an Environmental Specialist, 1 FTE as an Loan Program Manager, 1 FTE as an Grants Manager, 1 FTE as an Regional Manager to oversee grant recipients, and 1 FTE as an Program Manager for oversight.

This account includes funding for FRA's organizational infrastructure (e.g., rent, telecommunications, information technology, and contract support). For FY 2014, FRA requests an additional $1.479 million for adjustments to FRA's base costs, including $836 thousand in pay raises, $34 thousand for GSA rent increases, $210 thousand in non-pay inflation, and $399 thousand for increased Working Capital Fund costs. Additionally, FRA requests $987 thousand for IT security to protect the agency's systems from growing cyber threats.

The Safety and Operations account also funds key safety program activities, including FRA's Automated Track Inspection Program (ATIP), Rail Safety Information System (RSIS), Confidential Close Call Reporting System (C3RS), and contract services that support regulatory

[1] In FY 2014 seven FTE are projected to be funded from prior year balances in the High-Speed Corridors and Intercity Passenger Rail Service account.

and data collection efforts. For FY 2014, to support FRA's regulatory agenda and passenger program expansion, FRA requests $2.57 million.[2]

Finally, included in this account is reimbursement to the Department of Labor for compensation payments to former Federal employees of the Alaska Railroad, as well as support for clean- up activities at hazardous waste sites previously owned by FRA.

Anticipated FY 2013 Accomplishments

- Reduce the rate of rail-related accidents and incidents per million train-miles to 16.30 by:
  - Reducing the grade crossing incident rate from 3.300 to 3.100.
  - Reducing the human factor-caused train accident rate from 1.200 to 1.100.
  - Reducing the track-caused train accident rate from 1.080 to 1.060.
  - Reducing the equipment-caused train accident rate from 0.430 to 0.420.
  - Reducing the other (signal and miscellaneous) train accident rate from 0.560 to 0.530.
  - Reducing the non-accident hazardous materials releases rate from 1.220 to 1.218.

- Monitor and oversee 56 construction projects totaling $3.7 billion under the High-Speed and Intercity Passenger Rail program.

- Support system certification of the Southern California Regional Rail Authority positive train control system.

- Expand the implementation of the Confidential Close Call Reporting System (C3RS) across Amtrak's entire system and add new railroads based on railroad industry support and positive evaluations of the pilot projects.

- Issue proposed rulemakings on 1) Risk Reduction Programs for freight railroads; 2) Critical Incident Stress Plans; and 3) Passenger Train Door Operation and Door Safety. Promulgate final rules on Vehicle Track Interaction; System Safety Programs for passenger railroads; and Training Standards for railroad employees; as well as amendments to the Emergency Notification System final rule.

- Promulgate final rules on vehicle track interaction; system safety programs for passenger railroads, and training standards for railroad employees, as well as amendments to the emergency notification system final rule.

- Conduct a survey to benchmark the extent to which Electronic Device Distraction (EDD) is considered socially acceptable in the railroad work environment in order to determine current level of risk and the effectiveness of new industry programs designed to raise awareness and decrease risk.

[2] Pursuant to section of 102 of the *Railroad Safety Improvement Act*, FRA publishes with the budget its annual railroad safety strategy and progress assessment, which detail FRA's work to date and planned efforts to improve railroad safety.

- Release the sixth edition of the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings. This edition will have several chapters on laws that affect railroad trespassing and vandalism. This will enable legislatures and researchers to have ready access to the most recent State laws on railroad trespassing and vandalism, which will aid in developing more effective laws.

- Release the second edition of the FRA report: *Rail Trespasser Fatalities: Developing Demographic Profile*.

- Issue a revised model law pertaining to railroad trespassing and vandalism, and make it available to the States.

- Launch a comprehensive monitoring, training, and technical assistance program for current and future grant recipients.

- Finalize evaluation of automated systems for assessing brake system performance. After the planning phase is complete, tests are expected to begin.

- Complete the State Rail Plan guidance and advance project development and delivery guidance.

Anticipated FY 2014 Accomplishments

- Reduce the rate of rail-related accidents and incidents per million train-miles from 16.30 to 16.15 by:
  - Reducing the grade crossing incident rate from 3.100 to 2.975.
  - Reducing the human factor-caused train accident rate from 1.100 to 1.045.
  - Reducing the track-caused train accident rate from 1.060 to 1.015.
  - Reducing the equipment-caused train accident rate from 0.420 to 0.379.
  - Reducing the other (signal and miscellaneous) train accident rate from 0.530 to 0.510.
  - Reducing the non-accident hazardous materials releases rate from 1.218 to 1.200.

- Support System Certification of Interoperable Electronic Train Management System Positive Train Control (PTC) systems for all Class I railroads and Amtrak and support efforts to overcome industry challenges with implementation of PTC to the extent legislation permits.

- Issue proposed rulemaking to extend existing drug and alcohol regulations to maintenance-of-way employees.

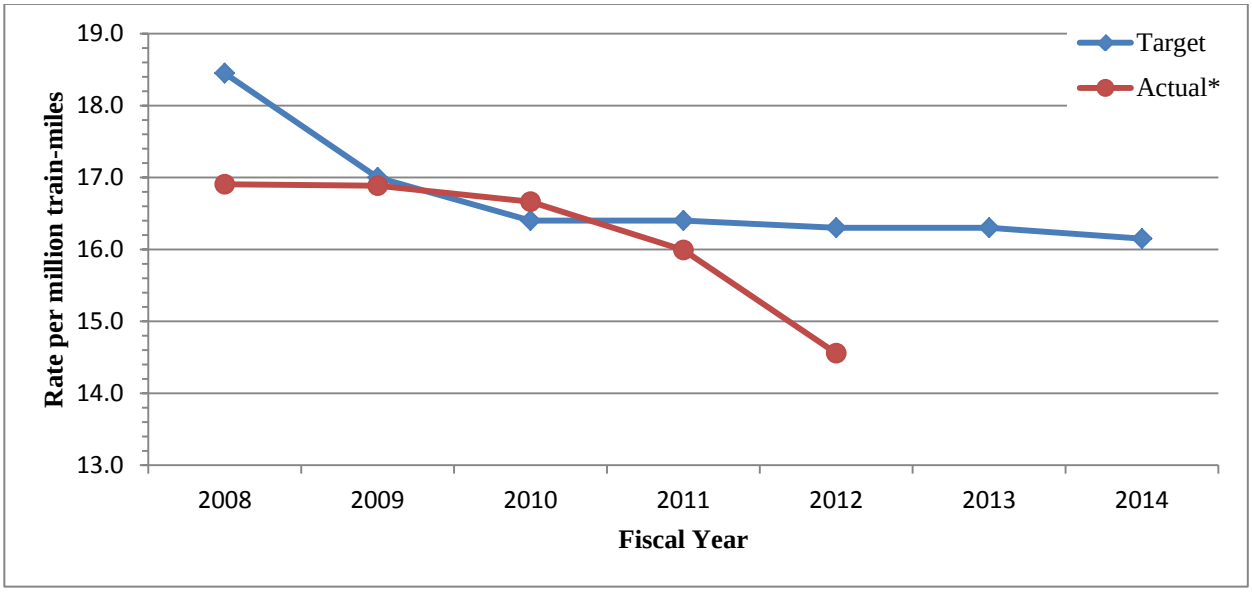
- Support implementation of the *Clear Signal for Action* peer-to-peer coaching program aimed at reducing human error and identifying best safety practices in passenger rail operations.

- Continue monitoring and oversight of High-Speed and Intercity Passenger Rail program projects through what is likely to be the busiest construction year for the program.

- Complete nine rail research efforts with the Transportation Research Board National Cooperative Rail Research Program.

- Study the impact of the Rails-to-Trails program on trespasser and pedestrian safety, and review and update trespass and vandalism prevention strategies.

Total Rail Accidents and Incidents Goals and Actuals
Fiscal Years 2008 to 2014



* Actual results might differ from previous reports and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of December 2013. Data are available at www.fra.dot.gov.

Why Is This Particular Program Necessary?

FRA is organized into three major functional areas: railroad safety, railroad policy and development, and executive leadership and support. Each area is essential for fulfilling FRA's safety and rail development mission.

Office of Railroad Safety: (680 FTE proposed for FY 2014) Supports the Department's strategic goal of reducing transportation-related fatalities and injuries. It promotes and regulates safety throughout the Nation's railroad industry. The Associate Administrator for Railroad Safety/Chief Safety Officer serves as the principal advisor to the Administrator and FRA officials and oversees, regulates, and enforces railroad safety practices. The safety program actively supports the development of passenger rail system safety programs, including high-speed and intercity passenger rail, commuter rail, and shared-use operations and evaluating the safety of proposed passenger rail operations, including line extensions, and shared use operations through the Passenger Rail Division, which provides technical outreach, including training and information regarding safety regulations and system safety, to new start commuter and intercity passenger railroads. In addition, the safety program supports the implementation of new rail safety technologies, including positive train control systems with a cadre of senior level technical

experts reporting directly to the Deputy Associate Administrator for Regulatory and Legislative Operations.

FRA executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts, inspectors, and other professionals. FRA inspectors specialize in five safety disciplines: (1) track, (2) signal and train control, (3) motive power and equipment, (4) operating practices, and (5) hazardous materials. In addition, FRA's field components include program managers for highway-rail grade crossing safety, trespass prevention, rail and infrastructure integrity experts, Positive Train Control specialists, and industrial hygienists.

The Office of Safety Analysis develops long-range rail safety program goals and requirements. The Risk Reduction Program is an important initiative of this office, which also manages the Confidential Close Call Reporting System (C3RS) and outreach programs to prevent distraction from portable electronic devices. Further, this office trains, certifies, and delegates authority to enforce Federal railroad safety laws to qualifying State agencies. Other Office of Safety Analysis responsibilities include formulation of FRA's safety goals, accident and incident data analysis, technical training, promoting safety at grade crossings and preventing trespasser accidents, and developing cost-benefit analyses and rulemakings.

Office of Railroad Policy and Development: (80.5 FTE proposed for FY 2014) Administers Federal financial assistance to State governments and the rail industry, including the National Railroad Passenger Corporation (Amtrak), and leads development of U.S. high- speed and intercity passenger rail service policy and programs. The Office also contains FRA's research and development program, which works to improve railroad safety and technology. Last, this office provides credit-based financial assistance for passenger and freight projects through the Railroad Rehabilitation and Improvement Financing (RRIF) program.

Since 2009, the Office has championed the Administration's vision to expand high-performance rail across the United States. The Office is the driving force behind the $10.1 billion High-Speed and Intercity Passenger Rail (HSIPR) program, initially funded in the *American Recovery and Reinvestment Act*. It continues to build the policies, processes, and programs necessary to improve and expand America's rail network.

Executive Leadership and Support: Five offices within FRA provide the leadership and organizational infrastructure that enables FRA to accomplish its mission.

- **Office of the Administrator:** (21.5 FTE proposed for FY 2014) Includes staff in the Immediate Office of the Administrator, the Offices of Public Engagement and Public Affairs, and the Office of Civil Rights. The office of the administrator develops, implements, and coordinates crosscutting issues; ensures accountability for management actions, fiscal stewardship, accountability, and transparency; recommends business process improvements; and assists the Administrator and Deputy Administrator in promoting quality improvement, strategic plans, economy, and organizational performance. The Offices of Public Engagement and Public Affairs organize events and products that promote and enhance the public's understanding and awareness of the agencies programs, policies, and accomplishments. In FY 2014, FRA is proposing an organizational change to enhance

communication with the public by combining these offices into the Office of Communication and Legislative Affairs. The office will also be responsible for managing FRA's public and private outreach activities with State and regional governments, and stakeholders in the railroad community. Consolidating the legislative affairs function with other communication activities will enable more efficient use of staff resources and better service to Congress. The Office of Civil Rights leads and develops policy to ensure effective and consistent diversity and civil rights programs both within FRA and across the rail industry, processes internal and external complaints, and works to ensure nondiscriminatory transportation in support of our mission to enhance the social and economic quality of life for the people of the United States.

- **Office of Financial Management:** (15 FTE proposed for FY 2014) Conducts the agency's budget and accounting activities, and ensures that financial management systems and policies are proactively responsive to FRA, departmental, and government-wide requirements.

- **Office of Administration:** (38 FTE proposed for FY 2014) Provides comprehensive mission support by directing and coordinating the agency's acquisition, human resources, and information technology (IT) functions and services. The Office of Human Resources manages workforce planning, classification, compensation, and benefits; employee recruitment, placement, performance, career development, training, and drug testing; and employee relations, labor relations, and personnel security. The Office of Information Technology is responsible for planning, developing, and administering FRA's IT program, including IT capital planning, enterprise architecture, IT security, records management, continuity of operations, and consistency with applicable statutes and policies. The Office of Acquisition leads FRA's overall acquisition planning and execution activities.

- **Office of the Chief Counsel:** (46.5 FTE proposed for FY 2014) Includes the immediate office of the Chief Counsel and two operating divisions—General Law and Safety Law, and provides legal assistance to FRA's program and regional offices. The attorneys in each division are cross-trained to help balance workloads and priorities. The Safety Law Division drafts safety regulations, safety orders, agency interpretations, legislative proposals, and decisions of the FRA Safety Board and Locomotive Engineer and Conductor Review Boards. The Division also manages the enforcement and settlement of criminal and civil penalty and individual liability actions and administrative and judicial litigation related to rail safety. The General Law Division advises agency managers and staff on non-safety legal matters, including human resources, civil rights, environmental and historic preservation law, legislation, litigation, non-safety regulations, the *Privacy* and *Freedom of Information Acts*, and financial assistance programs, including grants, loans and procurement contracts. General Law Division attorneys support the High-Speed and Intercity Passenger Rail program and RRIF, including program development and implementation, loan and loan guarantee application reviews, applicant and project eligibility determinations, financial assistance agreement development and execution, ongoing program implementation and oversight, and environmental and historic preservation impact assessments. In addition, the Office provides legal services to state and local governments, most prominently through guidance in implementing the agency's financial assistance programs for which state and local governments are either grantees implementing specific programs or projects or prospective grantees seeking to establish eligibility, and joint FRA/State conducted environmental

reviews, and to the general public, typically in connection with agency conducted environmental reviews, helping to address difficulties individual citizens encounter with railroad companies, railroad safety concerns, and loans and loan guarantees under the RRIF program for which private sector concerns are eligible entities.

How Do You Know The Program Works?

FRA measures progress and achievements (1) according to safety performance data (2) reports and investigations by the DOT Office of Inspector General, Government Accountability Office, and National Transportation Safety Board, (3) safety-related activities based on statutory requirements, Congressional interest, statistical and other analyses, and research and development, and (4) evaluations of FRA management and staff.

Safety Measure	Percentage Change from Prior Fiscal Year		
	2010	2011	2012
Rail-related accidents and incidents	**- 0.7**	**- 1.2**	**- 5.4**
Train accidents	*- 4.3*	*+ 1.8*	*- 10.4*
Casualties	*+ 1.2*	*- 0.1*	*- 8.2*
Grade-crossing incidents	*- 2.3*	*+ 2.1*	*- 1.5*

* Results might differ from previous materials and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of December 2012. Current data are available on www.fra.dot.gov.

At an operational level, FRA continuously uses safety performance data to manage its inspector workforce and guide its regulatory work. FRA conducts analysis and professional judgment to deploy inspector resources effectively and efficiently. As FRA's safety program has grown in size and sophistication in recent years, the rail industry has seen steady improvements in safety metrics.

Steady Reductions in Rail-related Accidents: Due in large part to FRA efforts, the railroad industry has experienced considerable safety improvement over the past decade and remains one of the safest modes of travel. For example, in the 10-year period from FY 2003 through FY 2012, the number of rail-related accidents and incidents declined 25 percent and train accidents dropped by 41 percent. Additionally, the number of fatalities and injuries dropped 18 percent and highway-rail grade crossing incidents decreased 31 percent. Safety levels have improved because of a strengthened inspector force, broadened regulatory and enforcement efforts, and initiatives implemented under both the Secretary's Action Plan for Highway-Rail Grade Crossing Safety and Trespasser Prevention and the National Rail Safety Action Plan.

To evaluate the results of DOT's efforts, FRA uses six discipline-specific measures. DOT uses these measures in its annual organizational assessment of FRA's ability to meet goals. The organizational assessment results then link to FRA executives' annual performance evaluations. Preliminary FY 2012 data show accident and incident rates continuing to decline.

- Goal 1 – Highway-rail grade crossing incidents rate: **17.4 percent below target**
- Goal 2 – Human factors-caused train accidents rate: **27.3 percent below target**
- Goal 3 – Track-caused train accidents rate: **26.6 percent below target**
- Goal 4 – Equipment-caused train accidents rate: **35.1 percent below target**
- Goal 5 – Other (signal and misc.) train accidents rate: **24.3 percent below target**

- Goal 6 – Rail non-accident hazmat releases rate: **27.6 percent below target**

Organizational Excellence: FRA has two goals that support DOT's organizational excellence strategic goal.

- **Best Work Place:** FRA participates in the Office of Personnel Management's employee viewpoint survey. This survey measures overall Federal employee satisfaction with their work, agency, supervisor, performance culture, and leadership. In the most recent survey, which was conducted in 2012, FRA exceeded DOT scores in 68 out of 70 questions, and exceeded the government-wide average in 69 out of 70 questions.

- **Financial Performance:** FRA's multi-billion dollar portfolio of grants requires targeted monitoring and compliance reviews. In FY 2012, FRA established performance targets to assess the management of its competitive and discretionary grant programs. Based on these post-award monitoring results, FRA will catalog lessons learned and best practices, then leverage them through grantee training and technical assistance.

Why Do We Want/Need To Fund The Program At The Requested Level?

FY 2014 represents a critical juncture for FRA. With both its safety and passenger rail authorizations expiring this year, FRA is proposing major changes to its programs in FY 2014 and beyond. This includes greatly expanding the size of FRA's passenger and freight assistance programs. Successful implementation will depend on FRA having sufficient staffing and resources to manage and oversee grant assistance. Moreover, FRA will be implementing several key safety regulations over the next two years, requiring more staff and resources to collect and analyze data and ultimately to enforce these rules.

Baseline changes increase funding from the FY 2013 CR annualized level by $1.479 million to sustain FRA's workforce and current operations. Baseline changes include:

FY 2014 Comparability Pay Increase (1.0%) ..... $0.836 million
This increase represents the annual funds for the proposed pay raise effective January 2014.

Non-pay Inflation ..... $0.210 million
FRA relies upon contract support when it is cost-effective for certain goods and services. To accommodate price escalation for goods and services compared to FY 2013, funding is requested at the non-pay inflation rate of 0.5 percent to maintain essential services and activities in FY 2014.

GSA Rent ..... $0.034 million
This request funds the proposed increase in rent for FRA's use of GSA-leased space. The GSA rent account is a demand account that reflects occupancy agreements to meet specific facility requirements.

Working Capital Fund ..... $0.399 million
The Working Capital Fund (WCF) is a fully reimbursable centrally managed account that funds department-wide expenses, such as information technology, facilities, operational support, and personnel administration. This structure enables DOT to achieve economies of scale, reduce costs, and increase operational efficiencies, while relieving the operating administrations, such as FRA, from the overhead burden. The budget request is based on WCF estimates of usage and inflation.

The FY 2014 budget request reflects **programmatic increases of $3.332 million**, as follows:

Staffing Increases ..... $3.059 million and 22.5 FTE (45 Positions)
This increase is to implement the Administration's proposed National High-Performance Rail initiative and the *Rail Safety Improvement Act of 2008* (RSIA) requirements, such as; training standards for railroad employees; risk reduction programs; emergency notification systems; conductor certification, enhanced track standards, and positive train control. These increases will also provide the needed assistance for the *Passenger Rail Investment and Improvement Act* (PRIIA), and FRA's mandated *American Recovery and Reinvestment Act* (ARRA) requirements. The request includes $2.821 million which reflects the cost of personnel compensation and benefits funded for half the fiscal year, $161 thousand for travel, and $76 thousand for necessary training, IT equipment, and the required personal protective equipment for the safety inspectors. Staffing will be distributed as follows:

- **Office of Railroad Policy and Development** – 7.5 new FTE (15 positions) to support the continuing implementation of PRIIA requirements and related activities, such as:
  - Establishing a robust program that advances national rail planning activities, supports or manages multi-state planning efforts, and provides tools and guidance for state and corridor-level rail planning; developing guidance and assistance to stakeholders in the form of policies, procedures, and tools for capital project delivery.
  - Managing responsibilities that are integrated with, but not in direct support of grant and funding programs, including environmental documentation review and technical support, Northeast Corridor Planning, and equipment standardization and procurement technical support and coordination.
  - Implementation of remaining PRIIA requirements, as in providing the technical assistance of cost allocations for state-supported passenger rail routes.

- **Office of Railroad Safety** – 15 new FTE (30 new positions) to support RSIA and National High-Performance Rail System programs and initiatives. These new positions are critical to the FRA's success in:
  - Providing sufficient, highly trained inspectors to implement positive train control systems, infrastructure inspections, and oversight of railroad and contractor employee compliance with bridge worker and roadway workplace safety;
  - Implementing the Training Plan review and auditing requirements of the training standards rule;
  - Providing training for and implementation of the RSIA-mandated conductor certification rule and hours-of-service reforms;

- Implementing the auditing requirements in the new risk reduction and system safety rules for commuter rail properties, and administering and evaluating risk reduction programs nationwide;
- Addressing rail safety mandates in RSIA and ARRA for the 11 designated high-speed rail corridors, specifically for speeds over 150 miles-per-hour;
- Providing technical assistance to potential operators seeking authorization for high-speed rail revenue operations;
- Providing outreach to support FRA regional and Passenger Rail Division to bring the operations online in a safe and compliant manner; and
- Providing oversight of RSIA-mandated regulations concerning route selections for certain high-risk hazardous materials and implementing recommendations of the *9/11 Commission Act of 2007*.

Contract Efficiencies ..... -$3.284 million
FRA is taking several steps to reduce contracting costs by strategically coordinating with other parts of the Department to consolidate contracted efforts across the department, and these efforts will result in efficiencies. Additionally, processes are being implemented for increased contract oversight through proactive tracking of contracting officers' representative training and development/implementation of program management tools, which identify and validate contractor performance efficiencies. FRA will continue to promote and increase its use of fixed price contracting. Additionally, the contracts statements of work are being reviewed to ensure that they result in best value for procurements. For those procurements that historically have been sole source or received only one proposal, negotiations are being conducted to define and obtain deliverables that will maximize competitive opportunities within three years.

Confidential Close Call Reporting System ..... $1.0 million
FRA requests $1 million to support nationwide implementation of the Confidential Close Call Reporting System, which encourages railroad employees to report close calls on a voluntary, confidential basis without fear of disciplinary action. FRA's Office of Railroad Safety manages this system as part of a broader risk reduction program. Since 2007, FRA has sponsored 12 pilot projects with four carriers: Union Pacific North Platte Service Unit, Canadian Pacific Chicago Area Service Unit, New Jersey Transit, and Amtrak (nine yard locations). A key aspect of this program is the partnering that occurs between FRA and external stakeholders in railroad labor, including the United Transportation Union, Brotherhood of Locomotive Engineers and Trainmen, and American Train Dispatchers Association. The initiative enhances railroad safety culture by *building trust* and relying on the program's core operating principles—voluntary, confidential, and non-punitive—and the collected data is used to recommend corrective actions and provide feedback. The resources from this enhancement will provide a centrally managed, national safety program, and the economies of scale in administering a national program

IT Security Program Services..... $0.987 million
FRA requests $0.987 million to enhance network security and to counter FRA's increasing number of cyber security threats. This funding will enable FRA to create

logical and physical controls to minimize, if not prevent, the exploitation of security vulnerabilities that could disrupt or diminish FRA's ability to perform its safety mission.

High-Speed Rail Safety System Certification..... $0.872 million
This effort is to enable FRA to meet ARRA mandates for high-speed rail development, analysis, and testing. On-going contractor support will assist activities related to high-speed rail system certification for operation. Using contractor staff leverages FRA staff and provides access to project management, technical services, and subject matter experts. If the request is not funded, projects in California and Nevada will be delayed. Adequate technical support for FRA's high-performance rail system will lead to the construction of a safer regional network, which will result in less accidents and injuries across the Nation's railroads.

Railroad Safety Information System (RSIS).....$0.698 million
The Railroad Safety Information System (RSIS) is FRA's principal repository of safety data. FRA requests funding to implement and enforce upcoming safety regulations that have new data collection and management requirements. Upcoming rules include training standards for railroad employees; risk reduction programs; railroad system safety programs; hours of service recordkeeping; national highway-rail crossing inventory; conductor certification; and PTC. This request will provide the additional contract services needed to enhance the RSIS data management system, by increasing the capabilities of the current platform for collecting, tracking, analyzing, and reporting electronic data submissions, evaluation of effectiveness, and ensuring compliance new regulations.

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

SAFETY AND OPERATIONS

Program and Financing

($000)

Account Number: 69-0700-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Salaries and expenses	173,758	191,000	187,823
0006	Alaska Railroad Liabilities	1,677	1,677	1,677
0091	Direct program activities, subtotal	175,435	192,677	189,500
0100	**Total direct program**	**175,435**	**192,677**	**189,500**
0799	Total direct obligations	175,435	192,677	189,500
0801	Reimbursable services	-	5,000	5,000
0809	Reimbursable program activities, subtotal	-	5,000	5,000
0900	**Total new obligations**	**175,435**	**197,677**	**194,500**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	5,144	16,892	5,000
1011	Unobligated balance transferred from other accounts [69X0102]	14	-	-
1021	Recoveries of prior year unpaid obligations	6,408	1,000	1,000
1050	**Unobligated balance (total)**	**11,566**	**17,892**	**6,000**
	Budget authority:			
1100	Appropriation	178,596	179,689	184,500
1160	**Appropriation, disc (total)**	**178,596**	**179,689**	**184,500**
	Spending authority from offsetting collections, discretionary:			
1700	Collected	2,755	5,000	5,000
1750	**Spending auth from offsetting collections, disc (total)**	**2,755**	**5,000**	**5,000**
1900	**Budget authority (total)**	**181,351**	**184,689**	**189,500**
1930	**Total budgetary resources available**	**192,917**	**202,581**	**195,500**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
SAFETY AND OPERATIONS

Program and Financing (cont'd)

($000)

Account Number: 69-0700-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring	-590	-	-
1941	Unexpired unobligated balance, end of year	16,892	5,000	1,000
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	222,108	138,835	87,246
3010	Obligations incurred, unexpired accounts	175,435	197,596	-
3011	Adjustments to uncollected pymts, Fed sources, brought forward, Oct 1	6,661	-	-
3020	Outlays (gross)	-260,095	-248,185	-48,681
3031	Obligations incurred, expired accounts	10,000	-	-
3040	Recoveries of prior year unpaid obligations, unexpired	-6,408	-1,000	-1,000
3041	Recoveries of prior year unpaid obligations, expired	-8,866	-	-
	Obligated balance, end of year (net):	138,835	87,246	37,565
3050	Unpaid obligations, end of year (gross)	138,835	87,246	-49,681
3060	Uncollected pymts, Brought Forward	-191	-188	-
3071	Change in uncollected pymts, Fed sources, expired	4	-	-
3090	Uncollected pymts, Fed sources, end of year	-188	-	-
3100	**Obligated balance, start of year (net)**	**221,917**	**138,647**	**37,565**
3200	**Obligated balance, end of year**	**138,648**	**87,058**	**-49,681**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	181,351	184,689	189,500
4010	Outlays from new discretionary authority	148,702	136,670	140,230
4011	Outlays from discretionary balances	111,393	111,000	48,681
4020	**Outlays, gross (total)**	**260,095**	**247,670**	**188,911**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
SAFETY AND OPERATIONS

Program and Financing (cont'd)
($000)

Account Number: 69-0700-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-523	-500	-500
4033	Non-Federal sources	-2,326	-4,000	-4,000
4040	**Offsets against gross budget authority and outlays, disc (total)**	**-2,849**	**-4,500**	**-4,500**
	Additional offsets against gross budget authority only:			
4052	Offsetting collections credited to expired accounts	94	-	-
4060	**Additional offsets against budget authority only (total)**	**94**	-	-
4070	Budget authority, net (discretionary)	178,596	180,189	185,000
4080	**Outlays, net (discretionary)**	**257,246**	**243,170**	**184,411**
4180	**Budget authority, net (total)**	**178,596**	**180,189**	**185,000**
4190	**Outlays, net (total)**	**257,246**	**243,170**	**184,411**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
SAFETY AND OPERATIONS

Object Classification Schedule
($000)

Identification Code 69-0700-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
11.1	Full-time permanent	82,791	86,344	88,250
11.3	Other than full-time permanent	844	570	575
11.5	Other Personnel Compensation	1,495	3,216	2,592
12.1	Civilian personnel benefits	27,093	28,526	29,343
21.0	Travel and transportation of persons	9,338	10,515	10,895
23.1	Rental payments to GSA	6,423	6,895	6,929
23.3	Communications, utilities, and misc. charges	1,789	1,712	1,722
25.1	Advisory & assistance service	2,672	10,194	10,278
25.2	Other services from non-Federal sources	3,109	3,073	3,088
25.3	Other goods and services from Government Accounts	29,853	31,317	27,428
25.4	Operations and maintenance of facilities	780	539	570
25.7	Operations and maintenance of equipment	4,223	4,633	4,626
26.0	Supplies	427	400	400
31.0	Equipment	1,862	1,514	1,464
41.0	Grants, subsidies, and contributions	1,366	1,379	1,386
42.0	Insurance claims and indemnities	1,001	1,000	1,005
99.0	Subtotal, obligation, Direct Obligations	175,066	191,827	190,551
	Reimbursable Obligations:			
25.3	Other goods and services from Federal sources	-	3,000	3,000
	Allocation Account reimbursable			
25.2	Other services from non-Federal sources	429	-	-
99.9	Total new obligations	175,495	194,827	193,551

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

RAILROAD RESEARCH AND DEVELOPMENT
APPROPRIATIONS LANGUAGE

RAILROAD RESEARCH AND DEVELOPMENT

For necessary expenses for railroad research and development, $35,250,000, to remain available until expended.

Note—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

EXHIBIT III-1

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

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Track Program	10,773	10,838	11,429	591
Rolling Stock Program	8,522	8,574	8,322	(252)
Train Control and Communication	9,286	9,343	8,086	(1,257)
Human Factors Program	3,045	3,064	3,542	478
Railroad Systems Issues Program	3,374	3,395	3,871	476
TOTAL	**35,000**	**35,214**	**35,250**	**36**
Full-Time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
Total Full-Time Equivalents	**-**	**-**	**-**	**-**

Program and Performance Statement

Funding requested in the Railroad Research and Development Program provides science and technology support for Federal Railroad Administration's rail safety rulemaking and enforcement efforts. In addition to improving safety, the program makes significant contributions towards the Department of Transportation's (DOT) state of good repair, economic competitiveness, and environmental sustainability goals.

The program focuses on the following areas of research:

- **Track Program -** Reducing derailments due to track related causes.
- **Rolling Stock Program -** Reducing derailments due to equipment failures, reducing the consequences of derailments, and minimizing hazardous material releases.
- **Train Control and Communication -** Reducing train-to-train collisions and train collisions with objects on the line and at grade crossings.
- **Human Factors Program-** Reducing accidents caused by human error.
- **Railroad System Issues Program -** Prioritizing the whole R&D program, project evaluation and DOT goals other than safety.

EXHIBIT III-1a

RAILROAD RESEARCH AND DEVELOPMENT
Summary Analysis of Change from FY 2013 to FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 to FY 2014 $000	FTE
FY 2013 BASE	**35,214**	**-**
NEW OR EXPANDED PROGRAMS:		
Track Program	591	-
Rolling Stock Program	(252)	-
Train Control and Communication	(1,257)	-
Human Factors Program	478	-
Railroad Systems Issues Program	476	-
SUBTOTAL, PROGRAM CHANGES	**36**	**-**
TOTAL FY 2014 REQUEST	**35,250**	**-**

EXHIBIT III-2

ANNUAL PERFORMANCE RESULTS AND TARGETS
FEDERAL RAILROAD ADMINISTRATION

FRA integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's strategic plan. FRA tracks the following performance measures to demonstrate program results:

DOT Strategic Goal: Safety – Improve Public Health and Safety by Reducing Transportation- Related Fatalities and Injuries.					
Outcome: Reduce rail-related accidents and incidents.					
Measure: Rate of rail-related accidents and incidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	16.400	16.400	16.300	16.300	16.150
Actual *	16.664	15.991	14.557	---	---

* Actual results might differ from previous reports and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of December 2012. Official data are available on FRA's website, www.fra.dot.gov.

DETAILED JUSTIFICATION FOR RAILROAD RESEARCH AND DEVELOPMENT

What Do I Need To Know Before Reading This Justification?

- FRA's Research and Development (R&D) program provides the Office of Railroad Safety the scientific and engineering basis for safety rulemaking and leads to reductions in railroad accidents and incidents in the medium and long-term.

- Through the program, FRA collaborates with the railroad industry to develop and implement new technology to improve overall safety.

- The program also supports FRA in implementing the Passenger Rail Investment and Improvement Act (PRIIA) by providing technical assistance, equipment specifications, evaluating proposals, and ensuring Buy America compliance.

- FRA is developing an R&D program evaluation plan including the industry adoption of practices and technologies of based on FRA R&D, such as gage restraint measurement systems, vehicle and track interaction monitors, portable track loading fixtures, portable ride quality meters, and vision-based joint bar inspection systems.

What Is The Request And What Will We Get For The Funds?

FY 2014 - Railroad Research and Development - Budget Request
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	Difference from FY 2013 CR Annualized
Track Program	10,773	10,838	11,179	591
Rolling Stock Program	8,522	8,574	8,322	(252)
Train Control and Communication	9,286	9,343	8,086	(1,257)
Human Factors Program	3,045	3,064	3,542	478
Railroad Systems Issues Program	3,374	3,395	3,871	476
TOTAL, RESEARCH AND DEVELOPMENT	**35,000**	**35,214**	**35,250**	**36**

What Is This Program?

FRA requests $35.25 million for FY 2014, which is $250 thousand more than FY 2012 enacted. FRA's Research and Development (R&D) program provides the scientific and engineering basis for safety rulemaking and leads to reductions in railroad accidents and incidents in the medium and long-term. Recent examples of successful rail safety R&D include crashworthiness research that led to improved passenger rail cars safety; analysis of vehicle-track interaction that led to revised track safety and vehicle qualification standards; development of a freight train braking algorithm that enables achievement of positive train control safety benefits without adversely affecting operations; and safety culture pilot programs that have reduced the number of human factors caused accidents and incidents.

The program complements the proposed Research, Development, and Technology program, which is a part National High-Performance Rail System program. That program will focus on technological issues and problems associated with implement high-speed rail, whereas the Railroad Research and Development has, continuing to address rail safety performance in general.

FRA's Railroad R&D program is organized around by rail disciplines, as follows:

- **Track Program:** Track and structure inspection techniques, material and component reliability, design and performance; track and train interaction, derailment mechanisms and vehicle-track performance; R&D facilities, test equipment at the Transportation Technology Center, in Pueblo, Colorado, and sustainability improvements.

- **Rolling Stock Program:** Rolling stock and components, onboard and wayside monitoring systems, and material and design improvements; hazardous materials transportation risk

analysis, tank car damage assessment, inspection and integrity; train occupant protection, locomotive and passenger car safety and performance.

- **Train Control and Communication:** Development and testing of train control and communication systems; new grade crossing technology and pilot studies.

- **Human Factors Program:** Safety culture pilot programs, research into fatigue and ergonomics, job and cognitive task analyses.

- **Railroad System Issues Program:** Safety risk analysis, performance-based regulations, railroad environmental issues and locomotive efficiency research; Transportation Research Board independent review; contractor reviews and witnessing tests at contractor facilities.

Anticipated FY 2013 Accomplishments:

- Track Program: FRA will conduct Revenue service testing of new technology to measure rail neutral temperature during the summer of 2013. If successful, this technology, which was developed under FRA's R&D program, will enable a significant reduction in the risk of derailment caused by track buckles (sun kinks).

- Rolling Stock Program: A passenger rail car will be squeezed until failure at FRA's Transportation Technology Center. The results will validate the waiver guidance FRA developed to allow equipment designed to alternative end load specifications to operate in the United States.

- Train Control and Communication: A final version of the adaptive braking algorithm for freight cars will be published. This algorithm will allow the safety benefits of positive train control to be achieved without impacting service performance.

- Human Factors Program: A software upgrade to FRA's Cab Technology Integration Laboratory will be completed. This will enable research into driver distraction and attention sustainability to continue and will provide access to a wide range of track data files already developed by industry partners.

- Railroad Systems Issues Program: A site-wide environmental impact assessment of FRA's Transportation Technology Center is expected to be completed. This study will provide the basis for approval of all future testing at the Center and facilitate the facility's use by FRA, FTA, and other Government agencies.

Anticipated FY 2014 Accomplishments:

- Track Program: Autonomous Track Geometry Measurement System will be installed on a revenue service passenger car for long-distance data analysis as part of an Amtrak assessment. This research effort is an essential step towards including autonomous technology in track safety enforcement.

- Rolling Stock Program: The Wayside Pilot Demonstration project will explore the potential of advanced wayside technology systems to enhance the safety inspection process. The project will also solicit guidance from the Rail Safety Board to ensure that sufficient testing is conducted to enable objective decisions on waiver applications.

- Train Control and Communication: Phase 4 development of the 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 will be completed.

- Human Factors Program: The Confidential Close Call Reporting System and Peer-to-Peer Safety Programs, which have been successfully demonstrated to improve safety in pilot projects involving Labor and Management on several railroads, will be expanded to include other railroads.

- Railroad Systems Issues Program: Revenue service demonstration/evaluations of bio-diesel will be completed, industry standards that support broader implementations of bio-diesels will be developed and a cooperative effort with the Department of Energy to identify and evaluate opportunities for improving energy efficiency will be launched.

Why Is This Particular Program Necessary?

FRA's R&D program is essential to achieving DOT's goal of improving safety and contributes to the state of good repair, environmental sustainability, economic competitiveness, and livable communities goals. The R&D Program supports FRA's safety performance targets:

1. **Reducing the grade crossing incident rate to 3.30 per million train-miles.**
   The Grade Crossing and Trespass Prevention R&D activity (part of the Train Control and Communication program) focuses on advancing safety technologies, education, and outreach to reduce accidents and fatalities at grade crossings. Grade crossings present a major hazard to motor vehicle drivers and pedestrians, and are the second leading cause of fatalities and injuries in the railroad industry. Ongoing projects include the evaluation of acoustic warnings, causal analysis of driver behavior, and development of grade crossing to highway vehicle communications. R&D reduces the risk that grade crossing pose.

2. **Reducing the human factors-caused train accident rate to 1.20 per million train-miles.**
   The Human Factors research activity focuses on areas where individuals can affect the safe performance of rail operations. Human errors now account for over a third of all accidents. This activity focuses on fatigue, distraction, and ergonomics, and benefits all those affected by railroad safety risks, including passengers, railroad employees, and members of the public. It aims to improve safety culture in railroad organizations. With the introduction of new technologies, such as 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. This funding keeps human factor's research up to date across the rail industry.

3. **Reducing the track-caused train accident rate to 1.08 per million train-miles.**
The Track research activity benefits rail passengers and railroad neighbors by reducing the number of derailments. This activity develops track inspection technologies that detect defects before they become failures in service. Currently, all Class I freight railroads use technologies developed under the Track research activity to locate high-risk track defects. In addition to reducing derailments, this improves the economic competitiveness of the railroads by reducing train delays. As train speeds and density increase, smaller defects will need to be detected at higher measurement speeds. FRA funding ensures that this improved capability is available to the industry when required.

   FRA-owned facilities provide the infrastructure necessary to conduct experiments and test theories, concepts, and new technologies in support of the R&D program. Without these facilities, much of this experimentation and testing would need to be done in revenue service, with the consequent safety and operational risks.

   Measurements of in service train performance and computer modeling are used to understand vehicle-track interaction. This knowledge is used to improve rules and regulations for track safety and equipment qualification. This research allows safety rulemakings to strike an exact balance between safety and other factors of train performance.

4. **Reducing the equipment-caused train accident rate to 0.430 per million train-miles.**
The Rolling Stock research activity focuses on safety improvements to locomotives, rail cars, and components. It benefits rail passengers and railroad neighbors by reducing the number of derailments due to equipment component failures and reducing consequences when accidents occur. Automated inspection of rolling stock and equipment will be playing a broader and more significant role in safety assurance in the future. It is essential that research in this area continue to assure the foundation of knowledge and factual evidence is available to support objective assessments of automated.

   Research into tank car integrity is necessary to improve crashworthiness and reduce the consequences of derailments, in particular those involving hazardous materials. It leads to improved regulations for hazardous material transportation. This activity will help speed the adoption of desirable safety improvements.

   Train occupant protection research improves the safety of the train crew and passengers. This is necessary to reduce the consequences of train collisions, derailments, and fires. The work involves full-scale testing and computer modeling of derailment and collision scenarios. The results are being used to improve FRA's safety regulations and policies. Without this research, the benefits of modern, safer designs of rail cars would not be available to U.S. operators.

   The Rolling Stock research activity also supports the specification, procurement, and manufacture of the next generation of passenger rail cars. Through requirements specification and standardization efforts, this will result in the safe introduction of new equipment and will improve the economic competitiveness of the domestic manufacturing industry.

5. **Reducing the other (signal and miscellaneous) train accident rate to 0.560 per million train-miles.** The Train Control and Communication research activity is necessary for 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. This activity is a cooperative effort between FRA, Class I railroads, the Association of American Railroads, and other interested parties. Through this cooperative effort, which includes technology exchanges and field-testing on the railroads, the framework for system integration and interoperability is being developed. This group will focus on braking distance prediction for trains, communication throughput and robustness, and interoperability of PTC systems. One of the key elements is the use of FRA's PTC test bed at the Transportation Technology Center (TTC) to ensure the proper functioning and reliability of the new technology and products. This effort promotes gains for safety and operating efficiency for freight and passenger railroads.

6. **Reducing the non-accident release of hazardous materials to 1.220 per 200-million hazardous materials ton-miles.** The hazardous materials research activities focus on identifying the various causes of non-accident releases and developing research projects in cooperation with the industry and the Office of Railroad Safety to encourage corrective actions to prevent their recurrence. Two cooperative agreements with trade associations are in place to identify safety improvements to locomotives, rail cars, and components. The projects also identify training needs to ensure that workers understand their particular job function and recognize the importance of preventing hazardous materials releases on-site and in transportation. It is essential that research in this area continue to ensure the foundation of knowledge and factual evidence is available to support the industry and government objectives to reduce these incidents and protect people and the environment.

Railroad System Issues Program: While the activities described above focus on particular types of rail issues, this activity considers the railroad system as a whole. Analysis is performed of railroad safety risk exposure. This ensures FRA's R&D program addresses the highest safety risks in the system.

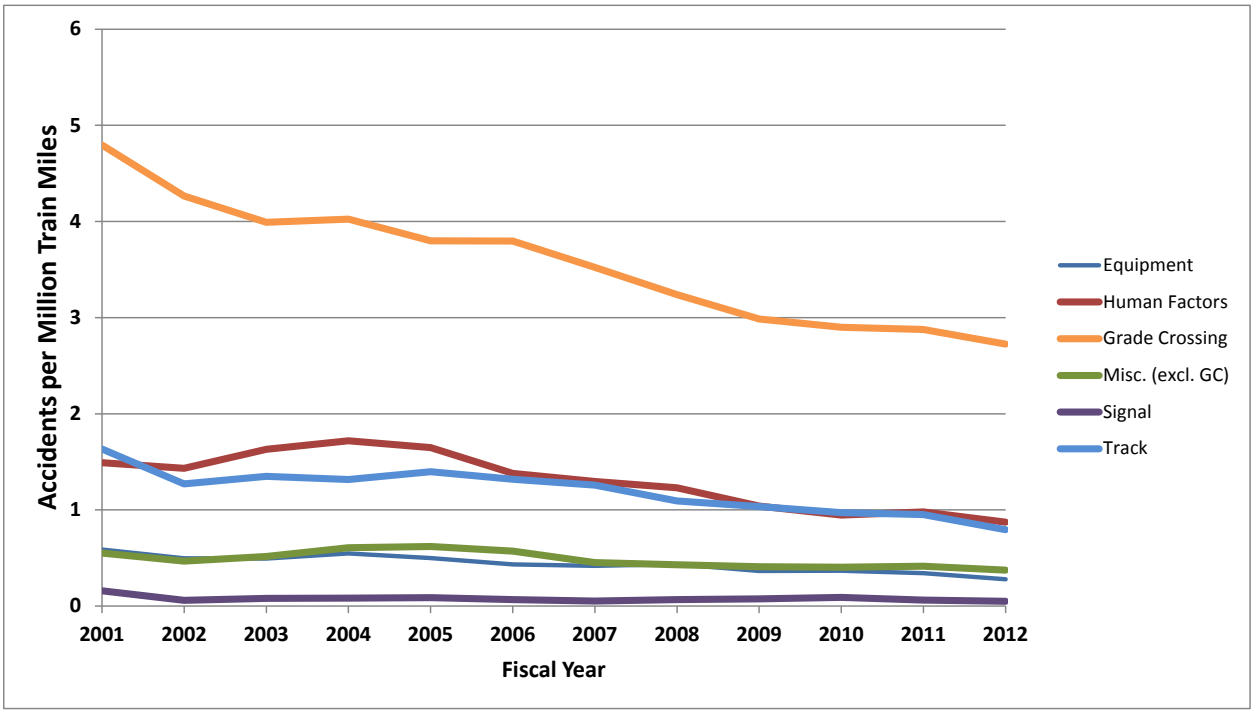
A process is being developed to enable the safe introduction of new technology to the Nation's railroads. Without this effort, new technology would take longer to be adopted, resulting in loss of economic competitiveness for the railroads.

This activity also funds R&D into alternative fuels and locomotive efficiency. The benefits from this research contribute to DOT's environmental sustainability goal while assuring that such alternative fuels and fuel saving initiatives do not adversely affect safety.

How Do You Know The Program Works?

FRA's R&D program produces long-term benefits. The work that began five to ten years ago contributes to today's safety improvements. The following chart shows recent safety improvements that can be attributed, in part, to previous R&D activities.

Accidents per Million Train-Miles by Cause Group, 2001 to 2012



Source: FRA safety data, 2012 data is preliminary as of December 2012 and subject to change.

(GC- Grade Crossings)

Specific contributions to safety improvements by the R&D program include:

Track Research: The number of accidents due to track-related casues has decreased by 51 percent from 2001 to 2012. This reduction is due, in part, to the industry's adoption of technologies developed by the Track research activity, such as:

- Gage Restraint Measurement System, which is a technology used to assess the integrity of ties and fasteners.
- Vehicle-track interaction monitoring system developed for Amtrak and all Class I freight railroads.
- Joint Bar Inspection System, which is an image-based inspection technology that detects defects in joint bars effectively and efficiently.

In addition, this area of research has led to refinements in FRA's safety regulations that have contributed to reduced derailments. The most recent example is the vehicle-track interaction rulemaking in FY 2013.

Rolling Stock Research: The number of accidents due to equipment related causes has decreased by 53 percent from 2001 to 2012. This has been due, in part, to previous research resulting in new Federal Safety Regulations and Policies for conventional rail, high-speed rail, and hazardous materials transportation.

Research into hazardous materials transportation provides an example of the effectiveness of this activity. Research conducted between 1970 and 1980 into tank car head shields and couplers resulted in 36 technical reports being published and three new FRA rules being finalized. In the decades since, there has been a greater than 50 percent reduction in tank cars being punctured during derailments.

Full-scale testing and computer modeling have led to improvements in crashworthiness of passenger equipment. The Railroad Safety Advisory Committee developed a process for evaluating the suitability of equipment designed to alternative standards to be safely operated in the United States. A recent notable success was the waiver granted to Denton County Transit Authority to operate new passenger equipment designed to alternative standards. The Congressionally mandated Next Generation Equipment Committee has adopted crash energy management features in its specifications for passenger rail vehicles. Furthermore, the lives of locomotive crews are now being saved as a result of the introduction of crashworthiness improvements developed by FRA's Train Occupant Protection R&D program.

Train Control, and Communication Research: Between 2001 and 2012, there was a 69 percent decrease in signal-related train accidents. Further reduction is intended to be achieved by the installation of PTC on certain routes by the statutory deadline.

The Train Control and Communication activity has been developing PTC-related technologies for several years to help ensure the PTC implementation deadline is achieved. Notable successes to date include:

- The creation of an adaptive braking enforcement algorithm to ensure freight trains stop at red signals without impacting operational performance. This algorithm has been successfully tested at the Transportation Technology Center.
- Allowing employees in charge of work sites to better ensure roadway worker protection.
- The development of interoperability standards in collaboration with the railroad industry.

With these developments, the railroads were able to implement PTC systems, such as Amtrak's Incremental Train Control System in Michigan and BNSF Railway's Electronic Train Management System in Illinois and Texas. Other railroads have adopted the technologies in their pilot PTC systems.

The number of accidents at grade crossings fell by 43 percent from 2001 to 2012. Research that contributed to this reduction include:

- The success factors in highway-rail grade crossing incident reduction were analyzed and investigated using various qualitative and quantitative methods. Ten factors were identified as having the most significant influences on safety. The R&D program contributed to several of these factors, including commercial driver safety, locomotive conspicuity, crossing closure and grade separation, sight line clearance, warning device upgrades, and Operation Lifesaver.
- The North Carolina Sealed Corridor is the section of the designated Southeast High-Speed Rail (SEHSR) Corridor that runs through North Carolina. The Sealed Corridor program goal was to improve or consolidate every highway-rail grade crossing, both

public and private, along the Charlotte-to-Raleigh corridor. Seventeen lives were estimated to have been saved between March 1995 and September 2004 due to improved warning devices or closures at 189 crossings on the sealed corridor.

- A study was made of the effectiveness of a four-quadrant gate and an obstruction detection system at the School Street crossing in Groton, Connecticut. The results from the four-quadrant study showed the same effectiveness as closing the crossing, but without incurring the economic and societal costs.

Human Factors Research: There was a 41 percent reduction in human factors-caused accidents from 2001 to 2012. Human Factors R&D has made a significant contribution to this reduction. Behavioral and work environment R&D has produced pilot programs that 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. The following table shows results from several safety culture improvement pilots.

Effectiveness of Safety Culture Improvement Pilot Programs

Program*	Railroad Department	Outcomes
Participative Safety Rules Revision	All Operating	51% reduction in reportable injuries Drop in liability claims
EAGLES (Employee Alliance for Greater Levels of Excellence in Safety)	Station Services (Hi Supervision)	80% drop in injury rates 76% drop in reportable injuries
ISROP (Investigation of Safety Related Occurrences Protocol)	Mechanical	50% drop in injury rates (all injuries)
CAB (Correcting At-Risk Behavior)	Road (Lo Supervision)	72% drop in locomotive engineer decertification rates 69% drop in human factors derailment rates
STEEL (Safety through Employees Exercising Leadership)	Switching (Moderate Supervision)	62% drop in yard derailment rates
C3RS (Confidential Close Call Reporting System)	Road and Yard Operations	51% drop in excess speed reports 90% drop in disciplinary cases

Crew 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 examples of areas that need further assessment and could require either rule changes or voluntary changes in industry recommended practices to reduce likelihood of fatigue-related accidents. Previous human factors fatigue research has provided a scientific basis for new rules for commuter and intercity passenger rail service hours of service and fatigue risk management, as required by the Rail Safety Improvement Act. Continued research in this area is necessary to reduce railroad accidents.

The Cab Integration Technology Laboratory (CTIL) has provided a test bed for projects to prevent distraction-based accidents in locomotive crews, to improve vigilance in high-speed operations, and for designing the human factors specifications of the next generation locomotive cab.

Railroad Systems Issues: Evaluations of FRA's R&D projects are conducted under this program area. Evaluation of the R&D project to improve railroad industry safety culture won the American Evaluation Association's 2011 most outstanding evaluation award. The Transportation Research Board's latest report on its evaluation of FRA's R&D program, the tenth annual report, recognizes progress and continues to be positive about the program.[1]

Several successes have been achieved towards the DOT's environmental sustainability goal. A battery powered switch yard locomotive has been developed in collaboration with a Class 1 railroad. Trials of a high percentage bio-fuel blend have been conducted on Amtrak service.

Why Do We Want/Need To Fund The Program At The Requested Level?

In FY 2014, FRA requests $35.25 million for railroad research and development to support the Track, Rolling Stock, Human Factors, Train Control and Communication, and Railroad System Issues programs.

FY 2014 R&D budget request includes the following adjustments from the previous R&D budget requests:

Track Program ..... $0.591 million
FRA plans to invest $750,000 for building sustaininability improvements at FRA's Transportation Technology Center (TTC) offset partially by savings in research into track caused derailments.

Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management*,[2] and Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*,[3] include goals requiring Federal agencies to establish High Performance Sustainable Buildings (HPSB). DOT must implement HPSB standards that comply with *Guide Principles for Federal Leadership in High Performance and Sustainable Buildings* (Guide Principles) set forth in the *Memorandum of Understanding for Federal Leadership in High Performance and Sustainable Building* (2006). The Guide Principles establish basic parameters for integrated design, energy performance, water conservation, indoor environmental quality, and building materials.

The Executive Orders mandate HPSB Guide Principles be incorporated by 2015 into 15 percent of the existing inventory of occupied buildings greater than 5,000 square feet and thereafter demonstrate annual progress toward 100 percent conformance with the Guide Principles for its building inventory. The requirements of the executive orders apply to 12 major buildings at

[1] Available at www.trb.org/Main/Blurbs/Review_of_the_Federal_Railroad_Administration_Rese_163030.aspx
[2] January 24, 2007.
[3] October 5, 2009.

TTC; many of which are over 30 years old. The FY 2014 funding request for sustainability improvements is part of a multi-year program.

Rolling Stock Program ..... -$0.252 million
This reduction is due to less passenger vehicle crashworthiness research. This research is reaching maturity and results from previous research in this area are now being implemented by the industry.

Train Control and Communication Program ..... -$1.257 million
This redecution is due to less train control and grade crossing safety research. As Positive Train Control projects leave the research phase and enter implementation, there will be a reduced need for this type of research. The requirement for the industry to implement Positive Train Control on certain routes by December 31, 2015 created many research projects, several of which are now coming to fruition. FRA proposes to reinvest this savings back into its Human Factors Program and other pressing needs of the research and development program.

Human Factors Program ..... $0.478 million
This increase reflects FRA's sharper focus for grade crossing and trespass safety research. It recognizes the key influence that human behavior has in causing these types of accidents.

Railroad Systems Issues ..... $0.476 million
This increase is offset by savings in other program areas. It will allow greater oversight by the office of ongoing research that has been procured. These activities include reviewing contractor performance, witnessing tests, and stakeholder engagement.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH AND DEVELOPMENT

Program and Financing Schedule
($000)

Account Number: 69-0745-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Railroad System Issues	4,019	3,000	3,871
0002	Human Factors	2,929	3,600	3,542
0003	Rolling Stock and Components	1,960	4,000	2,796
0004	Track and Structures	3,865	6,500	5,010
0005	Tack and Train Interaction	3,946	4,000	3,418
0006	Train Control	9,889	8,000	6,473
0007	Grade Crossings	4,678	2,700	1,613
0008	Hazardous Materials	1,194	1,800	1,496
0009	Train Occupant Protection	5,119	4,000	4,030
0010	R&D Facilities and Test Equipment	2,739	2,650	3,001
0100	**Total direct program**	**40,338**	**40,250**	**35,250**
0799	Total direct obligations	40,338	40,250	35,250
0801	Reimbursable services	500	750	750
0900	**Total new obligations**	**40,838**	**41,000**	**36,000**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	14,165	11,724	6,794
1021	Recoveries of prior year unpaid obligations	2,902	106	-
1050	**Unobligated balance (total)**	**17,067**	**11,830**	**6,794**
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	35,000	35,214	35,250
1160	**Appropriation, disc (total)**	**35,000**	**35,214**	**35,250**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH AND DEVELOPMENT

Program and Financing Schedule (cont'd)
($000)

Account Number: 69-0745-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Spending authority from offsetting collections, discretionary:			
1700	Collected	540	750	750
1701	Change in uncollected payments, Federal sources	(42)	-	-
1750	**Spending auth from offsetting collections, disc (total)**	**498**	**750**	**750**
1900	**Budget authority (total)**	**35,498**	**35,214**	**35,250**
1930	**Total budgetary resources available**	**52,565**	**47,044**	**35,250**
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	11,724	6,794	6,794
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	51,465	47,886	52,680
3010	Obligations incurred, unexpired accounts	40,842	41,000	36,000
3020	Outlays (gross)	(41,519)	(35,850)	(36,948)
3040	Recoveries of prior year unpaid obligations, unexpired	(2,902)	(106)	-
3050	Unpaid obligations, end of year (gross)	47,886	52,930	51,732
3060	Uncollected pymts, Brought Forward	(775)	(733)	(733)
3091	Uncollected pymts, Fed sources, end of year	(733)	(733)	(733)
3100	**Obligated balance, start of year (net)**	**50,690**	**47,153**	**51,947**
3200	**Obligated balance, end of year (net)**	**47,153**	**51,947**	**50,999**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	35,498	35,214	35,250
	Outlays, gross:			
4010	Outlays from new discretionary authority	15,094	5,740	4,935
4011	Outlays from discretionary balances	26,425	31,110	32,013
4020	**Outlays, gross (total)**	**41,519**	**36,850**	**36,948**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH AND DEVELOPMENT

Program and Financing Schedule (cont'd)
($000)

Account Number: 69-0745-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	(540)	(750)	(750)
	Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	42	-	-
4070	**Budget authority, net (discretionary)**	**35,000**	**34,214**	**34,500**
4080	**Outlays, net (discretionary)**	**27,443**	**32,762**	**38,361**
4180	**Budget authority, net (total)**	**40,979**	**35,850**	**36,948**
4190	**Outlays, net (total)**	**40,979**	**35,850**	**36,948**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH AND DEVELOPMENT
Object Classification Schedule
($000)

Account Number: 69-0745-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
21.0	Travel and Transportation of persons	76	174	174
25.3	Other purchases of goods and services from Government	7,332	7,500	3,276
25.4	Operation and maintenance of facilities	1,605	2,000	3,600
25.5	Research and development contracts	26,657	26,500	26,800
41.0	Grants, subsidies, and contributions	4,744	4,250	1,400
-	Subtotal, obligations, Direct obligations	40,414	40,424	35,250
	Reimbursable Obligations:			
	Reimbursable Obligations: Other goods and services from Federal			
25.3	sources	500	750	750
-	Subtotal, Reimbursable obligations	500	750	750
99.9	**Total new obligations**	**40,914**	**41,174**	**36,000**

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

NATIONAL HIGH-PERFORMANCE RAIL SYSTEM
APPROPRIATIONS LANGUAGE

CURRENT PASSENGER RAIL SERVICE

(LIMITATION OF OBLIGATIONS)
(TRANSPORTATION TRUST FUND)

Funds available for the Current Passenger Rail Service Program authorized under title 49, United States Code, shall not exceed total obligations of $2,700,000,000; Provided, That within the $2,700,000,000 obligation limitation for the Current Passenger Rail Service Program, not more than $675,000,000 shall be for the Northeast Corridor; $300,000,000 shall be for State Corridors; $800,000,000 shall be for Long-Distance Routes; and $925,000,000 shall be for National Assets; Provided, That the Secretary may retain up to one-half of one percent of the funds limited under this heading to fund program administration and oversight of the National High-Performance Rail System.

(LIQUIDATION OF CONTRACT AUTHORIZATION)
(TRANSPORTATION TRUST FUND

$2,700,000,000 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 the Current Passenger Rail Service Program authorized under title 49, United States Code.

RAIL SERVICE IMPROVEMENT PROGRAM

(LIMITATION ON OBLIGATIONS)
(TRANSPORTATION TRUST FUND)

Funds available for the Rail Service Improvement Program authorized under title 49, United States Code, shall not exceed total obligations of $3,660,000,000; Provided, That within the $3,660,000,000 obligation limitation for the Rail Service Improvement Program, not more than $3,250,000,000 shall be for Passenger Corridors; $150,000,000 shall be for Congestion Mitigation (Freight and Passenger); $190,000,000 shall be for Freight Capacity; and $70,000,000 shall be for Planning; Provided,

That the Secretary may retain up to one percent of the funds limited under this heading to fund program administration and oversight of the National High-Performance Rail System.

(LIMITATION ON OBLIGATIONS)
(TRANSPORTATION TRUST FUND)

$3,660,000,000, 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 the Rail Service Improvement Program authorized under title 49, United States Code.

EXHIBIT III-1

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

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Current Passenger Rail Service [1/]				
Northeast Corridor	-	-	675,000	675,000
State Corridors	-	-	300,000	300,000
Long-Distance Routes	-	-	800,000	800,000
National Assets	-	-	925,000	925,000
Subtotal, Current Passenger Rail Service	**-**	**-**	**2,700,000**	**2,700,000**
Rail Service Improvement Program [1/]				
Passenger Corridor	-	-	3,250,000	3,250,000
Congestion Mitigation (Freight & Passenger)	-	-	150,000	150,000
Freight Capacity	-	-	190,000	190,000
Planning	-	-	70,000	70,000
Subtotal, Rail Service Improvement Program	**-**	**-**	**3,660,000**	**3,660,000**
Operating Subsidy Grants to Amtrak [2/]	**466,000**	**468,852**	**-**	**(468,852)**
Capital and Debt Service Grants to Amtrak [2/]	**952,000**	**957,826**	**-**	**(957,826)**
TOTAL, NATIONAL HIGH-PERFORMANCE RAIL SYSTEM	**1,418,000**	**1,426,678**	**6,360,000**	**4,933,322**
Full-time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
TOTAL FULL-TIME EQUIVALENTS	**-**	**-**	**-**	**-**

Notes:
1/ In FY 2014, Current Passenger Rail Service and Rail Service Improvement activities are funded from a proposed Rail Account of the Transportation Trust Fund.
2/ To crosswalk to the new account structure, the table displays FRA's existing and proposed new passenger rail and development programs.

Program and Performance Statement

Current Passenger Rail Service: The Administration proposes to reauthorize FRA's rail programs in FY 2014. Specifically, it proposes creating a new National High-Performance Rail System Program including a Current Passenger Rail Service program that will be funded from the Rail Account of the Transportation Trust Fund. Through the Current Passenger Rail Service program account, FRA will make grants to ensure passenger rail assets are maintained to provide safe and reliable life-cycle service, as well as to continue operating long-distance train services. The 2014 budget request includes $2.7 billion for this account, and $13.2 billion over five years. This account consists of four program areas:

Northeast Corridor to bring Northeast Corridor infrastructure and equipment into a state of good repair to enable future growth and service improvements.

State Corridors to facilitate efficient transition to financial control for short-distance State-supported corridors to States. This program area is transitional, and will be eliminated by the end of the 5-year period as described in this budget proposal.

Long-Distance Routes to continue operations of the Nation's important long-distance routes.

National Assets to improve efficiency of the Nation's "backbone" rail facilities, implement positive train control (PTC) on Amtrak routes, and bring stations into compliance with requirements of the Americans with Disabilities Act (ADA).

Rail Service Improvement Program*:* Through the Rail Service Improvement Program, FRA will make grants to develop the infrastructure, stations, equipment, and capacity needed to initiate new passenger rail services and substantially upgrade existing corridors, and to boost the market share of intermodal freight rail. The budget request includes $3.66 billion for this account, and over five years, the Administration proposes to invest $26.4 billion. This account consists of four program areas:

Passenger Corridors to develop high-performance passenger rail networks through construction of new corridors or substantial improvements to existing corridors, and to implement positive train control systems on commuter railroads.

Congestion Mitigation to address major bottlenecks and congestion issues that reduce freight and passenger train reliability on shared-use infrastructure.

Freight Capacity to improve the competitiveness of the Nation's intermodal freight rail system by upgrading facilities and adding capacity.

Planning to develop comprehensive plans that will guide future investments in the Nation's passenger and freight rail systems.

The Administration proposes to move a number of current General Fund programs into the Transportation Trust Fund, as part of a rail transportation reauthorization. Amounts reflected in

this account represent the new mandatory contract authority and outlays supporting these programs. PAYGO costs will be calculated as the change between these amounts and reclassified baseline amounts in the existing General Fund accounts.

EXHIBIT III-1a

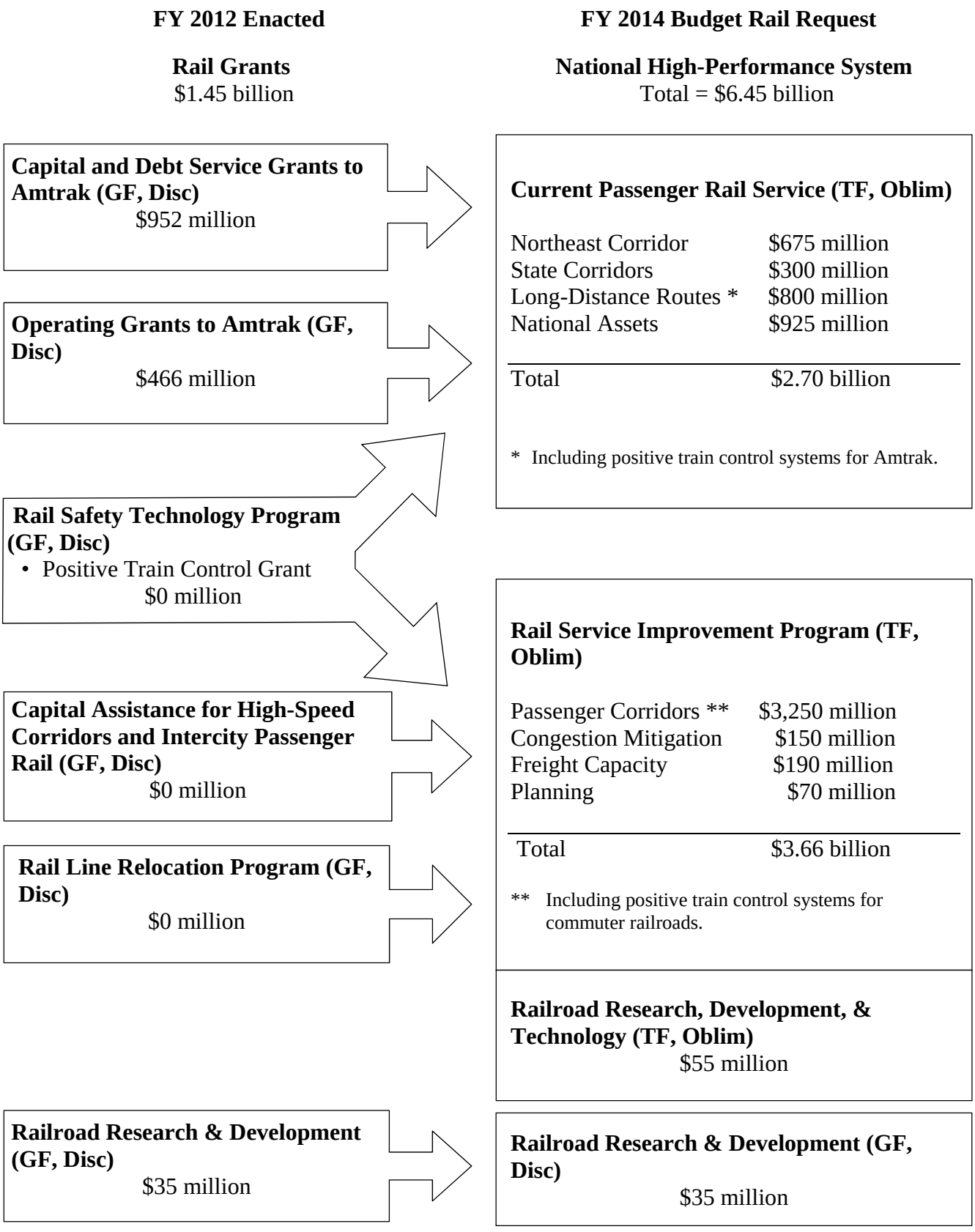
NATIONAL HIGH-PERFORMANCE RAIL SYSTEM
SUMMARY ANALYSIS OF CHANGE FROM FY 2013 TO FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	Change from FY 2013 to FY 2014	
ITEM	**$000**	**FTE**
FY 2013 BASE	**1,426,678**	**0**
NEW OR EXPANDED PROGRAMS		
Operating Subsidy Grants to Amtrak	(468,852)	0
Capital and Debt Service Grants to Amtrak	(957,826)	0
NEW PROGRAMS		
Current Passenger Rail Service [1/]	**2,700,000**	**0**
Northeast Corridor	675,000	-
State Corridors	300,000	-
Long Distance Routes	800,000	-
National Assets	925,000	-
Rail Service Improvement Program [1/]	**3,660,000**	**0**
Passenger Corridors	3,250,000	-
Congestion Mitigation	150,000	-
Freight Capacity	190,000	-
Planning	70,000	-
SUBTOTAL, PROGRAM CHANGES	**4,933,322**	**0**
TOTAL FY 2014 REQUEST	**6,360,000**	**0**

Notes:
1/ To crosswalk to the new account structure, the table displays existing and proposed new passenger rail and development programs.

FEDERAL RAILROAD ADMINISTRATION
CROSSWALK - RAIL GRANTS

FY 2012 ENACTED TO FY 2014 PRESIDENT'S BUDGET REQUEST



ADMINISTRATION

The Federal Railroad Administration (FRA) integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's strategic plan.

DOT Strategic Goal: State of Good Repair -- Ensure that the United States Proactively Maintains its Critical Transportation Infrastructure in a State of Good Repair.

Outcome: Eliminate Amtrak's state of good repair backlog on the Northeast Corridor.

Measure: Cumulative percentage of funds obligated to complete the Northeast Corridor state of good repair plan.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	n.a.	n.a.	0%	0%	6%
Actual	n.a.	n.a.	0%	---	---

n.a. Not applicable—FRA had not established and did not track this measure before FY 2012.

DOT Strategic Goal: Economic Competitiveness — Promote Transportation Policies and Investments that Bring Lasting and Equitable Economic Benefits to the Nation and its Citizens.

Agency Priority Goal—Outcome: Achieve initial construction on Federally funded corridor programs and individual projects.

Measure: Cumulative number of corridor programs that achieve initial construction.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	n.a.	3	4	7	8
Actual	n.a.	3	4	---	---
Measure: Cumulative number of individual construction projects that achieve initial construction.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	n.a.	8	22	36	46
Actual	n.a.	8	27	---	---

n.a. Not applicable—FRA had not established and did not track this measure before FY 2011.

EXHIBIT III-2 (cont'd)

ANNUAL PERFORMANCE RESULTS AND TARGETS
FEDERAL RAILROAD ADMINISTRATION

DOT Strategic Goal: Livable Communities — Foster Livable Communities through Place-based Policies and Investments that Increase Transportation Choices and Access to Transportation Services.

Outcome: Increased intercity passenger rail ridership

Measure: Increase in the number of intercity Rail Passenger-Miles traveled to at least 6.90 billion by the end of 2014.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	n.a.	6.45 billion	6.60 billion	6.75 billion	6.90 billion
Actual	6.33 billion	6.53 billion	6.80 billion	---	---

n.a. Not applicable—FRA had not established and did not track this measure before FY 2012.

DOT Strategic Goal: Livable Communities — Foster Livable Communities through Place-based Policies and Investments that Increase Transportation Choices and Access to Transportation Services.

Outcome: Improved access to transportation for people with disabilities and older adults.

Measure: Increase the cumulative percentage of intercity passenger rail stations* that comply with the requirements of the Americans with Disabilities Act to at least 8 percent by the end of 2014.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	n.a.	n.a.	2%	4%	8%
Actual	n.a.	n.a.	+	---	---

n.a. Not applicable—FRA had not established and did not track this measure before FY 2012.

* Where Amtrak is responsible for compliance.
+ Tracking will begin in FY 2013 after Amtrak completes its reassessment of station designs and construction plans. The Federal rule and guidance released in May 2012 addressing level board requirements require Amtrak to undertake this reassessment.

DETAILED JUSTIFICATION FOR THE NATIONAL HIGH-PERFORMANCE RAIL SYSTEM

What Do I Need To Know Before Reading This Justification?

- For the last four decades, intercity passenger rail service in the United States has been provided primarily by the National Railroad Passenger Corporation (Amtrak).

- During that time, Congress has appropriated funds to FRA to issue financial assistance for underwriting Amtrak's operating and capital costs across all business lines. Amtrak also receives support from some states to support certain routes and services, in addition to ticket and other revenue.

- Amtrak owns, leases, or controls most of the track and infrastructure along the Northeast Corridor (Washington DC to Boston). Elsewhere in the country, Amtrak primarily operates on track owned and managed by private freight railroads.

- FRA's role in developing intercity passenger rail service grew substantially in recent years. In FY 2008, Congress passed the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), which established significant new FRA policy, planning, and programmatic responsibilities. Subsequent appropriations acts provided more than $10.1 billion for a new competitive high-speed and intercity passenger rail program, as well as continued investment in Amtrak.

- PRIIA included a series or important reforms including requiring States to be responsible for funding the operating and capital costs associated with State corridor services; requiring the establishment of performance measures and new management practices by Amtrak; and authorizing new multi-jurisdictional committees to advance issues related to next generation passenger rail equipment and Northeast Corridor operations and infrastructure management.

- The Passenger Rail Investment and Improvement Act (PRIIA), as well as the Rail Safety Improvement Act (RSIA), expires at the end of FY 2013. FRA's 2014 budget builds on the reforms from PRIIA and presents a new, integrated reauthorization proposal for a modern and efficient rail transportation network.

What Is The Request And What Will We Get For The Funds?

FY 2014 – National High-Performance Rail System – Budget Request
($000)

Program Activity	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	Difference from FY 2013 CR Annualized
Current Passenger Rail Service [1/]				
Northeast Corridor	-	-	675,000	675,000
State Corridors	-	-	300,000	300,000
Long-Distance Routes	-	-	800,000	800,000
National Assets	-	-	925,000	925,000
Subtotal, Current Passenger Rail Service	**-**	**-**	**2,700,000**	**2,700,000**
Rail Service Improvement Program [1/]				
Passenger Corridor	-	-	3,250,000	3,250,000
Congestion Mitigation (Freight & Passenger)		-	150,000	150,000
Freight Capacity	-	-	190,000	190,000
Planning	-	-	70,000	70,000
Subtotal, Rail Service Improvement Program	**-**	**-**	**3,660,000**	**3,660,000**
Operating Subsidy Grants to Amtrak	**466,000**	**468,852**	**-**	**(468,852)**
Capital and Debt Service Grants to Amtrak	**952,000**	**957,826**	**-**	**(957,826)**
TOTAL, NATIONAL HIGH-PERFORMANCE RAIL SYSTEM	**1,418,000**	**1,426,678**	**6,360,000**	**4,933,322**

What Is This Program?

For FY 2014, FRA requests $6.36 billion for the **Current Passenger Rail Service** and **Rail Service Improvement** accounts of the new National High-Performance Rail System (NHPRS), This is $4.94 billion more than the FY 2012 enacted amount for capital and debt service grants and the operating subsidy grants for Amtrak. The FY 2014 request is part of a comprehensive five-year $40 billion reauthorization proposal for rail development programs, which also includes research, development, and technology activities (presented separately in the budget).

NATIONAL HIGH-PERFORMANCE RAIL SYSTEM FY 2014 through FY 2018 ($M)						
Account	**FY 14 Request**	**FY 15**	**FY 16**	**FY 17**	**FY 18**	**TOTAL**
Rail Service Programs	**6,360**	**8,045**	**7,700**	**8,550**	**8,945**	**39,600**
Current Passenger Rail Service	***2,700***	***3,225***	***2,550***	***2,650***	***2,075***	***13,200***
Rail Service Improvement Program	***3,660***	***4,820***	***5,150***	***5,900***	***6,870***	***26,400***
Research, Development, and Technology *	***55***	***43***	***43***	***38***	***38***	***217***
Research & Development (R&D)*	***35***	***37***	***37***	***37***	***37***	***183***
TOTAL, NHPRS + R&D	***6,450***	***8,125***	***7,780***	***8,625***	***9,020***	***40,000***

Note: * Details on these accounts are provided in the Research, Development, and Technology and Research and Development sections.

The NHPRS is divided into two major programs, including $2.70 billion for the **Current Passenger Rail Service** —focused on *maintaining* the current rail network—and $3.66 billion for the **Rail Service Improvement Program**— focused on *expanding and improving* the passenger and freight rail networks to accommodate growing travel demand. Through these programs, FRA would provide grant assistance to different stakeholders, depending on the program element. Additionally, the **Research, Development, and Technology** program described in Section 3 will invest in people, businesses, and technology, ensuring that America's rail industry is the world's most innovative and state-of-the-art.

FRA proposes that Congress authorize mandatory resources for these programs, and that they be funded from a proposed new Rail Account of a Transportation Trust Fund (the Transportation Trust Fund would replace the name of the Highway Trust Fund, which now has separate Highway and Transit accounts). Congressional appropriations set obligation limitations and provide liquidating authority, similar to FHWA's Federal Aid-Highways Program.

National High-Performance Rail System Overview

The NHPRS program will substantially improve the Nation's rail system, helping to accommodate a growing population (100 million more people—and 4 billion more tons of freight—by 2050) and providing an alternative to the Nation's increasingly congested airports and highways. In addition, this program will enhance the global economic competitiveness of America's metropolitan regions, support domestic manufacturing, reduce reliance on imported oil, and create a new economic base of highly-skilled, well-paying jobs.

FRA will also closely coordinate the Railroad Rehabilitation and Improvement Financing (RRIF) loan program with the NHPRS program so FRA all financial assistance (both grants and loans) is delivered in cohesive and comprehensive fashion. FRA will manage an integrated investment portfolio to improve the Nation's passenger and freight rail networks. See the separate section of the budget for more information on the RRIF program.

A Vision for Passenger Rail Service

The NHPRS program will support the development of passenger rail networks concentrated in the Nation's key "megaregions." Megaregions are dense networks of metropolitan areas with interlocking economies and shared transportation, environmental, and cultural resources. Although these megaregions only encompass 26 percent of the total U.S. land area, approximately 75 percent of the Nation's population lives in these regions. This share is expected to grow even larger, as the vast majority of U.S. population growth will occur in these same places.[1] The goal for the NHPRS program is to provide 80 percent of Americans with convenient access to high-performance passenger rail within 25 years. FRA has already begun organizing its planning efforts around the Nation's megaregions, including collaborating with regional stakeholders, as part of the agency's on-going work to advance national and multi-state rail planning activities.

Each regional network will contain a range of corridor types, based on the specific market conditions and transportation needs throughout the region. These market needs are determined by analyzing current and projected travel patterns, demographic and economic changes, terrain and distances, and other factors. The level of service required to meet these needs varies—in some places, numerous trains per hour operating at speeds above 125 mph will best address these needs; in others, incremental upgrades to existing services are the more appropriate and cost-effective solution. This **market-based** approach is identical to the investment strategy followed in rail programs throughout the world – including every Nation with successful high-speed rail services.

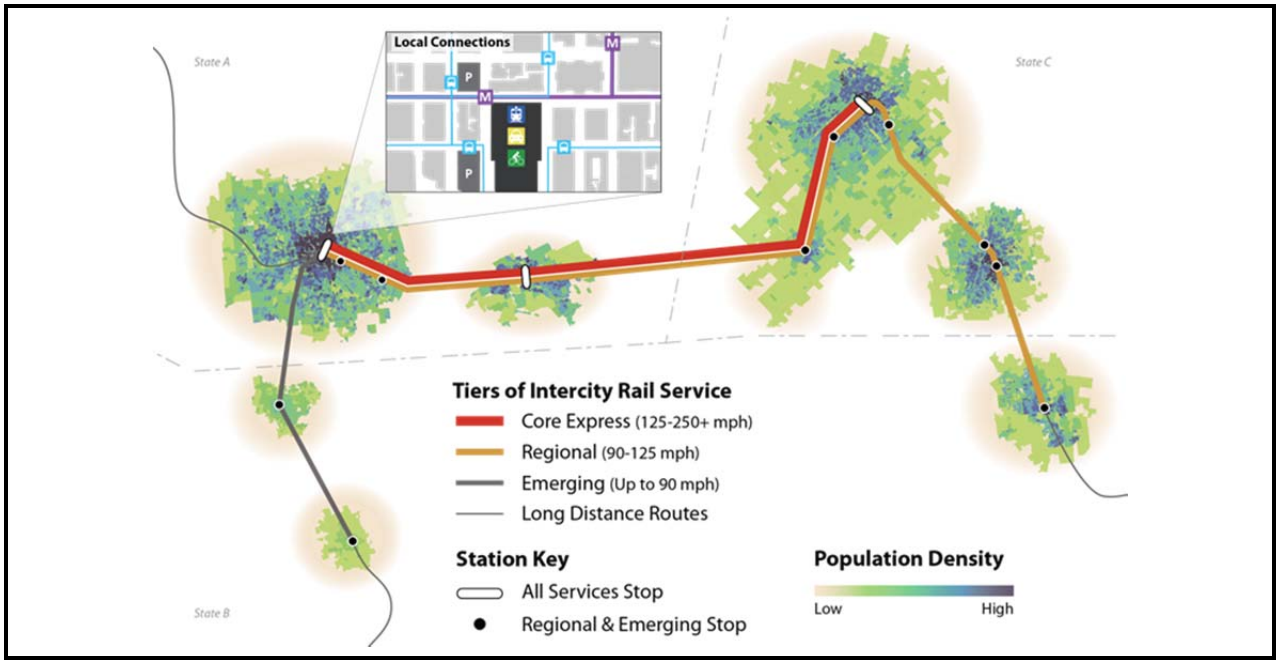
FRA has identified three general types of high-performance passenger rail service, differentiated by characteristics such as speed, frequency of service, and whether the trains run on dedicated passenger track or shared track. The following table describes these types of services in more details.

[1] America 2050, Defining U.S. Megaregions, November 2009.

HIGH-PERFORMANCE INTERCITY PASSENGER RAIL SERVICES					
Service	**Top Speed** (miles-per-hour)	**Minimum Number of Daily Round Trips**	**Power**	**Track**	**Percentage of U.S. Population Served**
Core Express	125 to 250 +	Hourly	Electrified	Dedicated	60%
Regional	90 to 125	6	Electrified and Diesel	Dedicated and Shared	75%*
Emerging	Up to 90	3	Diesel	Shared	80%*

* Cumulative with above; preliminary estimates pending outcome of more refined regional and state planning studies

CONCEPTUAL ILLUSTRATION OF A REGIONAL PASSENGER RAIL NETWORK



The Need to Incorporate Intermodal Freight Rail

The Nation's 140,000-mile freight rail network is widely considered to be the most well-developed and cost-efficient in the world. Rail's share of total U.S. freight movements, in terms of total ton-miles, is approximately 40 percent.[2] The $60 billion industry consists of seven Class I railroads[3] (which generate over 90 percent of the industry's revenue), as well as 21 regional railroads and more than 500 local railroads (which provide critical linkages to the core Class I

[2] American Association of Railroads, An Overview of America's Freight Railroads, July 2012.

[3] The seven Class I freight railroads are: BNSF Railway, CSX Transportation, Grand Trunk Corporation, Kansas City Southern Railway, Norfolk Southern Combined Railroad Subsidiaries, Soo Line Railroad, and Union Pacific Railroad.

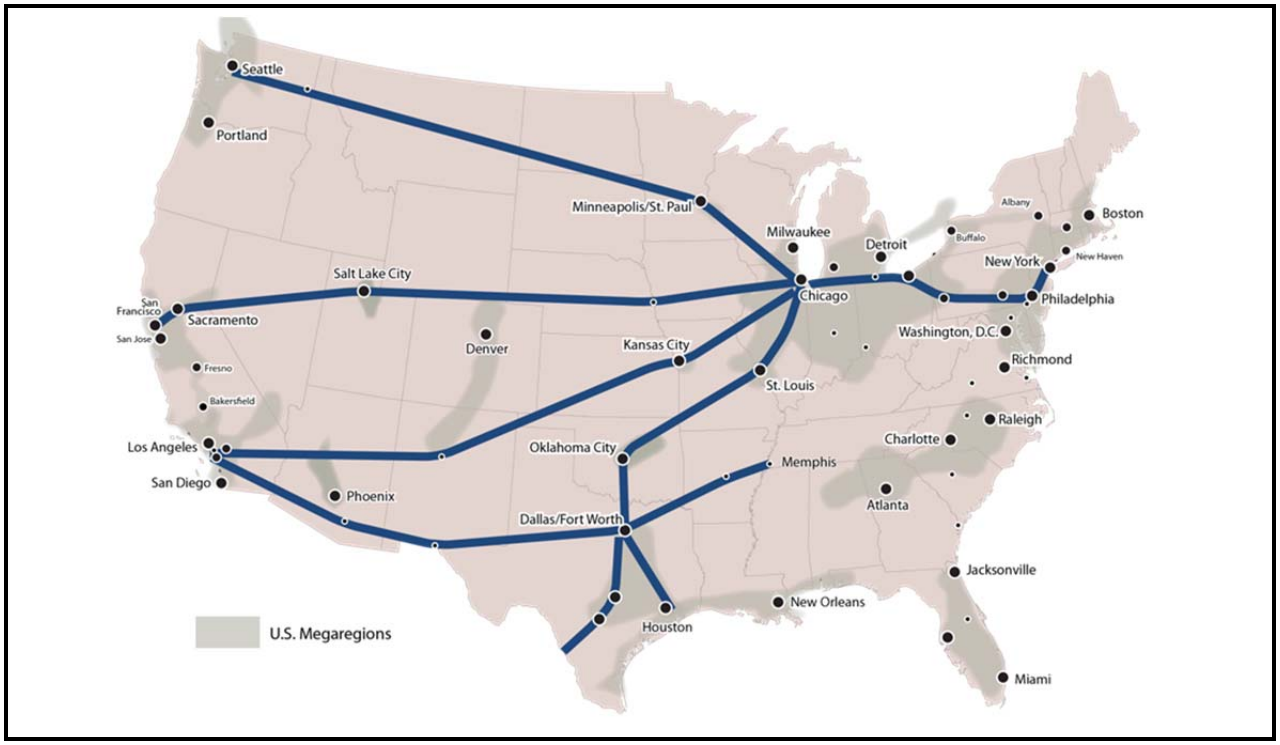
network).[4] Currently, 91 percent of total freight rail tonnage on the Class I railroads are commodities such as coal, chemicals, and farm products, with the remainder transporting intermodal goods such as consumer products.[5] ("Intermodal" refers to transporting goods on trains before and/or after transfers from planes, ships, or trucks).

The continued strong performance of the Nation's freight rail network is critical to meeting the needs of a growing economy. A central goal of the NHPRS program is to ensure that freight rail continues to play a pivotal role in moving commodities, while also growing rail's share of intermodal traffic. Shifting long-haul intercity trucks to rail could result in substantial public benefits, including avoided fatalities from reduced truck vehicle miles traveled; improved state of good repair and less damage to the highways; improved economic competitiveness due to lower fuel consumption and logistics costs; improved environmental sustainability with avoided greenhouse gas emissions. Increasing rail shipments of good nationwide is an integral part of the NHPRS.

Growing freight rail's share of high-value intermodal traffic requires public and private investment in areas such as upgraded tracks, reduced curvature, and improved signal and control systems, as well as improvements to intermodal transfer facilities, such as ports and distribution centers. Additionally, critical bottlenecks and choke points must be addressed, particularly in locations with mixed freight-passenger rail traffic. Railroads and rail shippers have already invested heavily in long-haul intermodal markets, while development of the shorter-haul markets, especially in the eastern third of the United States, has lagged behind (see map). Developing these markets through partnerships among a variety of key stakeholders is critical to realizing public benefits. The NHPRS program addresses these needs by promoting coordinated planning for intermodal corridors and terminal areas,[6] as well as providing capital for improvements that will generate public benefits through increased reliability, decreased costs, and improved mobility.

[4] Federal Railroad Administration, Freight Railroads Background, March 2012.
[5] American Association of Railroads, Class I Railroad Statistics, May 2012.
[6] For purposes of this budget proposal, FRA is using the phrase terminal area to describe the dense, complex networks of shared or interconnected freight, passenger, and commuter rail lines that are found in and around core urban areas.

CURRENT PRIMARY MOVEMENTS OF INTERMODAL FREIGHT RAIL



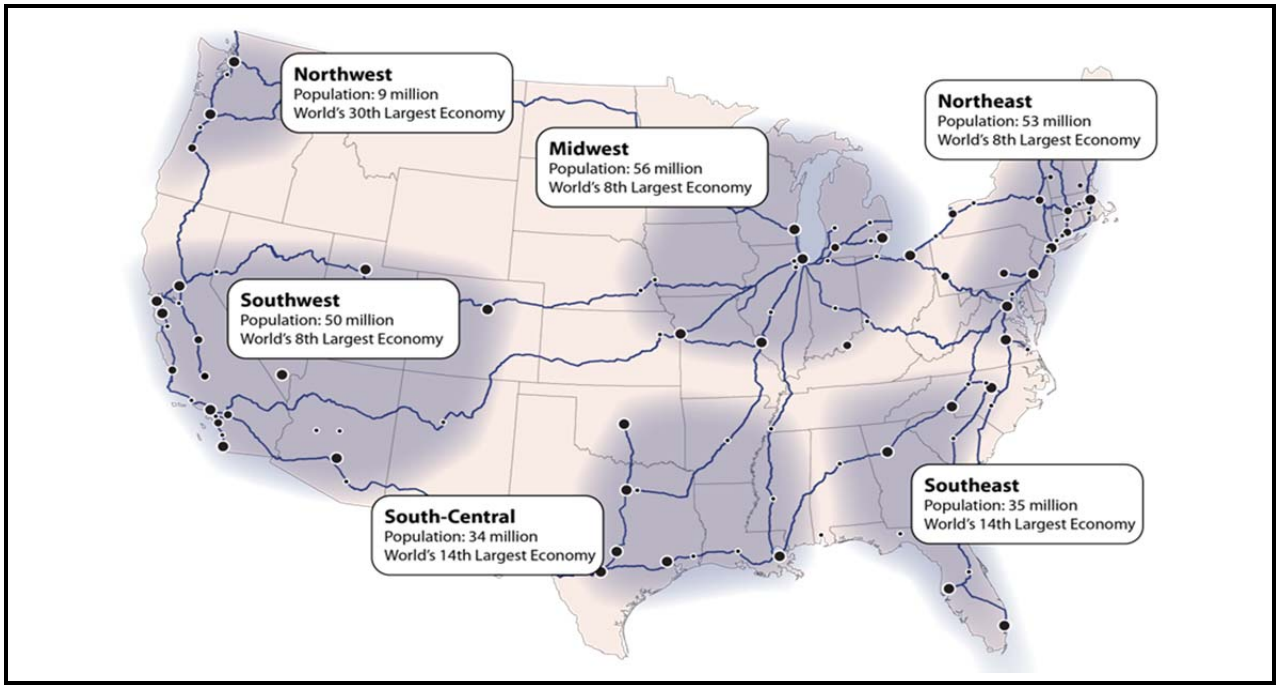
Note: Map depicts general intermodal freight rail movements, not actual routes, as they currently exist.

The Crucial Need for Integrated Rail and Transportation Planning

Coordinated planning is essential to the development of regional passenger rail corridors and improved intermodal freight facilities. Because of the complexity of the transportation system and varied interests of stakeholders, FRA cannot create a national plan on its own. Rather, FRA recognizes that local and regional, public and private stakeholders must help guide the creation of rail plans. FRA's goal is that on the passenger side, each region will plan and develop these corridors, based on parameters and standards established at the national level to ensure an appropriate level of national consistency and compatibility. FRA is currently working with groups of States and other stakeholders in the Northeast and Southwest to develop tools and best practices for this regional planning approach, and States in the Midwest, Northwest, Southeast, and South-Central U.S. have also engaged in various levels of regional planning and cooperation.

Intermodal freight projects, particularly terminal area upgrades and improvements, involve multiple railroads and will require partnerships with local and State officials, other modal representatives, planning organizations, and other stakeholders to identify infrastructure needs and undertake strategic investments to improve capacity, relieve congestion, and enable cost savings for shippers and their customers.

POTENTIAL NATIONAL HIGH-PERFORMANCE RAIL SYSTEM REGIONS



A Multi-Phased Endeavor

In recent years, Congress has made changes to FRA's authorities and has provided new resources that have set the course for modernizing the Nation's rail system. President Obama's goal is that 80 percent of Americans have access to high-performance rail. FRA recognizes it will require many years to accomplish this transformational goal, and that the NHPRS proposal included this year's budget is a stepping stone to this future outcome. The following timeline identifies the phases of this long-term effort.

- **Phase 1 (FY's 09-13) – Down Payment**: The first phase began with the most significant Federal investment in the Nation's passenger rail infrastructure in several decades: $9.3 billion appropriated in the American Recovery and Reinvestment Act (ARRA).[7] FRA's focus areas in Phase 1 have included establishing an overall program framework; making capital investments in key regions and developing a pipeline of future projects through planning and engineering activities; and laying the institutional foundations for long-term program success. During this phase, Federal funding was primarily provided through three separate accounts: Amtrak Operating Grants, Amtrak Capital/Debt Service Grants, and Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service.

- **Phase 2 (FY's 14-18) – Backlog Clearance and Network Development**: The second phase begins with the Administration's FY 2014 budget request and five-year rail investment and reauthorization proposal. In this phase, the Administration proposes to invest $40 billion from FY 2014 to FY 2018 in passenger and freight rail improvement activities, organized

[7] $8 billion was provided for high-speed rail development activities and $1.3 billion was provided to Amtrak for capital investments.

into two new, coordinated accounts: Current Passenger Rail Service and Rail Service Improvement Program, plus a separate Research, Development, and Technology account. Activities within these accounts comprehensively address the maintenance and improvement of current passenger rail services; safety and mobility improvements on existing rail corridors; and new capacity and connections for passenger and freight intermodal services. Phase 2 will also support regional planning, and clear the major backlog of capital needs in the Nation's rail infrastructure, equipment, and station accessibility. The five year investment proposal is shown in the table below:

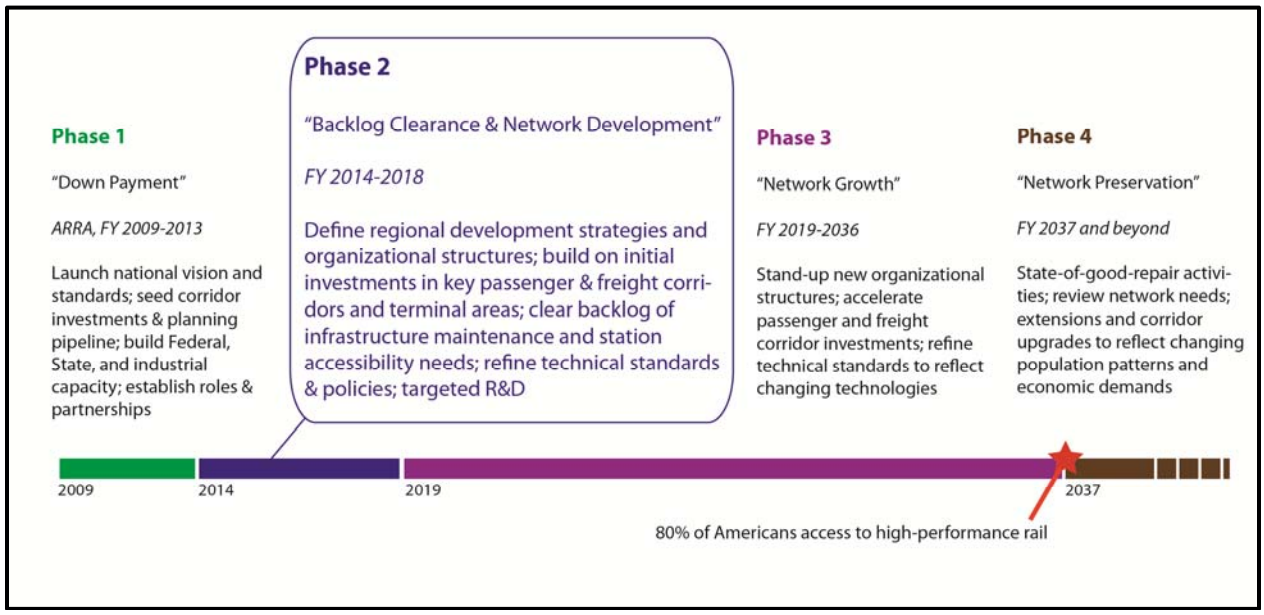
NATIONAL HIGH-PERFORMANCE RAIL SYSTEM						
Phase 2 Investment Proposal						
FY 2014 through FY 2018 ($M)						
Account	**FY 14 Request**	**FY 15**	**FY 16**	**FY 17**	**FY 18**	**TOTAL**
Rail Service Programs	**6,360**	**8,045**	**7,700**	**8,550**	**8,945**	**39,600**
Current Passenger Rail Service	***2,700***	***3,225***	***2,550***	***2,650***	***2,075***	***13,200***
Northeast Corridor	675	750	800	1,000	1,000	4,225
State Corridors	300	225	175	100	-	800
Long-Distance Routes	800	750	725	700	700	3,675
National Assets	925	1,500	850	850	375	4,500
Rail Service Improvement Program	***3,660***	***4,820***	***5,150***	***5,900***	***6,870***	***26,400***
Passenger Corridors	3,250	4,300	4,500	5,130	6,000	23,180
Congestion Mitigation	150	200	250	300	400	1,300
Freight Capacity	190	250	330	400	400	1,570
Planning	70	70	70	70	70	350
Research, Development, and Technology *	***55***	***43***	***43***	***38***	***38***	***217***
High-Performance Rail R&D	25	13	13	8	8	67
National Cooperative Rail Research Program	5	5	5	5	5	25
Workforce Development	25	25	25	25	25	125
TOTAL, NHPRS	**6,415**	**8,088**	**7,743**	**8,588**	**8,983**	**39,817**
Research & Development (R&D)*	***35***	***37***	***37***	***37***	***37***	***183***
TOTAL, NHPRS + R&D	***6,450***	***8,125***	***7,780***	***8,625***	***9,020***	***40,000***

**Note: ***Details on these accounts are provided in the separate sections for Research, Development, and Technology (RD&T) and Research and Development (R&D) of the FY 2014 President's Budget.

- **Phase 3 (FY19-36) -- Network Growth:** Based on the regional plans as well as the numerous corridor-level planning, engineering, and environmental analyses that are currently underway, the NHPRS program will continue with a focus on implementation and project delivery, with programmed investments and significant construction activity occurring in regions throughout the United States.

- **Phase 4 (FY37 and beyond) – Network Preservation**: Similar to the new role played by the Interstate Highway program upon completion of the core network in the 1990s, the NHPRS program's focus will turn to state of good repair activities, as well as extending and upgrading corridors to reflect changing growth patterns and transportation needs.

PHASES OF THE NATIONAL HIGH-PERFORMANCE RAIL SYSTEM PROGRAM



II. NHPRS Program Description

The National High-Performance Rail System is organized around two complementary and interconnected accounts:

Current Passenger Rail Service—DOT requests $2.70 billion for preservation and renewal of the Nation's existing rail services, organized by business lines: (1) Northeast Corridor, (2) State Corridors, (3) Long-Distance routes, and (4) National Assets. Amtrak is responsible for operating these services, and thus all funds within this account will be directed to Amtrak, with the exception of the State Corridors program area, which will be directed to States. Up to one half of one percent of funds under this heading will be retained to fund program administration and oversight of the National High-Performance Rail System, a takedown level consistent with comparable grant programs, including the existing Amtrak grant programs. The table below provides a detailed breakout of Current Passenger Rail Service activities.

CURRENT PASSENGER RAIL SERVICE ($2.70 billion) FY 2014 Request, Objectives, and Eligibility			
Business Line and FY 2014 Request	**Objectives**	**Eligible Activities**	**Eligible Recipients**
Northeast Corridor $675 million	Bring infrastructure and equipment into a state of good repair to enable future growth and service improvements.	• Ongoing state of good repair capital needs. • Backlog of state of good repair capital needs. * • Replacement of legacy/obsolete equipment. *	Amtrak**
State Corridors (transitional) $300 million	Facilitate efficient transition to State financial control over State-supported corridors.	• Transitional capital and operating assistance to support phase-in of PRIIA Section 209.** • Replacement of legacy/obsolete equipment.*	States
Long-Distance Routes $800 million	Continue operation of the Nation's long-distance routes.	• Long-distance route capital – equipment overhauls and replacement, stations, maintenance facilities, etc. • Long-distance route operations.	Amtrak
National Assets $925 million	Improve efficiency of the Nation's "backbone" rail facilities, support implementation of positive train control on Amtrak routes, and bring stations into compliance with the requirements of the *Americans with Disabilities Act* (ADA).	• Operating and capital needs for national reservations system; security and policing; rolling stock/infrastructure engineering, design services, and support facilities; training centers; and other national backbone systems. • Support implementation of PTC on Amtrak routes * • Capital to upgrade Amtrak-served stations to be ADA compliant. * • Legacy debt service and principal. *	Amtrak

Notes:
* Temporary activities that will phase-out upon completion.
**Funding provided through this program will be based on a five-year Northeast Corridor capital asset plan. This plan will be prepared by Amtrak in coordination with the Northeast Corridor Infrastructure and Operations Advisory Commission, which includes States and other NEC infrastructure owners and users, and will be approved by FRA. For specific capital projects, this plan may identify other appropriate lead agencies or recipients for these funds, such as States, in which case grants could be directed to those entities.

Northeast Corridor ($675 million): The Northeast Corridor (NEC) is one of the most important transportation assets in the Nation, carrying more than 11 million people per year on Amtrak's intercity services and over 240 million on local commuter rail networks, in addition to an average of 50 freight trains per day. The request will fund the following capital needs:

- Backlog of state of good repair needs on the NEC's infrastructure. Amtrak has identified a backlog of needed maintenance approaching $6 billion.
- Replacement of aging and obsolete equipment. Many of the cars and locomotives operating on the NEC are several decades old and are near (or past) their useful lives and thus have higher maintenance costs and reduced performance levels.
- The portion of ongoing, annual state of good repair needs that cannot currently be covered by the Corridor's operating surplus.

FRA expects that operating surpluses for the NEC will be directed by Amtrak back into the capital needs on the NEC, funding 1) ongoing equipment overhauls; 2) financing of new equipment; and 3) a portion of ongoing state of good repair. Currently these funds are used to offset operating costs on other Amtrak routes.

This approach supports this proposal's intent of increasing transparency and aligning costs and revenues to individual business lines. Due to projected increases in operating surpluses and the phase-in of PRIIA Section 212,[8] by the end of this 5-year proposal Federal assistance will primarily be limited to funding the state of good repair *backlog* for the NEC's infrastructure. (Amtrak will be eligible to complete for grants under the Rail Service Improvement Program to fund activities that support future service growth and improvement).

To receive funding, all capital projects on the Northeast Corridor must be identified in a five-year capital asset plan. Amtrak will prepare in coordination with the Northeast Corridor Infrastructure and Operations Advisory Commission, which includes States and other NEC infrastructure owners and users, and will be approved by FRA. The plan will identify the most appropriate lead agency for individual capital projects.

State Corridors ($300 million): Section 209 of the Passenger Rail Improvement and Investment Act (PRIIA) requires States to be predominately financially responsible for supporting State corridor services beginning in FY 2014. The State Corridors program area will provide temporary operating and capital financial assistance through FY 2017 to support the phase-in of PRIIA Section 209. This Federal support is critical to ensuring the continued efficient operation of State-supported corridors, many of which are currently experiencing record ridership. It is important to note that this funding is not a net increase above activities that were previously federally funded. Rather, operating and capital funds that previously flowed through Amtrak will now be provided directly to States through this program area.

In FY 2014, FRA proposes providing up to 80 percent of the "gap" between the amount States currently pay Amtrak in operating and capital costs for State-supported corridor service, and the amount they will be required to pay once Section 209 is implemented at the beginning of FY 2014. In FY 2015, this Federal support will be reduced to 60 percent, followed by 40 percent and 20 percent in FY 2016 and FY 2017, respectively. In FY 2018, no Federal funds will be provided for this activity, and States will be fully responsible for the operating and capital costs of State-supported corridors. States that receive this transitional assistance would be required to commit to maintaining those services for a certain period of time after this program ends. (States will continue to be eligible to compete for grants under the Rail Service Improvement Program).

Funding is also included to fully replace all aging and obsolete rail cars and locomotives on State-supported corridors by the end of the five-year proposal, which will reduce maintenance costs and improve the passenger experience, better positioning the State corridors for long-term

[8] Among numerous other provisions, Section 212 requires the Northeast Corridor Infrastructure and Operations Advisory Commission (which consists of representatives from Amtrak, DOT, NEC States, and other NEC stakeholders) to develop and implement a methodology for allocating operating/capital costs and revenues among all users on the corridor, to ensure that there are no cross-subsidizations among these users.

economic success. The Federal share of these activities will be a maximum of 80 percent, and grants will be distributed on a competitive basis.

Long-Distance Routes ($800 million): The long-distance routes operated by Amtrak provide a critical transportation alternative to both urban and rural communities throughout the United States. The long-distance routes serve 39 States, and are the only form of intercity rail transportation in 23 of those States. This funding will support the operating and capital needs of these services, including equipment overhauls and replacements.

National Assets ($925 million): This program area will fund a number of important activities, several of which will be phased out over the course of the five-year proposal:

- Capital and operating costs associated with managing core national facilities that cannot efficiently be "allocated" to one of the passenger rail business lines, such as the national reservations system, select policing and security costs, and select rolling stock and infrastructure engineering and design services/support facilities. The costs are partially offset by an operating surplus that Amtrak generates on "ancillary" business activities, such as contracts to operate commuter rail services.[9] Over the 5-year plan, FRA expects that the net costs will reduce over time.
- Support the implementation of positive train control on Amtrak intercity routes, as required by the Rail Safety Improvement Act of 2008.
- Bringing Amtrak-served stations into compliance with the Americans with Disabilities Act.
- Debt service payments on Amtrak's legacy debt.

As part of the grant agreement for each of these business lines, Amtrak will be required to submit a five-year business plan for FRA approval. These plans, which will be updated annually, will detail and justify the programmed operating and capital activities for each business line. FRA will actively monitor Amtrak's adherence to these plans as part of the agency's comprehensive grants management and oversight responsibilities.

[9] These offsetting ancillary activities only include those that are not directly associated with another business line.

Several activities funded under this 5-year plan will be phased-out upon completion of specific goals. Further details are provided in the following table:

ESTIMATED PHASE-OUT SCHEDULE FOR TEMPORARY ACTIVITIES			
Program Area	**Activity**	**Goal**	**Estimated Final Year of Federal Funding ***
Northeast Corridor	Backlog of state of good repair needs	Identified state of good repair backlog on NEC is eliminated	FY 2023-2025
Northeast Corridor	Replacement of legacy/obsolete equipment	All legacy/obsolete equipment replaced	FY 2018
State Corridors	Transitional operating/capital support for State corridors	States are financially supporting State corridors	FY 2017
State Corridors	Replacement of legacy/obsolete equipment on State corridors	All legacy/obsolete equipment replaced	FY 2017
National Assets	Positive train control on Amtrak routes	Positive train control is implemented on Amtrak routes	FY 2015 **
National Assets	Upgrade Amtrak-served stations to compliance with the requirements of the *Americans with Disabilities Act*	All required stations are in compliance	FY 2017
National Assets	Legacy debt service	Amtrak's legacy debt is retired	FY 2020-2022

Notes:
* Assumes 5-year investment strategy is adopted and allocated as proposed. Dates indicate the final year of Federal funding obligations; outlays and final project deliveries might occur in subsequent years.
** Assumes current statutory deadline remains in place.

Rail Service Improvement Program—DOT requests $3.66 billion to (1) invest in the infrastructure, stations, and equipment needed to build new high-performance passenger rail corridors, substantially improve existing corridors, and implement positive train control on commuter railroads; (2) address critical bottlenecks and relieve congestion in areas with mixed passenger and freight rail traffic; (3) boost intermodal freight market share by building additional capacity on key corridors and connection points; and (4) develop national, multi-state, state, corridor, and terminal area rail plans to comprehensively identify and prioritize the Nation's passenger and freight investment needs. The table below provides a detailed breakout of the Rail Service Improvement Program activities.

RAIL SERVICE IMPROVEMENT PROGRAM ($3.660 billion) FY 2014 Request, Objectives, and Eligibility			
Program Area and FY 2014 Request	**Objective**	**Eligible Activities**	**Eligible Recipients**
Passenger Corridors $3,250 million	Build regional networks of passenger rail corridors through construction of new corridors or substantial improvements to existing corridors; support implementation of positive train control (PTC) on commuter railroads.	• Environmental studies • Right-of-way acquisition • Preliminary engineering • Design and construction • Rolling stock acquisition • Support implementation of PTC on commuter railroads. *	• States and multi-State entities • Amtrak • Equipment entity • Commuter railroads **
Congestion Mitigation $150 million	Address major bottlenecks and congestion issues that reduce freight and passenger train reliability on shared-use infrastructure.	• Capital for addressing congestion projects identified by the Surface Transportation Board or DOT • Capital for improving infrastructure in shared-use terminal areas	• States and multi-State entities • Amtrak • Freight railroads • Rail terminal companies
Freight Capacity $190 million	Improve the competitiveness of the Nation's intermodal freight rail system by upgrading facilities and adding capacity.	• Capital upgrades to intermodal freight corridors and connection points • Capital upgrades to short-line freight railroads • Rail line relocation and community mitigation	• States and multi-State entities • Freight railroads • Rail terminal companies • Ports • Local governments ±
Planning $70 million	Develop comprehensive plans that will guide future investments in the Nation's passenger and freight rail systems.	• National, multi-state, and state rail planning • Corridor and terminal area planning/environmental analyses • Northeast Corridor FUTURE*	• States and multi-State entities • Metropolitan planning organizations • FRA

Notes:
* Temporary activities that will phase-out upon completion.
** For PTC implementation only.
± For rail line relocation only.

Passenger Corridors ($3,250 million): This program area will fund activities that lead to new or substantially improved passenger rail corridors that are consistent with state, multi-state, and national rail plans. Several corridor development projects that began planning and engineering studies in the initial years of the NHPRS program will be ready to enter the construction stage in FY 2014. Approximately 70 to 85 percent of these grants will likely advance Core Express corridors, 10 to 25 percent will advance Regional corridors, and 5 percent will advance Emerging corridors.

Projects must be identified on a State Rail Plan or Multi-State Regional Rail Plan to be eligible for consideration, and will be competitively selected for Federal funding based on an analytical set of evaluation criteria and rigorous analyses of quantitative and qualitative benefits and costs. FRA will ensure that the business and public investment case for each project is strong. Only proposals that meet demonstrated current and future market needs will be funded. Benefits assessments will focus on the project's travel time savings, travel cost savings, safety and environmental improvements, congestion mitigation on other modes, and economic benefits related to long-term market productivity increases and job creation. Cost assessments will consider capital, operating, maintenance, and renewal and replacement activities, as well as the degree to which applicants are contributing State/local funding and partnering with the private sector. All application reviews will be conducted by multi-disciplinary teams of rail engineering and planning experts.

Additionally, this program area may fund a portion of the positive train control (PTC) costs for the Nation's 27 commuter railroads, which carry over 1.7 million passengers per day and serve a vital transportation role. The American Public Transportation Association estimates the outstanding cost of PTC implementation on commuter railroads to be $2 billion, not including the cost of communications spectrum.[10] Many commuter railroads have limited capital resources from which to fund these costs. Additionally, as described in a recent FRA report to Congress, significant technical and programmatic challenges make it unlikely that the rail industry will be able to meet the December 31, 2015 deadline for full PTC implementation. These challenges are particularly acute for commuter railroads, which tend to have limited experience in designing and implementing these types of technologies.[11]

Eligible activities will include capital projects focused on developing and deploying elements on all four "subsystems" of PTC system architecture: office, wayside, onboard, and communications. The Federal share of these capital costs will be capped at 80 percent. A non-Federal match "credit" will be provided for past investments that commuter railroads may have already made in PTC implementation.

Congestion Mitigation ($150 million): This program area will address critical rail bottlenecks and fund improvements to congested, shared-use rail infrastructure in terminal areas. To be eligible, projects must either be designated by the U.S. Department of Transportation or Surface Transportation Board as being necessary for addressing a specific congestion problem, or must be included on a terminal area plan that was developed by all applicable stakeholders within a

[10] Michael Melaniphy, Testimony before the House Appropriations Committee, March 31, 2012.
[11] Federal Railroad Administration, Positive Train Control: Implementations Status, Issues, and Impacts, August 2012.

given metropolitan region. Funding for the development of these terminal area plans is included within the Planning program area.

Freight Capacity ($190 million): This program area will fund three types of projects that improve the Nation's freight rail system. First, capital upgrades to critical intermodal corridors and connection points (such as ports or intermodal transfer facilities) will help shift long-haul intercity trucks to rail, generating substantial safety, economic competitiveness, and environmental sustainability benefits. Second, upgrades to short-line railroads, which play an important role in meeting the demand that comes from increased tonnage on the overall network. Short-lines are the connective link to the major carriers, and their success is critical to making intermodal freight rail more efficient (and therefore competitive). Third, relocating freight rail lines that run through residential neighborhoods or other land use contexts unsuitable for rail. Projects must be included on a State Freight Plan and/or State Rail Plan in order to be eligible for consideration. In evaluating applications, FRA will look for strong public benefits assessments, as well as the inclusion of funding matches that are proportionate to the expected private sector benefits of the project.

Planning ($70 million): FRA believes the success of the NHPRS vision hinges on the development of sound planning, analysis, and implementation strategies. This program area will fund:

- National, multi-state, and state planning activities necessary to advance regional rail networks and ensure that projects are appropriately prioritized through a comprehensive understanding of costs and benefits;
- Service development plans and environmental analyses for specific corridors and terminal areas; and
- Completion of the Northeast Corridor Passenger Rail Corridor Investment Plan, which will result in a Final "service-level" or "Tier I" Environmental Impact Statement and a service development plan. This is a major milestone that will allow for the NEC's owners and operators to implement major service improvements and accommodate growth, consistent with a defined long-term vision.

Since FY 2008, only $62 million has been appropriated for rail planning. This figure is only 0.6% of the total HSIPR appropriations over this period, and less than the planning funding provided for highways and transit. The demand for planning funds is strong, exhibited by the substantial volume of applications FRA received. The funding level requested in this budget will begin to rectify this imbalance, but is still less than 2 percent of the total requested funding for the Rail Service Improvement Program. A level consistent with other long-term transportation investment programs.

Several activities funded under this 5-year plan will be phased-out upon completion of specific goals. Further details are provided in the following table:

ESTIMATED PHASE-OUT SCHEDULE FOR TEMPORARY ACTIVITIES			
Program Area	**Activity**	**Goal**	**Estimated Final Year of Federal Funding ***
Passenger Corridors	PTC on commuter rail network	PTC is implemented on commuter railroads	FY 2015 **
Planning	Northeast Corridor FUTURE	Final "Tier I" EIS and SDP are completed	FY 2014

Notes:
* Assumes 5-year investment strategy is adopted and allocated as proposed. Dates indicate the final year of Federal funding obligations; outlays and final project deliveries might occur in subsequent years.
** Assumes current statutory deadline remains in place.

II. ACCOMPLISHMENTS AND OUTCOMES

FY 2009 to FY 2013 Accomplishments

Major activities and accomplishments in Phase 1 of the NHPRS program have included:

- **Initial Investment Decisions.** Between August 2009 and April 2011, FRA evaluated nearly 500 applications submitted by 39 states, the District of Columbia, and Amtrak, requesting more than $75 billion. The Government Accountability Office commended FRA's review and selection process, stating "FRA established a fair and objective approach for distributing [Recovery Act] funds and substantially followed recommended discretionary grant award practices used throughout the government."[12]

[12] U.S. Government Accountability Office, Intercity Passenger Rail: Recording Clearer Reasons for Awards Decisions Would Improve Otherwise Good Grant Making Practices, GAO-11-283, March 10, 2011.

The map and table below highlight the key corridors of which investments have been made to date.

CURRENT HIGH-SPEED AND INTERCITY PASSENGER RAIL PROGRAM INVESTMENTS

CURRENT HIGH-SPEED AND INTERCITY PASSENGER RAIL PROGRAM INVESTMENTS						
	Miles Under Development		**Federal Investment**		**Population Served**	
Type of Corridor	Number of Miles	Percentage of Total	Millions of Dollars	Percentage of Total	Millions of People	Percentage of U.S. Population
Core Express	1,250	20%	$4,919	48.8%	74	24%
Regional	3,127	50%	$4,578	45.4%	102	33%
Emerging	1,911	30%	$555	5.5%	39	8%
Other	*n.a.*	*n.a.*	$25	0.2%	*n.a.*	*n.a.*
TOTAL	**6,288**	**100%**	**$10,077**	**100%**	**135**	**44%***

* Cumulative figure excludes double counting of populations served by more than one corridor type.
n.a. Not applicable.

- **Projects Completed.** Project sponsors in 16 States have substantially completed 25 High-Speed and Intercity Passenger Rail projects, including 12 construction projects to upgrade stations, improve operational efficiency, and enhance services and passenger experience. As a result, passenger rail service has been extended to Freeport and Brunswick, Maine, and track, signal, and bridge improvements are now in-service on Amtrak's *Vermonter*. Four States completed State rail plans establishing visions and policies for rail within their borders, and seven corridor plans and two sets of engineering designs have advanced a new suite of improvements through the pipeline, moving new projects that much closer to implementation.

- **Construction Underway throughout the United States.** Construction is underway on 27 projects for nearly $1.7 billion in Federal investments.[13] An additional 17 construction projects are expected to begin work this construction season, the biggest season to-date for the HSIPR program. Several millions of dollars are also being invested by FRA's partners to match these investments; further, the freight rail industry is investing $24.5 billion of private capital in the Nation's rail network in 2013 alone.[14]

    - *Illinois*: nearly 1,000 people are at work improving the Chicago-St. Louis corridor, which initiated 110 mile-per-hour service in November 2012.
    - *North Carolina*: Upgrades to Cary Depot Station, High Point Station, Burlington Station, Raleigh Capital Yard, and station security are complete on the Charlotte-Raleigh corridor, and construction is ongoing on grade separation, passing siding, and canopy work.
    - *California:* Work is ongoing at Transbay Transit Center to build the platforms, concourse, and tracks for the intercity rail portion of this modern multimodal transit hub in downtown San Francisco.
    - *Oregon and Washington*: Construction is complete in Tacoma and at Portland's Union Station, and construction is ongoing along the Pacific Northwest Corridor to add daily round trips, reduce travel time, and improve on-time performance between Seattle and Portland.
    - *Connecticut:* Initial construction work, including signal and fiber optic cable installation, is underway on the New Haven-Springfield Corridor, which will see round-trips triple upon project completion.
    - *Michigan:* Construction of a new station and platform in Dearborn is underway, and the purchase and ownership transfer of 135 miles of rail line between Kalamazoo and Dearborn has been completed, clearing the way for the rehabilitation of track and signal systems to begin.

- **Pipeline of New Projects.** 73 planning, environmental analysis, and engineering projects are underway or nearing completion across the country. The products that result from these efforts will lay the foundation for future construction projects and service improvements.

[13] As of March 5, 2013.
[14] American Association of Railroads, "Freight Railroad Plan to Invest $24.5 Billion in Private Dollars in 2013," 6 February 2013.

- **Agreements with Infrastructure Owners.** As part of the grant obligation process, FRA negotiated critical multi-party, performance-based agreements with six Class I Railroads and three Class II and III railroads. These agreements balance protection of taxpayers' passenger rail investments with the business needs of the host railroads, and mark the beginning of a new model for public-private collaboration and cooperation on shared-use corridors.

- **Significant Advancement of Oversight Framework.** FRA has implemented a robust oversight program driven by a risk-based selection protocol. In FY 2013, FRA expanded this program from a six-month pilot to a full year program cover all of its financial assistance programs. FRA has also established cross-functional Regional Teams of subject-matter experts and begun deploying project managers to key corridors to provide coordinated support for project sponsors.

- **Next Generation of Passenger Rail Equipment.**
  - *Technical Specifications*: With FRA's participation, the Next Generation Equipment Committee has approved specifications for single- and bi-level passenger rail cars, diesel locomotives, train sets and diesel multiple units. These specifications will substantially advance the goals of ensuring interoperability of equipment and lowering unit costs.
  - *Procurement*: A multi-state RFP for the procurement of 130 bi-level passenger rail cars closed in August 2012; a second multi-state RFP for 35 high-speed diesel locomotives will be issued in 2013. Additionally, Amtrak has selected Siemens Industry USA to manufacture 70 high-performance Northeast Corridor locomotives in California, Georgia, and Ohio, and CAF to manufacture 130 single-level passenger cars in New York.
  - *Manufacturing*: FRA is working with the National Institute of Standards and Technology's Manufacturing Extension Partnership (MEP) to encourage domestic equipment manufacturing. MEP identifies manufacturers' production and technical capabilities and matches them up with viable business opportunities that may have otherwise gone to foreign suppliers.

- **Analysis and Planning Tools.** FRA is developing tools for use in regional multi-route rail planning and guidance for state rail planning. These tools are advancing the state-of-the-art in domestic passenger rail planning, as well as helping to ensure a level of methodological consistency throughout the country.

- **Rail Research.** FRA, jointly with the Transportation Research Board, established the National Cooperative Rail Research Program to advance research on issues critical to rail policy development. The first set of research projects has been selected and is underway.

Anticipated FY 2013 Accomplishments

- **Planning and Engineering**:
  - Complete additional national planning analyses that continue to advance the framework, methodologies, and standards for regional/state development plans.
  - Complete 15 state rail plans and corridor service development plans.

- Complete Phase I of the Northeast Corridor Passenger Rail Corridor Investment Plan (PRCIP), which will result in the key data inputs, initiation of public and stakeholder engagement, and development of alternatives to be examined in Phases II and III.
- Initiate Phase II of the Northeast Corridor PRCIP.
- Complete an additional 10 engineering and environmental analysis projects to prepare new shovel-ready construction projects.
- Complete study identifying investment needs of the short-line rail industry and the availability of capital to meet these needs.

- **Construction**:
  - Initiate major construction activities on the California high-speed rail corridor and the Northeast Corridor.
  - Continue intensive construction on the Chicago-St. Louis, Charlotte-Raleigh, and Seattle-Portland major corridor upgrade projects.
  - Complete more than 20 individual construction projects across the country, including station improvements and track work.

- **Equipment**:
  - Finalize standards for integrated management of rail equipment, covering issues such as fleet planning, state-of-the-art maintenance practices, institutional fleet ownership structures, cost-sharing methodologies for cross-state border services, funding and financing arrangements, and other factors essential to developing an efficient and effective equipment pool.
  - Work with the Next Generation Equipment Committee to complete the remaining equipment specification for dual-mode locomotives and refine existing specifications and processes.
  - Work with California, Washington, and Midwest States to manage the next steps of the multi-state equipment procurement process, including awarding contracts.

- **Service Improvements**:
  - Complete the Boston-Portland *Downeaster* extension to Brunswick
  - Complete initial reliability and travel time improvements on corridors including Chicago-St. Louis, New Haven-St. Albans, Chicago-Detroit, Los Angeles-San Diego, and Philadelphia-Harrisburg.

Anticipated FY 2014 Accomplishments

The FY 2014 NHPRS investment, building upon previously appropriated funds, will result in:

- **Passenger Corridor Development:** While all passenger rail corridor investments will be made through a competitive evaluation process, the following text describes some general areas of potential investment.

  - *Core Express*: Planning and development efforts are well underway for Core Express high-speed corridors in the Northeast and Southwest, which could be advanced with this funding. Other potential Core Express corridors in the Midwest, South-Central, and

Southeast are currently in the planning stages and could potentially receive initial funding for right-of-way acquisition, final design, and construction.
  - *Regional*: At least 600 miles of existing corridors will be upgraded to 110-mile per hour service, including Chicago-St. Louis, Chicago-Detroit, and New Haven-Springfield, with another 300 miles upgraded to 90-mile per hour or higher service (Charlotte-Raleigh, Seattle-Portland). Investments in other parts of the East and Midwest may begin upgrading additional corridors to Regional service standards.
  - *Emerging*: Services will be initiated on the Chicago-Iowa City corridor. Other investments could add approximately 200 miles of Emerging corridors.
  - At least 40 **stations** will be upgraded to enhance the passenger experience, address structural issues, and improve train operations. Additionally, substantial progress will be made in addressing Americans with Disabilities Act-compliance issues.

- At least **100 locomotives and 400 rail cars will be procured** to replace old and obsolete equipment and to serve growing demand on specific corridors.
- At least **30 state rail plans and corridor service development plans** will establish the framework for future rail investments throughout the country. This funding will also complete the Northeast Corridor environmental impact statement, which is required prior to major improvements on the Nation's busiest rail corridor.
- Activities to **reduce the infrastructure maintenance backlog on the Northeast Corridor** will be accelerated, leading to service and reliability improvements.
- Progress will be made in addressing **positive train control needs** on Amtrak routes and commuter rail systems.
- Upgrades, expansions, and construction of new **freight intermodal corridors, facilities, and connections** will be initiated, to handle growing freight demands in current markets and to increase rail's market share of intermodal freight transportation.

The cumulative impact of these investments is that Rail travel will become a more attractive option by offering travelers and shippers faster travel times, better reliability, and more frequent trains. Increased rail ridership and freight movement means fewer people driving on congested roads or flying to/from congested airports, reduced greenhouse gas emissions and fuel consumption, and other public benefits.

Why Is This Particular Program Necessary?

The importance of transportation infrastructure to global economic competitiveness is indisputable. The World Economic Forum (WEF) notes, "Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy... Well-developed infrastructure reduces the effect of distance between regions, integrating the national market and connecting it at low cost to markets in other countries and regions."[15]

Even in challenging fiscal situations, it is imperative that the United States continue to invest in the infrastructure that will enable the country to maintain and strengthen its position as a global economic leader in the 21st century and beyond. The WEF currently ranks the U.S. as 24th in

[15] World Economic Forum, Global Competitiveness Report, 2010-2011, 2010.

quality of overall infrastructure, down from 7th in 1999 and below nearly all western European Nations as well as several Asian and Middle Eastern Nations.[16]

Maintaining economic competitiveness over the long-term will require the U.S. to address a number of interconnected transportation challenges:

- **Population growth**—By 2050, the U.S. Census Bureau projects that an additional 100 million people will reside in the United States. The vast majority of this growth will be concentrated in a small number of "megaregions." The U.S. DOT and Department of Commerce have found that 40 tons of freight is moved through the U.S. for each resident, and thus this population increase will mean an extra 4 billion tons of freight moved each year, an increase of 35 percent over 2010 levels.[17]

- **Energy consumption**—In 2010, the United States used more than 13 million barrels of oil every day for transportation. U.S. citizens consume nearly twice the oil per capita as citizens of OECD member nations, and approximately 53 percent of this oil is imported.[18]

- **Energy costs**—The inflation-adjusted cost of oil increased 129 percent from 1990 to 2010. As a result, Americans spent $630 million more *per day* on oil for transportation than they did 20 years earlier—an average annual increase of nearly $750 for every American. The Energy Information Administration expects crude oil prices to rise an additional 50 percent between 2011 and 2035.[19]

- **Environmental protection**—The 2012 *Inventory of U.S. Greenhouse Gas Emissions and Sinks* found that the U.S. emitted 10.5 percent more greenhouse gases in 2010 than it did in 1990.[20] 32 percent of all greenhouse gas emissions are now from the transportation sector.

- **Congestion and Mobility**
  - Highway and aviation congestion continues to rise, with an estimated economic impact growing from $24 billion in 1982 to $125 billion in 2010 in lost time, productivity, and fuel. [21] In many places with the worst congestion, expanding airports and highways is difficult, as land is limited and environmental/community impacts are significant.
  - In addition to increasing congestion, air travel is becoming less accessible and convenient for many communities. Changes in airline economics have led to small and mid-size cities losing 15 percent or more of their nonstop domestic flights, and

[16] World Economic Forum, Global Competitiveness Report, 2011-2012, 2011.
[17] U.S. Department of Transportation, U.S. Department of Commerce, Commodity Flow Survey.
[18] U.S. Central Intelligence Agency, World Factbook: United States, August 1, 2012.
[19] U.S. Energy Information Administration, AEO2012 Early Release Overview, January 23, 2012.
[20] U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010, April 2012.
[21] Texas Transportation Institute, 2011 Urban Mobility Report, Sept 27, 2011.

fares in some of these markets jumped 16 to 18 percent from 2010 to 2011, compared to the average nationwide increase of 6 percent.[22]

Rail is uniquely well-suited to meeting these challenges. To accommodate population growth, rail provides very high capacity within a relatively limited geographic "footprint." Rail is among the most energy-efficient ways to travel, and also has lower pollution emission rates than other modes. As highway and airport congestion increases, rail can provide a more reliable and efficient travel options for many markets.

In recognition of these challenges and the role that rail can plan in meeting them, Congress crafted the landmark Passenger Rail Investment and Improvement Act (PRIIA) in 2008, which created a framework for advancing the role of rail in the Nation's intermodal transportation network. Since this legislation was passed with broad bipartisan support, the need for rail has only grown:

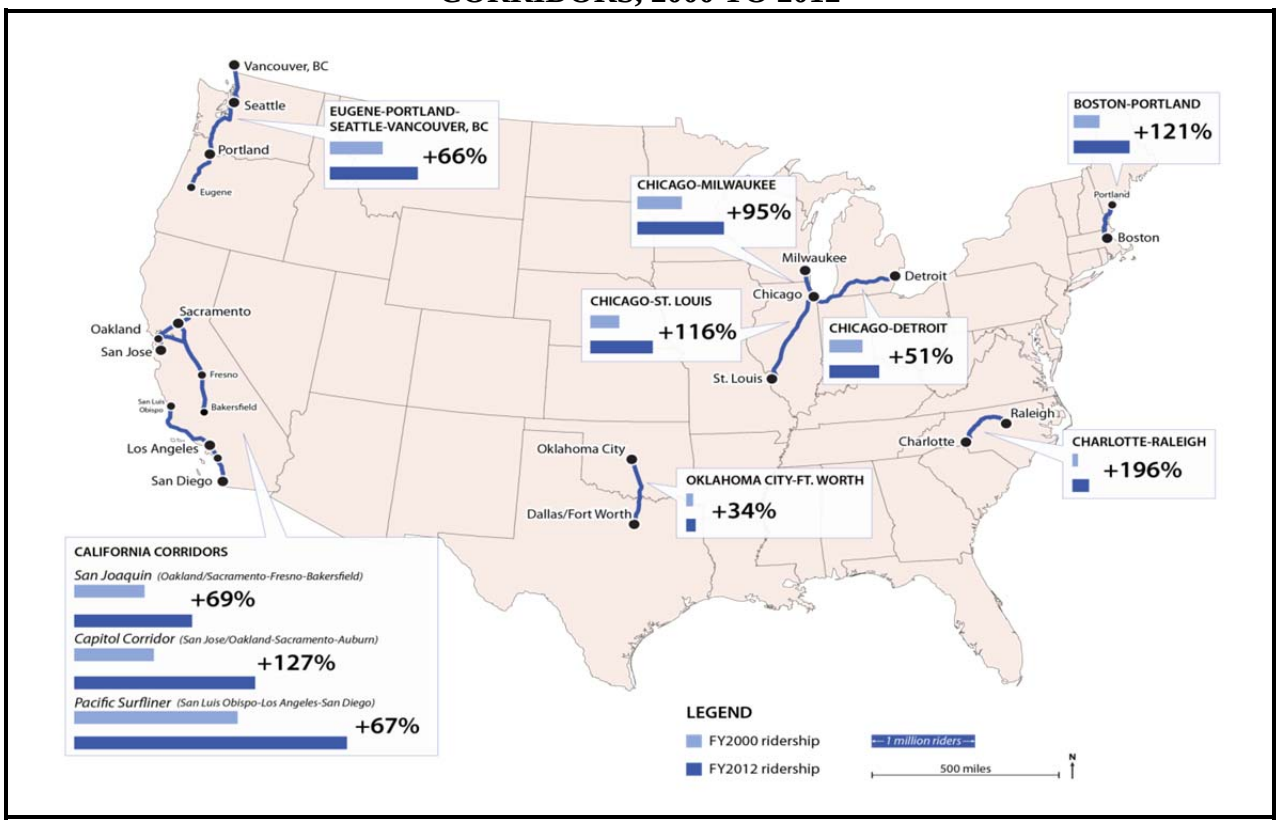
- The U.S. added an estimated 9.4 million people from 2008-2012 – more than the entire population of New Jersey or Virginia.
- A gallon of gasoline cost $1.98 when the American Recovery and Reinvestment Act (ARRA) passed in February 2009; in July 2012 the average was $3.43, the third-highest average price for July ever recorded.
- Highway congestion in the Nation's largest cities increased 5 percent from 2008 to 2010, resulting in an annual congestion cost increase of $226 million.[23]

How Do You Know The Program Works?

Americans are choosing rail in record numbers—Demand for passenger rail is surging across the United States. Ridership levels have set new records in nine of the past ten years. In FY 2012, Amtrak carried a record 31.2 million passengers—and also achieved the highest on-time performance in 12 years.[24] These ridership levels are being achieved even before the substantial service improvements funded in recent years begin to come online. Once new trains are added and trip times and delays reduced, the system will see even higher levels of ridership.

[22] Mouawad, Jad, When Flying 720 Miles Takes 12 Hours, The New York Times, May 2, 2012.
[23] Texas Transportation Institute, 2011 Urban Mobility Report, Sept 27, 2011.
[24] Amtrak, Amtrak Sets New Ridership Record, October 10, 2012.

RIDERSHIP GROWTH ON SELECTED PASSENGER RAIL CORRIDORS, 2000 TO 2012



Source: Amtrak.

More goods are traveling by rail—The intermodal market has been the fastest growing segment of the freight rail industry since 1980. As of August 2012, intermodal freight is on pace to break the record for the highest-volume year in the history of U.S. freight railroads.[25] Furthermore, goods are traveling shorter distances by rail on average, as new infrastructure to support intermodal freight comes online. This growth demonstrates the demand for intermodal rail transportation as more shippers decide to take advantage of the mode's inherent economic advantages.

Communities across the Nation are competing for rail investment dollars—Every region in the U.S. has demonstrated demand for investments in passenger rail services. Between August 2009 and April 2011, FRA evaluated nearly 500 applications submitted by 39 states, the District of Columbia, and Amtrak, requesting more than $75 billion. Over four rounds, the Transportation Investment Generating Economic Recovery (TIGER) program has received more than 85 applications requesting over $3.5 billion for intercity passenger rail projects, and more than $4 billion in funding has been requested for freight rail-related projects.

Public support for rail is increasing—Public opinion polls consistently reveal strong support for intercity passenger rail. A 2011 Harris Poll survey revealed that nearly two-thirds of

[25] American Association of Railroads, AAR Reports Mixed Weekly and July Monthly Rail Traffic, August 2, 2012

Americans (62 percent) support using Federal funds to develop high-speed rail.[26] The National Association of Realtors' *2009 Growth and Transportation* study showed only 20 percent of Americans favored building new roads to deal with congestion, while 47 percent believe that improvements in public transportation would better mitigate congestion and accommodate future U.S. population growth.[27] Additionally, almost 19 of 20 people are concerned with the state of America's infrastructure, and approximately 84 percent support infrastructure investments.[28]

Rail has demonstrated public benefits, domestically and internationally—Strengthening passenger rail services can help balance the Nation's transportation network, as demonstrated on the Northeast Corridor (NEC). Since the introduction of the *Acela* service 10 years ago, Amtrak has almost tripled its air/rail market share on the NEC, carrying 75 percent of travelers between New York and Washington.[29] These changing travel patterns can free airport capacity for more cost-efficient long-distance flights.

Rail is also proven to be highly fuel efficient. One intermodal train between Chicago and Los Angeles can save 75,000 gallons of fuel and replace 300 trucks.[30] Diverting just 10 percent of long-distance freight from truck to rail would save one billion gallons of fuel each year; the resulting decrease in greenhouse gas emissions would be the equivalent of taking nearly 2 million cars off the road.[31] Furthermore, freight rail systems consist primarily of privately-owned infrastructure and are maintained out of railroad revenues. In contrast, heavy intercity trucks pay only 80 percent of the costs they impose on Federal highways through wear-and-tear.[32] Finally, investing in rail produces tangible economic returns even beyond the improved transportation network. For example, German towns connected to high-speed rail achieved 2.5 percent greater economic growth than comparable, nearby towns not connected to the rail system.[33]

Why Do We Need To Fund The Program At The Requested Level?

Current Passenger Rail Service..... $2.70 billion

Northeast Corridor ..... $675 million
This funding level, as a grant to Amtrak, is based on an analysis of ongoing state of good repair and equipment overhaul needs for the NEC, as reflected in Amtrak's *FY 2013 Budget Request* and *Five-Year Financial Plan* (2012-2016), less the expected operating

[26] Harris Poll survey conducted between January 17, 2011, and January 24, 2011.
[27] National Association of Realtors and Transportation for America, *2009 Growth and Transportation Survey*. The survey was conducted by Hart Research Associates, Jan. 5 to 7, 2009. Hart Research Associates telephoned 1,005 adults living in the United States. The study has a margin of error of plus or minus 3.1 percentage points.
[28] U.S. Department of the Treasury and Council of Economic Advisers, An Economic Analysis of Infrastructure Investments, October 11, 2010, quoting survey from The Building America's Future National Survey, Luntz et al., 2009.
[29] Nixon, Ron, Frustrations of Air Travel Push Passengers to Amtrak, The New York Times, August 15, 2012.
[30] Federal Railroad Administration, Comparative Evaluation of Rail and Truck Fuel Efficiency on Competitive Corridors, November 19, 2009.
[31] American Association of Railroads, Freight Railroads Help Reduce Greenhouse Gas Emissions, July 2012.
[32] Federal Highway Administration, Addendum to 1997 *Federal Highway Cost Allocation Study*, May 2000.
[33] Gabriel Ahlfeldt and Arne Feddersen, From Core To Periphery, London School of Economics and University of Hamburg, 2010.

surplus from Corridor operations. Additionally, this funding level will fund a portion of the state of good repair backlog and begin the process of replacing the aging and obsolete rail cars and locomotives in use on the NEC.

State Corridors ..... $300 million
This funding level, is based on FRA analysis of the estimated gap between what States are currently paying Amtrak for operating and capital needs on State-supported corridors, and what they will be required to pay upon the implementation of PRIIA Section 209. FRA is proposing to fund 80 percent of this gap in FY 2014 (approximately $100 million), with the Federal share declining to zero over the next 5 years. The remainder of the request (approximately $200 million) will be dedicated to the procurement of new rail cars and locomotives to replace aging and obsolete equipment, at a maximum 80 percent Federal share.

Long-Distance Routes ..... $800 million
This funding level is based on an analysis of the operating and capital needs for long-distance routes, as reflected in Amtrak's *FY 2013 Budget Request* and *Five-Year Financial Plan* (2012-2016). The capital portion will be used for long-distance equipment overhauls and replacement, as well as an allocated share of stations, mechanical facilities, and other Amtrak assets that support long-distance services.

National Assets..... $ 925 million
FRA estimates approximately one-third of this request will support capital and operating needs for core national assets managed by Amtrak, such as the reservations system and police/security operations. The remainder of the funding will be dedicated to three temporary activities – (1) upgrading Amtrak-served stations to be in compliance with the *Americans with Disabilities Act*; (2) implementing positive train control systems on Amtrak corridors, and (3), payments towards retiring Amtrak's legacy debt. Funding for the *Americans with Disabilities Act* and positive train control will phase out over the 5-year plan.

Rail Service Improvement Program ..... $3.66 billion

Passenger Corridors ..... $3,250 million
This funding level is based on an analysis of corridors that will be ready for new infrastructure investments in FY 2014, as well as the additional funding needs of corridor development projects currently underway. FRA estimates that roughly $10 billion worth of corridor projects will have the necessary planning and environmental analyses completed by FY 2014 to enter the final design and construction phases. This funding level would allow FRA to fund roughly 30 percent of these projects chosen through a competitive selection process. FRA will ensure that the business and public investment case for each project is strong. Only proposals that meet demonstrated current and future market needs will be funded. All application reviews will be conducted by multi-disciplinary teams of rail engineering and planning experts.

FRA also assumes a portion of the funding will support implementing positive train control (PTC) on commuter railroads, at a maximum Federal share of 80 percent. The total estimated need for implementation of PTC on commuter railroads is $2 billion.

Congestion Mitigation ..... $150 million
This funding level is based on an analysis of the needs for addressing critical bottlenecks and upgrading infrastructure in shared-use terminal areas that have (or are currently preparing) comprehensive, multi-stakeholder investment plans, such as Chicago, New Orleans, and Los Angeles.

Freight Capacity ..... $190 million
This funding level will support upgrades to intermodal freight corridors and connection points, including short-line railroad improvements. These investments will assist in growing rail's share of the intermodal freight market. With a minimum 20 percent non-Federal match, FRA estimates that this funding level could divert nearly 180,000 truckloads onto the rail system, resulting in over $500 million in accrued discounted benefits over 25 years from this investment. Additional funding will support rail line relocation activities, which have important community and safety benefits and can result in more efficient freight operations. Demand for previous rounds of discretionary rail line relocation grants has been strong, ranging from $70 to $200 million.

Planning ..... $70 million
This request is based on an analysis of regional, state, and corridor planning needs, including the cost to complete the Northeast Corridor Passenger Rail Corridor Investment Plan. This funding amount is less than 2 percent of the total requested funding for the Rail Service Improvement Program, a level consistent with other long-term transportation investment programs.

FEDERAL RAILROAD ADMINISTRATION
NATIONAL HIGH-PERFORMANCE RAIL SYSTEM

Current Passenger Rail Service
Program and Financing Schedule
($000)

Account Number: 69-8320-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2013 Request
	Obligations by program activity:			
0001	**Northeast Corridor**	**-**	**-**	**675,000**
0002	State Corridors	-	-	300,000
0003	Long-Distance Routes	-	-	800,000
0004	National Asset	-	-	925,000
0900	**Total new obligations**	**-**	**-**	**2,700,000**
	Budgetary Resources:			
	Budget authority:			
	Appropriations, discretionary:			
1101	Appropriation (special or trust fund)	-	-	2,700,000
1137	Appropriation applied to liquidate contract authority	-	-	(2,700,000)
1160	**Appropriation, disc (total)**	**-**	**-**	**-**
	Contract Authority, mandatory:			
1600	Contract Authority	-	-	2,700,000
1640	**Contract Authority, mandatory (total)**	**-**	**-**	**2,700,000**
1900	**Budget authority (total)**	**-**	**-**	**2,700,000**
1930	**Total budgetary resources available**	**-**	**-**	**2,700,000**
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	-	-	
3030	Obligations incurred, unexpired accounts	-	-	2,700,000
3040	Outlays (gross)	-	-	(1,555,208)
3090	Unpaid obligations, end of year (gross)	-	-	1,444,792
3100	**Obligated balance, end of year (net)**	**-**	**-**	**1,444,792**
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	-	-	2,700,000
	Outlays, Gross			
4100	Outlays from new mandatory authority	-	-	1,555,208
4160	Budget authority, net (mandatory)	-	-	2,700,000
4170	Outlays, net (mandatory)	-	-	1,555,208
4180	**Budget authority, net (total)**	**-**	**-**	**2,700,000**
4190	**Outlays, net (total)**	**-**	**-**	**1,555,208**

FEDERAL RAILROAD ADMINISTRATION
NATIONAL HIGH-PERFORMANCE RAIL SYSTEM

Rail Service Improvement Program
Program and Financing Schedule
($000)

Account Number: 69-8310-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2013 Request
	Obligations by program activity:			
0001	Passenger Corridor	-	-	1,000,000
0002	Congestion Mitigation (Freight & Passenger)	-	-	120,000
0003	Freight Capacity	-	-	150,000
0004	Planning	-	-	70,000
0005	Direct Program Activity			30,000
0900	**Total new obligations**	**-**	**-**	**1,370,000**
	Budgetary Resources:			
	Budget authority:			
	Appropriations, discretionary:			
1101	Appropriation (special or trust fund)	-	-	3,660,000
1137	Appropriation applied to liquidate contract authority	-	-	(3,660,000)
1160	**Appropriation, disc (total)**	**-**	**-**	**-**
	Contract Authority, mandatory:			
1600	Contract Authority	-	-	3,660,000
1640	**Contract Authority, mandatory (total)**	**-**	**-**	**3,660,000**
1900	**Budget authority (total)**	**-**	**-**	**3,660,000**
1930	**Total budgetary resources available**	**-**	**-**	**3,660,000**
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3030	Obligations incurred, unexpired accounts	-	-	1,370,000
3040	Outlays (gross)	-	-	(224,764)
3090	Unpaid obligations, end of year (gross)	-	-	1,145,236
3100	**Obligated balance, end of year (net)**	**-**	**-**	**1,145,236**
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	-	-	3,660,000
	Outlays, Gross			
4100	Outlays from new mandatory authority	-	-	224,764
4160	Budget authority, net (mandatory)	-	-	3,660,000
4170	Outlays, net (mandatory)	-	-	224,764
4180	**Budget authority, net (total)**	**-**	**-**	**3,660,000**
4190	**Outlays, net (total)**	**-**	**-**	**224,764**

FEDERAL RAILROAD ADMINISTRATION
NATIONAL HIGH-PERFORMANCE RAIL SYSTEM

Current Passenger Rail Service
Object Classification Schedule
($000)

Account Number: 69-8320-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligation:			
21.0	Travel			236
25.1	Advisory and assistance service	-	-	13,264
41.0	Grants, subsidies, and contributions	-	-	2,686,500
99.9	**Total new obligations**	**-**	**-**	**2,700,000**

Rail Service Improvement Program
Object Classification Schedule
($000)

Account Number: 69-8310-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
25.1	Advisory and assistance service	-	-	30,000
41.0	Grants, subsidies, and contributions	-	-	1,340,000
99.9	**Total new obligations**	**-**	**-**	**1,370,000**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

NATIONAL HIGH-PERFORMANCE RAIL SYSTEM
APPROPRIATIONS LANGUAGE

RAILROAD RESEARCH, DEVELOPMENT, AND TECHNOLOGY

(LIMITATION ON OBLIGATIONS)
(TRANSPORTATION TRUST FUND)

Funds available for the Railroad Research, Development, and Technology Program authorized under title 49, United States Code, shall not exceed total obligations of $54,750,000; provided, that the Secretary may retain up to one percent of the funds limited under this heading to fund program administration and oversight of the National High-Performance Rail System.

(LIQUIDATION OF CONTRACT AUTHORIZATION)
(TRANSPORTATION TRUST FUND)

$54,750,000, 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 the Railroad Research, Development, and Technology Program authorized under title 49, United States Code.

EXHIBIT III-1

RAILROAD RESEARCH, DEVELOPMENT, AND TECHNOLOGY [1/]
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
High-Performance Rail R&D	**-**	**-**	**24,750**	**24,750**
National Cooperative Research Program	**-**	**-**	**5,000**	**5,000**
Workforce Development				
Rail-based University Transportation Center	-	-	4,000	4,000
Buy America Support	-	-	3,000	3,000
Technical Assistance & Training	-	-	18,000	18,000
Subtotal Workforce Development	**-**	**-**	**24,750**	**24,750**
TOTAL, RD&T	**-**	**-**	**54,750**	**54,750**
Full-Time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
Total Full-Time Equivalents	**-**	**-**	**-**	**-**

Program and Performance Statement

The Administration proposes to reauthorize FRA's rail programs in FY 2014, including creating a new Railroad Research, Development, and Technology Program that will be funded from the Rail Account of the Transportation Trust Fund. The program would provide science and technology support for the Federal Railroad Administration's high-performance rail program, and

will consist of the following program areas:

- **High-Performance Rail Research and Development** - Focuses on advancing safe, state-of-the-art infrastructure and equipment to ensure that the United States is at the forefront of passenger rail technology.

- **National Cooperative Rail Research Program** - Focuses on developing the intellectual infrastructure needed to advance long-term effective rail policy, in conjunction with the National Academy of Sciences Transportation Research Board.

- **Workforce Development**

    - **Rail-Based University Transportation Centers** - Provides basic and applied research into railroad safety and performance and educates the next generation of railroad professionals.

    - **Buy America Support** - Focuses on advancing U.S. rail manufacturing through collaborative initiatives with the National Institute of Standards and Technologies Manufacturing Extension Partnership.

    - **Technical Assistance and Training** - Develops and deploys training and technical assistance to build public and private institutional capacity.

The Administration proposes to move a number of current General Fund programs into the Transportation Trust Fund. Amounts reflected in this schedule represent the new mandatory contract authority and outlays supporting these programs. PAYGO costs will be calculated as the change between these amounts and reclassified baseline amounts in the existing General Fund accounts.

EXHIBIT III-1a

RAILROAD RESEARCH, DEVELOPMENT, AND TECHNOLOGY
Summary Analysis of Change from FY 2013 to FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 to FY 2014 $000	FTE
FY 2013 BASE	**-**	**-**
NEW OR EXPANDED PROGRAMS		
High-Performance Rail R&D	**24,750**	**-**
National Cooperative Research Program	**5,000**	**-**
Workforce Development	**25,000**	**-**
Rail-based University Transportation Center	4,000	-
Buy America Support	3,000	-
Technical Assistance & Training	18,000	-
SUBTOTAL, PROGRAM CHANGES	**54,750**	**-**
TOTAL FY 2014 REQUEST	**54,750**	**-**

EXHIBIT III-2

ANNUAL PERFORMANCE RESULTS AND TARGETS
FEDERAL RAILROAD ADMINISTRATION

FRA integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's Strategic Plan. FRA tracks the following DOT-level performance measures to demonstrate program results:

DOT Strategic Goal: Safety – Improve Public Health and Safety by Reducing Transportation- Related Fatalities and Injuries.					
Outcome: Reduce rail-related accidents and incidents.					
Measure: Rate of rail-related accidents and incidents per million train-miles.					
	2010	**2011**	**2012**	**2013**	**2014**
Target	16.400	16.400	16.300	16.300	16.150
Actual *	16.664	15.991	14.557	---	---

* Actual results might differ from previous reports and are subject to change, due to subsequently obtained information. FY 2012 actuals reflect 12 months of preliminary data, as of January 2013. Official data are available on FRA's website, www.fra.dot.gov.

DETAILED JUSTIFICATION FOR RAILROAD RESEARCH, DEVELOPMENT, AND TECHNOLOGY (RD&T)

What Do I Need To Know Before Reading This Justification?

- FRA has long received general fund appropriations for its Research and Development (R&D) program, which has and will continue to address core safety issues confronting the rail industry.

- FRA's R&D work provides the basis for the agency's regulatory work and for technological advancements impacting safety throughout the rail industry.

- The proposed Research, Development, and Technology program is distinct, though complementary, to the FRA's existing R&D program.

- As FRA's rail development programs have grown – and are proposed to expand in FY 2014 and beyond -- there is growing need for FRA to explore complex issues associated with implementing a modern high-performance rail system.

- FRA owns the Transportation Technology Center in Pueblo, Colorado, where it conducts some of its research in collaboration with the American Association of Railroads. FRA has long-term lease on certain facilities at the facility.

What Is The Request And What Will We Get For The Funds?

FY 2014 - Railroad Research, Development, and Technology [1/] - Budget Request ($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	Difference from FY 2013 CR Annualized
High-Performance Rail R&D	**-**	**-**	**24,750**	**24,750**
National Cooperative Research Program	**-**	**-**	**5,000**	**5,000**
Workforce Development				
Rail-based University Transportation Center	-	-	4,000	4,000
Buy America Support	-	-	3,000	3,000
Technical Assistance & Training	-	-	18,000	18,000
Subtotal, Workforce Development	**-**	**-**	**25,000**	**25,000**
TOTAL, RESEARCH, DEVELOPMENT & TECHNOLOGY	**-**	**-**	**54,750**	**54,750**

For FY 2014, FRA requests $54.7 million for a new Railroad Research, Development, and Technology (RD&T) program. New activities funded under this request include:

- $24.7 million for high-performance rail research and development, including funds for critical upgrades to the Transportation Technology Center in Pueblo Colorado
- $5 million for the Cooperative Rail Research Program
- $4 million for a rail-based University Transportation Center program
- $3 million to develop industry partnerships that support implementation of Buy America requirements
- $18 million for technical assistance and training

The program is a critical element of FRA's multi-year reauthorization proposal to invest in a modern high-performance rail system. To operate passenger trains at higher frequencies and speeds on America's rail network, which is designed predominately to transport freight, introduces a variety of technical challenges. The RD&T program will develop technical solutions to provide system integration, interoperability standards, and prototypes for positive train control communications. Moreover, the RD&T program will address the critical shortage of qualified workers in the rail industry, which is also essential for implementing high-performance rail.

What Is This Program?

The proposed Railroad RD&T account includes the following program areas.

High-Performance Rail Research and Development

- Advancing safe, state-of-the-art infrastructure and equipment and ensuring that the United States is at the forefront of passenger rail technology.
- Upgrading the Transportation Technology Center in Pueblo, Colorado to improve testing of high-speed rail, equipment, catenaries, and track components.

National Cooperative Rail Research Program

- Enabling FRA to collaborate with railroads, states, technology providers, and university researchers on rail policy issues.
- Strengthening and broadening the academic and industrial railroad technical communities.

Workforce Development

- *Rail-based University Transportation Centers* – Granting funds for basic and applied research to improve railroad safety and performance. Railroad workforce development in schools and universities.
- *Buy America Support* – Support for the National Institute of Standards and Technology's Manufacturing Extension Partnership. Technical assistance will enhance domestic supply chain processes, improving manufacturing techniques, designing equipment and materials that meet new or revised technical specifications and creating new products that can serve new markets.
- *Technical Assistance and Training Activities* – Supporting FRA's technical assistance and training programs, materials, and technologies to build institutional capacity in the public and private sectors.

Anticipated FY 2014 Accomplishments:

High-Performance Rail Research and Development

- Capital investments at the Transportation Technology Center in Pueblo, Colorado, including a high-speed rail siding to test a variety of equipment types, catenaries, and track components (such as high-speed turnouts, alternative ties, and fastener systems), and to calibrate track geometry cars and computer model simulations.

National Cooperative Rail Research Program

- Completion of previously funded research projects, prioritization and funding of research ideas that have already been submitted, and solicitation of additional problem statements and research ideas.

Workforce Development

- ***Rail-based University Transportation Center***

- Research into rail capacity, rail safety, environmental emissions and energy efficiency.

- ***Buy America Support***
  - Building a comprehensive database of rail manufacturers and suppliers.
  - Developing a website and other methods of exchanging information and connecting suppliers with project sponsors.
  - Leveraging the Manufacturing Extension Partnership's existing resource centers and technical experts to focus on rail industry development issues.

- ***Technical Assistance and Training***
  - Establishing a rail technical assistance clearinghouse similar to FHWA's clearinghouse for highway professionals.
  - Developing and deploying five to seven new training courses.
  - Positioning FRA to train at least 300 rail professionals in following years.
  - Launching a website for technical assistance and training.

Why Is This Particular Program Necessary?

To date, FRA's research has centered on core rail safety issues such as hours of service and train control. This research is critically important because it provides the foundational information used by FRA to regulate safety and by the industry to design equipment and create operating practices.

The president's vision for rail includes expanding passenger service across the Nation and increasing train speeds. In developing this modern rail system, FRA must continue to ensure that rail remains an extremely safe mode of transportation. Adding more frequent and higher-speed passenger trains to the Nation's rail network, which is designed predominantly to transport freight, introduces a new set of technical issues and risks, however. Consequently, FRA must undertake a new line of research that solves the technical and associated issues necessary for implementing a comprehensive high-performance rail system.

High-Performance Rail Research and Development: The Transportation Technology Center (TTC) in Pueblo, Colorado does not have facilities for testing, evaluating, and demonstrating state-of-the-art high-speed rail infrastructure and equipment. This limitation makes developing and testing innovative technologies challenging and might also require the use of new infrastructure being built by States for demonstration and testing, potentially delaying the initiation of new service operations. Upgrading TTC will result in faster approvals for new high-speed equipment, stronger safety standards, and early identification of reliability issues, saving maintenance costs over the long run and ensuring better passenger service.

National Cooperative Rail Research Program: In addition to overcoming technical engineering issues, FRA must also confront complex policy and economic topics to successfully implement high-performance rail. For example, the industry needs reliable and accurate ridership modeling, the ability to appropriately allocate costs to multiple users of rail facilities, and methods for integrating rail into local and regional multi-modal transportation planning

efforts. To do so, FRA proposes leveraging the expertise at the National Academy of Sciences/Transportation Research Board Congress through a National Cooperative Rail Research Program. The program was established in section 306 of PRIIA in order to provide a research program for rail similar to those that exist for aviation, highways, and transit. In conjunction with the National Academy of Sciences/Transportation Research Board, FRA launched this program in FY 2012 in order to develop the "intellectual infrastructure" needed to advance long-term effective rail policy. FRA proposes funding the program on an on-going basis.

Workforce Development:

The Nation's workforce is currently not well positioned to fill jobs in a modern, high-performance rail system. Consider that unlike other modes of transportation, no higher education degree programs exist in the United States for railroad engineering. Moreover, rail apprenticeship programs are not geared to prepare individuals for working with new technologies. In light of this, FRA proposes a series of reforms to develop the workforce and to ensure a successful National High-Performance Rail System.

- **Rail-based University Transportation Center:** U.S. DOT awarded the first rail-based university transportation center grant in FY 2011 to the NURail Center, led by the University of Illinois at Urbana-Champaign. This two-year funding expires in FY 2013. On-going Federal funding is essential to sustain universities' development of rail-based degree programs. UTCs will provide dual benefits of (1) conducting basic research that FRA can then apply to improve railroad safety and performance; and (2) producing a cadre qualified professionals who can lead the industry implementation of high-performance rail.

- **Buy America Support**: This program activity will allow FRA to leverage and coordinate with the Manufacturing Extension Partnership, which is a National Institute of Standards and Technology program that works with private manufacturing firms to meet the needs of industry. The Nation's rail manufacturing industry is not capable of fulfilling domestic demand for rail products and materials. With the Administration's five-year National High-Performance Rail System proposal, demand for American-made rail products will continue to grow.

- **Technical Assistance and Training**: After decades of underinvestment in the rail system, institutional capacity for developing and delivering rail projects has diminished. The rail workforce – including engineers, financial analysts, environmental and construction specialists, planners, and other experts – will need continued opportunities for training, technical assistance, knowledge exchange, and other support to achieve substantial improvements to the U.S. passenger and freight rail networks. Among other activities, the program would provide assistance for high-school STEM education tied to the rail industry.

How Do You Know The Program Works?

High-Performance Rail Research and Development: The 52-square mile Transportation Technology Center (TTC) in Pueblo, Colorado has a long history of providing critical research and testing facilities for the railway industry. The technologies and innovations that have emerged from activities conducted at TTC have helped ensure that America's railways remain among the safest in the world, while also contributing to the economic competitiveness of the Nation's freight railroads. A notable example is the testing of Acela, which identified several technical issues that were resolved before introduction to revenue service on the Northeast Corridor.

National Cooperative Rail Research Program: Cooperative research programs have long existed for the transit, aviation, and highway transportation modes, through partnerships established between the Federal modal administrations and the National Academies of Science/Transportation Research Board. These programs have resulted in valuable policy and technical analyses that have supported efficient decision-making at the local, State, and Federal levels. In the first round of funding, over 50 problem statements were submitted for consideration, and only nine were funded, indicating a high-level of demand and interest in advancing rail research efforts.

Workforce Development:

- **Rail-based University Transportation Center:** This program is expected to be as successful as the University Transportation Center program that began in 1987 that has mainly been focused on highway research. That program has ensured continuous transportation research at universities, leading to adoption by DOT. It has also played an important role in educating the next generation of railroad employees with the skills necessary to ensure the economic competitiveness of the industry.

- **Buy America Support**: The Manufacturing Extension Partnership is a public/private partnership with a record of success in boosting domestic manufacturing. The Partnership estimates that each dollar of Federal investment generates $30 in new sales growth, or roughly $3.6 billion in annual sales.[1] It has been successful in supporting FRA's Buy America policy in the FY2013 procurement of new passenger rail equipment.

- **Technical Assistance and Training**: FRA's program adopts the best practices from other Federal technical assistance and training initiatives, and is based on input from stakeholders. Most Federal financial assistance programs – including those currently operating at other DOT modes – have robust technical assistance and training programs to ensure grantees have access to the resources that will support effective project development and delivery.

[1] National Institute of Standards and Technology, *About the Manufacturing Extension Partnership*, August 7, 2012. http://www.nist.gov/mep/about.cfm#

Why Do We Need to Fund the Program At The Requested Level?

High-Performance Rail Research and Development ..... $24.7 million
Capital upgrades will be made to the Transportation Technology Center in Pueblo, Colorado; to support research and development activities that advance safe, state-of-the-art, high-performance rail infrastructure and equipment. This investment includes constructing a high-speed rail siding to test a variety of equipment types, catenaries, and track components (such as high-speed turnouts, alternative ties, and fastener systems), and to calibrate track geometry cars and computer model simulations. Upgrading the TTC will result in a faster approvals process for new high-speed equipment, stronger safety standards, and will allow for reliability issues to be identified at an earlier stage (saving maintenance costs over long-run and ensuring better passenger services).

National Cooperative Rail Research Program ..... $5 million
The funds requested will:

- Focus research on non-technological rail passenger and freight issues;
- Provide the foundation for informed decisions in situations where investments in rail passenger and freight service are an option;
- Develop and improve methodologies for cost/benefit analysis of passenger and freight projects that incorporate the full range of Administration transportation goals including those that are not readily translatable into dollars; and
- Make long-term commitment to developing the intellectual infrastructure in academia and other institutions necessary for long-term effective rail policy (similar to programs funded by other modes of U.S. DOT including FAA, FHWA and FTA).

Workforce Development ……..… ……..…… $25 million

- ***Rail-based University Transportation Center…….. $4 million***
  This FY 2014 funding will ensure continuation of a rail-based university transportation center, which is vital to education the next generation of rail professionals. The grant will be competitively awarded and will require matching funds from the grantee.

- ***Buy America Support ……...$3 million***
  This funding will enable FRA to leverage the Manufacturing Extension Partnership's nationwide network of technical centers and identify specific companies to develop new products or adapt existing products to meet the growing demands for domestically-produced rail supplies.

- ***Technical Assistance and Training …….$18 million***
  This funding will support the development and deployment of innovative technologies to facilitate information sharing; development and deployment of training curriculum; peer-to-peer support activities; building capacity among grantees to help ensure successful project development and delivery; ongoing technical assistance to grantees related to technical project implementation issues and challenges; and events to allow rail practitioners to share best practices.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH, DEVELOPMENT AND TECHNOLOGY

Program and Financing Schedule
($000)

Account Number: 69-8633-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	High-Performance Rail R&D	-	-	12,251
0002	National Cooperative Research Program	-	-	4,950
0003	Workforce Development	-	-	12,375
0004	RD&T Oversight	-	-	548
0900	**Total new obligations**	**-**	**-**	**30,124**
	Budgetary Resources:			
	Budget authority:			
	Appropriations, discretionary:			
1101	Appropriation (special or trust fund)	-	-	54,750
1137	Appropriation applied to liquidate contract authority	-	-	(54,750)
1160	**Appropriation, disc (total)**	**-**	**-**	**-**
	Contract Authority, mandatory:			
1600	Contract Authority	-	-	54,750
1640	**Contract Authority, mandatory (total)**	**-**	**-**	**54,750**
1900	**Budget authority (total)**	**-**	**-**	**54,750**
1930	**Total budgetary resources available**	**-**	**-**	**54,750**
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	-	-	
3030	Obligations incurred, unexpired accounts	-	-	30,124
3040	Outlays (gross)	-	-	(7,400)
3090	Unpaid obligations, end of year (gross)	-	-	22,724
3100	**Obligated balance, end of year (net)**	**-**	**-**	**22,724**
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	-	-	54,750
	Outlays, Gross			
4100	Outlays from new mandatory authority	-	-	7,400
4160	Budget authority, net (mandatory)	-	-	54,750
4170	Outlays, net (mandatory)	-	-	7,400
4180	**Budget authority, net (total)**	**-**	**-**	**54,750**
4190	**Outlays, net (total)**	**-**	**-**	**7,400**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD RESEARCH, DEVELOPMENT AND TECHNOLOGY

Object Classification Schedule

($000)

Account Number: 69-8633-4-7-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
25.3	Advisory and assistance service	-	-	2,100
25.5	Research and Development contract	-	-	16,250
41.0	Grants, subsidies, and contributions	-	-	11,774
99.9	**Total new obligations**	**-**	**-**	**30,124**

EXHIBIT III-1

IMMEDIATE TRANSPORTATION INVESTMENTS
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013—2014
Immediate Transportation Investments				
Current Passenger Rail Services	-	-	2,000,000	2,000,000
Rail Service Improvement Program	-	-	3,000,000	3,000,000
Total	**-**	**-**	**5,000,000**	**5,000,000**
Full-time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
Total FTE	**-**	**-**	**-**	**-**

Program and Performance Statement

The FY 2014 President's budget includes $50 billion to jump start investment and help rebuild America. FRA's portion of these funds includes $2 billion for Current Passenger Rail Service projects to repair, rehabilitate, and upgrade the National Railroad Passenger Corporation's (Amtrak) assets and infrastructure, and $3 billion for the Rail Service Improvement Program to improve the Nation's existing intercity passenger rail network and develop new high-speed rail corridors .

DETAILED JUSTIFICATION FOR IMMEDIATE TRANSPORTATION INVESTMENTS

What Is The Request And What Will We Get For The Funds?

This account provides the immediate transportation investments in FY 2014. Of the total $50 billion request, $5 billion is for rail projects. FRA would use the funds through its proposed National High-Performance Rail System account structure, which FRA describes in detail in the previous tab.

Current Passenger Rail Services ($2 billion) will fund grants to Amtrak for repair, rehabilitation, and upgrade of rail assets and infrastructure. FRA will target these funds to remedy years of underinvestment in the Nation's rail system. These funds will address the backlog of maintenance and modernization needs on the Northeast Corridor's infrastructure and equipment, contributing not only to state-of-good repair on the Corridor, but also resulting in reliability and speed improvements for current travelers. Additional funding will be dedicated to upgrading Amtrak-served rail stations to be compliant with the Americans with Disabilities Act.

Rail Service Improvement Program ($3 billion) will fund projects to improve the Nation's passenger and freight rail systems. Grants made available under the section would have a 100 percent Federal share, and would be awarded on a competitive basis. The Secretary would be required to issue interim guidance to applicants detailing the application process and eligibility criteria for these grants. This interim guidance will also describe the evaluation and selection criteria that will be used to make awards; FRA will focus on rigorous assessments of costs and benefits in determining which projects to fund.

These funds will advance the development of new or significantly improved passenger rail corridors, including investments in stations and equipment; address critical rail bottlenecks where intercity, commuter, and freight trains intersect; add targeted capacity to the freight network; and engage in comprehensive planning.

Expected Investment Outcomes

The outcome of the cumulative immediate transportation investments is that rail travel will become a more attractive option by offering travelers and shippers faster travel times, better reliability, and more frequent trains. Increased rail ridership and freight movement means fewer people driving on congested roads or flying to/from congested airports, reduced greenhouse gas emissions and fuel consumption, and other public benefits.

- Significant **improvements to the Nation's passenger and freight network** will be made across the U.S., based on market demands and anticipated public benefits.
- Activities to **reduce the infrastructure maintenance backlog on the Northeast Corridor** will be accelerated, leading to substantial safety and service improvements on the Nation's most vital passenger rail corridor.

- Activities to accelerate **ADA compliance** at Amtrak-served stations will ensure greater accessibility of the Nation's passenger rail network.

- Replacement of aging and obsolete corridor equipment with **American-built, next-generation locomotives and rail cars** will ensure that services across the country are more reliable and comfortable.

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
APPROPRIATIONS LANGUAGE

Note—A full year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

EXHIBIT III-1

OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Operating Grants to the National Railroad Passenger Corporation	466,000	468,852	-	(468,852)
TOTAL	**466,000**	**468,852**	**-**	**(468,852)**
Full-time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
Total FTE	-	-	-	-

Program and Performance Statement

Under the Administration's rail authorization proposal, FRA will support the National Railroad Passenger Corporation (Amtrak) operations through the Current Passenger Rail Service Program of the new National High-Performance Rail System, funded within the Rail Account of the Transportation Trust Fund.

EXHIBIT III-1a

OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary Analysis of Change from FY 2013 to FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 to FY 2014 $000	FTE
FY 2013 BASE	**468,852**	**-**
PROGRAM CHANGES		
Operating Grants To The National Railroad Passenger Corporation	(468,852)	-
SUBTOTAL, PROGRAM CHANGES	**(468,852)**	**-**
TOTAL FY 2014 REQUEST	**-**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Program and Financing Schedule
($000)

Account Number: 69-0121-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Operating Subsidy Grants	466,000	468,852	-
0091	Direct program activities, subtotal	466,000	468,852	-
0100	**Total direct program**	**466,000**	**468,852**	**-**
0799	Total direct obligations	466,000	468,852	-
0900	**Total new obligations**	**466,000**	**468,852**	**-**
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	466,000	466,852	-
1130	Appropriations permanently reduced	-	-	-
1160	**Appropriation, disc (total)**	**466,000**	**466,852**	**-**
1900	**Budget authority (total)**	**466,000**	**466,852**	**-**
1930	**Total budgetary resources available**	**466,000**	**466,852**	**-**
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	-	-	-
3030	Obligations incurred, unexpired accounts	466,000	468,852	-
3040	Outlays (gross)	(466,000)	(468,852)	-
3090	Unpaid obligations, end of year (gross)	-	-	-
3100	**Obligated balance, end of year (net)**	**-**	**-**	**-**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	466,000	468,852	-
	Outlays, gross:			
4010	Outlays from new discretionary authority	466,000	466,852	-
4011	Outlays from discretionary balances	-	-	-
4020	**Outlays, gross (total)**	**466,000**	**466,852**	**-**
4070	Budget authority, net (discretionary)	466,000	466,852	-
4080	**Outlays, net (discretionary)**	**466,000**	**466,852**	**-**
4180	**Budget authority, net (total)**	**466,000**	**466,852**	**-**
4190	**Outlays, net (total)**	**466,000**	**466,852**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
OPERATING SUBSIDY GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Object Classification Schedule
($000)

Account Number: 69-0121-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
41.0	Grants, subsidies, and contributions	466,000	466,852	-
99.9	**Total new obligations**	**466,000**	**466,852**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

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

Note—A full year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

EXHIBIT III-1

CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Capital and Debt Service Grants to the National Railroad Passenger Corporation	952,000	957,826	-	(957,826)
TOTAL	**952,000**	**957,826**	**-**	**(957,826)**
Full-time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
Total FTE	-	-	-	-

Program and Performance Statement

Under the Administration's rail authorization proposal, FRA will support the National Railroad Passenger Corporation (Amtrak) operations through the Current Passenger Rail Service Program of the new National High-Performance Rail System, funded within the Rail Account of the Transportation Trust Fund.

EXHIBIT III-1a

CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary Analysis of Change from FY 2013 to FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	Change from FY 2013 to FY 2014	
ITEM	**$000**	**FTE**
FY 2013 BASE	**957,826**	**-**
SUBTOTAL, BASELINE CHANGES	**-**	**-**
PROGRAM CHANGES		
Capital and Debt Service Grants to the National Railroad Passenger Corporation	(957,826)	**-**
SUBTOTAL, PROGRAM CHANGES	**(957,826)**	**-**
TOTAL FY 2014 REQUEST	**-**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Program and Financing Schedule
($000)

Account Number: 69-0125-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Capital Grants	621,480	625,283	-
0002	Debt Grants	271,000	272,659	-
0003	Oversight	1,227	19,354	-
0004	Northeast Corridor Infrastructure and Operations Improv.	9,252	9,549	-
0005	ADA	50,000	50,306	-
0091	Direct program activities, subtotal	952,959	977,151	-
0100	**Total direct program**	**952,959**	**977,151**	**-**
0799	Total direct obligations	952,959	977,151	-
0801	Reimbursable services	309,619	59,128	-
0809	Reimbursable program activities, subtotal	309,619	59,128	-
0900	**Total new obligations**	**1,262,578**	**1,036,279**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	20,283	19,325	-
1050	Unobligated balance (total)	20,283	19,325	-
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	952,000	957,826	-
1130	Appropriations permanently reduced	-	-	-
1160	**Appropriation, disc (total)**	**952,000**	**957,826**	**-**
	Spending authority from offsetting collections, mandatory:			
1800	Collected	307,518	59,128	-
1801	Change in uncollected payments, Federal sources	2,101	-	-
1850	**Spending auth from offsetting collections, mand (total)**	**309,619**	**59,128**	**-**
1900	**Budget authority (total)**	**1,261,619**	**1,016,954**	**-**
1930	**Total budgetary resources available**	**1,281,902**	**1,036,279**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL AND DEBT SERVICE GRANTS TO THE
NATIONAL RAILROAD PASSENGER CORPORATION

Program and Financing Schedule (cont'd)
($000)

Account Number: 69-0125-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	19,324	-	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	10,763	14,728	-
3010	Obligations incurred, unexpired accounts	1,262,578	1,036,279	-
3020	Outlays (gross)	(1,258,827)	(1,036,279)	-
3040	Recoveries of prior year unpaid obligations, unexpired	-	-	-
3050	Unpaid obligations, end of year (gross)	14,514	14,728	-
3060	Uncollected payments, Fed sources, end of year	-	(2,315)	-
3070	Change in uncollected pymts, Fed sources, unexpired	(2,100)	-	-
3071	Change in uncollected pymts, Fed sources, expired	-	2,315	
3100	**Obligated balance, end of year (net)**	**12,414**	**14,728**	**-**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	952,000	957,826	-
	Outlays, gross:			
4010	Outlays from new discretionary authority	940,546	957,826	-
4011	Outlays from discretionary balances	10,763	34,053	-
4020	**Outlays, gross (total)**	**951,309**	**991,879**	**-**
4070	Budget authority, net (discretionary)	952,000	957,826	-
4080	**Outlays, net (discretionary)**	**951,309**	**991,879**	**-**
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	309,619	59,128	-
	Outlays, Gross			
4100	Outlays from new discretionary authority	307,519	59,128	-
4110	**Outlays, gross (total)**	**307,519**	**59,128**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Program and Financing Schedule (cont'd)
($000)

Account Number: 69-0125-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4120	Federal sources	(307,519)	(59,128)	-
4130	**Offsets against gross budget authority and outlays (total), mandatory**	**(307,519)**	**(59,128)**	**-**
	Additional offsets against gross budget authority only:			
4140	Change in uncollected pymts, Fed sources, unexpired	(2,100)	-	-
4150	**Additional offsets against budget authority only (total)**	**(2,100)**	**-**	**-**
4180	**Budget authority, net (total)**	**952,000**	**957,826**	**-**
4190	**Outlays, net (total)**	**952,000**	**957,826**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL AND DEBT SERVICE GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Object Classification Schedule
($000)

Account Number: 69-0125-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
25.3	Other goods and services from federal sources	-	700	-
41.0	Grants, subsidies, and contributions	952,959	976,451	-
99.9	**Subtotal, obligations, Direct obligations**	**952,959**	**977,151**	**-**
	Allocation Account - reimbursable			
41.0	Grants, subsidies, and contributions	309,619	59,128	-
99.9	**Total new obligations**	**1,262,579**	**1,036,279**	**-**

EXHIBIT III-1

GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary by Program Activity
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ACCOUNT	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2013-2014
Operating Subsidy Grants Sandy Recovery	-	31,840	-	(31,840)
Capital and Debt Service Grants Sandy Mitigation	-	85,570	-	(85,570)
Oversight – Sandy	-	590	-	(590)
TOTAL	**-**	**118,000**	**-**	**(118,000)**
Full-time Equivalents				
Direct Funded	-	-	-	-
Reimbursable, Allocated, Other	-	-	-	-
TOTAL FULL-TIME EQUIVALENTS	**-**	**-**	**-**	**-**

EXHIBIT III-1a

GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION
Summary Analysis of Change from FY 2013 to FY 2014
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 to FY 2014 $000	FTE
FY 2013 BASE	**118,000**	**-**
SUBTOTAL, BASELINE CHANGES	**-**	**-**
PROGRAM CHANGES		
Operating Subsidy Grants Sandy Recovery	(31,840)	-
Capital and Debt Service Grants Sandy Mitigation	(85,570)	-
Oversight – Sandy	(590)	-
SUBTOTAL, PROGRAM CHANGES	**(118,000)**	**-**
TOTAL FY 2014 REQUEST	**-**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Program and Financing Schedule
($000)

Account Number: 69-0704-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Amtrak Asset Valuation	781	-	-
0002	System Engineering/Program Management	-	848	-
0003	Operating Subsidy Sandy Recovery	-	85,570	-
0004	Capital and Debt Sandy Mitigation	-	31,840	-
0005	Sandy Oversight	-	590	-
0091	Direct program activities, subtotal	781	118,848	-
0100	**Total direct program**	**781**	**118,848**	**-**
0900	**Total new obligations**	**781**	**118,848**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	1,553	848	-
1021	Recoveries of prior year unpaid obligations	76	-	-
1050	**Unobligated balance (total)**	**1,629**	**848**	**-**
	Budget authority:			
	Appropriations, discretionary:			
1100	Appropriation	-	118,000	-
1160	**Appropriation, disc (total)**	**-**	**118,000**	**-**
1930	**Total budgetary resources available**	**1,629**	**118,848**	**-**
	Memorandum (non-add) entries:			
1940	Total Budgetary Resources Available	1,629	118,848	-
1941	Unexpired unobligated balance, end of year	848	-	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	4,789	1,654	31,155
3010	Obligations incurred, unexpired accounts	781	118,848	-
3020	Outlays (gross)	(3,840)	(89,347)	(29,500)
3040	Recoveries of prior year unpaid obligations, unexpired	(76)	-	-
3050	Unpaid obligations, end of year (gross)	1,654	31,155	1,655
3100	**Obligated balance, start of year (net)**	**4,789**	**1,654**	**1,655**
3200	**Obligated balance, end of year**	**1,654**	**31,155**	**1,655**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Program and Financing Schedule (cont'd)
($000)

4000	Budget authority, gross	-	118,000	-
	Outlays, gross:	-	-	-
4010	Outlays from new discretionary authority	-	86,845	29,500
4011	Outlays from discretionary balances	3,840	2,502	-
4020	**Outlays, gross (total)**	**3,840**	**89,347**	**29,500**
4070	Budget authority, net (discretionary)	-	118,848	-
4080	**Outlays, net (discretionary)**	**3,840**	**89,347**	**29,500**
4190	**Outlays, net (total)**	**3,840**	**89,347**	**29,500**

Program and Performance Statement:

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 President, with the advice and consent of the Senate. Amtrak is not an agency or instrument of the U.S. Government, though since the railroad's creation FRA has provided it annual grants for operating and capital costs. Prior to 2006, FRA received annual appropriations in this account for grants to Amtrak. Since that time, FRA has received individual appropriations for capital, operating, and efficiency incentive grants. In addition, the American Recovery and Reinvestment Act of 2009 (Recovery Act) provided $1.3 billion to Amtrak for capital grants, of which $450 million was for capital security grants and $850 million for improving infrastructure. FRA received $118 million in this account from the Disaster Relief Appropriations Act of FY 2013 (PL 113-2) to fund Amtrak's recovery from Super-storm Sandy, including $32 million for repair work and $86 million for disaster mitigation projects.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
GRANTS TO THE NATIONAL RAILROAD PASSENGER CORPORATION

Object Classification Schedule

($000)

Identification Code 69-0704-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
25.3	Purchases of goods and services from Government Accounts	781	1,438	-
41.0	Grants, subsidies, and contributions		117,410	
99.9	**Total new obligations**	**781**	**118,848**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM APPROPRIATIONS LANGUAGE

The Secretary of Transportation is authorized to issue direct loans and loan guarantees pursuant to sections 501 through 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (Public Law 94–210), as amended, such authority to exist as long as any such direct loan or loan guarantee 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 2014.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112–175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Performance Statement

The Transportation Equity Act of the 21st Century of 1998 established the Railroad Rehabilitation and Improvement Financing loan and loan guarantee program. The Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users, changed the program to allow FRA to issue direct loan and loan guarantees up to $35 billion and it required that no less than $7 billion 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.

The program does not require a subsidy appropriation to make loans since borrowers contribute the subsidy amount in the form of a credit risk premium.

What Is This Program?

Under the Railroad Rehabilitation and Improvement Financing (RRIF) program, the Secretary of Transportation has delegated the responsibility for implementing the program to the Federal Railroad Administrator. The FRA Administrator is authorized to provide direct loans or loan guarantees up to $35 billion of which $7 billion is reserved for projects benefiting freight railroads other than Class I carriers. RRIF provides financial assistance to eligible recipients for the purpose of acquiring, improving, or rehabilitating intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings or shops; to refinance outstanding debt incurred for these purposes; or to develop or establish new intermodal or railroad facilities. Operating expenses are not eligible for financial assistance under the RRIF program. Eligible applicants are State and local governments; interstate compacts consented to by Congress under section 410 (a) of Amtrak Reform and Accountability Act of 1997 (49 U.S.C. 24101); government sponsored authorities and corporations, railroads, joint ventures that include at least one railroad and, solely for the purpose of constructing a rail connection between a plant or facility and a second carrier, limited option freight shippers that own a plant or other facility that is served by no more than a single railroad.

Direct loans can be made for up to one hundred percent of the total project cost, for terms up to 35 years and at an interest rate not less than the cost of borrowing for a comparable term based on the current Treasury rate at the time of closing. Loan guarantees can be made at a rate the Secretary determines reasonable taking into account prevailing interest rates and customary fees incurred under similar obligations in the private capital market.

The program is considered “zero-subsidy” in that the Federal Government does not have to provide appropriations for the initial subsidy cost. The subsidy is paid by the applicant or other non-Federal infrastructure partner, in the form of a “credit risk premium,” and thus the ability of FRA to provide direct loans or loan guarantees is not dependent upon the receipt of an appropriation.

Since the current RRIF program was created in 1998, FRA has entered into 33 loans with 26 railroads in the total amount of $1.7 billion. All of these loans were direct loans between FRA and the railroads.

Of the amount of financial assistance provided to date, approximately 52 percent has been for infrastructure improvement, 37 percent for railroad acquisition, 4 percent for equipment acquisition and 7 percent for refinancing outstanding debt incurred for eligible purpose.

Number of Loans by Railroad Class/Type

Class I

Class II

Class III

Public

Amtrak

The Future

Since enactment of SAFETEA-LU, there has been a steady increase in inquiries about the program and railroads expressing their intent to apply in the near future. In FY 2012, FRA approved three loans worth $143.5 million dollars, taking on average 695 days to process each loan. Also in FY 2012, the RRIF program had six loan applications pending worth $9.6 billion dollars and the applications that had been pending for an average of 374 days each. Currently, FRA is evaluating 10 RRIF applications seeking a total of $10 billion in financial assistance.

FRA is exploring program changes to improve project and program administration, as well as to better integrate the program with the goals and objectives of the National High-Performance Rail System. FRA is working to ensure all financial assistance programs (both grants and loans) work together in a cohesive and comprehensive fashion, improving the Nation's passenger and freight rail networks through an integrated investment portfolio. Reviewing eligibility requirements, application processes, administrative provisions, technical assistance, or other program elements will ensure eligible borrowers can more readily take advantage of the RRIF program.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT PROGRAM ACCOUNT

Program and Financing Schedule
($000)

Account 69-0750-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
	Credit program obligations:			
0706	Interest on reestimates of direct loan subsidy	16,641	21,160	-
0707	Reestimates of loan guarantee subsidy	264	12,285	-
0799	Total direct obligations	16,905	33,445	-
0900	**Total new obligations**	**16,905**	**33,445**	**-**
	Appropriations, mandatory:			
1200	Appropriation	16,905	33,445	
1260	**Appropriation, mand (total)**	**16,905**	**33,445**	**-**
1900	**Budget authority (total)**	**16,905**	**33,445**	**-**
1930	**Total budgetary resources available**	**16,905**	**33,445**	**-**
	Change in obligated balance:			
3010	Obligations incurred, unexpired accounts	16,905	33,445	-
3020	Outlays (gross)	(16,905)	(33,445)	-
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	16,905	33,445	-
	Outlays, Gross			
4100	Outlays from new discretionary authority	16,905	33,445	-
4110	**Outlays, gross (total)**	**16,905**	**33,445**	**-**
4130	**Offsets against gross budget authority and outlays (total), mandatory**	**-**	**-**	**-**
4160	Budget authority, net (mandatory)	16,905	33,445	-
4170	Outlays, net (mandatory)	16,905	33,445	-
4180	**Budget authority, net (total)**	**16,905**	**33,445**	**-**
4190	**Outlays, net (total)**	**16,905**	**33,445**	**-**

Program and Performance Statement

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.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT LIQUIDATING ACCOUNT

Program and Financing Schedule
($000)

Account Number: 69-4411-0-3-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
	Credit program obligations:			
0713	Payment of interest to Treasury	168	6	3
0900	**Total new obligations**	**168**	**6**	**3**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	157	-	-
1050	**Unobligated balance (total)**	**157**	**-**	**-**
	Spending authority from offsetting collections, mandatory:			
1800	Collected	124	80	80
1820	Spending authority: Capital transfer to general fund	-113	-74	-77
1850	**Spending auth from offsetting collections, mand (total)**	**11**	**6**	**3**
1900	**Budget authority (total)**	**11**	**6**	**3**
1930	**Total budgetary resources available**	**168**	**6**	**3**
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3010	Obligations incurred, unexpired accounts	168	6	3
3020	Outlays (gross)	-168	-6	-3
	Budget authority and outlays, net:			
	Mandatory:			
4090	Budget authority, gross	11	6	3
	Outlays, Gross			
4100	Outlays from new discretionary authority	168	6	3
4110	**Outlays, gross (total)**	**168**	**6**	**3**
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4123	Non-Federal sources	-124	-80	-80
4130	**Offsets against gross budget authority and outlays (total), mandatory**	**-124**	**-80**	**-80**
4160	Budget authority, net (mandatory)	-113	-74	-77
4170	Outlays, net (mandatory)	-44	-74	-77
4180	**Budget authority, net (total)**	**-113**	**-74**	**-77**
4190	**Outlays, net (total)**	**-44**	**-74**	**-77**

Program and Performance Statement

As required by the Federal Credit Reform Act of 1990, this nonbudgetary account records all cash flows to and from the Government resulting from direct loans obligated in 1992 and beyond. The amounts in this account are a means of financing and are not included in the budget totals.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT
LIQUIDATING ACCOUNT

Balance Sheet
($000)

Identification Code 69-4420-0-3-401		2012 Actual
Assets:		
	Net value of assets related to post-1991 direct loans receivable	
1401	Net value of assets related to post-1991 direct loans receivable	709,996
1999	**Total Assets**	**709,996**
Liabilities:		
	Federal liabilities:	
2105	Federal liabilities: Other	709,996
4999	**Total liabilities and net position.**	**709,996**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT LIQUIDATING ACCOUNT

Status of Direct Loans
($000)

Identification Code 69-4420-0-3-401		2012 Actual	2013 CR Annualized	2014 Request
	Position with respect to appropriations act limitation on obligations			
1111	Limitation on direct loans	-	-	-
1131	Direct loan obligations exempt from limitation	138,358	600,000	600,000
1150	Total direct loan obligations	138,358	600,000	600,000
	Cumulative balance of direct loans outstanding:			
1210	Outstanding, start of year	504,994	709,956	1,106,457
1231	Disbursements; Direct loan disbursements	285,694	457,501	515,498
1251	Repayments: Repayments and prepayments	-80,732	-60,000	-60,000
1263	Write-offs for defaults	-	-1,000	-1,000
1290	Outstanding, end of year	709,956	1,106,457	1,560,955

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT FINANCING ACCOUNT

Program and Financing Schedule
($000)

Account Number: 69-4420-0-3-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Credit program obligations:			
0710	Direct loan obligations	138,358	600,000	600,000
0713	Payment of interest to Treasury	32,366	38,000	38,000
0740	Negative subsidy obligations	2,926	-	-
0742	Downward reestimate paid to receipt account	15,539	19,000	-
0743	Interest on downward reestimates	330	1,000	-
0900	**Total new obligations**	**189,519**	**658,000**	**638,000**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	17,124	5,465	21,465
1050	**Unobligated balance (total)**	**17,124**	**5,465**	**21,465**
	Borrowing authority, mandatory:			
1400	Borrowing authority	**143,196**	**600,000**	**600,000**
1440	**Borrowing authority, mand (total)**	**143,196**	**600,000**	**600,000**
	Spending authority from offsetting collections, mandatory:			
1800	Collected collections (interest on uninvested funds)	6,668	3,000	3,000
1800	Collected collections (principal-borrowers)	80,961	60,000	60,000
1800	Collected collections (upward reestimate)	16,905	33,000	-
1800	Collected collections (interest-borrowers)	18,943	27,000	27,000
1800	Collected	13,969	9,000	10,000
1825	Spending authority from offsetting collections applied to repay debt	-103,176	-58,000	-58,000
1850	**Spending auth from offsetting collections, mand (total)**	**34,270**	**74,000**	**42,000**
1900	**Budget authority (total)**	**177,466**	**674,000**	**642,000**
1930	**Total budgetary resources available**	**194,590**	**679,465**	**663,465**
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	5,071	21,465	25,465
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	658,829	512,000	534,000
3010	Obligations incurred, unexpired accounts	189,519	658,000	638,000
3020	Financing disbursements (gross)	-336,855	-636,000	-636,000
3050	Change in uncollected pymts, Fed sources, unexpired	511,493	534,000	536,000
3100	Obligated balance, start of year	658,829	512,000	534,000
3200	Obligated balance, end of year	511,493	534,000	536,000
	Financing authority and disbursements, net:			
	Mandatory:			
4090	Financing authority, gross	177,466	674,000	642,000
	Financing disbursements:			
4110	**Financing disbursements, gross**	**336,855**	**636,000**	**636,000**
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4120	**Federal sources**	**-16,905**	**-33,445**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT FINANCING ACCOUNT

Program and Financing Schedule (cont'd)

($000)

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
4123	Credit Risk Premium	-13,969	-9,000	-10,000
4123	Principal Repayment	-80,961	-60,000	-60,000
4123	Interest Repayment	-18,943	-27,000	-27,000
4123	**Non-Federal sources (total)**	**-113,873**	**-96,000**	**-97,000**
4130	**Offsets against gross financing authority and disbursements (total)**	**40,020**	**541,555**	**542,000**
4160	Financing authority, net (mandatory)	40,020	541,555	542,000
4170	Financing disbursements, net (mandatory)	199,409	503,555	536,000
4180	**Budget authority, net (total)**	**40,020**	**541,555**	**542,000**
4190	**Outlays, net (total)**	**199,409**	**503,555**	**536,000**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT
LIQUIDATING ACCOUNT

Balance Sheet

($000)

Identification Code 69-4411-0-3-401			2012 Actual
	Assets:		
	Net value of assets related to post-1991 direct loans receivable		
1601	Direct loans , gross		285
1602	Interest receivable		11
1699	Value of assets related to direct loans		296
1999	**Total Assets**		**296**
	Liabilities:		
	Federal liabilities:		
2102	Interest payable		11
2103	Debt		151
2999	Total liabilities		296
4999	**Total liabilities and net position**		**296**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD REHABILITATION AND IMPROVEMENT LIQUIDATING ACCOUNT

Status of Direct Loans
($000)

Identification Code 69-4411-0-3-401		2012 Actual	2013 CR Annualized	2014 Request
	Cumulative balance of direct loans outstanding:			
1210	Outstanding, start of year	264	151	77
1251	Repayments: Repayments and prepayments	-113	-74	-77
1290	Outstanding, end of year	151	77	-

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND INTERCITY PASSENGER RAIL
Program and Financing Schedule
($000)

Account Number: 69-0719 -0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Capital Assistance High- Speed Rail (ARRA) Grants	213,478	-	-
0002	Capital Assistance High-Speed Rail (ARRA) Oversight	51,286	-	-
0003	Capital Assistance High-Speed Rail Corridors and IPR Service Grants	1,657,591	74,932	-
0004	Capital Assistance High-Speed Rail Corridors and IPR Service Oversight	6,977	8,255	5,008
0005	Capital Assistance High-Speed Rail Corridors and IPR Service Research and Demonstrating Technologies	7,063	5,987	-
0006	Capital Assistance High-Speed Rail Corridors and IPR Service Planning Activities	23,294	8,492	-
0900	**Total new obligations**	**1,959,689**	**97,667**	**5,008**
	Budgetary Resources:			
1000	Unobligated balance brought forward, Oct 1	2,000,351	119,479	21,811
1021	Recoveries of prior year unpaid obligations	78,817	-	-
1050	**Unobligated balance (total)**	**2,079,168**	**119,479**	**21,811**
1930	**Total budgetary resources available**	**2,079,168**	**119,479**	**21,811**
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring			
1941	Unexpired unobligated balance, end of year	119,479	21,811	16,804
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	7,777,204	9,144,946	8,144,168
3010	Obligations incurred, unexpired accounts	1,959,689	97,667	5,008
3020	Outlays (gross)	-513,131	-1,098,445	-2,255,498
3050	Unpaid obligations, end of year (gross)	9,144,946	8,144,168	-2,255,498
3100	**Obligated balance, start of year (net)**	**7,777,204**	**8,144,168**	**8,144,168**
3200	**Obligated balance, end of year**	**9,144,946**	**8,144,168**	**5,893,678**
	Budget authority and outlays, net:			
	Discretionary:			
4011	Outlays from discretionary balances	-513,131	-1,098,445	-2,255,498
4020	**Outlays, gross (total)**	**-513,131**	**-1,098,445**	**-2,255,498**
4080	**Outlays, net (discretionary)**	**-513,131**	**-1,098,445**	**-2,255,498**
4190	**Outlays, net (total)**	**-513,131**	**-1,098,445**	**-2,255,498**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CAPITAL ASSISTANCE FOR HIGH-SPEED RAIL CORRIDORS AND INTERCITY PASSENGER RAIL

Program and Performance Statement

Through this program, FRA provides capital grants to States to invest and improve intercity passenger rail service, 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 of 2009 and an additional $2.1 billion provided in subsequent enacted appropriations. No funds are requested in this account for FY 2014, as the Administration is proposing to include passenger rail (including high-speed rail) within a multi-year rail authorization proposal. As part of that proposal, a new National High-Performance 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 FY 2014 within a new Rail Service Improvement Program account.

Object Classification Schedule
($000)

Identification Code 69-0719-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
Direct Obligations:				
11.3	Personnel Compensation for other than full time permanent position	92	963	857
11.5	Other Personnel Compensation	4	10	9
12.1	Civilian Personnel Benefits	96	302	268
21.0	Travel	8	217	217
22.0	Transportation of Things	14	-	-
25.1	Advisory & assistance service	4,070	6,764	3,657
25.3	Purchases of goods and services from Government Accounts	18,405	5,987	-
25.7		6	-	-
41.0	Grants, subsidies, and contributions	1,671,891	83,424	-
99.9	**Total new obligations . . . .**	**1,694,372**	**97,667**	**5,008**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NORTHEAST CORRIDOR IMPROVEMENT PROGRAM
Program and Financing Schedule
($000)

Account Number: 69-0123-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Northeast Corridor Improvement Program	-	1,000	-
0900	**Total new obligations**	**-**	**1,000**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	5,419	5,419	-
1050	**Unobligated balance (total)**	**5,419**	**5,419**	**-**
	Budget authority:			
	Appropriations, discretionary:			
1131	Unobligated balance of appropriations permanently reduced	-	-	-
1160	**Appropriation, disc (total)**	**-**	**-**	**-**
1930	**Total budgetary resources available**	**5,419**	**5,419**	**-**
	Memorandum (non-add) entries:			
1940	Total Budgetary Resources Available	5,419	5,419	4,419
1941	Unexpired unobligated balance, end of year	5,419	4,419	-
	Change in obligated balance:			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	-	-	500
3010	Obligations incurred, unexpired accounts	-	1,000	-
3020	Outlays (gross)	-	-500	-500
3040	Recoveries of prior year unpaid obligations, unexpired	-	-	-
	Obligated balance, end of year (net):	-	500	-
3050	Unpaid obligations, end of year (gross)	-	500	-
3100	**Obligated balance, start of year (net)**	**-**	**-**	**-**
3200	**Obligated balance, end of year**	**-**	**500**	**-**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	-
	Outlays, gross:			
4011	Outlays from discretionary balances	-	500	500
4020	**Outlays, gross (total)**	**-**	**500**	**500**
4070	Budget authority, net (discretionary)	-	-	-

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NORTHEAST CORRIDOR IMPROVEMENT PROGRAM

Program and Performance Statement

This program provided funds to continue the upgrade of passenger rail service in the corridor between Washington, DC and Boston, MA. Since 2001, capital funding has been provided in the National Railroad Passenger Corporation (Amtrak) appropriation. Under the Administration's rail transportation reauthorization proposal, Federal resources for capital improvements to the Northeast Corridor will be an eligible activity under the new National High-Performance Rail System, funded within the Rail Account of the Transportation Trust Fund.

Object Classification Schedule
($000)

Identification Code 69-0123-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	-	1,000	-
99.9	**Total new obligations . . . . . .**	**-**	**1,000**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NEXT GENERATION HIGH-SPEED RAIL
Program and Financing Schedule
($000)

Account Number: 69-0722 -0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0003	Grade crossing hazard mitigation/low-cost innovative technologies	800	4,260	-
0005	Corridor Planning	2,210	2,513	-
0091	Direct program activities, subtotal	3,010	6,773	-
0100	**Total direct program**	**3,010**	**6,773**	**-**
0900	**Total new obligations**	**3,010**	**6,773**	**-**
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1			
1021	Recoveries of prior year unpaid obligations	8,968	8,746	4,486
1050	**Unobligated balance (total)**	2,789	-	-
1930	**Total budgetary resources available**	**11,757**	**8,746**	**4,486**
	Memorandum (non-add) entries:	**11,757**	**8,746**	**4,486**
1941	Unexpired unobligated balance, end of year			
	Change in obligated balance:	8,746	1,973	4,486
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)			
3001	Adjustments to unpaid obligations, brought forward, Oct 1	6,735	6,093	10,036
3010	Obligations incurred, unexpired accounts			
3020	Outlays (gross)	3,323	6,773	-
3040	Recoveries of prior year unpaid obligations, unexpired	-1175	-2831	-2831
	Obligated balance, end of year (net):	-2789	-	-
		6,093	10,036	7,205
3050	Unpaid obligations, end of year (gross)			
3091	Uncollected pymts, Fed sources, end of year	6,093	10,036	7,205
3100	**Obligated balance, start of year (net)**			
3200	**Obligated balance, end of year**	**6,735**	**10,036**	**7,205**
	Budget authority and outlays, net:	**6,093**	**7,205**	**4,375**
	Discretionary:			
4011	Outlays from discretionary balances			
4020	**Outlays, gross (total)**	1,175	2,831	2,831
4080	**Outlays, net (discretionary)**	**1,175**	**2,831**	**2,831**
4190	**Outlays, net (total)**	**1,175**	**2,831**	**2,831**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
NEXT GENERATION HIGH-SPEED RAIL

Program and Performance Statement

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 2014.

Object Classification Schedule
($000)

Identification Code 69-0722-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
Direct Obligations:				
25.5	Research and Development Contracts	800	-	-
41.0	Grants, subsidies, and contributions	2,210	6,773	-
99.9	**Total new obligations . . . . . .**	**3,010**	**6,773**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
EMERGENCY RAILROAD REHABILITATION AND REPAIR
Program and Financing Schedule
($000)

Account Number: 69-0124 -0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Emergency Railroad Rehabilitation & Repair	3,358	653	-
0091	Direct program activities, subtotal	3,358	653	-
0100	**Total direct program**	**3,358**	**653**	**-**
0900	**Total new obligations**	**3,358**	**653**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	3,499	653	-
1021	Recoveries of prior year unpaid obligations	512	-	-
1050	**Unobligated balance (total)**	**4,011**	**653**	**-**
1930	**Total budgetary resources available**	**4,011**	**653**	**-**
1941	Unexpired unobligated balance, end of year	653	-	-
	Change in obligated balance:			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	5,582	4,438	-
3001	Adjustments to unpaid obligations, brought forward, Oct 1			
3010	Obligations incurred, unexpired accounts	3,358	653	-
3020	Outlays (gross)	-3990	-5091	-
3040	Recoveries of prior year unpaid obligations, unexpired	-512	-	-
3050	Unpaid obligations, end of year (gross)	4,438	-	-
3100	**Obligated balance, start of year (net)**	**5,582**	**-**	**-**
3200	**Obligated balance, end of year**	**4,438**	**-**	**-**
	Budget authority and outlays, net:			
	Discretionary:			
4000	Budget authority, gross	-	-	-
	Outlays, gross:			
4010	Outlays from new discretionary authority			
4011	Outlays from discretionary balances	3,990	5,091	-
4020	**Outlays, gross (total)**	**3,990**	**5,091**	**-**
4080	**Outlays, net (discretionary)**	**3,990**	**5,091**	**-**
4190	**Outlays, net (total)**	**3,990**	**5,091**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
EMERGENCY RAILROAD REHABILITATION AND REPAIR

Program and Performance Statement

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. No new funding is requested in fiscal year 2014 for this program.

Object Classification Schedule
($000)

Identification Code 69-0124-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
41.0	Grants, subsidies, and contributions	3,358	653	-
99.9	**Total new obligations**	**3,358**	**653**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD SAFETY TECHNOLOGY PROGRAM

Program and Financing Schedule
($000)

Account Number: 69-0701-0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	87	87	-
1050	**Unobligated balance (total)**	**87**	**87**	-
1930	**Total budgetary resources available**	**87**	**87**	-
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	87	87	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	41,980	25,215	12,651
3020	Obligated balance, start of year (net)	-16,764	-12,651	-12,651
3050	Change in uncollected pymts, Fed sources, unexpired	25,215	12,564	-
3100	**Obligated balance, start of year (net)**	**41,980**	**25,215**	**12,651**
3101	**Obligated balance, end of year (net)**	**25,215**	**12,651**	-
	Budget authority and outlays, net:			
	Discretionary:			
4011	Outlays from discretionary balances	16,764	12,651	12,651
4020	**Outlays, gross (total)**	**16,764**	**12,651**	**12,651**
4080	**Outlays, net (discretionary)**	**16,764**	**12,651**	**12,651**
4190	**Outlays, net (total)**	**16,764**	**12,651**	**12,651**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RAILROAD SAFETY TECHNOLOGY PROGRAM

Program and Performance Statement

The Railroad Safety Technology Program provides competitive grants 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 sections 20156(e)(2) and 20157 of title 49 of the United States Code. However, 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 2014.

Object Classification Schedule
($000)

Identification Code 69-0723-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	-	87	-
99.9	**Total new obligations**	**-**	**87**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
INTERCITY PASSENGER RAIL GRANT PROGRAM

Program and Financing Schedule
($000)

Account Number: 69-0715 -0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Intercity Passenger Rail Grants	16,976	20,432	-
0900	**Total new obligations**	**16,976**	**20,432**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	34,277	20,432	-
1021	Recoveries of prior year unpaid obligations	3,130	-	-
1930	**Total budgetary resources available**	**37,407**	**20,432**	**-**
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring			
1941	Unexpired unobligated balance, end of year	20,432	-	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	65,818	71,274	58,243
3010	Obligations incurred, unexpired accounts	16,976	-	-
3020	Outlays (gross)	-8,389	-13,031	-19,775
3040	Recoveries of prior year unpaid obligations, unexpired	-3,130	-	-
3050	Unpaid obligations, end of year (gross)	71,274	58,243	38,468
3100	**Obligated balance, start of year (net)**	**65,818**	**58,243**	**38,468**
3200	**Obligated balance, end of year**	**71,274**	**58,243**	**38,468**
	Budget authority and outlays, net:			
	Discretionary:			
4011	Outlays from discretionary balances	8,389	13,031	19,775
4020	**Outlays, gross (total)**	**8,389**	**13,031**	**19,775**
4080	**Outlays, net (discretionary)**	**8,389**	**13,031**	**19,775**
4190	**Outlays, net (total)**	**8,389**	**13,031**	**19,775**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
INTERCITY PASSENGER RAIL GRANT PROGRAM

Program and Performance Statement

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 2014.

Object Classification Schedule
($000)

Identification Code 69-0715-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
	Direct Obligations:			
41.0	Grants, subsidies, and contributions	16,976	20,432	-
99.9	**Total new obligations . . . . . .**	**16,976**	**20,432**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
PENNSYLVANIA STATION REDEVELOPMENT PROJECT

Program and Financing Schedule
($000)

Account Number: 69-0723 -0-1-401

Line	Line Title	2012 Actual	2013 CR Annualized	2014 Request
	Obligations by program activity:			
0001	Pennsylvania Station Redevelopment Project	-	19	-
0900	**Total new obligations**	**-**	**19**	**-**
	Budgetary Resources:			
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	19	19	-
1050	**Unobligated balance (total)**	**19**	**19**	**-**
1930	**Total budgetary resources available**	**19**	**19**	**-**
	Memorandum (non-add) entries:			
1940	Unobligated balance expiring			
1941	Unexpired unobligated balance, end of year	19	-	-
	Change in obligated balance:			
	Obligated balance, start of year (net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	55,340	51,270	38,448
3020	Outlays (gross)	-4,070	-12,822	-12,822
	Obligated balance, end of year (net):	51,270	38,448	25,626
3050	Unpaid obligations, end of year (gross)	51,270	38,448	25,626
3100	**Obligated balance, start of year (net)**	**55,340**	**38,448**	**25,626**
3200	**Obligated balance, end of year**	**51,270**	**38,448**	**25,626**
	Budget authority and outlays, net:			
	Discretionary:			
4011	Outlays from discretionary balances	4,070	12,822	12,822
4080	**Outlays, net (discretionary)**	**4,070**	**12,822**	**12,822**
4190	**Outlays, net (total)**	**4,070**	**12,822**	**12,822**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
PENNSYLVANIA STATION REDEVELOPMENT PROJECT

Program and Performance Statement

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 2014.

Object Classification Schedule
($000)

Identification Code 69-0723-0-1-401		2012 Actual	2013 CR Annualized	2014 Request
Direct Obligations:				
41.0	Grants, subsidies, and contributions	-	19	-
99.9	**Total new obligations . . . .**	**-**	**19**	**-**

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

ADMINISTRATIVE PROVISIONS—FEDERAL RAILROAD ADMINISTRATION

SEC. 150. Hereafter, notwithstanding any other provision of law, funds provided in this Act for the National Railroad Passenger Corporation shall immediately cease to be available to said Corporation in the event that the Corporation contracts to have services provided at or from any location outside the United States. For purposes of this section, the word "services" shall mean any service that was, as of July 1, 2006, performed by a full-time or part-time Amtrak employee whose base of employment is located within the United States.

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 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. None of the funds provided to the National Railroad Passenger Corporation may be used to fund any overtime costs in excess of $35,000 for any individual employee: Provided, That the president of Amtrak may waive the cap set in the previous proviso for specific employees when the president of Amtrak determines such a cap poses a risk to the safety and operational efficiency of the system: Provided further, That Amtrak shall notify House and Senate Committees on Appropriations within 30 days of waiving such cap and delineate the reasons for such waiver.

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FEDERAL RAILROAD ADMINISTRATION
HISTORY OF APPROPRIATIONS
FY 2004 - 2013
($000)

Account	FY 2004 [1/]	FY 2005 [2/]	FY 2006 [3/]	FY 2007	FY 2008
Safety and Operations	129,536	138,117	144,490	150,271	150,193
Railroad Safety Technology Program	--	--	--	--	--
Railroad Research and Development	33,824	35,737	54,524	34,524	35,964
Rail Line Relocation and Improvement	--	--	--	--	20,040 [4/]
Operating Subsidy Grants to National Railroad Passenger Corporation	--	--	495,000	495,000	574,000
Capital and Debt Service Grants to National Railroad Passenger Corporation	--	--	780,000	780,000	850,000
Efficiency Grants to National Railroad Passenger Corporation	--	--	40,000	31,300	--
Grants to the National Railroad Passenger Corporation	1,217,773	1,207,264	--	--	--
Intercity Passenger Rail Grants	--	--	--	--	30,000
Next Generation High-Speed Rail	37,179	19,493	--	--	--
Alaska Railroad Rehabilitation	24,853	24,800	9,900	--	--
Subtotal	1,443,165	1,425,411	1,502,547	1,478,345	1,561,197
Railroad Rehab and Improvement Program	5,713	--	--	3,294	20,751
Emergency Railroad Rehabilitation & Repair	--	--	--	--	20,000 [5/]
Total FRA Budget Authority	**1,448,878**	**1,425,411**	**1,502,547**	**1,481,639**	**1,601,948**

HISTORY OF APPROPRIATIONS (cont'd)
FY 2004 - 2013
($000)

Account	FY 2009	FY 2010	FY 2011 [7/]	FY 2012	FY 2013 CR Annualized [9/]
Safety and Operations	159,445	172,270	176,596	178,596	179,689
Railroad Safety Technology Program	--	50,000	--	--	--
Railroad Research and Development	33,950	37,613	35,030	35,000	35,214
Rail Line Relocation and Improvement	25,000	34,532	10,511	--	--
Operating Subsidy Grants to National Railroad Passenger Corporation	550,000	563,000	563,000	466,000	468,852
Capital and Debt Service Grants to National Railroad Passenger Corporation	940,000	1,001,625	920,652	952,000	957,826
Grants to the National Railroad Passenger Corporation	--	--	--	--	118,000 [10/]
Intercity Passenger Rail Grants	90,000	--	--	--	--
Capital Assistance for HSR Corridors and IPR	--	2,500,000	[-400,000] [8/]	--	--
Subtotal	1,798,395	4,359,040	1,705,789	1,631,596	1,759,581
Railroad Rehab and Improvement Program	16,753	18,441	23,692	--	--
Capital Grants to National Railroad Passenger Corporation	1,300,000 [6/]	--	--	--	--
Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service	8,000,000 [6/]	--	--	--	--
Total FRA Budget Authority	**11,115,148**	**4,377,481**	**1,729,481**	**1,631,596**	**1,759,581**

FEDERAL RAILROAD ADMINISTRATION
HISTORY OF APPROPRIATIONS (cont'd)
FY 2004 - 2013
($000)

Notes:

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

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

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

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

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

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

7/ FY 2011 full year CR appropriations (P.L. 112-10) reflect a 0.02% across-the-board rescission.

8/ FY 2011 appropriations (P.L. 112-10) reflect a $400M rescission of prior year unobligated balances.

9/ FY 2013 full year CR appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

10/ The Disaster Relief Appropriations Act of FY 2013 (PL 113-2) provided funds to Amtrak's, including $32 million for repair work and $86 million for disaster mitigation projects.

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EXHIBIT IV-1

FEDERAL RAILROAD ADMINISTRATION
RESEARCH, DEVELOPMENT, AND TECHNOLOGY
BUDGET AUTHORITY ($000)

PROGRAM	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	FY 2014 APPLIED	FY 2014 DEVELOPMENT
Program Total	**35,000**	**35,214**	**90,000**	**17,372**	**48,889**
Railroad Research and Development Account	**35,000**	**35,214**	**35,250**	**6,436**	**25,813**
Track Program	***10,773***	***10,869***	***11,429***	***2,400***	***6,028***
Track and Structures	*5,075*	*5,106*	*5,010*	*1,400*	*3,610*
Track and Train Interaction	*3,353*	*3,373*	*3,418*	*1,000*	*2,418*
R&D Facilities and Test Equipment/TTC (F)	*2,345*	*2,390*	*2,251*	*n.a.*	*n.a.*
Sustainability Improvements (F)	*-*	*-*	*750*	*n.a.*	*n.a.*
Rolling Stock Program	***8,522***	***8,574***	***8,322***	***1,686***	***6,636***
Rolling Stock and Components	*2,794*	*2,811*	*2,796*	*446*	*2,350*
Hazardous Materials Transportation	*1,444*	*1,453*	*1,496*	*240*	*1,256*
Train Occupant Protection	*4,284*	*4,310*	*4,030*	*1,000*	*3,030*
Train Control and Communication	***9,286***	***9,343***	***8,086***	***900***	***7,186***
Train Control	*7,330*	*7,375*	*6,473*	*600*	*5,873*
Grade Crossings	*1,956*	*1,968*	*1,613*	*300*	*1,313*
Human Factors Program	***3,045***	***3,064***	***3,542***	***350***	***3,192***
Railroad Systems Issues Program	***3,374***	***3,364***	***3,871***	***1,100***	***2,771***
Research, Development, and Technology Account	**0**	**0**	**54,750**	**10,936**	**23,076**
High-Performance Rail R&D	***0***	***0***	***24,502***	***2,808***	***4,916***
High-Performance Rail R&D	*-*	*-*	*7,724*	*2,808*	*4,916*
Facilities (F)	*-*	*-*	*16,778*	*n.a.*	*n.a.*
National Cooperative Research Program	***0***	***0***	***4,950***	***4,455***	***495***
Workforce Development	***0***	***0***	***24,750***	***3,564***	***17,226***
Rail-based University Transportation Center (T)	*-*	*-*	*3,960*	*n.a.*	*n.a.*
Buy America Support	*-*	*-*	*2,970*	*-*	*2,970*
Technical Assistance & Training	*-*	*-*	*17,820*	*3,564*	*14,256*
RD&T Oversight	***0***	***0***	***548***	***109***	***439***
Safety and Operations Account	**4,696**	**4,702**	**4,762**	**1,381**	**3,381**
Salaries and Expenses	*4,696*	*4,702*	*4,762*	*1,381*	*3,381*
Subtotal, Research and Development	**37,351**	**37,526**	**71,023**	**18,753**	**52,270**
Subtotal, Technology Investment (T)	**-**	**-**	**3,960**	**n.a.**	**n.a.**
Subtotal, Facilities (F)	**2,345**	**2,390**	**19,779**	**n.a.**	**n.a.**
TOTAL FRA	**39,696**	**39,916**	**94,762**	**18,753**	**52,270**

n.a. not applicable

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

Railroad Safety Strategy: FY 2014

January 2013

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Goal #2: Improving the consistency and effectiveness of enforcement and compliance programs. 187

Goal #3: Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety. 192

Goal #4: Improving research efforts to enhance and promote railroad safety and performance. 195

Goal #5: Preventing railroad trespasser accidents, incidents, injuries and fatalities. 201

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. 203

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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) 2014. FRA will provide an evaluation of its performance 1 year from this budget submission.

BACKGROUND

FRA promotes and regulates safety throughout the Nation's railroad industry. Most of the regulatory authority is codified under Title 49 Code of Federal Regulations (CFR) Parts 200 to 249. 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. FRA safety inspectors specialize in five safety disciplines assigned to eight regional offices across the Nation. These disciplines consist of Track, Signal and Train Control (S&TC), Motive Power and Equipment (MP&E), Operating Practices (OP), and Hazardous Materials (HM). In addition, FRA's field components include program managers and specialists for highway-rail grade crossing safety and trespass prevention, assessing rail and infrastructure integrity, and industrial hygiene and workplace safety.

The railroad industry's safety record has improved significantly over the past decade. From FY 2003 through FY 2012, the total number of all reportable rail-related accidents and incidents declined 25 percent (14,295 vs. 10,788, respectively).[1] During this period, train accidents also fell by 41 percent (2,991 vs. 1,756), casualties (deaths and injuries) dropped 18 percent (10,069 vs. 8,295), and highway-rail grade crossing incidents decreased 31 percent (2,934 vs. 2,020).

In response to major freight and passenger train accidents in 2004 and 2005, FRA initiated several national rail safety initiatives. The Agency has also devoted four of its six safety performance measures to evaluating safety performance using train accidents under the Government Performance and Results Act of 1993 (GPRA).

[1] Collisions, derailments, fires, explosions, acts of God, or other events involving the operation of railroad on-track equipment (standing or moving) and causing reportable damages greater than the reporting threshold for the year in which the accident/incident occurred must be reported using Form FRA F6180.54. The threshold for calendar year 2012 was $9,500.

LONG-TERM STRATEGY MEASURES

FRA believes that the long-term strategy achievements expected from Section 102 of the RSIA 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. Regional management can monitor and compare their actual performance data against the proposed GPRA goals on a monthly basis.

FRA has focused its efforts 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 uses existing staffing levels for the GPRA goals listed in the tables below.[2]

1. GRADE CROSSING INCIDENTS[3]

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	2.975	2.850	2.750	2.650	2.550

2. HUMAN FACTOR-CAUSED TRAIN ACCIDENTS

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	1.045	1.033	1.023	1.013	1.003

3. TRACK-CAUSED TRAIN ACCIDENTS

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	1.015	1.000	0.985	0.970	0.965

4. EQUIPMENT-CAUSED TRAIN ACCIDENTS

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	0.379	0.364	0.354	0.344	0.339

5. OTHER (SIGNAL AND MISCELLANEOUS) TRAIN ACCIDENTS

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	0.510	0.490	0.475	0.460	0.445

[2] FRA re-evaluates and updates GPRA goals annually. As such, future GPRA goals could further change with new safety initiatives and additional resources to carry out those initiatives.
[3] Includes train accidents.

6. RAIL NON-ACCIDENTAL HAZARDOUS MATERIALS RELEASES

	2014	2015	2016	2017	2018
Rate Per 200 Million Hazmat Ton-Miles	1.200	1.190	1.180	1.170	1.160

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), RRP, rulemakings, and inspections contribute to achieving these safety goals.

DOT Safety Performance Goal: Rail Accidents/Incidents

	2014	2015	2016	2017	2018
Rate Per Million Train-Miles	16.150	15.950	15.750	15.550	15.350

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 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 2012 continues to integrate 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 (OIG) recommended that FRA submit to the Secretary of Transportation a comprehensive rail safety plan for implementing a program that 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

specific railroads and 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 produces an initial baseline plan for each of the Agency's eight regions based on an analysis of historical accident and inspection data. 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, FRA will monitor how the regions are meeting their inspection goals. The NIP is implemented through a Web-based interface that allows FRA headquarters and regional offices to monitor progress in field inspections during a fiscal year.

Dashboard

In 2008, FRA deployed an internal Web-based 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, updating every 24 hours. This displays detailed and aggregated data graphically (bar graphs and gauges). The dashboard is also used as an effective performance management tool. It maintains more than 15 different metrics (e.g., inspection days, defect ratios, violations) at the inspector, discipline, regional, and National levels. Finally, the dashboard enables several complex query and report programs from the main secure Web site that have been integrated into the output displays and provide users additional detail. 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 managers at headquarters to monitor inspection activities in the regions in order to ensure that enforcement and compliance policy is applied uniformly.

Additionally, by using the dashboard "cube," an online analytical processing data-mining tool, headquarters and regional staff are able to view inspection efforts and findings 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 a joint effort to address where the safety hazards are being identified and plan inspection activities accordingly. The regional managers also use this data to ensure each discipline and inspector is meeting the applicable goals and to address outliers in the data.

NIP and GPRA links are also available on the dashboard.

FRA published an inspector activity report dashboard at the end of April 2012. Based on the inspector activity reports submitted by the field, FRA management can review the daily activities of its safety inspector staff through various charts and graphs based on inspector activity.

Positive Train Control

Positive Train Control or PTC refers to processor/communications-based technology that is capable of preventing train-to-train collisions, overspeed derailments, incursion into established roadway 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 used, 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 runaway trains, which are of special concern in an era of heightened security in the United States. National deployment of advanced signal and train control technology—PTC—will improve the safety, security, and efficiency of freight, intercity passenger rail, and commuter rail services. FRA is continuing to support the implementation of PTC in this country through regulatory reform, project safety oversight, technology development, review and approval of PTC Implementation Plans, PTC Development Plans (PTCDP), PTC Safety Plans (PTCSP), and other PTC-related documentation, and financial assistance.

In compliance with the requirements of Section 104 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. In response to this final rule, the FRA received three petitions for reconsideration and two comments that were treated as such petitions from various parties, including the Association of American Railroads (AAR). In addition, on March 18, 2010, the AAR filed a petition for review of the January 15, 2010, final rule in the U.S. Court of Appeals for the District of Columbia Circuit. On June 11, 2010, the court granted the Government's motion to dismiss the AAR's petition for review as premature since the FRA had not ruled on the AAR's petition for reconsideration. On July 8, 2010, the FRA issued its response to the petitions for reconsideration and quasi-petitions for reconsideration of the January 15, 2010, final rule. On July 28, 2010, the AAR filed a petition for review of the FRA's denial of its petition for reconsideration of the January 15, 2010, final rule in the same court, alleging that certain provisions of the FRA's PTC rule are contrary to law and constitute arbitrary and capricious agency action. On September 27, 2010, the FRA published final rule amendments to the January 15, 2010, final rule. The AAR's challenge to that final rule was consolidated with its court challenge to the January 15, 2010, final rule. In fulfillment of one element of the settlement agreement, an NPRM to remove requirements to conduct further analyses or meet certain risk-based criteria in order to be allowed not to install PTC on track that no longer carries poison inhalation hazard material was published on August 24, 2011. A public hearing on the proposal was held on November 10, 2011. The final rule was published on May 14, 2012. A separate PTC rulemaking responds to a petition for rulemaking from the AAR and is intended to make other, miscellaneous amendments to the PTC regulations at 49 CFR Part 236; an NPRM was developed and published in 2012.

Pursuant to the requirements of the rule, a total of 42 railroads have submitted plans for implementing PTC as required. Two additional railroads are in the process of drafting plans for submission to FRA and with FRA assistance. During calendar year (CY) 2010, FRA reviewed

each plan received and provided written notification of its decision regarding approval or provisional approval, approval or provisional approval with conditions, or disapproval. Since then, FRA has received plans that were revised and corrected, as well as the initial plan from three additional railroads not previously submitted. The review and approval process of all the implementation plans has been completed and all have now been approved, except the three later filed plans. FRA is continuing to work with the two railroads, yet to submit a formal plan, through several issues and concerns that still require correction or further clarification.

Thirty-eight railroads will actually implement PTC systems on their properties; the remaining six have been deemed to meet the criteria for exceptions from the requirement to install PTC systems as provided in the rule. The timelines for PTC system implementation are individually presented in each respective implementation plan; however, according to congressional mandate, all required PTC systems must be implemented by December 31, 2015. For most of the 38 railroads, pilot testing of the systems will be completed by the end of CY 2013. These railroads are scheduled to complete full implementation during CY 2014 and CY 2015.

FRA has also reviewed, or is continuing to review, several PTCDPs and PTCSPs. FRA has issued three system Type Approvals and two System Certifications thus far. Each railroad's PTC system must receive FRA PTC System Certification prior to it being placed into revenue service in accordance with the Federal requirements.

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 necessitate significant FRA oversight and associated technical guidance and assistance, as well as requiring railroads to begin deployment prior to completion of their pilot programs.

To support these railroad goals, FRA has and will continue to provide field engineering and pre-revenue service system testing oversight support through the first quarter of FY 2016. FRA expects to also provide formal approval and System Certification of the Southern California Regional Rail Authority PTC system during FY 2013, followed by formal approval and System Certification of the remaining 37 PTC systems during FY 2014 through first quarter FY 2016. FRA is required by the RSIA to submit a report on the status of PTC implementation to Congress. This status report was submitted in August 2012.

RSIA also authorized $50 million per year for FY 2009 through FY 2013 for a grant program to support execution of railroad safety technology projects that yield public benefits in improved railroad safety and efficiency. FRA received appropriations for the Railroad Safety Technology Grant Program (69-X-0701) in FY 2010, and awarded nine grants to address common PTC implementation technology issues. As of 1 October 2012, one grant is completed and 2 are approaching completion with expected completion dates of 31 Dec 2012 for one, and 31 March 2013 for the other. However, no cost extensions of the period of performance past 31 March 2013 will be required for the remaining 6. Of the remaining 6, 5 extensions are required due to the lack of availability of PTC system components necessary execute the grants, and 1 as a result of a no cost government redirection of efforts to address to an emergent technical issue discovered while executing the grant. FRA will provide ongoing technical and financial oversight of the remaining 8 projects through their completion.

The high-speed rail (HSR) system design and development efforts will continue through FY 2017. All of these efforts include PTC system development and deployment with FRA providing ongoing PTC technical support.

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. Among other provisions, the Act required DOT to issue a final rule that required 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 safety and security risks on primary and alternate transportation routes. FRA is administering the PHMSA rule and can require a carrier to change routes if (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 traffic data annually on shipments of these materials. The U.S. Department of Homeland Security (DHS) and DOT have determined that security-sensitive materials are bulk shipments of poison-inhalation-hazard (PIH) 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 annually to 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 lowest overall risks.

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

In FY 2010, FRA created the Routing Rule Compliance Team consisting of members from FRA's Offices of Railroad Safety, Policy, and Chief Counsel, as well as representatives from PHMSA and TSA. The purpose of this team is to verify that railroads comply with the new routing rule regulation. As in FY2011, in FY 2012, the FRA team met with all Class I railroads and was briefed on each railroad's routing plan. At each meeting, the team examined the carrier's decision-making process for selecting routes to ensure that (1) the railroad conducted an

adequate analysis of the route, and (2) the railroad selected the safest and most secure route, given economic viability. This process is repeated annually.

Class II and Class III railroads that transport security-sensitive hazardous material are also required to follow the Routing Rule Regulation. The Routing Rule Compliance Team is working diligently with The American Short Line and Regional Railroad Association (ASLRRA) to develop a plan which will allow FRA to inspect Class II and Class III railroads.

Confidential Close Call Reporting System (C3RS)

Since 2007, FRA has sponsored 12 C3RS pilot projects on divisions of four railroads: Union Pacific Railroad, Canadian Pacific Railway, New Jersey Transit, and Amtrak (nine yard locations). Contributing to this initiative's effectiveness is the partnering that occurs with railroad labor, including the United Transportation Union, Brotherhood of Locomotive Engineers and Trainmen, and the American Train Dispatchers Association. The C3RS initiative enhances railroad safety culture by building trust and relying on the program's core operating principles—it is voluntary, confidential, and non-punitive, and the collected data is used to recommend corrective actions and provide feedback.

Based on railroad industry support and positive evaluations of the pilot projects, FRA plans to expand the implementation by expanding the Amtrak implementation across its entire system, and adding new railroads, the first of which is expected to be the Massachusetts Bay Commuter Railroad. These expansions, taking place in FY 2013, will pave the way for advancing this concept to a national level in the near future.

Rulemakings

FY 2012 was very productive for FRA in the safety rulemaking arena. FRA focused on the development of regulations mandated by the RSIA as well as other high-priority regulations aimed at reducing accidents, incidents, injuries, and fatalities. FRA issued amendments to the PTC rule to facilitate implementation through added flexibility and resolution of outstanding issues and also made significant progress towards issuing a second NPRM to add yet more flexibility. In FY 2012 FRA also made updates to track standards, completing rules addressing concrete crossties, rail integrity, and vehicle-track interaction (VTI), as well as a track inspection time study that indicated no additional amendments were necessary. In addition, following completion of a study addressing protection of certain information from discovery in legal proceedings, FRA moved forward with issuance of a NPRM on System Safety Programs for passenger railroads that would address the RSIA risk reduction rulemaking mandate for such railroads and made significant progress towards issuing an NPRM to do the same for Class I freight railroads and other freight railroads with inadequate safety performance. The VTI and System Safety Program rulemakings also advanced the regulatory framework necessary for introducing new high-speed trainsets and advancing our High-Speed Rail Safety Strategy.

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 rulemakings completed include passenger rail hours of service, conductor certification, locomotive safety standards, Roadway Worker Protection, adjacent track, and PTC. The RSAC schedule for 2012 also included rail integrity, PTC (exceptions), RRPs (including System Safety Program Plans for passenger railroads and fatigue management plans), engineering standards for HSR, critical incidents stress (effect on employees), and minimum training standards. FRA also continues to work proposed safety standards based on past RSAC recommendations for passenger train doors, emergency systems, and emergency preparedness.

FRA has also worked to develop several other new regulations through the traditional rulemaking process as well. These rulemakings include emergency notification systems for grade crossings, adjacent track protection for roadway workers, minimum safety and health requirements for camp car sleeping quarters, expanded post-accident toxicological testing and requirements for periodic updating of the National Grade Crossing Inventory.

FRA will continue to work with the regulated industry to support of the implementation of new regulations and in particular to ensure successful implementation of PTC, risk reduction programs, and training standards. After FRA completes the training standards regulation in FY2013, it will initiate a report required by the RSIA on the certification of certain crafts or classes of employees to determine if a regulation is necessary to reduce the number and rate of accidents and incidents or to improve railroad safety.

RRP

RRP is an FRA-led, industrywide 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. After FRA initiated this program on its own, the RSIA made completion of a regulation on it mandatory.

FRA envisions a wide variety of projects that could fit under the RRP umbrella. Some examples include C3RS, peer-to-peer coaching and feedback programs known as Clear Signal for Action, 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 uses of wayside equipment monitors and sensors for predictive maintenance or capital investment may qualify as RRP programs. Any innovative use of predictive data could become a potential pilot project.

FRA has also initiated a program to make the use of personal electronic devices by railroad employees engaged in safety-critical work socially unacceptable. FRA is developing peer-to-peer coaching programs to effect major safety culture changes throughout the industry with assistance of the RSAC. The first meeting of the RSAC working group focusing on electronic device distraction, was held in October 2011. Subsequent meetings of the working group led to development of an overall strategy that included outreach and education campaigns, surveys, and

focus groups to assess the degree to which device use is accepted on the railroads, and demonstration projects of pilot programs to make use of personal electronic devices socially unacceptable on the railroads. FRA published a Notice of Funds Availability to request applications for the pilot programs, and as a result awarded $200,000 to the Norfolk Southern Corporation for development of a peer-to-peer program focused on electronic device usage.

The Office of Railroad Safety provided limited grants when funds were made available in response to the provision in the RSIA that allows FRA to develop pilot programs to inform development of the regulation. In October 2009, FRA provided grants to several projects submitted by Amtrak and Class I freight railroads. The projects listed below were chosen for their likeliness to improve safety and reduce risk, and for the 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 Railway (BNSF))
- Unattended Track Geometry Inspection (Soo Line Railroad)
- Continuous High-Speed Rail Test (CSX Transportation (CSX))
- Broken Rail Risk Reduction (Norfolk Southern Railway (NS))
- Fatigue Risk Management System (Union Pacific Railroad (UP))

FRA selected and provided additional grants to projects that showed the greatest ability to affect risk levels. As a result of these projects, some programs have been expanded, and some continue in pilot mode. For example, Amtrak has expanded its original cross-functional risk reduction teams, and incorporated them as a part of a systemwide safety culture program known as Safe-2-Safer, and UP has developed a comprehensive Fatigue Risk Management Program that prepares them to both address the safety needs of their employees and lead the industry in addressing fatigue in a proactive and comprehensive way. NS and CSX both elected to test technologies for HSR flaw detection; NS determined that the technology did not provide the benefits anticipated, and discontinued the pilot, but CSX is continuing the project in order to test the next generation of the equipment. BNSF has implemented a functioning peer-to-peer safety intervention program addressing a wide variety of operational risks, including distractions due to electronic devices. The BNSF program continues to be supported by the railroad in pilot mode.

In addition to the voluntary programs noted above, in FY 2013, FRA will promulgate a regulation requiring certain railroads to develop and implement an RRP, and file the RRP plans with FRA. Once the regulation is in effect, FRA will initiate approval of the RRP plans and monitor the railroads' compliance, to ensure that railroads proactively identify and address risks associated with the RRP. The regulation will not apply to the entire industry. It will only apply to Class I freight railroads and other freight railroads with inadequate safety performance. In order to address the issue for passenger operations, FRA is developing a separate rule requiring those passenger operations to develop System Safety Programs (SSP). The SSP regulation differs somewhat from the RRP regulation in order to account for the operational and structural

differences between passenger and freight railroads, but in general the requirements are compatible, and railroads complying with SSP will be deemed to be complying with RRP.

Passenger Rail

In 2009, FRA formally established the Passenger Rail Division (PRD) to support the RSIA initiative for the development of passenger rail system safety programs throughout the United States, and the American Recovery and Reinvestment Act of 2009 (ARRA) initiative for high-speed and commuter passenger rail development. PRD coordinates and maintains FRA safety policies, regulations, and guidance for matters related to high-speed, intercity, commuter, tourist/excursion, and shared-use rail operations.

The primary focus of the PRD is to provide for the safety of passenger rail operations through proactive collaboration with industry, and the development of Federal standards for passenger rail equipment and operations. In addition, the Division helps evaluate the safety of proposed rail operations, including line extensions, and shared use operations. This Division concentrates on issues associated with the design, implementation, and operation of passenger rail projects pertaining in particular to system safety, emergency response and preparedness, equipment compliance, and hazard identification and mitigation. These issues are particularly important in the startup of new passenger rail systems ("new starts") or extensions to existing systems. PRD is currently working with projects in Florida (SunRail, Florida East Coast), Colorado, California (Perris Valley, California High-Speed, SMART), Texas, Michigan, Pennsylvania, North Carolina, New Jersey, New York, Washington, and Utah. The Division's responsibilities also include a focus on pilot projects that involve the application of new technologies intended to improve safety.

In addition to its work with passenger rail systems under FRA jurisdiction, PRD also works with the Federal Transit Administration (FTA) on urban rapid transit projects that use, share, or connect to the U.S. general railroad system. These projects are referred to as shared use projects and often involve one or more waivers from FRA safety regulations. PRD works with FTA and all other stakeholders (including host railroads) to ensure an equivalent level of safety is maintained, at a minimum, if any waivers are issued.

FRA has an outreach program to provide passenger railroads with training and information on system safety techniques. PRD staff are currently working with an RSAC working group to develop a system safety regulation that requires all passenger railroads to develop and implement SSPs that satisfy the RSIA requirements for an RRP. 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 accidents related to trespassing and highway-rail grade crossings.

Beginning in FY 2013, FRA will participate in the implementation of the system safety regulation. This will include review and approval of SSP Plans (SSPP) from commuter railroads and intercity passenger railroads, along with their host railroads. FRA will then conduct initial and periodic field audits to assess implementation of the programs. PRD anticipates a final rule

on system safety to be issued in FY 2013.

The Division will continue to provide training and information on system safety and FRA requirements to all passenger rail new starts. PRD's goal is for all passenger rail new starts to have adequate training and information to establish their own SSPPs. In addition, PRD will continue its outreach to all existing passenger rail systems, including Amtrak, to promote safe operation.

FRA regulations currently support maximum train speeds of 150 mph. The vision contained in the RSIA and ARRA contemplates train speeds of up to 220 mph. FRA is currently working with two HSR projects —XpressWest and California HSR— to identify appropriate safety requirements for these and similar operations. PRD continues to work with the FRA Office of Railroad Policy and Development on all HSR projects to ensure proactive engagement between all parties on safety-related matters.

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

FRA has many ongoing programs in place to improve the consistency and effectiveness of enforcement and compliance programs, including those presented below that implement various RSIA mandates.

Industrial Hygiene

The Industrial Hygiene Division has a dual role within FRA. It is responsible for performing activities in support of enforcement of regulations and implementing internal Occupational Safety and Health Administration (OSHA) compliance programs for the safety and health of FRA employees.

In regulatory enforcement, the Division's primary responsibility is for ensuring compliance with regulations governing occupational noise exposures in locomotive cabs and exposures to contaminants in the cabs of maintenance-of-way equipment. This Division is also responsible for ensuring the safety and health requirements for camp cars provided by railroads as sleeping quarters. FRA issued an RSIA-mandated regulation on this on October 31, 2011. As the Occupational Noise Exposure Regulation for the locomotive cab occupants and the camp car rules are fully implemented, more enforcement efforts are expected to take place. The Division supports the MP&E, Track, OP, HM, and S&TC disciplines in the use of fall protection for railroad bridge work, diesel exhaust in locomotive cabs, and non-occupational noise rules, and enforcing U.S. Environmental Protection Agency (EPA) noise standards from 40 CFR Part 201 under 49 CFR Part 210. In addition, the Division supports enforcement activities under 49 CFR Section 229.129, Audible Warning Device (train horns).

The Division also has primary responsibility for FRA internal safety and health compliance programs including bloodborne pathogens, confined space entry, hearing conservation, hazard communication, 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 Rail Safety Technical Training Standards Division (TTSD) is staffed with discipline-specific trainers that train inspectors throughout the year on FRA safety regulations and policies. The primary mission of the TTSD 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. In order to accomplish this mission, the Division 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 safety regulations effectively. TTSD also employs third and fourth level evaluation instruments to promote enhanced learning transfer and a higher retention of newly acquired skills. Classroom training using established training modules includes compliance directives and/or interpretive guidance from newly issued technical bulletins, compliance manuals, and rule modifications. All TTSD technical training is developed and delivered in accordance with generally accepted principals of adult learning.

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 Division manages approximately 45 classes in 22 different courses of study each year. TTSD 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, railroad noise emissions tests, and fatigue-related assessments for safety-related railroad employees. On average, new inspectors receive about 168 hours of classroom training during their first 2 years of employment. After 2 years, all inspectors and regional specialists receive at least 24 hours of classroom training each year.

The TTSD also develops and administers on-the-job training standards for new Federal and State railroad safety inspectors and inspector trainees. These standards, based on a model used by the U.S. Department of Defense, are specific to FRA inspection tasks. On-the-job training standards are updated as needed to ensure relevance with regulatory changes and consistency with evolving Agency policy. 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 promotes continuous learning by encouraging use of the Inspector Competency Model. Several years ago, FRA initiated a workforce planning and development project for the five railroad safety inspector disciplines. The purpose is to position FRA for success by ensuring that the workforce has the necessary knowledge and skills to contribute fully to mission accomplishment, now and in the future. The workforce planning process included getting input from FRA's Administrator, Deputy Administrator, and all levels of the Office of Railroad Safety, including focus groups of specialists and inspectors from each discipline. FRA identified 16 core competencies for the five safety inspector disciplines. Application of the Inspector

Competency Model is delegated principally to the regions to manage, and it provides FRA a means to measure employees objectively and identify those needing additional development. Such employees receive non-punitive positive interventions such as coaching, mentoring, self-study, practice with feedback, or formal training, as appropriate.

FRA incorporates elements of the Inspector Competency Model in technical training. For example, several competencies are employed in a fourth level evaluation following inspector attendance at a technical training course. A fourth level evaluation requires the inspector to complete a series of specific tasks associated with the subject matter covered in the course. After completing the tasks, the inspector answers a self-assessment proficiency questionnaire against several core competencies from the model. The questionnaire is then forwarded to the first level supervisor and the training specialist for further evaluation. A fourth level evaluation enables FRA to measure learning transfer, and provides TTSD a means to determine if course modifications need to be considered.

Section 401 of the RSIA required FRA to draft a training regulation for all safety-related railroad employees. The NPRM (Part 243) was published on February 7, 2012. Once the final rule is published, TTSD will review and approve training programs developed by railroads, contractors, learning institutions, and training organizations the railroad industry intends to administer to qualify safety-related railroad workers. TTSD will identify compliant and noncompliant training programs, and when necessary, provide specific recommendation(s) for program remediation. In addition, TTSD will conduct national oversight audits to evaluate proper implementation and execution of training programs affecting safety-related railroad workers. Program oversight of Part 243 will become a major responsibility of the TTSD starting in FY 2016. However, prior to an expected implementation date of January 2017, TTSD will be performing outreach to many railroads, especially smaller railroads to provide education.

Technical Bulletins

Technical bulletins are internal documents (usually memoranda) issued to FRA's safety personnel by FRA's Director of 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 application and enforcement of the regulations, 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. Division Staff Directors associated with the subject matter contained in the technical bulletin are also required to host a briefing webinar with all Office of Railroad Safety stakeholders in the field. The purpose of the webinar is to immediately communicate organizational expectations and give stakeholders an opportunity to ask questions related to the newly issued technical bulletin. Technical bulletins are also posted on the FRA Web site.

Compliance Manuals

The Office of Railroad Safety uses 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 railroad safety inspection disciplines. These manuals establish organizational expectations for inspection tasks, establish specialized investigation requirements, and explain the appropriate application of FRA safety regulations. In FY 2012, revisions continued on compliance manuals for all disciplines. FRA published all five discipline specific compliance manuals (OP, MP&E, Hazardous Materials, Signal and Train Control and Track) in 2012. The compliance manuals are posted on FRA's Web site, and distributed to both internal stakeholders and participating State rail safety personnel.

Performance Evaluations

Performance evaluations for the Regional Administrators (RA) include GPRA safety goals. Quarterly progress reports are provided to the 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 and Infrastructure Integrity

In August 2011, the Rail and Infrastructure Integrity Division was established. This Division comprises the rail integrity staff and the bridge and structures staff. The Rail and Infrastructure Integrity staff provides FRA oversight on rail maintenance programs. It 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 affect railway safety.

The purpose of the Rail and Infrastructure Integrity staff is to provide expert advice and assistance to FRA headquarters, regional track safety staff, and RAs 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 and Infrastructure Integrity staff analyzes the current non-destructive rail inspection programs and processes, rail maintenance programs, and makes recommendations on those analyses. They perform onsite inspections, investigations, and 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, training and experience of the flaw detector car operators, and accuracy of the defect verification process used by the test car operator.

FRA worked 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, plug rail test requirements, and a significantly improved reporting of the rail inspection information. FRA was also instrumental in developing a minimum qualification for the detector car operators issued as 49 CFR Section 213.238. FRA will support the implementation of new rail integrity standards.

The Rail and Infrastructure Integrity staff developed a methodology for the review of railroad plans and procedures for the installation, maintenance, and inspection of continuous welded rail (CWR) and to assure compliance with new regulations recently issued in that area. The group has a responsibility to coordinate the review and conformance assessment of the railroad CWR plans, distribution and processing of the plans, and make the necessary recommendations to ensure that consistent CWR maintenance plans are effective nationwide. The review and assessment of the railroad CWR plans expands FRA's capability to enforce any noncompliant CWR maintenance and installation condition.

FRA 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. In addition, the Rail and Infrastructure Integrity staff developed a track inspector Rail Defect Reference Manual for use by inspectors and a rail integrity fundamentals training course. This course should 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 use of the Rail Defect Reference Manual will ensure continued and accurate FRA oversight in railroad rail failure analysis and rail failure-caused derailment investigations. Proper rail failure analysis is particularly important when working with the various agencies and organizations associated with derailment investigations and is an essential tool for the inspectors to use when providing reports on rail-related incidents to the media or other agencies. The first edition of the manual was completed and distributed to the inspectors in August 2011. The manual will be revised periodically, as required, and the first revision is scheduled for summer 2013. This revision will consist of recommended best practices for rail grinding and rail welding processes.

Automated Track Inspection Program (ATIP)

In the field of track geometry technology, FRA currently oversees a fleet of five track inspection cars: three cars under ATIP and two cars under FRA's Office of Railroad Policy and Development (RPD), and one auxiliary/buffer car. These advanced, specially designed cars

provide accurate track geometry information as well as other track-related intelligence data to assess compliance with 49 CFR Part 213, Track Safety Standards. Since 2000, the fleet has inspected 546,067 miles[i] of the U.S. rail network over a span of 3,137 days. Collectively, the cars can average about 154 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. 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 data will also begin to track duplicate exceptions that are discovered by the ATIP cars and inform Office of Railroad Safety personnel. The railroads often use ATIP data as a way of checking quality assurance on their inspection and maintenance. In order to facilitate use of the collected data, ATIP will distribute quarterly survey reports to the 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. Future plans include introduction of Remote Desk Data Analysis to increase track inspection mileage while reducing per mile inspection cost relative to the ATIP cars. This will be a hybrid between autonomous and manned operations, and will allow FRA to still have the human input to data but allow the cars to run unmanned throughout the country. FRA is also formulating another strategy for more efficient use of track data for inspection prioritization to align ATIP goals more closely with FRA's risk-based inspection planning.

Goal #3: Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.

There are 130,556 public highway-rail grade crossings located throughout the United States, where the potential exists for a collision between a train and highway vehicle. A motorist is 20 times more likely to die from a collision with a train than any other crash. Collisions at highway-rail grade crossings are the second leading cause of rail-related fatalities accounting for 34 percent of all fatalities.

During the past 4 calendar years for which complete data is available, grade crossing collisions have decreased 19 percent, from 2,429 in 2008 to 1,963 in 2011. Casualties have likewise declined, with fatalities and injuries down 9 percent and 1 percent, respectively. While these are encouraging trends, the number of incidents 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 continue to partner with national organizations (e.g., Operation Lifesaver (OL)), 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 OL began, there were approximately

12,000 collisions between trains and motor vehicles annually. On August 31, 2010, the National Transportation Safety Board commended OL as a leader in reducing highway-rail grade crossing accidents. By 2011, 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 1,963.

The following is a brief description of some of the organizations and how FRA will work with them:

ORGANIZATION	DESCRIPTION AND FRA ACTIVITIES
OL	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. One such example is in 2011 OL in partnership with FRA and FMCSA, launched the "Pro Driver Challenge." Rail Safety Challenge, a new videogame-style online experience that prepares professional drivers for situations they could face on the road.
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. In 2011, FRA developed model State legislation on highway-rail grade crossing violations by motorist's. FRA recommended that State governments enact the model State law in order to reduce fatalities, injuries, and property damage caused by collisions at highway-rail grade crossings.
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.

Prior to FY 2014, FRA will have:

1. 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. The final rule was published on June 12, 2012.
2. Studied the effectiveness of various highway-rail grade crossing treatments on designated HSR corridors (e.g., Northeast Corridor, North Carolina, and Michigan) and evaluated 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.
3. Revised the DOT crossing inventory form, FRA F6180.71, to include new fields that will enhance the ability of States, railroads, FRA, and others to evaluate safety at crossings; and commenced a rulemaking mandating the periodic updating of the inventory using the new form by railroads, per the RSIA.

4. Issued rules or established 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.
5. Updated 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.
6. Researched 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.
7. Worked 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 crossings to be equipped with either stop or yield signs.
2. Issue a final rule requiring railroads to periodically update the National Crossing Inventory.

In FY 2015, FRA will:

1. Conduct a study assessing 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 corridors (80 mph to 110 mph).
2. Evaluate existing and potential practices for incorporating highway-rail grade crossing safety into Connected Vehicles, formerly known as Intelligent Transportation System (ITS). Connected Vehicles is a program is designed to leverage vehicle-to-vehicle and vehicle-to-infrastructure communication devices in order to make driving safer by making cars, trucks, buses, and other vehicles aware of the vehicles around them—even if the driver is not. Furthermore, the vehicle-to-infrastructure capability will allow vehicles to "talk" to local traffic controllers, work zones, school zones, parking meters, and other locations, such as highway-rail automatic warning systems, giving the driver enough functional information to streamline traffic and make roadways safer.

In FY 2017, FRA will:

1. Update model legislation for highway-rail grade crossing violations.
2. Conduct a study on the demographics of drivers that are involved in fatal highway-rail grade crossing collisions to better target crossing collision efforts.
3. Update the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings. This publication compiles State laws concerning highway-rail grade crossings and will be available to the public.

In FY 2018, FRA will:

1. Conduct a study updating the assessment of the impact of quiet zones on crossing safety. This will be a follow-up study and will include a larger data set that can be used for the analysis.
2. Conduct a study to determine if more accurate accident prediction and casualty severity formulas can be developed and whether the existing DOT Accident Prediction Formulas should be replaced.

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 HSR operations. FRA R&D assists in providing the foundation of fundamental engineering and knowledge upon which the safety assurance process is based. 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 HSR, 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 improving the analysis of safety benefit and emphasizing the importance of stakeholder engagement. R&D projects are selected on their potential for reducing safety risk. Projects may reduce risk by either reducing the likelihood of accidents occurring or by minimizing the consequences should accidents occur. An example of the former is research to improve the detection of defects in rails before they become service failures. Research that led to the introduction of crash energy management systems is an example of minimizing consequences of accidents.

FRA R&D seeks to establish partnerships with appropriate stakeholders (including railroads, rail labor, suppliers, and technology providers) early in the life of projects. 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 R&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.

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.

Key R&D results anticipated for FY 2014 include:

- **Fatigue–**Following the publication of a report on the fatigue status of the U.S. railroad industry, work will continue on understanding the probabilities of accidents given a level of fatigue. The Fatigue Avoidance Scheduling Tool will be used to evaluate working rosters. A Railroader's Guide To Healthy Sleep Web site was developed and launched in 2012 in collaboration with Harvard Medical School's Division of Sleep Medicine and WGBH Educational Foundation. By FY 2014, railroad carriers and labor unions will have used the resources on the Web site, broadly disseminating the educational information on the Web site, such as the sleep disorder screening tool and effective strategies for improving sleep and alertness. A cross government panel, led by FRA R&D, will publish an organizational development plan along with model curricular and tools for a Work Schedule Manager Certification program. This national program is intended to professionalize the job of managing work schedules in around the clock operations, especially in the railroad industry, and to support broad scale development and institutionalization of fatigue risk management systems.

- **High-Speed Rail Locomotive Planning and Scheduling (Operator's) Display–**An Information Requirements Analysis will be updated from French HSR operational procedures to meet U.S. rail operational procedures. In addition, a cognitive task analysis for U.S. operators will be conducted resulting in a new list of display requirements that will be incorporated into a display. The prototyped display will be installed in FRA's Cab Technology Integration Laboratory to allow human-in-the-loop testing, which is planned for the following years of this effort. Reports on the Information Requirements Analysis and the Cognitive Task Analysis for U.S. passenger or high-speed operational locomotive engineers will be published. Follow-on work will include further development of the schedule planning display and of a heads-up display (identified in the current work).

- **FRA's Cab Technology Integration–**The laboratory is a research tool that was developed for collaborative rail domain research efforts with industry and academia. FRA anticipates that two research efforts in the areas of human machine interface design and evaluation will be started.

- **Safety Culture**–An industry-wide workshop will be held on effective peer-to-peer safety programs that influence industry safety culture, resulting in the identification of common success criteria and the publication of an implementation guidelines report and safety culture sustainability report.

- **Critical Incident Intervention Program**–A final report titled "Proposed Key Elements of Critical Incident Intervention Program For Reducing the Effects of Potentially Traumatic Exposure On Train Crews to Grade Crossing and Trespasser Incidents" will support development of the new critical incident regulation. An implementation guide will be developed for carriers to follow when adapting their existing programs to fit new FRA regulatory guidelines. Additionally, a document will summarize a plan for developing a confidential and anonymous data collection repository to monitor the effectiveness of these new implementations.

- **Countermeasures to Reduce Suicides on Railway Rights-of-Way**–A report will document the creation of a visual map using Geographic Information System (GIS) software for tracking trespasser and suicide incidents on railroad rights-of-way; summarized findings from analyses of the information on this map will also be included. A second report will focus on a subset of this data to understand the effectiveness of intervention strategies that have been implemented in the past. A third report will summarize how the term "trespass" has been applied in railroad incidents around the world.

- **Program Evaluation**–A Program Evaluation Capacity Building Strategy and R&D Evaluation Implementation Plan was developed to help professionalize and institutionalize quality evaluation practice in R&D. It supports a continuous improvement process for measuring, developing, maintaining, and sustaining long-term improvements in technology transfer and overall R&D program impact and effectiveness. Implementation of the plan will increase the efficiency, effectiveness, utilization, timeliness, and impact of R&D programs that serve to support the goals of DOT and the safety mission of FRA.

- **Strategic Job Analysis**–A final report summarizing several strategic job analyses will be published, summarizing the knowledge skills and abilities needed for key safety-critical positions in the railroad industry to help improve the recruitment, selection, and training of safety-critical employees. A separate strategic job analysis was conducted specifically for the role of the inspector position with recommendations for hiring and training of new inspectors as FRA transitions from a prescriptive compliance-based inspection system to a more collaborative-based Safety Management System (SMS).

- **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.

- **Grade Crossing Safety–**Research results will be published for the trespass mitigation strategies from the West Palm Beach trespass prevention research study. Results from

the driver behavior analysis using field operational test data will also be published. A prototype low-cost PTC-based train detection and warning system for passive grade crossings will be developed.

- **Rail Integrity–**R&D will continue transitioning the guided wave ultrasonic rail defect inspection technology to railroad practice by supporting the development and demonstration of standardized roller wheel technology to be used by industry suppliers. In addition, new tools will be developed to visualize internal rail flaws using ultrasonic tomography techniques to significantly improve rail defect detection and quantification.

- **Track Geometry–**There will be continued development of recommended practices and recommended safety standards for the use of autonomous track geometry inspection technology. FRA will transition the autonomous technology into service through pilot demonstrations and evaluations. Procedures will be developed to characterize changes in track condition and determine track degradation rates between inspections.

- **Special Track Work–**Development will continue of automated methods to perform detail safety inspection of switches and other special track work.

- **Track Structure–**Assistance will be provided to the industry in developing performance-based concrete tie standards to improve the safety and durability of concrete ties in freight and passenger service areas. Automated inspection technologies will be developed to measure in-track tie performance and degradation.

- **Track Buckling Prevention–**There will be continued development and implementation of industry recommended practice for deployment of rail temperature prediction technology and rail neutral temperature measurement to reduce the number of track buckling derailments.

- **Improved Hazardous Material Safety:**
  - Development of advanced test criteria for evaluating the effectiveness of new hazardous material tank car designs.

  - Evaluation of improved non-destructive tank car inspection techniques will support the development of improved industry recommended practice and Federal safety regulations.

  - Reduce non-accidental releases of hazardous materials by eliminating pressure relief devices on tank cars carrying low-pressure materials such as sodium hydroxide solution.

  - Evaluate the benefits of electronic controlled pneumatic brakes and distributed power to minimize the number of derailed tank cars in case of train accidents and reduce the consequences of released product.

- **Automated Wayside Vehicle Inspection**–R&D has established a partnership with a Class I railroad to conduct a pilot demonstration to determine the overall effectiveness of

wheel temperature detector technology in assuring the safety of freight car braking systems. The pilot demonstration will monitor and evaluate the safety performance of the systems, specifically, their ability to effectively and consistently detect defects and reduce risk compared to current manual inspection processes and procedures. In addition to the wheel temperature detector pilot demonstration, R&D plans to partner with other Class I railroads in an effort to evaluate multiple wayside detection technologies and their effectiveness to detect common rolling stock equipment and component defects.

HSR

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 the 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.

The High-Speed Intercity Passenger Rail (HSIPR) Program has generated enormous interest and excitement across the country. In just 20 months, FRA received nearly 500 applications from 39 States; Washington, D.C.; and Amtrak requesting more than $75 billion in HSR funding made available under the ARRA and FY 2010 appropriations. Three separate award announcements were made (January 28, 2010; October 28, 2010; and May 9, 2011) for the $10.1 billion in available funding, representing a down payment on the vision of a passenger rail network that will help address the Nation's 21st century transportation challenges.

For all three HSIPR funding rounds, FRA's Administrator issued Notices of Funding Availability and interim program guidance for the high-speed passenger rail program. This guidance identified transportation safety and safety planning as evaluation criteria for merit consideration of proposed projects and programs. The strategy described how FRA would provide specificity and additional safety guidance for development of HSR systems.

FRA is working with the California High-Speed Rail Authority on the creation of a new HSR system operated predominantly on grade-separated, dedicated tracks with an operating speed of up to 220 mph. Nearly $3.6 billion in HSIPR funding has been awarded to initiate the project, including 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 more than a decade.

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 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:

- VTI and safety issues related to track and structures will be addressed through a final rule expected to be published soon.
- 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) were developed with the RSAC Engineering Task Force and formally published as guidelines in an October 2011 FRA final report. Initial guidance was issued in CY 2010.
- Structural standards for Tier II and above commenced 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 system safety plans 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 a system safety plan is to improve railroad safety through a structured, proactive program developed and implemented by passenger railroad operators. The plan can also support development of a strong safety culture and requires processes and procedures to identify and manage hazards inherent to the passenger railroad.

Longer-term initiatives that address specific issues related to the Safety Strategy will be developed throughout 2013. Work on these initiatives will commence as other projects are completed and technical resources become available. PRD will continue to evolve system safety plans in practice for HSR entities throughout the period of 2014 to 2018.

Goal #5: Preventing railroad trespasser accidents, incidents, injuries and fatalities.

Trespassing along railroad rights-of-way is the leading cause of rail-related deaths in America. Nationally, more than 400 trespass fatalities occur each year, and nearly as many injuries—the vast majority of which are preventable. By definition, trespassing on private railroad property without permission is illegal. From a study completed in May 2008, FRA learned that trespassers who die are, on average, 38 years old and most often Caucasian males. Approximately two-thirds were under the influence of alcohol 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.

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, enforcement and education programs. Strategy consists of activities that FRA plans and organizes. For example, FRA held a 3-day conference in August 2012 dedicated to the issues associated with railroad trespassing. Additionally, FRA's grade crossing managers conduct their own form of outreach through public speaking engagements and distributing FRA-produced outreach flyers. FRA's law enforcement liaison program promotes enforcement by using liaison officers to engage in training sessions with fellow police officers about railroad trespassing issues. This program will be ongoing throughout the next 5 years.
- Partner with national organizations to increase awareness and enforcement of railroad trespassing, including OL.
- Support efforts being conducted by stakeholders in railroad safety. For example, FRA has partnered with the City of West Palm Beach, Florida, and the South Florida Regional Transportation Authority, CSX Transportation, among other partners, to participate in the Trespass Prevention Research Study, a program designed to identify trespass problems and develop mitigation strategies. The goal is to successfully reduce trespassing incidents and fatalities.

Prior to FY 2014, FRA will have:

1. Hosted the second Right-of-Way Fatality Trespass Prevention workshop in St. Louis, Missouri. The workshop took 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 was 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. Awarded a contract to develop summaries and generic demographic profiles describing the decedents in fatal trespass incidents, and will provide information regarding the at-risk audience to be targeted for additional outreach by FRA and the Agency's partners.

This is a follow-up study to the one released in 2008 titled, Rail Trespasser Fatalities; Developing Demographic Profile. This study will use a private contractor to obtain additional demographic data for the time period of 2005–2010 from local county medical examiners so as to develop a general, regional profile of "typical" trespassers in order to target audiences with appropriate education and enforcement campaigns that will reduce the annual number of injuries and fatalities.

3. Used data collected by the railroads and work with the 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. Effective June 2011, railroads are required to provide latitude/longitude locations for all trespassing casualties reported to FRA.
4. Updated the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossing. This will enable legislatures and researchers to have ready access to the most recent State laws on trespass which will aid in developing more effective laws.
5. Reviewed and updated model trespass legislation and vandalism model legislation.
6. Released its findings from the second edition of Rail Trespasser Fatalities: Developing Demographic Profile.
7. Released the sixth edition of the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossing. This edition will have several chapters on laws that affect railroad trespassing and vandalism. This will enable legislatures and researchers to have ready access to the most recent State laws on railroad trespass and vandalism, which will aid in developing more effective laws.

In FY 2014, FRA will:

1. Study the impact of Rails-with-Trails program on trespasser and pedestrian safety.
2. Review and update trespass and vandalism prevention strategies.

In FY 2015, FRA will:

1. Host the third Right-of-Way Fatality and Trespass Prevention Workshop (as in 2012).
2. Conduct a demographic study of trespasser profiles.

In FY 2016, FRA will:

1. Use the new data collected under Part 225, Railroad Accidents/Incidents: Reports Classification, and Investigations, 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 areas where trespassing is likely to occur.

In FY 2017, FRA will:

1. Update the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossing. This will enable legislatures and researchers to have ready access to the most recent State laws on railroad trespass and vandalism which will aid in developing more effective laws.
2. Review and update model trespass legislation and vandalism model legislation.
3. Review and update trespass and vandalism prevention strategies.

In FY 2018, FRA will:

1. Host the fourth Right-of-Way Fatality and Trespass Prevention Workshop (as in 2012 and 2015).
2. Conduct a demographic study of trespasser profiles.
3. Perform an analysis of the various trespass prevention initiatives that were initiated over previous 5 years to determine best practices.

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

Bridges and tunnels are integral to the infrastructure and safe operations of railroads. Railroads must manage their structures to prevent any occurrence of a catastrophic failure.[4] FRA has been conducting evaluations of railroad bridge management programs since the 1980s, before the Statement of Agency Policy on the Safety of Railroad Bridges was issued as an interim statement in 1995 and in final form in August 2000. The policy issued guidelines by which railroads should implement bridge safety management programs, and by which FRA evaluated those programs. FRA issued a revised bridge policy statement in January 2009 to add recommendations developed in 2008 by the Railroad Bridge Working Group of the RSAC.

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.

Prior to the promulgation of the Bridge Safety Standards found in Part 237, FRA conducted evaluations of 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 conformed to the FRA guidelines, but FRA 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.

To meet requirements of the RSIA, the RSAC developed recommendations for a Federal railroad bridge safety regulation that would govern railroads' bridge management programs. These recommendations served as the basis for FRA's Bridge Safety Standards Final Rule that was

[4] 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.

published on July 15, 2010, in the Federal Register as 49 CFR Part 237, and became effective on September 13, 2010.

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 maintain an accurate inventory of their bridges, know the safe load capacity of bridges, and to conduct special inspections when the weather or other conditions warrant. Bridge management programs also 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.

The Bridge Safety Standards include a staggered schedule for the adoption of bridge management programs. The initial group of track owners, including Class I freight railroads and major passenger carriers, were required to adopt their respective bridge management programs by March 14, 2011. Class II and III railroads were required to adopt their bridge management programs by September 13, 2011, and September 13, 2012, respectively. FRA's bridge and structures staff members met with all of the Class I freight railroads and the majority of the major passenger carriers in order to review their respective programs and discuss any apparent oversights or deficiencies. Similar reviews have begun on the Class II railroads as well as with holding companies that have indicated that their programs will be developed at the corporate level and then driven down to the individual subsidiary railroads. Future evaluations of railroad bridge management practices will compare an adopted bridge management program against regulatory requirements for content, followed by a comparison of a track owner's actual practices against that called for in their adopted bridge management program.

FRA examined reports from January 1, 1982, through December 31, 2006, of 51 train accidents caused by the catastrophic structural failure 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 the most recent 4-year period from January 1, 2007, through December 31, 2010, FRA reports show 12 train accidents occurred due to catastrophic structural failure resulting in seven injuries and no fatalities. Of these 12 catastrophic structural failures of bridges, 10 involved timber trestles, one a steel pile trestle, and one was caused by failure of the mechanism of a movable bridge. The most severe of these accidents occurred in 2007 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.

In addition to the development of regulations and the evaluation of railroad bridge management programs, FRA cooperated with ASLRRA and all of the Class I railroads in the development of a bridge management program guidance document that can be used by small railroads to assist in the development of their own bridge management programs. FRA also provided 1 day of

instruction on bridge management program development at each of three seminars sponsored by ASLRRA in Kansas City, Reno, and Baltimore.

Future Bridge Safety Strategy

FRA's strategy for enhancing railroad bridge safety moving forward follows several paths. As with any new regulation, it is critical that those persons governed by the requirements clearly understand what is expected of them. To this end, FRA intends to focus on education and outreach through participation in both FRA and industry conferences and seminars where training opportunities are made available to railroads, especially the smaller entities. Enforcement of the new Part 237, Bridge Safety Standards, will be used to both educate as well as elicit compliance. Initially, FRA will focus on track owners' policies and bridge management programs to ensure that contents meet the minimum requirements of the regulation. Upon finding any deficiencies, FRA plans to place the track owner on notice through the non-punitive aspects of the railroad inspection program. Failing to solicit substantive improvement in a reasonable timeframe may lead to the imposition of civil penalties; however, FRA would prefer to see such funds expended on the maintenance and improvement of the railroad infrastructure. Once FRA is satisfied that a track owner's bridge management program meets the regulatory requirements, the Agency will move to auditing a track owner's compliance with not just the regulations but also their own adopted program. Bridge management including inspection, load capacity evaluation, design, and construction all rely on adherence to sound engineering practices. Typically, these practices and standards have evolved and been documented by professional organizations comprising experts in the field such as the American Railway and Maintenance-of-Way Association (AREMA) and similar organizations. FRA bridge staff will actively participate in the maintenance and development of railroad bridge consensus standards through membership on the various AREMA structures committees.

Attaining the following milestones assumes the current staffing level within FRA's bridge and structures group remains unchanged.

Prior to FY 2014, FRA will have:

1. Completed Part 237 reviews of Class I railroads and major passenger systems.
2. Completed Part 237 reviews of Class II railroads.
3. Completed Part 237 reviews of some of the over 650+ Class III and other railroads.[5]
4. Performed bridge inspection audits of Class I railroads and major passenger systems.
5. Performed bridge inspection audits of Class I and Class II railroads.
6. Developed a Bridge Safety Standards compliance manual.
7. Published a Bridge Safety Standards compliance manual.

In FY 2014, FRA will:

1. Perform Part 237 reviews of 10 percent of Class III and other railroads.
2. Perform bridge inspection audits of all classes of railroads.
3. Create guidelines for railroad tunnel management and inspection.

[5] Other railroads are defined (as it was referenced in the final rule for the Bridge Safety Standards) as tourist, scenic, and excursion railroad operations whether they are connected to the general railroad system of transportation.

In FY 2015, FRA will:

1. Perform Part 237 reviews of 10 percent of Class III and other railroads.
2. Perform bridge inspection audits of all classes of railroads.
3. Review and consider updating Part 214, Subpart B, Bridge Worker Safety Standards.
4. Review Part 237, Bridge Safety Standards, for possible revision.

In FY 2016, FRA will:

1. Perform Part 237 reviews of 10 percent of Class III and other railroads.
2. Perform bridge inspection audits of all classes of railroads.
3. Audit Class I railroads and major passenger system bridge management programs.
4. Review Class I railroads and major passenger systems bridge load capacities

In FY 2017, FRA will:

1. Perform Part 237 reviews of 10 percent of Class III and other railroads.
2. Perform bridge inspection audits of all classes of railroads.
3. Audit Class II railroad bridge management programs.
4. Review Class II railroad bridge load capacities

In FY 2018, FRA will:

1. Perform Part 237 reviews of 10 percent of Class III and other railroads.
2. Perform bridge inspection audits of all classes of railroads.
3. Continue audits of Class II railroad Bridge Management Programs.
4. Review Class III and other railroads bridge load capacities.

RESOURCES NEEDED

The resources needed to meet the safety programs and goals in this strategy plan for FY 2014 are found in FRA's budget request for FY 2014.

PROGRESS ASSESSMENT

A historic review of FRA's safety program (using information from GPRA measures over a number of years) is provided below. These results show the progress made leading up to the RSIA requirements.

FRA Safety Performance Measures

1. GRADE CROSSING INCIDENTS*

Fiscal Year	Incidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	3,078	764,845,686	4.024	NA
2005	2,986	785,881,848	3.800	3.900
2006	3,070	808,609,382	3.797	3.850
2007	2,812	798,261,501	3.523	3.750
2008	2,547	786,124,593	3.240	3.750
2009	2,054	687,929,270	2.986	3.650
2010	2,007	692,311,027	2.899	3.650
2011	2,050	712,839,753	2.876	3.500
2012	2,020	741,109,132	2.726	3.300

* All data is current as of December 2012, and are from Sec. 1.01 of FRA's Office of Safety Analysis Data Web site. FY 2011 and 2012 data are preliminary.

2. HUMAN FACTOR-CAUSED TRAIN ACCIDENTS*

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	1,315	764,845,686	1.719	NA
2005	1,295	785,881,848	1.648	1.660
2006	1,116	808,609,382	1.380	1.660
2007	1,035	798,261,501	1.297	1.660
2008	967	786,124,593	1.230	1.660
2009	716	687,929,270	1.041	1.350
2010	655	692,311,027	0.946	1.350
2011	698	712,839,753	0.979	1.250
2012	647	741,109,132	0.873	1.200

* All data is current as of December 2012, and are from Sec. 1.01 of FRA's Office of Safety Analysis Data Web site. FY 2011 and 2012 data are preliminary.

3. TRACK-CAUSED TRAIN ACCIDENTS*

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	1,006	764,845,686	1.315	NA
2005	1,099	785,881,848	1.398	1.270
2006	1,066	808,609,382	1.318	1.270
2007	1,004	798,261,501	1.258	1.150
2008	860	786,124,593	1.094	1.150
2009	712	687,929,270	1.035	1.150
2010	672	692,311,027	0.971	1.150
2011	678	712,839,753	0.951	1.120
2012	588	741,109,132	0.793	1.080

* All data is current as of December 2012, and are from Sec. 1.01 of FRA's Office of Safety Analysis Data Web site. FY 2011 and 2012 data are preliminary.

4. EQUIPMENT-CAUSED TRAIN ACCIDENTS*

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	419	764,845,686	0.548	NA
2005	392	785,881,848	0.499	0.521
2006	350	808,609,382	0.433	0.521
2007	334	798,261,501	0.418	0.521
2008	342	786,124,593	0.435	0.521
2009	252	687,929,270	0.366	0.450
2010	255	692,311,027	0.368	0.450
2011	244	712,839,753	0.342	0.450
2012	207	741,109,132	0.279	0.430

* All data is current as of December 2012, and are from Sec. 1.01 of FRA's Office of Safety Analysis Data Web site. FY 2011 and 2012 data are preliminary.

5. OTHER (SIGNAL AND MISCELLANEOUS) TRAIN ACCIDENTS*

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	529	764,845,686	0.692	NA
2005	556	785,881,848	0.707	0.647
2006	518	808,609,382	0.641	0.647
2007	404	798,261,501	0.506	0.647
2008	391	786,124,593	0.497	0.647
2009	332	687,929,270	0.483	0.647
2010	343	692,311,027	0.495	0.593
2011	340	712,839,753	0.477	0.590
2012	314	741,109,132	0.424	0.560

* All data is current as of December 2012, and are from Sec. 1.01 of FRA's Office of Safety Analysis Data Web site. FY 2011 and 2012 data are preliminary.

6. RAIL NON-ACCIDENTAL HAZMAT RELEASES*

Fiscal Year	Releases	Hazardous Material Ton- Miles	Rate per 200-million HM Ton-Miles	
			Actual	GPRA Goal
2004	690	99,471,842,135	1.387	NA
2005	746	106,698,150,776	1.398	1.422
2006	650	113,372,962,173	1.147	1.385
2007	721	118,127,388,438	1.221	1.348
2008	706	115,079,552,454	1.227	1.326
2009	650	113,179,992,644	1.149	1.278
2010	682	128,311,280,742	1.063	1.278
2011	709	131,445,416,561**	1.079**	1.249
2012	588	133,203,259,674**	0.883**	1.220

*All data is current as of December 2012 and are derived from the PHMSA hazmat database and the Carload Waybill Sample.
** Projected.

CONCLUSION

FRA's Railroad Safety Strategy includes a variety of approaches to achieve industry safety improvements. The annual NSPP is focused on critical safety projects that are designed to advance safety improvements. The annual NIP focuses Federal inspection efforts toward areas on railroads needing the most attention and monitors progress made achieving inspection goals.

Rulemakings are improving industry actions by providing standards for addressing safety issues, and FRA's rulemaking completions also marked the culmination of the RSIA required update of track standards with completion of rules addressing concrete crossties, rail integrity and VTI. The RRP brings industry and FRA together to build a strong safety culture and continuous safety improvement. 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 program has a positive safety impact, a positive impact on performance, and identifies 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. FRA has consistently achieved safety improvements reducing highway-rail grade crossing incidents, human factor-caused train accidents, track-caused train accidents, equipment-caused train accidents, and other (signal and miscellaneous) train accidents per train-mile, and rail non-accidental hazardous materials releases per 200 million hazmat ton-miles.

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

Railroad Safety Strategy FY 2013–2017: Progress Assessment

January 2013

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SUMMARY OF FINDINGS

In this Progress Assessment, the Federal Railroad Administration (FRA or the Agency) reports on accomplishments made in fiscal year (FY) 2012 toward achieving the safety goals for the period from FY 2013 to FY 2017, as described in the Railroad Safety Strategy.[1] The Railroad Safety Strategy is FRA's long-term plan to realize the safety goals enumerated in Section 102(a) of the Rail Safety Improvement Act of 2008 (RSIA).

In FY 2012, FRA continued on working to improve railroad industry safety and meet the mandates of the RSIA. Comparing FY 2012 to FY 2011, the overall rail-related accident/incident rate declined by approximately 9 percent. The grade crossing incident rate, human factor-, track-, and equipment-caused train accident rates, as well as the non-accidental rail hazardous materials (HAZMAT) releases rate, all decreased. FRA focused on developing its Risk Reduction Program (RRP), advancing initiatives for the high-speed rail (HSR) program, facilitating implementation of Positive Train Control (PTC) systems by December 2015, and making necessary updates to track safety standards.

BACKGROUND

FRA promotes safety in various ways, including by regulating the Nation's railroad industry. FRA's regulatory authority derives primarily from the statutory authority of the Secretary of Transportation (Secretary) under Title 49 U.S.C. Chapters 201–213, which the Secretary has delegated to FRA by regulations at Title 49 Code of Federal Regulations (CFR) Section 1.49. FRA's safety regulations are codified under Title 49 CFR Parts 209–244. Under FRA's delegated statutory authority, the Agency has numerous enforcement tools, including defect and deficiency warnings, civil penalties, compliance orders, emergency orders, special notices, and directives. FRA also enforces the hazmat transportation laws (49 U.S.C. Chapter 51) and implementing regulations and orders especially in the rail mode of transportation. See 49 CFR Parts 171–177. FRA executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts, assigned to headquarters in Washington, D.C., and to eight regional offices across the Nation. An FRA safety inspector specializes in one of five disciplines. These disciplines consist of Track, Signal and Train Control (S&TC), Motive Power and Equipment (MP&E), Operating Practices (OP), and Hazardous Materials (HM). In addition, FRA's headquarters and regional offices include program managers and specialists for highway-rail grade crossing safety and trespass prevention, assessing rail and infrastructure integrity, and industrial hygiene and workplace safety.

Safety statistics show that the railroad industry's long-term safety record improved significantly from FY 2003 through FY 2012. During this period, the total number of all reportable rail-related accidents and incidents declined 25 percent (14,295 vs. 10,788, respectively).[2] Also,

[1] Dated February 2012.

[2] Collisions, derailments, fires, explosions, acts of God, or other events involving the operation of railroad on-track equipment (standing or moving) and causing reportable damages greater than the reporting threshold for the year in which the accident/incident occurred must be reported using Form FRA F6180.54. The threshold for calendar year (CY) 2012 was $9,500; for CY 2013 it is $9,900.

train accidents fell by 41 percent (2,991 vs. 1,756); casualties (deaths and injuries) dropped 18 percent (10,069 vs. 8,295); and highway-rail grade crossing incidents decreased 31 percent (2,934 vs. 2,020). Under the Government Performance and Results Act of 1993 (GPRA), the Agency also devoted four of its six safety performance measures to evaluating safety performance using train accidents.

FRA SAFETY PERFORMANCE MEASURES

FRA believes that the progress made toward achieving the long-term goals set forth in the Railroad Safety Strategy required by Section 102 of the RSIA, and the results of other FRA safety efforts, are best evaluated using the GPRA measures. The GPRA measures correspond to the functional areas in which FRA provides safety guidance and exercises enforcement authority. FRA has been using these GPRA goals to measure regional performance, and overall safety performance, since GPRA was officially implemented at the Agency in 2003.[3]

A historic review of FRA's safety program, including information from GPRA measures during a 9-year period, are provided in the following tables to show the progress made leading up to the enactment in 2008 of the RSIA requirements and thereafter.

FRA Safety Performance Measures

In summary, using the data below for the complete years from FY 2004 to FY 2012, the actual rates of the various accidents, incidents, etc. *decreased* by the following percentages—showing safety improvements in all measures:

- Grade crossing incidents rate by 32 percent.
- Human factor-caused train accidents rate by 49 percent.
- Track-caused train accidents rate by 40 percent.
- Equipment-caused train accidents rate by 49 percent.
- Other (signal and miscellaneous) train accidents rate by 39 percent.
- Non-accidental rail hazmat releases rate (per 200 million hazmat ton-miles) by 36 percent.
- Rail-related accidents/incidents rate by 24 percent.

[3] FRA re-evaluates and updates GPRA goals annually when newer safety data is available. Future GPRA goals could improve further with new safety initiatives and additional resources to carry out those initiatives.

1. GRADE CROSSING INCIDENTS[4]

Fiscal Year	Incidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	3,078	764,845,686	4.02	N/A
2005	2,986	785,881,848	3.80	3.90
2006	3,070	808,609,382	3.80	3.85
2007	2,812	798,261,501	3.52	3.75
2008	2,547	786,124,593	3.24	3.75
2009	2,054	687,929,270	2.99	3.65
2010	2,007	692,311,027	2.90	3.65
2011	2,050	712,839,753	2.88	3.50
2012	2,020	741,109,132	2.73	3.30

2. HUMAN FACTOR-CAUSED TRAIN ACCIDENTS

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	1,315	764,845,686	1.72	N/A
2005	1,295	785,881,848	1.65	1.66
2006	1,116	808,609,382	1.38	1.66
2007	1,035	798,261,501	1.30	1.66
2008	967	786,124,593	1.23	1.66
2009	716	687,929,270	1.04	1.35
2010	655	692,311,027	0.95	1.35
2011	698	712,839,753	0.98	1.25
2012	647	741,109,132	0.87	1.20

[4] Includes train accidents.

3. TRACK-CAUSED TRAIN ACCIDENTS

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	1,006	764,845,686	1.32	N/A
2005	1,099	785,881,848	1.40	1.27
2006	1,066	808,609,382	1.32	1.27
2007	1,004	798,261,501	1.26	1.15
2008	860	786,124,593	1.09	1.15
2009	712	687,929,270	1.04	1.15
2010	672	692,311,027	0.97	1.15
2011	678	712,839,753	0.95	1.12
2012	588	741,109,132	0.79	1.08

4. EQUIPMENT-CAUSED TRAIN ACCIDENTS

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	419	764,845,686	0.548	N/A
2005	392	785,881,848	0.499	0.521
2006	350	808,609,382	0.433	0.521
2007	334	798,261,501	0.418	0.521
2008	342	786,124,593	0.435	0.521
2009	252	687,929,270	0.366	0.450
2010	255	692,311,027	0.368	0.450
2011	244	712,839,753	0.342	0.450
2012	207	741,109,132	0.279	0.430

5. OTHER (SIGNAL AND MISCELLANEOUS) TRAIN ACCIDENTS

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	529	764,845,686	0.692	N/A
2005	556	785,881,848	0.707	0.647
2006	518	808,609,382	0.641	0.647
2007	404	798,261,501	0.506	0.647
2008	391	786,124,593	0.497	0.647
2009	332	687,929,270	0.483	0.647
2010	343	692,311,027	0.495	0.593
2011	340	712,839,753	0.477	0.590
2012	314	741,109,132	0.424	0.560

6. NON-ACCIDENTAL RAIL HAZMAT RELEASES

Fiscal Year	Releases	Hazmat Ton-Miles	Rate per 200 Million Hazmat Ton-Miles	
			Actual	GPRA Goal
2004	690	99,471,842,135	1.387	NA
2005	746	106,698,150,776	1.398	1.422
2006	650	113,372,962,173	1.147	1.385
2007	721	118,127,388,438	1.221	1.348
2008	706	115,079,552,454	1.227	1.326
2009	650	113,179,992,644	1.149	1.278
2010	682	128,311,280,742	1.063	1.278
2011	709	131,445,416,561*	1.079*	1.249
2012	588	133,203,259,674*	0.883*	1.220

*Estimated

DOT Safety Performance Goal

1. RAIL-RELATED ACCIDENTS/INCIDENTS

Fiscal Year	Accidents	Train-Miles	Rate per Million Train-Miles	
			Actual	GPRA Goal
2004	14,560	764,845,686	19.04	17.49
2005	14,219	785,881,848	18.09	17.14
2006	14,171	808,609,382	17.53	16.80
2007	13,808	798,261,501	17.30	16.70
2008	13,290	786,124,593	16.91	18.45
2009	11,616	687,929,270	16.89	17.00
2010	11,537	692,311,027	16.66	16.40
2011	11,399	712,839,753	15.99	16.40
2012	10,788	741,109,132	14.56	16.30

RSIA SAFETY GOALS

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

FRA's Mission Statement establishes a commitment to putting into place processes that enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. A variety of different programs have been incorporated into FRA's Safety Management System (SMS) to reduce the number and rates of accidents, incidents, injuries, and fatalities involving railroads. This section of the Progress Assessment identifies these elements and how they contribute to improving the railroad industry's safety record.

FRA has a philosophy of constantly evaluating the process of its safety improvement programs. The objective is to make changes when such changes can achieve greater advances in industry safety. New programs have also been introduced during recent years to further advance safety improvement objectives.

FRA's safety strategy assessment of risk has several components that contribute to reducing safety risk. Management's focus is on effective ways to achieve improvements that are operationally sustainable over time. The Office of Railroad Safety (RRS) performance targets are both national and regional in scope in order to validate the effectiveness of risk reduction strategies. National measures include GPRA safety targets that are also divided into regional targets by inspector disciplines. The scope and diversity of the programs range from traditional regulatory requirements and enforcement actions to non-regulatory RRPs that use cooperative partnerships between interested parties to improve industry safety.

FRA's SMS objectives, as outlined by the Secretary, are made up of many interrelated parts. FRA operates as an integrated agency: (1) RRS promotes safety including regulating the Nation's railroad industry with multiple programs that facilitate an overarching management system designed to advance safety improvements. (2) The Office of Chief Counsel (RCC) provides legal support for FRA's various programs by drafting safety legislation, regulations, orders, and interpretations; and by handling civil penalty collections, criminal enforcement, Locomotive Engineer Review Board certification cases, and administrative and judicial litigation. (3) The Office of Railroad Policy and Development (RPD) conducts critical research and development, testing, and evaluation projects to support FRA's safety mission and to enhance the railroad system as a national transportation resource. RPD plays a key role in developing and testing new technology in order to advance science and engineering to improve the technology for railroad safety, and provides support, analysis, and recommendations on broad subjects relating to the railroad industry. (4) The Offices of Financial Management and Administration provide infrastructure support for information technology, capital planning, financial, budget, performance management, and human resources.

FRA plans its safety-related activities to be responsive to: (1) statutory requirements and congressional directives including Government Accountability Office (GAO) recommendations; (2) a review of relevant safety statistics, findings in prior safety inspections and investigations, safety research and development; and (3) recommendations from the National Transportation Safety Board (NTSB) and other oversight bodies, including the U.S. Department of Transportation (DOT) Office of the Inspector General (OIG).

RRS annually evaluates the effectiveness of its safety programs in achieving intended outcomes. The evaluations help determine the extent to which a safety program is having an impact on outcomes versus other variables that affect outcomes. By examining a broader range of information on an ongoing basis through performance measures, evaluations explore the benefits of a program as well as ways to improve program performance. Performance measures are also used to improve program results.

FRA's annual Railroad Safety Strategy and the Progress Assessment supply Congress with FRA's action plans and FRA's overall achievements in reaching or exceeding GPRA safety

improvement goals. The Railroad Safety Strategy and Program Assessment are also used to report on FRA's progress to achieve SMS objectives. FRA's Railroad Safety Strategy is a 5-year plan to improve the railroad industry's safety record on the following: (1) reducing the number and rate of accidents, incidents, and fatalities that include train collisions, derailments, and human factors; (2) improving consistency and effectiveness of enforcement and compliance programs; (3) improving 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; and (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's Progress Assessment reports on achievement of strategic goals described in the prior year's Railroad Safety Strategy report to Congress and any deficiencies identified in achieving safety goals including measures instituted to remediate deficiencies.

FRA is using GPRA to measure improvements in the management of safety programs by shifting the focus of decisionmaking from staffing and activity levels to the results of Federal programs. Under GPRA, FRA's strategic plan sets the general direction for the safety efforts including annual performance plans that establish the connections between the long-term strategic goals outlined in the strategic plans, and the day-to-day activities of program managers and staff. GPRA is being used for: (1) how FRA does business; (2) holding FRA managers accountable for program results; (3) focusing on things such as service quality and customer satisfaction; (4) how management information is made available so it will be more accessible to the general public; and (5) improving the overall management of the safety initiatives. FRA has not only evaluated existing safety programs; it has started the RRP, which focuses on new ways to reduce safety risk. FRA's safety program is designed to get the best results making effective use of available funds through an efficient process. The Office of Railroad Safety has been using the RRP, National Safety Program Plan (NSPP), Railroad System Oversight Managers (RSOM), National Inspection Plan (NIP), Regional Inspection Points (RIP), Staffing Allocation Model (SAM), Dashboard, Railroad Safety Advisory Committee (RSAC), System Safety Program Plan (SSPP), Highway-Rail Crossing Safety and Trespass Prevention, Switching Operations Fatality Analysis (SOFA), Fatality Analysis of Maintenance-of-Way Employees and Signalmen (FAMES), Operation RedBlock, focused inspections, and program evaluations to formulate a safety strategy to achieve meaningful safety improvements. GPRA provides a way to measure success or failure in achieving stated goals. It provides a baseline, over time, against which to measure FRA safety performance. FRA's Progress Assessment reports on the historical long-term performance results.

Section 103 of the RSIA mandates issuance of a regulation that requires each Class I railroad, commuter and intercity passenger railroad, and railroads with "inadequate safety performance (as determined by the Secretary)" to develop and implement a railroad safety RRP "that systematically evaluates railroad safety risks on its system and manages those risks…." RRP elements include a risk mitigation plan, a technology implementation plan, and a fatigue management plan (broader than hours of service employees). As part of FRA's RRP, the Agency will conduct pilot projects with railroad management and labor to find non-regulatory ways to improve safety. In July 2008, an RRP Division was established in the Office of Railroad

Safety. On June 16, 2009, FRA issued a Broad Agency Announcement supporting Class I railroad pilot projects. Proposal evaluations were conducted, and in September 2009, seven grants (totaling $433,000) were awarded for pilot projects on six Class I railroads. In 2010, FRA solicited proposals (due to limited funding, only from Class I railroads) and awarded five grants in September 2010 (totaling $350,000).

FRA, working with stakeholders, is creating an environment to gain voluntary participation to reduce risk from operations using confidential information to assist in decisionmaking with nonpunitive actions to improve railroad industry safety so that upstream predictive measures can be used to improve safety. These innovative methods, processes, and technologies will be used to achieve an aggregate 50-percent reduction in reportable accidents and injuries in RRP pilot projects over a 5-year period. FRA also has a long-term goal to achieve a similar 50-percent reduction in reportable accidents and injuries, industrywide over a 10-year period. FRA's focus is to develop a risk reduction strategy to further drive down the number of train accidents. Risk reduction supplements existing methods of Federal safety oversight and compliance enforcement. FRA will work with railroads to identify, analyze, and correct safety issues before they result in a train accident or employee injury. The ongoing FRA Confidential Close Call Reporting System (C3RS) demonstration project is one example of the risk reduction strategy at work.

NSPP is RRS's annual plan to establish a comprehensive outline for implementation of safety initiatives that are designed to focus efforts on activities that will provide meaningful safety improvement results. NSPP integrates these safety improvement plans into a single document that fully supports GPRA and DOT goals. NSPP has plans for all safety disciplines, regions, and RSOMs for each Class I railroad. At the national level, the emphasis is on data analyses that include interregional initiatives directed at multiregional railroad operations so the efforts are effective and efficient for achieving safety improvement results. These plans are updated quarterly and issued to every employee in RRS.

RSOMs focus on Class I railroads' safety risk issues. These managers identify broad scale compliance problems that affect multiple locations on a railroad's system. This is done mainly through analyses of accident data on defects and violations found during inspections, communications among managers at headquarters and with the eight regional offices on the results of analyses and inspections, and further inspections to obtain more information about identified problems. Findings are presented to senior railroad managers that attend meetings with FRA's Administrator for a discussion on how to resolve safety risk issues.

NIP is intended to optimize FRA's ability to reduce the rates of train accidents, hazmat releases, and casualties from human factor-caused errors. FRA safety inspectors focus on locations that are likely to have safety problems based on data models and regional awareness of safety hazards. NIP involves three steps: (1) FRA headquarters produces an initial baseline plan for each region; (2) the Regional Administrators (RA) may adjust the goals for their respective regions based on local knowledge and emerging issues; and (3) once the fiscal year begins, FRA monitors how the regions are meeting their inspection goals. NIP is housed on a Web-based interface that allows FRA headquarters and the regions to monitor progress of field inspectors during a fiscal year. NIP is not a standalone program. It is designed to support GPRA initiatives

along with RRP, NSPP, and RSOMs with the aid of the SAM, RIP, Dashboard, focused enforcement, and program evaluation. The objective is to achieve cost effective safety improvement results.

RIP is an inventory of each railroad by discipline compiled by inspectors for their inspection territory to benefit risk analysis. This information is used for planning inspection activity in conjunction with accidents/incidents, defects, violations, and inspections performed by safety inspectors.

SAM ensures that FRA is putting inspectors in the best locations to achieve the most cost effective safety results. This model uses consequences (i.e., damages and casualties) as the basis for comparison. SAM provides guidance on redistributing FRA's inspection resources across regions and disciplines. Mathematical equations are derived from regression to estimate train accidents, casualties, and damages based on the number of safety inspectors. SAM includes the OP, Track, MP&E, and S&TC disciplines, but not the HM discipline. Hazmat releases are mostly non-accidental releases (i.e., not related to railroad accidents). Toxic-inhalation-hazard (TIH) material releases in train accidents are mostly the results of other causes.

Dashboard is housed on FRA's secure Web site for ready access by safety leadership, regional management, and inspectors to be able to view historical enforcement efforts. Inspection data is compiled into graphs and gauges that show information such as inspection days, defect ratios, and violations. Dashboard is a tool for managing limited inspection resources when scheduling enforcement activities such as focused inspections and audits. FRA managers monitor inspection activities to ensure that enforcement and compliance policy is applied uniformly.

RSAC is a partnership effort, chartered under the Federal Advisory Committee Act, which FRA established to work with 31 organizations representing labor, railroads, suppliers and manufacturers, States, and passenger advocates, as well as advisors from the Federal Transit Administration, Transportation Security Administration, NTSB, the transportation departments of the governments of Canada and Mexico, and various other entities. Participating parties collaborate on safety tasks that they agree to accept from FRA and work together in an attempt to reach consensus on pressing safety issues. This process has improved the quality of railroad safety initiatives and fostered a greater level of compliance with safety regulations.

FRA's SSPP supports the System Safety Program for passenger railroads. It has (1) a hazard management process; (2) program and implementation audits for compliance; (3) passenger railroads, host railroads, contract operators, and others who provide safety-sensitive services; and (4) passenger railroads system safety training programs.

FRA's Highway-Rail Crossing and Trespass Prevention Division is primarily an outreach program to the general public about the dangers on railroad property. FRA works with the Federal Highway Administration, the Federal Motor Carrier Safety Administration, State DOTs, and private organizations to promote (1) education with Operation Lifesaver, Inc., (2) enforcement with police officers detailed to FRA, and (3) engineering initiatives to close crossings and conduct upgrades of crossing warning devices. FRA assists the railroads in

working with States and local communities to close crossings, plan corridor programs, advance public education and awareness, and promote law enforcement.

The SOFA working group analyzes switching operation employee on-duty fatalities. Its findings made it possible to develop five major SOFA safety advisories that FRA regulators use in cooperation with railroad management and unions to address the most common causes associated with these fatalities. The advisories cover inexperienced employees, close clearances, hazards on industrial track, risk of being struck by mainline trains, and job or safety briefings.

FAMES analyzes engineering and signalmen fatalities to look for commonalities, develop findings, and make recommendations to the industry in order to prevent similar incidents.

SOFA and FAMES consist of railroad management, labor organizations, associations, and FRA. Participants work on safety improvements that are non-regulatory processes.

Operation RedBlock is a non-regulatory program that has had positive safety improvement results in reducing alcohol use. FRA (working with railroad management, labor organizations, and individual employees) promotes and assists with marketing, adopting, and implementing non-regulatory programs.

Focused inspections are basic efforts toward achieving success of rail safety improvements. This enforcement approach is used by safety inspectors to take advantage of understanding the nature of rail-related accidents and to analyze trends in railroad safety. RRS collects accident/incident data from the railroads and converts this information into meaningful statistical tables, charts, and reports for safety inspectors, which are an integral component of the focused inspection efforts underway on a day-to-day basis. The safety inspectors use this information in dealing directly with the railroads in order to enforce the Federal rail safety laws and measure compliance in an effective and efficient process.

FRA's Safety Assurance and Compliance Program enforces Federal rail safety statutes and regulations and the hazmat regulations. The Federal railroad safety statutes and hazmat transportation statutes encourage compromise of civil penalty assessments, and set forth criteria to be considered when assessing civil penalties and settling civil penalty assessments. These statutes also provide for civil penalties against individuals for willful violations of the rail safety requirements or knowing violations of the hazmat requirements, disqualification of individuals from performing safety-sensitive service for violations, whether willful or not, that demonstrate unfitness for safety-sensitive service, and warning letters to individuals about their violations. The Administrator may issue an order directing compliance after providing notice and opportunity for a hearing. FRA sometimes enters into compliance agreements with railroads in which the railroad promises specific remedial action and, should it fail to deliver on its promise, agrees to the imposition of a compliance order, an emergency order, or particular fines. An inspector may order a locomotive, freight car, or unit of passenger equipment, out of service, or lower the class of track using the authority of special notices for repairs. FRA may request that the Attorney General seek court injunctions prohibiting violations. The FRA Administrator may issue an emergency order to abate an emergency where an unsafe condition or practice causes an emergency situation involving a hazard or death, personal injury, or significant harm to the

environment. Enforcement authority, in conjunction with FRA's other safety management systems, creates a complete overall safety program to maximize existing resources for the best safety improvement outcome.

PTC

PTC refers to processor/communication-based technology that is capable of preventing train-to-train collisions, overspeed derailments, incursion into established roadway work zone limits, and the movement of a train through an improperly lined switch. PTC systems vary widely in complexity and sophistication. PTC technology may also have security benefits because the system can potentially limit the consequences of incidents such as hijackings and runaway trains.

FRA has amended the PTC regulation in consideration of stakeholder requests. In FY 2012, an amendment to the final rule was published reflecting a settlement between FRA and the Association of American Railroads (AAR) that eliminated two risk-based tests. These tests could potentially have caused PTC to be installed on more track segments than specifically required by Congress. The amendments were published on May 14, 2012, and became effective on July 13, 2012. Per the settlement, FRA will also issue a second Notice of Proposed Rulemaking (NPRM) that will address en route failures of PTC-equipped trains, situations when a signal system could be removed after PTC installation, and whether yard movements and certain other train movements should qualify for a *de minimis* risk exception to the PTC rule. The second PTC rulemaking responds to a petition for rulemaking from the AAR and is intended to make other, miscellaneous amendments to the PTC regulations at 49 CFR Part 236. FRA published the second proposed rule amendment in 2012.

During FY 2012, FRA has continued to support implementation of this technology by reviewing and approving PTC Implementation Plans (PTCIP). To date, FRA has approved 42 plans submitted by the railroads. Two additional railroads are in the process of submitting their plans with FRA assistance. The PTCIPs reviewed in FY 2012 had to be revised because of delays in the availability of the required technology, line segment reprioritizations based on changes in carrier traffic, and reductions in required PTC installations.

The industry is facing several challenges in implementing PTC systems by the statutory December 31, 2015, deadline. Delays resulting from technical issues with the Interoperable Electronic Train Management System (I-ETMS), a system that will be implemented by many railroads, might result in installation efforts extending beyond the deadline. The large scale deployment of PTC (covering approximately one-half of all track route miles), the limited time available for installation, and the emerging technical issues will necessitate significant ongoing FRA oversight and assistance. In order to minimize the schedule impact from the technical and programmatic issues, FRA and the railroads are adopting an aggressive strategy that requires widespread PTC system deployment prior to completion of their pilot area test programs. FRA will continue to provide field engineering and pre-revenue service support throughout the PTC implementation period.

FRA has granted Type Approval and System Certification to several PTC systems:

- National Railroad Passenger Corporation's (Amtrak) Advanced Civil Speed Enforcement System (ACSES) in use on the Northeast Corridor.
- Amtrak's Incremental Train Control System (ITCS) in use on its Michigan Line (FY 2012).
- BNSF Railway's (BNSF) Electronic Train Management System (ETMS) in use on several of the railroad's subdivisions.
- CSX Transportation, Inc.'s (CSX), BNSF's, Norfolk Southern Railway's, and Union Pacific Railroad's (UP) I-EMTS for use as described in their joint submission (FY 2012).
- FRA System Certification of Southern California Regional Rail Authority's I-ETMS expected in late CY 2013 due to schedule slippages.

FRA is also using funds authorized by the RSIA to address common PTC implementation issues. Of the nine grants awarded under the Railroad Safety Technology Grant Program, one has been successfully completed. Two grants had been scheduled for completion in December 2012, corrections to the deliverables of one are in progress, while the deliverables of the second wer not completed. (The remaining six grants will extend into CY 2013.) In 2012, FRA provided technical and financial oversight of the projects funded by these grants, and will continue to do so.

FRA is supporting the integration of PTC technologies and HSR. FRA provided funding and technical support to the Peninsula Corridor Commuter Rail Service in California (Caltrain), for preliminary design work on the Communications-Based Overlay Signal System (CBOSS), an ITCS-based PTC system. CBOSS will be implemented on the high-speed corridor between San Francisco and San Jose, California. Other FRA accomplishments during FY 2012 have been the authorization of Amtrak to operate at speeds up to 110 mph on the Chicago to Detroit corridor between Porter, Indiana, to Kalamazoo, Michigan; and supporting an extension of the line from Kalamazoo and New Buffalo, Michigan, to allow 110-mph operation on that segment.

The RSIA required FRA to submit a report on the status of PTC implementation to Congress by December 31, 2012. This status report was submitted in August 2012.

RSAC and Other Rulemaking Activities

FRA continued to focus on establishing regulations mandated by the RSIA, as well as other high-priority regulations aimed at reducing accidents, incidents, injuries, and fatalities for FY 2012. FRA issued amendments to the PTC rule to facilitate implementation through added flexibility and resolution of outstanding issues and also made significant progress towards issuing a second NPRM to add yet more flexibility. During FY 2012 FRA also made several RSIA-required updates to track standards, completing rules addressing concrete crossties, rail integrity, and vehicle-track interaction (VTI). During this fiscal year, the full RSAC met three times, and various working groups and their task forces held approximately 40 meetings in order to develop recommendations for pressing safety issues. FRA worked to develop the following safety regulations in collaboration with the RSAC or through the traditional rulemaking process:

- Camp Cars Sleeping Quarters (final rule published FY 2012)
- Conductor Certification (final rule published FY 2012)
- Critical Incidents (Effect on Employees)
- Dark Territory
- Electronic Device Distraction
- Emergency Notification Systems (final rule published FY 2012)
- Fatigue Management
- Highway-Rail Grade Crossing Inventory (NPRM 2012)
- Hours of Service Recordkeeping and Reporting Rules
- Locomotive Safety Standards (final rule published FY 2012)
- Passenger Rules
  - Passenger Rail System Safety Programs (NPRM FY 2012)
  - Passenger Train Emergency Preparedness (NPRM published FY 2012)
  - Passenger Train Emergency Systems II (NPRM published FY 2012)
  - Vehicle/Track Interaction
  - Passenger Train Employees Hours of Service
  - Passenger Train Doors
- PTC (amendment to final rule, published FY 2012, other amendments pending)
- Post-Accident Drug Testing for Non-Controlled Substances (NPRM published FY 2012)
- RRPs
- Roadway Worker Protection, Miscellaneous Amendments (NPRM FY 2012)
- Roadway Worker Protection, Adjacent Track (FY 2012)
- Track Standards: Rail Integrity (NPRM 2012)
- Training Standards for Safety-Related Railroad Employees (NPRM published FY 2012)

Conductor Certification

Section 402 of the RSIA requires FRA to prescribe regulations to establish a program requiring the certification of conductors. The final rule was published on November 9, 2011 (76 FR 69802), and a response to petitions for reconsideration was published on February 8, 2012. The final rule mandates that railroads have a formal program for certifying conductors. As a part of the certification program, the railroads are required to have a formal process for training current and prospective conductors, and determining that all persons are competent, before permitting them to serve as a conductor. FRA issued this regulation in order to ensure that only those persons who meet minimum Federal safety standards serve as conductors in order to reduce the rate and number of accidents/incidents and to improve railroad safety.

RRP

The RSAC accepted a task in December 2011 to assist with development of the requirements for certain railroads to develop an RRP as mandated by the RSIA. An NPRM including a proposed provision addressing the use of RRP information in litigation, drawing upon the results of the completed study commissioned pursuant to Section 109 of the RSIA, will be published in FY 2013. In FY 2012, RSAC established a working group to develop recommendations for a fatigue management risk plan regulation that would be a component of a railroads' overall RRP.

Throughout FY 2012, the RRP Division participated in pilot implementations of C3RS. C3RS provides an opportunity for railroad employees at sites on UP, Canadian Pacific Railway, New Jersey Transit, and Amtrak to report safety problems without fear of punishment. Mid-term evaluations of the system have shown significant efficiency and safety effects: a 31-percent improvement in railroad cars moved between incidents, better labor-management relationships, and a reduction in discipline cases. The RRP Division is currently developing a version of the system that can be implemented nationwide.

Electronic Device Distraction

The RRP Division is also participating in an RSAC Working Group tasked with making the use of personal electronic devices by railroad employees who are engaged in safety-critical work socially unacceptable. RRP stakeholders have participated in several peer-to-peer coaching programs on BNSF and UP. These programs involve face-to-face interaction with rail labor, rail management, and FRA field personnel. To date, several thousand rail employees have been engaged in these discussions. In addition, RRP team members, in cooperation with the RSAC, have developed print and electronic media designed to raise awareness and provide education on electronic device distraction; these materials were made available to the rail industry and are already in use.

Passenger Rail Safety

In FY 2012, FRA continued to support the development and implementation of new safety standards for passenger rail equipment and operations. FRA's Passenger Rail Division (PRD) also continued to provide guidance on system safety, emergency response plans, and regulatory requirements for new passenger rail operations.

PRD also helps evaluate the safety of proposed rail operations. PRD addresses many issues associated with the selection, implementation, and evaluation of "new start" railroads. PRD works with new starts to plan for and determine compliance with Federal regulations. Throughout FY 2012, PRD worked with a new commuter railroad in Denton County, Texas, to establish operations using alternative-technology-compliant vehicles (diesel multiple unit or DMU). The railroad is the first in the United States to use this equipment in passenger service. In lieu of traditional structural design, the new equipment relies on the strength of the structure, incorporating advanced crash energy management systems, to protect the vehicle occupants. These vehicles are far more cost effective than traditional vehicles due to their lighter weight and smaller engines. PRD has regularly provided technical assistance to new passenger railroads for the development and implementation of system safety programs and conduct of preliminary hazard analyses in the design phase. In FY 2012, PRD provided technical assistance to the Saratoga and North Creek Railway in New York, and assisted in the design phase for SunRail in Orlando, Florida.

FRA has an outreach program in order to provide passenger railroads with training and information on system safety techniques. System safety uses innovative hazard management techniques to proactively identify and address safety issues before accidents occur, in order to

reduce the number of accidents and casualties (including trespassing and highway-rail grade crossing accidents). System safety is currently a voluntary program under the American Public Transportation Association (APTA). FRA collaborates with APTA on some aspects of the program such as conducting system safety audits. However, in FY 2012, FRA issued a proposed regulation that would make system safety programs mandatory. The proposed rule would satisfy requirements of Section 103 of the RSIA for an RRP for passenger railroads.

In FY 2012, FRA continued to work with the RSAC to develop alternative equipment safety standards for HSR equipment. A more detailed discussion of this effort is included under the Progress Assessment for RSIA Safety Goal #4: Improving research efforts to enhance and promote railroad safety and performance.

Minimum Training Standards and Plans

Section 401 of the RSIA requires that FRA issue regulations requiring training standards for safety-related railroad employees and equivalent employees of railroad contractors and subcontractors and that FRA review and approve training plans. To this end, FRA published an NPRM on February 7, 2012. A final rule is now under development.

Update of Track Standards

In FY 2012, FRA addressed RSIA-required updates of track standards with completion of rules addressing concrete crossties, rail integrity, and VTI, as well as a track inspection time study that indicated no additional amendments were necessary. The Rail Integrity NPRM addresses regulations for a new performance-based model for scheduling rail flaw detection, adjusting remedial actions for rail flaws, and significantly improving the reporting of rail inspection information.

Other Regulations

Section 413 of the RSIA mandates, in a very specific manner, the provision of an emergency escape breathing apparatus that is to be made available on locomotives. An NPRM was published and FRA is considering public comments.

In addition, Section 412 of the RSIA requires that FRA revise its existing regulations to include maintenance-of-way. An NPRM is being developed.

Progress Assessment for RSIA Safety Goal #2: Improving the consistency and effectiveness of enforcement and compliance programs.

Rail Route Analysis Requirements for Security-Sensitive Hazardous Materials

In 2008, FRA established a Routing Rule Compliance Team (Team) to verify compliance with the requirements of the final rule on rail hazardous materials routing. The Team began meeting with all Class I railroads to review the status of their routing plans in 2012. In these meetings,

the Team determined whether any of the railroads' routes had changed and evaluated compliance with the rule. FRA also worked with the American Short Line and Regional Railroad Association (ASLRRA) to coordinate the methodology for the review of routes for Class II and III railroads. The majority of these smaller railroads have a single route and a single interchange point. FRA completed its review of all Class I railroads in FY 2012.

Industrial Hygiene

The Industrial Hygiene (IH) Division addressed various compliance issues regarding the Use of Locomotive Horns at Highway-Rail Grade Crossings (49 CFR Section 229.129). In FY 2012, the IH Division compiled a "frequently asked questions" list that will be used in the next MP&E Compliance Manual. The IH Division has continued to use the list of talking points when making presentations to railroads, particularly at regional shortline conferences.

FRA expanded auditing railroads for compliance with the regulation on Occupational Noise Exposure for Railroad Operating Employees (49 CFR Part 227). These audits were conducted to confirm that the rule was being followed in actual working conditions in the field, including the provision of personal protective equipment and posting of exposure measurements. The Division has scheduled or conducted 34 audits and there were 32 audits planned for FY 2012. These audits were conducted on railroad carriers of all sizes from Class I to Class III. For the smaller Class III railroads, the focus for the first audit has been on providing guidance on the actions they need to do in order to comply with the rule. FRA will audit these railroads again in the future to confirm their compliance. Another related task is monitoring FRA inspectors for occupational noise exposure to determine if a need exists to establish a hearing conservation program. Also, in FY 2012, FRA continued to investigate community noise complaints for compliance with Protection of Environment, Prior Notice of Citizen Suits (40 CFR Part 210), and Railroad Noise Emission Compliance regulations (49 CFR Part 210).

FRA began enforcement of the newly revised regulations, Construction of Railroad-Provided Sleeping Quarters (49 CFR Part 228, Subpart C), and Safety and Health Requirements for Camp Cars Provided by Railroads as Sleeping Quarters (49 CFR Part 228, Subpart E). Additionally, in FY 2012, FRA continued to investigate potential asbestos and diesel exhaust exposures of railroad employees.

The Division also manages the occupational safety of FRA employees. The Division revised the Employee Response to Emergencies Plan for FRA headquarters employees, and trained employees and contractors for the Plan for Sustaining Essential Government Services during a Pandemic. Through the FRA Safety and Health Committee, the Division disseminated important safety and wellness tips, and Occupational Safety and Health Administration program documents. The Committee uses the SharePoint Web site to effectively communicate the information to FRA employees.

Discipline-Specific Technical Training

As in prior years, FRA held several technical training classes focused on areas within its five disciplines of Track, S&TC, MP&E, OP, and HM. These are held to instruct FRA inspectors in

new practices and increase their knowledge to help them more effectively enforce the safety regulations. In addition, three non-discipline specific training classes were held consisting of Investigative Skills Fundamentals, Accident Investigation Fundamentals, and Railroad Noise Control. The training program is substantial—new inspectors attend 7 weeks of training in their first 2 years, and all other journey-level inspectors receive at least 1 week of training during the year.

Compliance Manuals

Compliance manuals provide inspectors and the regulated community with consistent guidance regarding application of the Federal regulations. For example, the use of the Rail Defect Reference Manual will ensure continued and accurate FRA oversight in rail failure analysis and rail failure-caused derailment investigations. In FY 2012, revisions continued on compliance manuals for all disciplines. Revised manuals were published in FY 2012. The compliance manuals are posted on FRA's Web site, and distributed to both internal stakeholders and participating State rail safety personnel.

Emergency Order

FRA issues an Emergency Order (EO) when an unsafe condition or practice by a railroad causes a situation involving a hazard of death or personal injury. EO's are published in the Federal Register. FRA issued one EO in FY 2012: Emergency Order to Prevent Operation of Trains Over the Highway-Rail Grade Crossing at U.S. Highway 87 (EO 27, June 12, 2012). This EO was issued by FRA to the Gulf, Colorado & San Saba Railway (GCSR) so that the railroad would restore the active warning devices at U.S. Highway 87 highway-rail grade crossing as well as those at a separate crossing to proper functioning order. FRA concluded that the continued use of this highway-rail grade crossing without the active warning devices by the railroad posed an imminent and unacceptable threat to public safety.

Safety Advisories

FRA publishes Safety Advisories in the Federal Register in order to provide guidance and clarification on the proper application of existing regulations or other important safety issues. The intended audience is the regulated community, including railroads, railroad contract operators, shippers, consignees, equipment manufacturers, and suppliers. FRA issued four safety advisories in FY 2012: Bridge Walkway Hazards (SA 2011-03, December 5, 2011), Odorant Fade in Railroad Tank Cars (SA 2012-01, March 28, 2012); Restricted Speed (SA 2012-02, April 24, 2012); and Buckling-Prone Conditions in Continuous Welded Rail Track (SA 2012-03, July 16, 2012).

Performance Evaluations

FRA continued to include GPRA safety goals in the job performance evaluations of RAs, providing further incentive to track progress and make necessary adjustments to meet the safety goals in FY 2012. The Dashboard has also enabled RAs to monitor safety levels and activities locally on a real-time basis. Through the Dashboard, rising accident trends can be detected quickly, allowing RAs to shift resources or take other responsive action.

Track

Rail Integrity

The Rail and Infrastructure Integrity Division comprises the rail integrity staff and the bridge and structures staff. The rail integrity staff provides expert advice and oversight for all rail-related issues as determined by the Track Safety Standards regulation (49 CFR Part 213); including non-destructive rail inspection programs, defective rail remedial action, rail inspection frequencies, and rail inspection records.

FRA has been working with the industry through the RSAC to develop regulations for a new performance-based model for scheduling rail flaw detection, adjusting remedial actions for rail flaws, and significantly improving the reporting of rail inspection information. The RSAC has reached consensus to revise three sections of the Track Safety Standards. In addition, through these regulatory changes, FRA was instrumental in developing minimum qualifications for the detector car operators, approved as new 49 CFR Section 213.238. The NPRM was published in 2012.

Fulfilling its responsibility, FRA developed a methodology for the review of railroad plans for the installation, maintenance, and inspection of continuous welded rail (CWR), and to assure compliance with new CWR regulations. As part of its review, FRA will make recommendations to ensure that CWR maintenance plans are effective nationwide. The review and assessment of the railroads' CWR plans expands FRA's capability to enforce any noncompliant CWR rail maintenance and installation condition.

Track Safety Standards Study

Paragraphs (a) and (b) of Section 403 of the RSIA require a study of inspection practices and the amount of time required for inspections under the Track Safety Standards, and, if warranted by the study, another set of revisions to those regulations. FRA organized an independent study by an outside contractor and developed a questionnaire used to get information from railroad track inspectors throughout the country; interviews with railroad and union officials were also conducted for additional perspectives. The study was completed and signed by the Secretary on May 2, 2011, starting the 2-year timeline for rulemaking. Initially, FRA decided to address the results of the study through two separate rulemakings, the first dealing with rail integrity and the second dealing with track inspections. After further consideration of the issues involved, on April 26, 2012, the RSAC concluded that the separate rulemaking on track inspections is not needed and that FRA's recent and ongoing rulemakings will sufficiently address the contingent rulemaking mandate of Section 403(c) of the RSIA; accordingly, the relevant RSAC task was closed. FRA conducted its own analysis of the issues involved and concluded that the completed rulemaking on concrete crossties (final rule published at 76 FR 55819), the rulemaking on VTI and final rule due to be published in 2012, and the current rulemaking on rail integrity (NPRM published in 2012) sufficiently address the issues raised by the study and that an additional rulemaking on track inspections is not necessary.

VTI

VTI and key safety issues related to track geometry and inspection will be addressed through a final rule published in 2012. The final rule incorporates industry comments to the proposed rule, clarifying comments from the French National Railway Corporation requested by FRA and the RSAC. VTI enhances the productivity of trains on lower speed segments and makes it easier to extend the use of qualified higher speed trainsets to additional lines and tracks.

Automatic Track Inspection Program (ATIP)

Track geometry rail cars are advanced, specially designed cars that provide accurate track geometry data to assess compliance with the Track Safety Standards. In FY 2012, FRA continued to operate its fleet of five track geometry cars to conduct inspections nationwide. Since 2000, the fleet has inspected close to one-half million miles[5] of the U.S. rail network. Collectively, the cars operate about 160 miles per day on average, with priorities given to passenger, hazmat, and defense-related routes. In FY 2012, FRA's ATIP fleet covered 74,500 miles of track. FRA is working to implement an autonomous track geometry measurement system that will allow more ATIP inspections at reduced cost in the future. This unmanned system is more fully discussed in the Progress Assessment for RSIA Safety Goal #4, improving research efforts to enhance and promote railroad safety and performance.

Progress Assessment for RSIA Safety Goal #3: Improving the identification of high-risk highway-rail grade crossings and strengthening enforcement and other methods to increase grade crossing safety.

In March 2012, FRA issued a statement of work (SOW) for contracting services to prepare the Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings, Sixth Edition, requiring research, updating activities, and technical consulting functions. This guide is a comprehensive reference for researchers, engineers, students, and legal practitioners, as well as highway-rail grade crossing safety professionals. It has been indispensable as a tool for assessing the differences and similarities among individual State codes, and in identifying desirable and undesirable laws for highway-rail grade crossing safety and policy. The current edition of this book reflects the law in the individual States up to July 2009. Since July 2009, several States have made changes to their existing laws, added new ones, or simply eliminated redundant ones. RRS believes that a sixth edition of this book is required to capture these changes.

Section 205 of the RSIA mandates that FRA require each railroad, regardless of size, to establish an emergency notification system (ENS) whereby the public can advise the railroad of safety issues at grade crossings, public and private, through which the railroad dispatches trains. FRA published a final rule on ENS in June 2012. This rule will make it easier for the public to report unsafe conditions at highway-rail grade crossings. The rule requires railroads to establish toll-free telephone numbers to allow the public to report malfunctioning highway-rail grade crossing warning signals, disabled vehicles blocking the crossings, or any other unsafe conditions at

[5] Source: Track Data Management System.

crossings. Under the rule, when the railroad receives a call from the public about a malfunctioning crossing signal or a vehicle stalled on the crossing, train operators in that area would be immediately notified of the unsafe condition in an effort to avoid an accident.

Section 204 of the RSIA makes reporting to the National Highway-Rail Crossing Inventory (Inventory) mandatory for the States and the railroads, for the first time, potentially leading to the correction of a significant data-quality issue that affects the Department's collective ability to move against the remaining areas of grade crossing risk. The section also authorizes a rulemaking to implement the section and authorizes enforcement of each provision of certain departmental guidelines until the provision is superseded by a regulation prescribed under the authority of that section. FRA completed a guidance document to assist railroads and States as they comply with the mandatory Inventory updating. The instructions on updates, including those on private crossings, were posted on the FRA's public Web site: http://www.fra.dot.gov/rrs/pages/fp_801.shtml. The site includes a new inventory program Web page with 35 documented items to assist States, railroads, and all other stakeholders. FRA has a contract in place for an impact assessment of the new requirements on the FRA's Inventory database system. FRA is also evaluating and researching issues of data quality. States have been contacted and asked to provide corrections and updates, and personnel from FRA have made presentations on the requirements of Section 204 at regional ASLRRA conferences held in Indiana and Florida and at the National Crossing Safety Conference held in Texas. The FRA rulemaking team has made substantial progress towards developing an NPRM that was published in October 2012. The proposed rule would improve safety by ensuring that railroad information regarding all highway-rail and pathway grade crossings is submitted to a national database and updated regularly. This will allow FRA and other safety stakeholders to greatly enhance their analyses of these grade crossings. A new DOT Crossing Inventory Form will be published in conjunction with this rulemaking.

Progress Assessment for RSIA Safety Goal #4: Improving research efforts to enhance and promote railroad safety and performance.

Throughout FY 2012, FRA made progress towards achieving many Research and Development (R&D) goals. R&D results from FY 2012 are described below.

Fatigue

The DOT Safety Council is developing requirements and specifications for the next generation of fatigue modeling, criteria for evaluating the effectiveness of fatigue models, and guidelines for their use. This initiative continues to be led by FRA. FRA published additional information in 2012 on the accuracy of fatigue models that will support the DOT Safety Council's efforts. (Validation of Fatigue Avoidance Scheduling Tool (FAST) Model Sleep Estimates with Actigraph Measured Sleep in Locomotive Engineers (DOT/FRA/ORD – 12/05), April 2012).

The FAST fatigue model is currently being used to analyze the work schedules of crewmembers involved in accidents that are investigated by FRA. Preliminary analyses indicate that fatigue levels in these accidents are comparable to the fatigue levels that were observed in a large-scale

analysis of accidents from 2003 to 2005. (Validation and Calibration of a Fatigue Assessment Tool for Railroad Work Schedules, Final Report (DOT/FRA/ORD – 08/04), November 2008). FRA is exploring using this work schedule analysis as an inexpensive method to track changes in fatigue in the railroad industry.

The Railroaders' Guide to Healthy Sleep Web site was launched in 2012 in collaboration with the Harvard Medical School's Division of Sleep Medicine and the WGBH Educational Foundation. The Web site offers railroad employees information on fatigue and medical conditions that could interfere with restful sleep in a user-friendly format. (http://www.railroadersleep.org/).

Locomotive Cab Displays and Controls

The purpose of this research is to develop human factors guidance supporting the design and evaluation of locomotive moving-map displays through simulations using the Cab Technology Integration Laboratory (CTIL). Moving-map displays are useful for training, trip planning, and route preview. Moving-map displays can be used as a primary device for track navigation and should aid train operations during inclement weather, when mileposts and other signage may be difficult to read. The research will show whether these displays enhance operator situational awareness, reduce operator workload, and improve human performance—potentially reducing train collisions. During FY 2012, FRA published a report on the use of the CTIL to examine human performance with and without the use of a moving-map display.

FRA also sponsored other efforts to improve the locomotive cab display. FRA hosted a meeting with General Electric at the John A. Volpe National Transportation Systems Center (Volpe), to discuss locomotive cab display design approaches, as well as approaches to display integration. A meeting with the AAR Interoperability Committee was hosted at Volpe to discuss PTC display issues and human factors engineering approaches for future locomotive cab layouts. A project to improve sustained attention during train operations continues. In addition, in FY 2012, a project to develop a routing and scheduling display continued as well as a procurement to upgrade the CTIL.

PTC Systems

Some PTC interoperability standards have been issued, while others are undergoing final technical review. These include cab design layout, Edge Messaging Protocol, Advanced Message Queuing Protocol, Class C messaging, Class D multicast messaging, and Locomotive Integration Gateway. AAR has adopted and published a total of 11 of the ITC standards for inclusion in the AAR Standards and Recommended Practices. The remaining standards are in various states of industry review and approval process. Engineering efforts continue to address concerns identified in the review and approval process.
PTC data communication will be developed using 220 MHz radio technology. Prototype radios have been completed and tested at the Transportation Technology Center, Inc. (TTCI). The final radio design is available for third-party manufacturing of the radio.

FRA is working to complete the PTC-compatible Employee In Charge Portable Terminal development to enhance wayside worker safety. Difficulties in defining requirements to support interoperability have slowed progress. Preliminary design work has been completed, with the revised goal of completing the full system design in preparation for the critical design review.

An improved algorithm for freight operations has been developed, and it is undergoing laboratory testing at TTCI; field testing was completed in the summer of 2012 with positive results. The new procedure will help enable precision braking.

Rail Integrity

FRA is continuing to fund research at the University of California-San Diego (UCSD) to develop and refine a rail flaw detection system. The project's objectives are as follows: (1) better rail flaw detection reliability (including internal head defects under shelling and vertical split heads), (2) higher inspection speed than achievable by current rail inspection systems, and (3) the ability to characterize surface defects to optimize grinding operations and rail service life. The goal of improving rail flaw detection is responsive to NTSB recommendations addressing the disastrous train derailments in Superior, Wisconsin, in 1992 (BNSF) and Oneida, New York, in 2007 (CSX), which were caused by undetected internal head defects under shelling. Regarding inspection speeds, with further development, the target is the capability of inspecting rail at speeds of more than 40 mph.

UCSD recently filed three provisional patent applications on this work with the U.S. Patent and Trademark Office. The first application protects the use of wheel-based transducers for ultrasonic guided wave inspection of rails. The second application extends the intellectual property to air-coupled transducer inspections of rails. The third application protects the surface crack characterization by measuring attenuation of Rayleigh Waves. (Provisional Patent Application Numbers 61567071 (filed December 5, 2011), 61621342 (filed April 6, 2012), and 61/595,574 (filed February 6, 2012))

FRA continues to encourage industry involvement and potential commercialization of this new technology. During FY 2012, several technology demonstrations were given to rail inspection providers and major railroads. Currently, Nordco is evaluating intellectual property issues in considering whether to acquire the rail flaw detection technology. BNSF has expressed strong interest in these technologies by its in-kind support throughout this project. However, general industry feedback indicates that additional research may be needed at UCSD, particularly in the areas of air-coupled inspections and surface characterization, to facilitate technology deployment. The rail defect detection work has also formed the basis for another project. This research, on rail flaw imaging by ultrasonic tomography, is conducted by a UCSD spin-off company through the FRA High-Speed Broad Agency Announcement (BAA) program. Phase I of the imaging project, numerical simulations of tomography, was completed in April 2012.

Track Geometry

The Autonomous Track Geometry Measurement System (ATGMS) is a research and development program to adapt service-proven technology for track geometry measurement to

operate independently. The ATGMS system reduces capital and operating costs of geometry inspection systems. It also provides data for safety assurance activities and track degradation analysis.

After successful demonstrations of the system while running in tandem with a manned geometry car, the ATGMS technology is transitioning into routine service for ATIP operations. Solo operation of the DOTX221 system occurred for the first time in CY 2012. In addition, FRA R&D is completing installation of a second ATGMS for demonstration on the Amtrak Northeast Corridor (NEC) and other territories in late FY 2012. This second system adapts ATGMS technology from a truck-mounted design to a carbody design, further reducing capital and life-cycle costs of the technology. FRA anticipates that this carbody-mounted system will become the industry standard configuration. Many freight railroads have expressed interest in this technology, and FRA R&D plans to make a system available for widespread demonstration under a cost sharing arrangement with interested railroads.

Railroads will see significant benefits from this technology. Continuous, unmanned geometry data collection provides critical track information in real time, with no impact on rail traffic operations. The system can be installed on normal revenue railcars or locomotives and run in consist. Track testing is automatically scheduled based on the normal operation of the vehicle. The ATGMS reduces the complexity, size, and cost of traditional geometry systems without compromising performance.

Track Buckling Prevention

Knowledge about the stress-free rail temperature, also known as the rail neutral temperature (NT), is vital to avoid track buckling in hot weather. Track buckling-related derailments are very costly to the railroad industry. According to the RRS database, there were more than 150 derailments related to track buckles or sun kinks between 2005 and 2009, resulting in more than $43 million in damages. Currently, railroads impose slow orders to avoid derailments due to track buckling. Slow orders may be based on measurements from track inspections or ambient temperatures from weather forecasts, based on the belief that the rail temperature typically rises from 30 °F to 35 °F above the ambient temperature. The practice of slow orders is effective in reducing track buckling-related derailments and associated costs; however, the practice is inefficient. Issuing blanket slow orders and conducting subjective inspections cost the railroad industry millions of dollars each year. Excessive slow orders can also be of concern on high density tracks, where the impact of reduced speeds can affect the transportation of goods and people, possibly impacting the Nation's economic well-being. FRA is conducting research in order to develop better ways to monitor NT.

For more reliable determination of slow orders and assessment of track buckling risk, FRA has sponsored the development of a model for predicting rail temperatures based on real-time meteorological forecast data. The model is based on a transient heat transfer process in which the energy balance continuously changes, causing the rail temperatures to rise or fall. Among the factors considered in the model are heat input due to solar radiation and heat loss due to convection. The model was validated using both forecast and observed weather data, and has been previously tested on Amtrak's NEC, UP, and BNSF. The model-predicted rail

temperatures were found to be within reasonable ranges. The model has been implemented into a Web-based, rail-weather application that can be accessed by participating railroads. Recent developments have included further refinements of the model algorithm by incorporating additional weather parameters and addressing broader track conditions. Improvements to the online application continued into FY 2012; specifically, the user interface and available options were enhanced in order to make the application more attractive to end users.

In FY 2012, UCSD continued the work under an FRA R&D grant for an *in-situ* rail NT measurement system. This research is a priority—affecting both the safety and management of rail transportation. In 2010, irregular track alignment from buckling or sun kinks was the number one cause of train accidents in the United States within the categories of track, roadbed, and structures. These accidents caused $17 million, or 15 percent of the total damage cost from these categories, according to the RRS database. In the absence of a current well-established standard for the *in-situ* measurement of NT, railroads rely on slow order mandates during the hot summer months. UCSD's new system for rail NT measurement will offer the following advantages:

- NT measurement accuracy range of ± 5 °F.
- No need for reference value of stress.
- No sensitivity to rail supports (tie-to-tie variations) or to residual stresses/changes in geometry of the railhead (e.g., wear).
- Potentially, no need for calibration for different rail sizes/manufacturers.

Extensive experimental tests conducted at the Large-Scale Rail NT Measurement Test Bed at UCSD confirmed the first three of these outcomes. This test bed, a unique 70-foot long track for NT studies, has been constructed with an FRA R&D grant, Volpe technical support, and BNSF in-kind support. In addition, the University of Pittsburgh will use the test bed in 2012 under a newly funded FRA HSR project. Other researchers, for example, from the University of Nebraska-Lincoln, have also benefitted from using the test bed. The test bed was showcased at the American Railway Engineering and Maintenance-of-Way Association (AREMA) Committee 4 (Rail) meeting that was held at UCSD in 2011.

UCSD has constructed a prototype for a rail NT measurement system that is magnetically installed on the rail web. The system measures the wave nonlinearity as an indication of thermal stresses (i.e., rail NT). The prototype's results at the NT measurement test bed indicate excellent NT measurement accuracy. The first field test of this technology, in coordination with FRA, Volpe, BNSF, and TTCI, occurred on June 18–23, 2012, at TTCI in Pueblo, Colorado. In November 2011, UCSD filed a provisional patent application on this new technology. Subject to successful performance of the planned field tests, commercialization may follow as early as 2013. In particular, BNSF has expressed a strong interest in this technology, and has provided significant in-kind support to this project. Furthermore, the UCSD Rail NT Measurement research has been published in peer-reviewed technical journals, and presented in appropriate technical forums, in accordance with FRA R&D policy on technical information sharing.

<u>Improved Hazardous Material Tank Car Designs</u>

R&D has three ongoing projects to improve the design of tank cars that carry hazardous materials. For one project, welded steel sandwich panels are being studied to improve their crashworthiness. The concept underlying this research is to treat the commodity-carrying tank as a protected entity. The welded steel sandwich structures are examined as a means to protect the entity against punctures from objects that may impact it in the event of an accident (e.g., a derailment or collision). A full-scale test was conducted to evaluate the performance of a tank car fitted with the protective panel, and to provide data for verifying and refining the computational models of the test.

The second project is researching different designs for the protection of top fittings on tank cars. Two designs were tested in a full-scale test and compared to the baseline tank car. Simulating a rollover scenario that can occur in a train accident, the tests demonstrated that the alternative designs protected the top fittings on tank cars. FRA R&D has started preparations to include a pressure tank car, especially the ones carrying TIH materials, in the testing.

The purpose of the third research project is to evaluate the puncture behavior of tank cars under a general range of impact conditions. Throughout FY 2012, research was conducted on the analysis of different imparters and impact conditions on tank cars. These analyses will increase understanding of the damage caused by a variety of imparters on different tank cars. The research should yield recommendations to improve the performance of the tank head and shell, and to develop testing procedures to evaluate new tank car designs.

Improved Hazardous Material Car Inspection

In FY 2012, TTCI (under contract with FRA), and industry partners conducted research to determine the probability of detection for various non-destructive examination (NDE) methods that are used to determine the structural integrity of tank cars. NDE methods are used to inspect tank car structural items such as circumferential butt welds (girth seam welds), fillet welds, and leak test samples. Using a damage tolerance approach to determine inspection intervals for an engineered structure—in this case, a railroad tank car—requires the quantification of the detectable flaw size for the NDE methods used during inspection. Damage tolerance techniques have initiated an evolution in understanding NDE methods and requirements. NDE quantification using the probability of detection approach is a key measure of NDE effectiveness, and is integral to damage tolerance requirements.

Automated Wayside Vehicle Inspection

R&D seeks to improve the effectiveness of manual inspections by applying technologies for automated wayside defect detection, thereby improving rail safety. Various wayside technologies offer a proactive approach to identifying potentially unsafe freight car and locomotive conditions. These technologies can potentially enhance existing manual inspection regimes.

Following successful preliminary tests under controlled conditions, FRA is working with the industry to conduct a revenue service, “real world” evaluation of the effectiveness of wayside wheel temperature detector technology in assuring the safety of freight car braking systems. The

revenue service evaluation will enable FRA and the industry to evaluate the technology's ability to effectively detect defects and reduce risk compared to current manual inspection procedures. During FY 2012, FRA worked with industry partners to develop a new protocol, a Roadmap to Implementation, intended to accelerate the introduction of new technology for safety assurance. Plans are now being finalized for an evaluation of automated systems for assessing brake system performance, in accordance with the new protocol. After the planning phase, tests are expected to begin in FY 2013. In addition to the pilot project to demonstrate wheel temperature detector technology, FRA is evaluating multiple wayside detection technologies to determine their effectiveness in detecting common rolling stock equipment defects, in cooperation with the Class I railroads.

HSR

As noted in Goal #1, another important initiative for PRD is to manage the development and application of HSR standards. FRA is charged with implementing the HSR mandates required by the RSIA and the American Recovery and Reinvestment Act of 2009 (ARRA) for HSR corridors. Although FRA regulations for HSR generally support maximum train speeds of 150 mph, the RSIA and ARRA envision train speeds of up to 220 mph. In order to achieve these goals, FRA continues to proactively engage potential HSR operators, and collaboratively develop minimum safety standards through the RSAC rulemaking process, in addition to conducting HSR research. FRA has several HSR research initiatives through FRA's BAAs. Specific examples of forthcoming safety regulations supporting HSR operations include VTI, System Safety Program, and the Safety Standards for High-Speed Passenger Equipment. FY 2012 highlights for these important programs are described individually below.

In FY 2012, FRA continued working with two HSR developers, Xpress West (formerly DesertXpress), and California HSR, to identify appropriate safety requirements for their proposed services. FRA's research and safety divisions are working in an interdisciplinary effort to establish the framework for a world-class system, building on the success of service-proven technology in a manner that is appropriate for the U.S. operating environment. During the past year, FRA has worked with California HSR in developing its internal guidance document for regulatory approval, established an approach for safety and regulatory oversight with Xpress West, and continued work with Amtrak on improving its existing Acela service as well as planning for the future of NEC service.

Safety Standards for High-Speed Passenger Equipment (Tier III)

In FY 2012, the RSAC Passenger Safety Working Group's Engineering Task Force (ETF) continued to work with stakeholders to establish minimum safety standards for Tier III passenger equipment.[6] To date, the ETF has reached consensus on 21 items, ranging from crashworthiness to fire safety for Tier III trainsets. Two task groups are examining VTI, engineering structure, and integrity requirements in more detail to develop recommendations for the full ETF. The

[6] Per 49 CFR Section 238.5, Trainset, Tier III means a short-distance or long-distance intercity passenger train that provides service in a shared right-of-way at speeds not exceeding 125 mph and in an exclusive right-of-way without grade crossings at speeds exceeding 125 mph but not exceeding 220 mph. A Tier III trainset is designed to be compatible with both Tier I and Tier II passenger equipment at speeds not exceeding 125 mph.

ETF began to codify the previous guidance for Tier I[7] alternative crashworthiness standards, and the consensus recommendations for Tier III equipment. These efforts should culminate in a NPRM that will be the primary focus for the group in FY 2013.

Progress Assessment for RSIA Safety Goal #5: Preventing railroad trespasser accidents, incidents, injuries, and fatalities.

In FY 2011, FRA started collecting latitude and longitude coordinates for each trespassing casualty reported; in FY 2012, FRA continued using this data to geolocate each incident on a detailed map. Using this data, FRA has recently worked with regional staff to identify incident hotspots and direct education efforts.

FRA issued a model law on trespassing and vandalism several years ago. It is posted on FRA's Web site. The Agency expects to issue the revised model law pertaining to railroad trespassing and vandalism in FY 2013, and make it available to the States.

FRA continued efforts to update the 2004 Rail Trespassing Fatalities Developing Demographic Profiles study. (On September 6, 2011, a notice of award was issued to North American Management (NAM) to update the study.) The study will consist of characterizing the decedents in fatal trespass incidents and providing information regarding the at-risk audience for additional outreach efforts. The revised study will use data covering railroad trespassing deaths from 2005 to 2010. On April 3, 2012, FRA received permission from OMB to reinstate form FRA F6180.117, Report of Railroad Trespasser Death (OMB No. 2130-0563). Approximately 1 month later, FRA mailed 550 letters requesting that the Nation's coroners and chief medical examiners participate in the survey. NAM followed shortly thereafter, mailing form FRA F6180.117 to the same mailing list.

In partnership with FTA, FRA held the second Right-of-Way (ROW) Fatality and Trespass Prevention Workshop, on August 14–16, 2012, in St. Louis, Missouri. The goal of the workshop was to identify and share existing industry best practices and explore new strategies that the rail industry could pursue to reduce the number of ROW and trespasser incidents and fatalities. The conference focused on the following topic areas: community outreach, enforcement, hazard management, design, technology and infrastructure, intentional deaths/acts, and pedestrian issues. The workshop included a varied program presented by rail, transit, and safety experts. More than 200 people attended the workshop, and the Agency used social media to engage others who were unable to attend in person.

[7] Tier I means operating at speeds not exceeding 125 mph; 49 CFR Part 238, Section 238.5.

Progress Assessment for RSIA Safety 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 issued Bridge Safety Standards in 2010. This new regulation included a staggered schedule for the railroads to adopt Bridge Management Programs (BMP). (49 CFR Part 237) The schedule is staggered by railroad class. Since issuance of the regulation, FRA bridge staff has met with many affected track owners and carefully reviewed their programs for compliance as follows:

- Class I Freight Railroads – FRA completed reviewing all Class I freight railroads' BMPs in FY 2011.
- Class II Freight Railroads – FRA completed review of BMPs for all twelve of the known Class II freight railroads in FY 2012.
- Class III Freight Railroads – FRA completed reviewing BMPs for three Class III freight railroads that handle passenger trains, as well as one tourist railroad.[8] Over time, FRA will review the BMPs of more than 650 Class III freight railroads.
- Passenger Railroads – FRA completed review of BMPs for the last 4 out of 15 major passenger railroads in FY 2012.

All future evaluations of railroad bridge management practices compare a railroad's adopted BMP against regulatory requirements for content. FRA will also compare a track owner's actual practice against that specified in its adopted BMP.

[8] The final rule required Class III freight railroads to adopt BMP by September 13, 2012. 75 FR 41282.