AMTRAK

OFFICE of INSPECTOR GENERAL
NATIONAL RAILROAD PASSENGER CORPORATION

Major Programs:

Company Established a Management Framework for Long Distance Fleet Replacement Program but Can Improve Risk Management and Clarify Lines of Authority

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NATIONAL RAILROAD PASSENGER CORPORATION

Memorandum

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Date: December 13, 2024

Subject: *Major Programs: Company Established a Management Framework for Long Distance Fleet Replacement Program but Can Improve Risk Management and Clarify Lines of Authority* (OIG-A-2025-001)

Amtrak's (the company) Long Distance Fleet Replacement (LDFR) program will be the single largest equipment acquisition by cost and volume in the company's history and will define the nature of its long distance service for decades to come. The program's goal is to replace the company's aging legacy equipment—some of which is more than 40 years old and is approaching the end of its service life—with a more reliable, efficient, and accessible fleet. The company plans to use up to $7 billion in funding from the Infrastructure Investment and Jobs Act (IIJA)[1] to cover the first phase of the program—the purchase of bilevel railcars for 9 of its 15 long distance routes.

This acquisition is complex; the equipment the company intends to procure includes several different car types—each of which would have new designs that have never been manufactured before.[2] The LDFR program is in its early stages, and due to its size

[1] In 2021, the company received $22 billion from the IIJA to improve and upgrade its assets, including car and locomotive fleets and facilities (Pub. L. No. 117-58, 135 Stat. 429 (2021)).
[2] The company also expects the selected vendor to provide technical expertise and spare parts under an agreement commonly known as a Technical Support and Spares Supply Agreement or TSSSA for up to 40 years.

and high-risk, the company has designated it a "mega-complexity program."[3] Given this designation, as well as the company's past challenges with major acquisitions, our objective was to assess the company's management and oversight of this program and to identify any risks to its successful delivery.

To address our objective, we reviewed the company's Enterprise Project Management Standards and commonly accepted public- and private-sector standards for project and program management. We also reviewed the company's program charter, draft management plan, and other key program documents, and we interviewed company executives and program management officials. For more details on our scope and methodology, see Appendix A.

SUMMARY OF RESULTS

The company is in the process of identifying car builders for the first phase of the LDFR program—intended to replace equipment on nine routes—and has established a management framework to execute the program once it selects a car builder. Early challenges in developing design requirements for the trainsets, however, have delayed the schedule. Moreover, the complexity of the program itself, which the company acknowledges, poses an innate risk of cost increases and additional delays. Given the LDFR program's significant size, any material cost or schedule increases could have cascading impacts on the company's ability to accomplish other major capital projects and maintain its existing long distance service. Specifically, we identified the following shortcomings:

- **Complex requirements caused delays and pose additional risks**. The LDFR program is inherently complex, and the company's initial requirements, including premium designs and amenities, contributed to this complexity. Car builders provided feedback, however, about their ability to meet some of these requirements, causing the company to amend its requests which delayed the procurement by seven months. As the company moves to select a car builder,

[3] The company's Enterprise Program Management Standards call for projects and programs to use a Project Complexity Rating Tool to define the critical elements necessary to manage them. The company employs four complexity ratings—low, moderate, high, and mega—which determine the level of program management tools the company should have in place at each phase.

the more complexity it opts for in the acquisition, the greater its potential cost and schedule risk.

- **Capital Delivery established an LDFR program framework but could strengthen two areas.** Capital Delivery's management framework for the LDFR program improved on those of the company's previous major programs, but it could strengthen two components. First, although the department established a risk management plan, Capital Delivery has not developed contingency plans for the highest risks, as company standards require. Second, the lines of authority on the program have been unclear from the outset, resulting in slow decision making that may be exacerbated by recent departures in program leadership. Addressing these components could help mitigate the risk of schedule delays and cost increases.

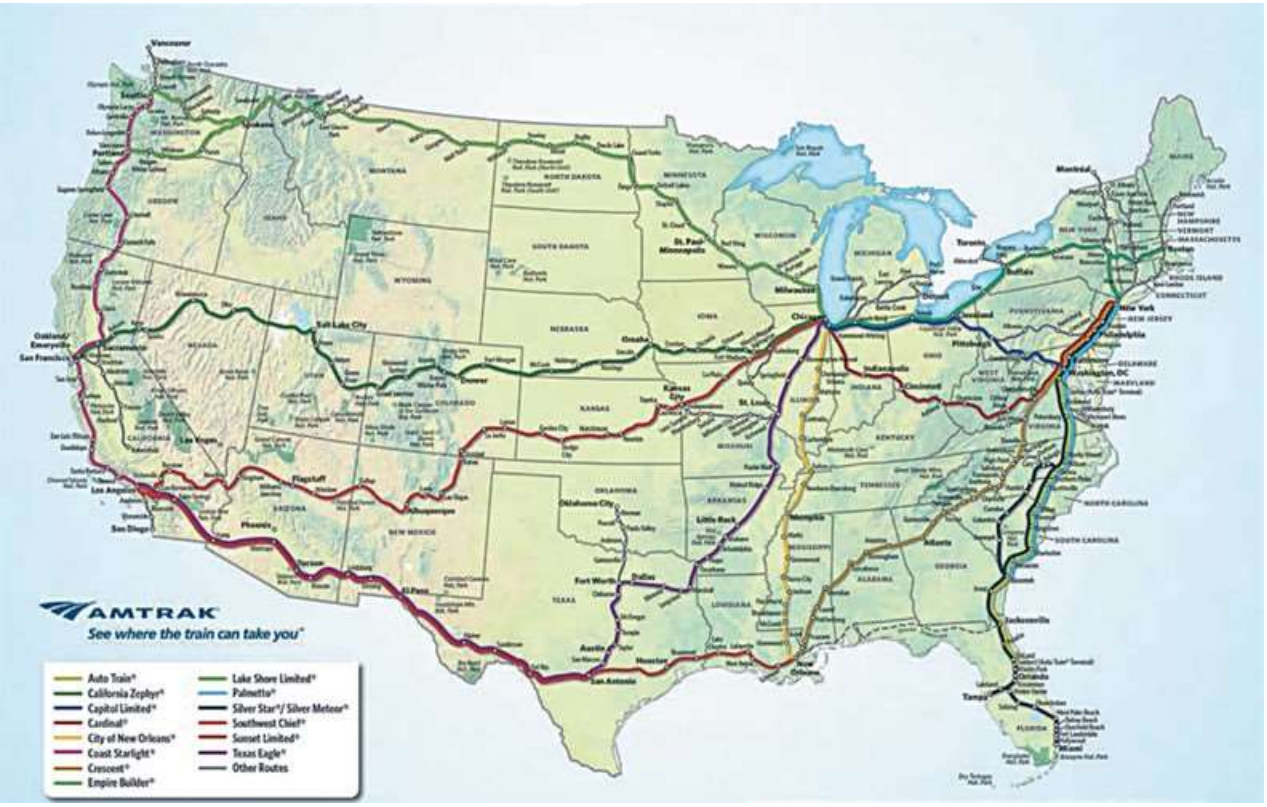
Because the company is in the process of amending its requirements for the trainsets, we are not making a recommendation in this area, but we note that any future decisions that add complexity to this program warrant thoughtful consideration and caution. Regarding the management framework, we recommend that the company review and clarify the roles, responsibilities, and lines of authority for each stage of the program; fill program vacancies; and identify contingencies for its major risks.

In commenting on a draft of this report, the company agreed with our recommendations and detailed the actions it plans to take, or has taken, to address them. For management's complete response, see Appendix B.

BACKGROUND

The company's Long Distance Service consists of 15 routes that are 750 miles or longer, across 39 states, as Figure 1 shows.

Figure 1: Long Distance Network



Source: Amtrak's fiscal year 2024–2029 Five-Year Plans

In fiscal year (FY) 2023, the Long Distance Service Line carried more than 3.9 million passengers—14 percent of the company's ridership. That same year, it generated $563 million—more than 25 percent of the company's ticket revenue. The company's Long Distance network provides mobility and an economic link for communities around the country, but the network has historically operated at a financial loss.

Long distance fleet. As of October 2023, the company's long distance fleet included 765 bilevel and single level cars from 5 different fleets the company bought throughout its history. Some of this equipment is more than 40 years old, as Table 1 shows.

Table 1. Current Long Distance Fleet

Fleet	Average Car Age in Years	Number of Cars[a]
Superliner I	43	257
Superliner II	28	185
Amfleet II	41	142
Viewliner I	27	51
Viewliner II	6	130
Total		**765**

Source: Amtrak OIG analysis of company documents, including Amtrak's fiscal year 2024–2029 Five-Year Plans

Note:
[a] This calculation is the total of active and inactive cars. Active cars include equipment in active use as well as equipment in maintenance shops for routine inspection or overhaul work. Inactive cars include equipment placed in long-term storage pending different business needs, and damaged equipment awaiting repair.

LDFR program. Under the LDFR program, the company expects to replace its entire long distance fleet. The company's overarching goals are to improve the fleet's operating efficiency and maintenance costs, while potentially expanding it to meet long-term ridership goals. The company plans the following four-phased approach that focuses on replacing its oldest equipment first—the bilevel Superliners:

- **Phase 1**: Procuring bilevel equipment for the company's western routes that use Superliner I cars.
- **Phase 2 (LDFR contract option):** Procuring bilevel equipment for the *Auto Train* and potentially converting some bilevel routes to single level routes.
- **Phase 3 (LDFR contract option):** Procuring equipment to increase fleet capacity to expand service and increase ridership.
- **Phase 4 (Not included in this** Request for Proposal (**RFP)):** Procuring single level long distance equipment.

Our audit focuses on phase 1, which the company plans to complete in 2035 at an estimated cost of $7 billion. The company's initial RFP, released in December 2023, solicits car builder pricing for LDFR's phase 1 (base order) and includes contract

options for phases 2 and 3. To fund phase 1, the company plans to use part of the $22 billion in direct funding provided by IIJA. The remaining three phases do not yet have specified funding sources.

Key company roles and responsibilities. The following company departments are actively involved in the LDFR program:

- **The Commercial department**—specifically, the Product Development and Customer Analytics group and the Long Distance Service Line group—is responsible for defining the customer experience, including interior design requirements that best meet the company's requirements for the quality of the customer experience. This includes using data and customer feedback to identify product types intended to help the company realize ridership and revenue goals and to deliver an equitable and accessible product for its customers. The department is the primary decision maker for selecting the product types and accommodations such as room type, and other customer amenities such as dining options.

- **The Strategy and Planning department** provides information to other departments on routes, equipment, and onboard capacity requirements—car types and number of cars—to help inform decisions and develop requirements.

- **The Procurement and Supply Chain department** manages the procurement process from the company's requests for information (RFI) through the contract award. After the contract is awarded and the parties sign a Notice to Proceed, the Procurement department will be responsible for administering change orders, resolving contract disputes, tracking cost changes, analyzing expenditures, and closing out the contract.

- **The Capital Delivery department**—specifically its Fleet and Facilities group—is accountable for the overall delivery of the LDFR program. Its primary responsibilities prior to contract award are to manage the program's schedule, scope, and budget. After a contract is awarded, the department—and the LDFR program team specifically—will be responsible for managing the day-to-day program activities and liaising with the car builder during the design and manufacturing process. It will, however, rely on staff from other departments such as the Mechanical department to provide ongoing subject matter expertise.

- **The Service Delivery and Operations department**—specifically its Mechanical group—serves at the Contracting Official Technical Representative for the LDFR program, which will be directly responsible for leading and managing the technical design of the trainsets. It will also manage the manufacturing process by providing quality assurance, such as inspecting and testing the equipment and commissioning the new fleet. The Mechanical Department will also be responsible for managing the Technical Support and Spares Supply Agreement with the selected car builder for the duration of the contract.

Other responsibilities. Outside the company, the Federal Railroad Administration (FRA) has federal oversight of the company—including its use of federal funds—and administers annual grants to support its operations and capital programs. It also oversees the company's compliance with the Americans with Disabilities Act (ADA). The company intends to meet or exceed these requirements by using a series of alternative design standards outlined in its request to FRA for a determination of "equivalent facilitation," which FRA subsequently granted.[4] On its new long distance trainsets, rather than providing accessible features in each car, the company intends to provide greater accessibility on passenger cars in the core of the trainset through the use of equivalent facilitation. As part of its oversight responsibilities, the FRA team tasked with overseeing the LDFR program engaged a third-party to conduct an independent risk assessment from March through August 2024.

COMPLEX DESIGN REQUIREMENTS POSE SCHEDULE, COST, AND OTHER RISKS

Phase 1 of the LDFR program—replacing close to 600 bilevel cars with multiple car types, including sleepers—is inherently complex, and the company's initial requirements for premium designs and amenities contributed to this complexity. After receiving repeated feedback from potential car builders, the company began revising its requirements to reduce the design complexity, but this process delayed the procurement by seven months—from May 2024 to December 2024, when car builders' proposals are due. As the company moves to select a car builder, the more complexity

[4] According to FRA's equivalent facilitation approval letter dated November 2023, the U.S. Department of Transportation ADA regulations, at 49 C.F.R. § 38.2, state the following: "Departures from particular technical and scoping requirements of these guidelines by use of other designs and technologies are permitted where the alternative designs and technologies used will provide substantially equivalent or greater access to and usability of the vehicle."

it opts for in the acquisition, the greater its potential cost and schedule risk, according to company officials.

Program progressing. In FY 2023, before the company developed its initial requirements for the new long distance equipment, it released two RFIs to solicit car builders' feedback on their capabilities to provide particular amenities. In its RFIs, the company specifically inquired about the following:

- the car builder's experience manufacturing bilevel coaches, sleepers, and food service cars
- the number of car types the builder could manufacture at one time
- the car builder's experience building elevators on rail cars to accommodate passengers with disabilities

Six car builders responded to the December 2022 RFI, and four of those car builders also responded to the July 2023 RFI. Only one said it could produce the eight to nine car types the company planned to request, but it also stated that doing so and delivering it as a trainset would inevitably lead to capacity constraints, challenges in the initial builds, and overall delays in the program. When the company asked car builders if they had experience designing bilevel cars with elevators or other means of conveying passengers with reduced mobility between the different levels of the car, none reported having any experience producing elevators inside the trainset.

In November 2023, however, the company decided to procure bilevel cars in phase 1. It also decided to proceed with nine different suggested car types and elevators on two car types. Company executives tasked with making the final decisions about the requirements told us they weighed the car builders' feedback against the Commercial department's market research and decided to push the limits of what car builders said was feasible.

In June 2024, in response to several more rounds of car builder feedback, the company decided to begin amending the requirements in the RFP to reduce complexity and increase the car builders' flexibility to propose solutions. Also, in July 2024, it outlined a series of potential changes to the RFP and identified various design elements it was considering modifying as "must haves," "nice to haves," and "won't haves." The company now plans to ask car builders to submit proposals for trainsets with fewer car

types, likely five to seven,[5] and include an option to deliver individual cars that could be interoperable with the existing fleet as a bridge to delivering the full trainsets. Because the company is revising its RFP in consideration of car builder feedback, we are not making a recommendation in this area at this time.

Added complexity could increase schedule and cost risks. As a result of changes to the initial design requirements and the delay in incorporating car builder feedback provided in the RFI process, the LDFR program incurred approximately seven months of delays. The RFP schedule could slip further as it is aggressive with no cushion, and the procurement remains complex, according to company management.

More broadly, as the program progresses, the company will face a series of additional decisions about what to include or exclude in the base order, and future options could further impact the program's schedule and costs. These decisions will be foundational to the type of long distance service the company provides over the coming decades. Determining which requirements to include in its long distance service is a business decision that involves inherent trade-offs between benefits and risks. For example:

- Selecting a car builder's proposal that includes elevators could improve the customer experience; they, however, involve design features that present a unique challenge that could make the FRA safety review process take longer than expected,[6] which adds schedule risk.

- Selecting a car builder's proposal that includes individual cars that are interoperable with the legacy equipment might allow the company to get some new equipment sooner, but operating a mixed fleet of old and new cars significantly increases risk. For example, the multiple equipment types and substantial differences in technological sophistication may not be fully interoperable, and company documents and company officials suggested that this could delay the entire program.

[5] In at least two previous communications with car builders, the company stated that the requirements could likely be met with between five and seven car types, but did not prescribe the number of car types in the most recent July 12, 2024 amendment to the RFP.

[6] The FRA's risk assessment noted that elevators present a brand-new, complex technical challenge for car builders, and any elevator sourced would need to demonstrate its ability to function reliably in a dynamic passenger railroad environment and meet all federally required structural and safety regulations.

- Selecting a car builder's proposal that includes additional lighting and windows could allow for a more premium customer experience, but the company's Mechanical department has raised concerns about the additional complexity and potential maintenance issues that these options could raise.

As the company moves to select a car builder, the more complexity it opts for in the acquisition, the greater its potential cost and schedule risk.

Cost and schedule increases could have impacts beyond the program. Further schedule delays and any cost increases on the LDFR program could create challenges for the company's long distance service and pose broader risks to the company as a whole. More specifically:

- *Cost, reliability, and reputation risks from running aging legacy fleet***.** We previously reported that delays on another equipment acquisition—the New Acela program—resulted in cost increases because the company had to continue to maintain and refurbish its legacy fleet for longer than it anticipated.[7] The company could face similar challenges on the LDFR program. Some of the legacy bilevel equipment is more than 40 years old and is approaching the end of its service life. To continue operating the legacy fleet and avoid service disruptions, the company will need to continuously invest in overhauling and upgrading the equipment. For example, from FY 2022 through 2024, the company spent at least $191 million to upgrade and refurbish its legacy bilevel equipment. As the bilevel fleet continues to age, the company will continue to incur additional costs to maintain this equipment.

- *Risks to maintenance facility modifications***.** To accommodate the new long distance equipment, the company plans to retrofit or modify maintenance facilities in nine locations.[8] Until the company finalizes the general design of the new trainsets, however, it cannot know the requirements for its maintenance facilities, which could delay the start of those modifications, according to FRA's independent risk register.

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[7] *Major Programs: Company Improved Management of New Acela Program, but Additional Delays and Cost Increases are Likely* (OIG-A-2023-013), September 29, 2023.

[8] Los Angeles, California; Oakland, California; Chicago, Illinois; New Orleans, Louisiana; Miami, Florida; Sanford, Florida; Lorton, Virginia; Seattle Washington; and Beech Grove, Indiana.

- *Impacts on company-wide capital portfolio*. Although cost growth may occur on any project, even relatively small increases on a program of this magnitude could have significant cascading effects on the company's ability to complete other major capital projects. Ultimately, the company will not know if its $7 billion phase 1 estimate is sufficient until it receives the car builders' proposals, now scheduled for December 2024. Multiple company officials told us they anticipate that the car builders' proposals will exceed cost estimates, especially given the overall complexity and extended delivery timeframe.

As the company navigates the RFP process and works with car builders to develop the final design requirements, uncertainty around what the company will ultimately purchase, combined with evolving requirements and the potential selection of unproven designs, could exacerbate all these risks.

CAPITAL DELIVERY ESTABLISHED A FRAMEWORK FOR LDFR PROGRAM BUT COULD STRENGTHEN TWO AREAS

The Capital Delivery department—tasked with executing the LDFR program once the company selects a car builder—established a program management framework that generally aligns with company standards at this stage. The department, however, could strengthen two components: risk management and the clarity of the lines of authority. Without these improvements, program and company leadership may not have efficient access to the program management information necessary to make timely business decisions, increasing the risk of cost increases and schedule delays.

Capital Delivery Established a Program Management Framework for LDFR Program

Capital Delivery improved its LDFR program management framework over those the company developed for previous major programs in the following two keys ways:

Establishing foundational documents. The program team developed several foundational documents to plan for the LDFR program, in keeping with company standards. For example, the team drafted a charter for the LDFR program that generally includes the components the company's standards require, such as the program's scope, timelines, stakeholders, resource needs, complexity, and constraints.

The team used the charter to develop another key program management tool as the standards require—the program management plan, which defines the steps necessary to complete the project on time, on budget, and within scope. The LDFR program plan includes a change management plan—to manage changes to the program's scope, budget, and schedule—and a milestone schedule to identify key events prior to contract award.

Although the program team cannot finalize the program management plan and its sub-components until the company selects a car builder and finalizes its schedule, the LDFR team has begun drafting these guiding documents to manage this complex program. This is an improvement over previous programs that faced challenges, such as overtasking officials responsible for managing the program because such documents were not yet developed enough to guide daily work.[9]

Incorporating lessons learned. Capital Delivery has incorporated into the LDFR program lessons learned from prior and ongoing equipment acquisitions. We previously reported that the company experienced challenges managing major programs in part because it did not consistently capture and learn from the successes and failures of past acquisitions.[10] In response to our recommendation, the company has since updated its policies and procedures to require program teams to capture lessons learned, including identifying and storing them in a centralized database for all Capital Delivery program management teams to use.

On the LDFR program, the team established a lessons learned log in April 2023 that classifies each lesson as an action to repeat, mitigate, or avoid. We also identified instances when the program team put these lessons into action. For example, the team identified contract provisions in the New Acela and Airo equipment acquisition programs that helped inform the general provisions of the LDFR contract.[11]

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[9] *Governance: Company Needs a Comprehensive Framework to Successfully Manage its Commitments to the Gateway Program* (OIG-A-2022-006), February 4, 2022; and *Train Operations: The Acela Express 2021 Program Faces Oversight Weakness and Schedule Risks* (OIG-A-2018-002), November 16, 2017.

[10] *Major Programs: Company Improved Management of New Acela Program, but Additional Delays and Cost Increases are Likely* (OIG-A-2023-013), September 29, 2023.

[11] The Airo program is an equipment acquisition program to replace the intercity regional and state-supported fleet.

The LDFR program team is also accessing and updating its lessons learned log as the program progresses. This generally aligns with company standards to review and update the log to improve future program management. Company officials agreed that this effort has improved the early management of the program.

Capital Delivery Has Not Fully Established Two Key Elements of Effective Program Management

Although its program management framework generally aligns with company standards, the Capital Delivery department could improve its risk management processes on the LDFR program and improve the clarity of the program's lines of authority. Doing so could help mitigate potentially significant cost and schedule risks.

Managing program risk. Our prior work has found that the company did not develop a full range of contingency plans for risks on another major program.[12] To its credit, since March 2024, the company has been engaged with FRA to enhance its risk management process on the LDFR program. Additionally, as early as June 2023, Capital Delivery had drafted a risk management plan for the LDFR program, and tools to help manage those risks. This plan required the use of a risk register[13]—the primary tool that management teams use to log, track, and manage risks. The risk register includes mitigations plans to reduce the probability of a risk occurring in the first place, but it does not include fully developed contingency plans to address realized risks—including those that are characterized as high risk to the program—as called for by company standards.

For example, in April 2024, the program team identified a potential change in the trainsets' eventual maintenance schedule. Specifically, according to the risk register, the Chief Mechanical Officer requested a 12-hour touch time for equipment, which is an increase from the previous process. This request for increased maintenance time was due to the significant increase in the overall complexity of the new technology that this fleet will encompass, according to company management. The company estimates that this practice could increase the life-of-project cost 6 to 8 percent and add one to three months of planning schedule delays to the program. The risk register does not, however, include a contingency plan if the company changes its mechanical and operating practices. As of July 2024, the risk register shows that company officials are

[12] *Train Operations: Acela 21 Program Continues to Face Significant Risk of Delays, Warranting More Contingency Planning* (OIG-A-2020-004), January 21, 2020.
[13] The company first drafted a risk register in April 2023.

working to mitigate this risk and are planning to conduct further analysis as the procurement evolves. Nevertheless, without fully developed contingencies for risks that the company identified as having high impact on LDFR, program officials and executive leadership may not have the information necessary to respond efficiently to a realized risk and make informed decisions to avoid delays and cost increases.

Clarifying lines of authority. Since its inception, the program's lines of authority and decision-making structure have been unclear, and recent departures in program leadership may exacerbate this. For example, as early as June 2023 the company identified and documented decision makers for each element and stage of the program—by using a project planning tool called a "RACI matrix" (named for those individuals who are responsible, accountable, consulted, and informed). Company and program officials told us, however, that this document did not reflect how the company is making day-to-day decisions, and there were not clear lines of authority on the program. Officials told us that they often escalate issues through multiple layers of company leadership, which can take time—sometimes weeks—if multiple executives need to address the issue. As a result, they are uncertain about the level to which they should escalate decisions to solicit approvals, which a company document shows and company officials told us.

In March 2024, FRA initiated an independent risk assessment of the LDFR program, the results of which echoed this conclusion. In the assessment, FRA noted that the program's "opaque decision-making process" could result in decisions that lack transparency and inadequately balance trade-offs, resulting in missed objectives and mistrust in the decision-making process.

In May 2024, company officials updated the RACI matrix to clarify the responsible officials for each element and stage of the program. Although this was a positive step, company officials said the updated matrix did not fully articulate the program's lines of authority, and it still did not reflect how the company is making day-to-day decisions on the program. For example, multiple stakeholders who are assigned as "Responsible" or "Accountable" for a given area told us they do not have sufficient decision-making authority to manage or mitigate risks in these assigned areas. We previously reported that when a program team does not use its program management tools and processes adequately to define its lines of authority, it hinders its ability to adequately plan for

critical program elements, such as approving change orders, assigning tasks, and soliciting input from senior executives.[14]

Moreover, recent program leadership departures could exacerbate these decision-making challenges. Two years into the program, the company executives tasked with overseeing the program have changed, and senior managers and executives from the primary departments involved in the program—including Commercial, Capital Delivery, and Procurement—have left the company or been reassigned. These changes are significant and include the following:

- January 2024 – The Vice President of the Long Distance Service line retired.
- January 2024 – The Vice President Project Delivery of Fleet and Facilities resigned from the company. The company named the previous head of the New Acela program as Acting Vice President, Project Delivery Fleet & Facilities, beginning January 10, 2024, and promoted them to the position in June 2024.
- April 2024 – The Vice President for Product Development and Customer Analytics was tasked with a new role and is no longer the lead decision maker for the Commercial department.
- June 2024 – The Senior Procurement Director assigned to the LDFR program resigned from the company.
- July 2024 – The Capital Delivery Senior Director—the manager tasked with overseeing the entire program—resigned from the company.

As of August 2024, the company had not replaced three of these officials although it reassigned some of their duties.[15] We have previously reported that on a major equipment acquisition, vacancies and officials with competing responsibilities pose significant cost and schedule risks.[16] Accordingly, these senior vacancies may exacerbate

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[14] *Governance: Early Planning and Oversight Deficiencies Led to Initial Program Failures and Continued Risks to the Moynihan Train Hall Program* (OIG-A-2020-014), August 17, 2020; and *Train Operations: Acela 21 Program Continues to Face Significant Risk of Delays, Warranting More Contingency Planning* (OIG-A-2020-004), January 21, 2020.

[15] As of August 2024, the company had not replaced the Vice President of Long Distance Service, the Senior Procurement Director assigned to LDFR, and the Capital Delivery Senior Director in charge of the LDFR.

[16] *Train Operations: Acela 21 Program Continues to Face Significant Risk of Delays, Warranting More Contingency Planning* (OIG-A-2020-004), January 21, 2020.

the existing uncertainty about decision making and create an additional gap in the lines of authority on the LDFR program. For example, as of September 2024, program documents have not yet been updated to reflect these more recent leadership changes. Without establishing clear roles, responsibilities, and lines of authority for each stage of the program and filling key senior positions, the company risks delaying decision making, which could lead to increased costs and schedule delays.

In addition, the program team has requested six additional critical positions in FY 2025, which the company approved. The team estimates, however, that not filling program team vacancies in a timely manner could cost the company more than 8 percent of the life-of-project cost and more than three months of schedule delays.[17] FRA also noted this risk, stating that there are too few company resources addressing the many needs of the program, which may result in missed details in car builder proposals or maintenance facilities requirements that could cause schedule delays or increase program budgets. Capital Delivery officials told us they do not need to fill these vacancies immediately because the delayed RFP process has delayed the overall program, which tempered the immediate need for these personnel. We recently reported, however, on the company's challenges filling key positions in a tight labor market.[18] If the company does not fill these positions in a timely manner, it risks additional schedule delays and cost increases.

CONCLUSIONS

The LDFR program will be the single largest equipment acquisition by cost and volume in the company's history. Determining which requirements to include or exclude from such an undertaking demands a thoughtful assessment of the trade-offs between benefits and risks. Moreover, as the company advances this complex program, it has an opportunity to strengthen its management framework. By establishing clear lines of authority, effectively staffing the program, and planning for risks that may impede its progress, the company can better position itself to achieve its successful delivery.

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[17] The six requested positions are lead project controls specialist scheduler, assistant vice president, lead project controls specialist for cost, lead project controls specialist for documents, principal projects manager for quality, and project controls manager risk and schedule.

[18] *Human Resources: The Company is Addressing Engineering Management Workforce Challenges, but Additional Work Remains* (OIG-A-2022-012), July 12, 2022; and *Human Resources: Company is Meeting Hiring Goals but Has Opportunities to Improve Hiring Efficiency* (OIG-A-2024-002), December 14, 2023.

RECOMMENDATIONS

Since the company is in the process of amending its requirements for the trainsets, we are not making a recommendation in this area but note that any future decisions that add complexity to this program warrant thoughtful consideration and caution. To address the other issues identified, we recommend that the Executive Vice President, Capital Delivery—in consultation with the Executive Vice President, Marketing and Chief Commercial Officer and the Executive Vice President, Business Transformation and Chief Financial Officer—take the following actions:

1. Review and clarify for all stakeholders the roles, responsibilities, and lines of authority and decision-making for each stage of the program and update program documentation accordingly.

In addition, we recommend that the Executive Vice President, Capital Delivery; Executive Vice President, Marketing and Chief Commercial Officer; and Executive Vice President, Business Transformation and Chief Financial Officer each take the following actions:

2. Prioritize filling key senior management vacancies as soon as practical. In addition, prioritize filling key program team vacancies, as appropriate, including those requested for FY 2025.

Further, we recommend that the Executive Vice President, Capital Delivery take the following action:

3. Update the program's risk register to include contingency plans for high impact risks.

MANAGEMENT COMMENTS AND OIG RESPONSE

In commenting on a draft of this report, the company's Executive Vice President, Capital Delivery; the Executive Vice President, Marketing and Chief Commercial Officer; and the Executive Vice President, Business Transformation and Chief Financial Officer agreed with our recommendations and described the company's actions and plans to address them, which we summarize below.

- **Recommendation 1:** Management agreed with our recommendation to review and clarify stakeholders' roles, responsibilities, and lines of authority for the program. Management noted that prior to contract award the Vice President Project Delivery of Fleet and Facilities and the Vice President of Procurement co-sponsor the project and after contract award the Vice President Project Delivery of Fleet and Facilities will be the sole program sponsor. It also stated that recurring meetings are being held with senior leadership to solicit input on the program and provide updates on decisions and activities. These and other steps the company has taken will likely meet the intent of our recommendation, but we will continue to monitor company actions as part of our regular recommendation follow-up process.

- **Recommendation 2**: Management agreed with our recommendation to prioritize filling key vacancies as soon as practical. Management noted that it has hired an Assistant Vice President for the program who will start in January 2025, and a scheduler who will start in December 2024. Management stated that it is otherwise proceeding with its approved FY 2025 hiring plan for the program. Finally, it notes that the Mechanical department has identified some key positions that will need to be filled prior to the start of the program and is using outside resources until these positions can be hired. The target completion date is December 31, 2025.

- **Recommendation 3:** Management agreed with our recommendation to update the program's risk register to include contingency plans for high impact risks. Management noted that contingency plans must be devised, periodically updated, decided upon and put into practice at specific times to provide value to the program and company operations. Management stated that it has conducted some contingency planning efforts and intends to conduct further planning efforts as the program progresses. The target completion date is March 31, 2025.

Management also provided additional perspectives on some of the issues we identified. It asserted that our report did not fully reflect the complexities of the procurement process and stated that the company revised its requirements based on feedback from car builders, but that these revisions were not limited solely to design complexity. We agree, as noted in our report, that the company began revising its requirements both to reduce complexity and increase car builders' flexibility to propose solutions.

The company's efforts to ensure that the revisions support robust competition and include industry feedback is a positive development.

Finally, management stated that our observation about one car builder being able to produce eight to nine car types is accurate, but reflects the capabilities of only that one vendor, not the broader industry. We agree but note that only one of six car vendors affirmatively said it could produce the number of car types the company planned to request, which highlights that the company's initial design requirements contributed to the program's complexity. Moreover, other company documents—including company communications with car builders—further reflect the complexity of the company's initial design requirements. Thus, we continue to believe that our characterization accurately reflects the totality of the feedback the company received regarding its initial suggested number of car types.

For management's complete response, see Appendix B. Management also provided technical comments that we have incorporated in this report as appropriate.

APPENDIX A

Objective, Scope, and Methodology

This report provides the results of our audit of the company's LDFR program. Our objective was to assess the company's management and oversight of the LDFR and identify any risks to successful delivery. Our scope included the company's efforts to manage early program development. We conducted our work from October 2023 through December 2024 in Washington, D.C., and Philadelphia, Pennsylvania.

To assess the company's management of the program, we interviewed key program management officials. We reviewed LDFR program management documents, including the program charter and risk register. We also reviewed and compared the company's efforts to the Enterprise Project Management Standards, Capital Delivery Procedures, and commonly accepted standards for project and program management, including the Project Management Body of Knowledge and the Committee of Sponsoring Organizations of the Treadway Commission. We also reviewed key procurement documents, such as the company's RFIs and RFP—along with car builders' responses—as well as the company's summaries of car builders' feedback.

To assess the company's oversight, we interviewed key executives. We reviewed and assessed the program management plan, the program management framework, and program status reports. In addition, we reviewed and assessed the RACI matrix.

To identify risks, we interviewed key program officials and reviewed program documents, including financial information related to the cost of maintaining the legacy long distance fleet. In addition, we interviewed executives from the Capital Delivery department; officials from the team charged with managing program delivery; and officials in the company's Mechanical, Commercial, Procurement, Planning, and Finance departments. We also interviewed key FRA officials to obtain their perspectives on the program's status and risk management, and we reviewed documents related to FRA's independent risk assessment of the LDFR program.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence

obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Internal Controls

Our review considered the extent to which company departments implemented controls designed to specifically mitigate the risks associated with managing a major procurement. We determined that the following five internal controls areas were significant to our audit objective:

> **Control environment:** Management should establish an organization structure, assign responsibility, and delegate authority to achieve the entity's objectives.
>
> **Risk assessment:** Management should identify, analyze, and respond to risks related to achieving the defined objectives.
>
> **Control activities.** Management should design control activities to achieve objectives and respond to risks, such as training requirements, segregation of duties, and approvals.
>
> **Information and communication:** Management should internally communicate the necessary quality information to achieve the entity's objectives.
>
> **Monitoring.** Management should remediate identified internal control deficiencies on a timely basis.

We developed audit work to ensure that we assessed each of these control areas. This included reviewing the extent to which the company followed internal program management standards, developed a risk register, and ensured that there were clear lines of authority within the program. We did not conduct an independent review of company controls.

Computer-processed Data

The company uses SAP—an integrated enterprise reporting package that interfaces with other company systems. We used the SAP Business Planning and Consolidation module to gather financial information about the company's overall expenditures for its current long distance fleet. Our queries agreed with available company documentation and, based on this, we determined that the data were reliable for the purposes of our audit.

Prior Reports

In conducting our analysis, we reviewed and used information from the following OIG reports:

- *Human Resources: Company is Meeting Hiring Goals but Has Opportunities to Improve Hiring Efficiency* (OIG-A-2024-002), December 14, 2023
- *Major Programs: Company Improved Management of New Acela Program, but Additional Delays and Cost Increases are Likely* (OIG-A-2023-013), September 29, 2023
- *Train Operations: Company Has Improved Management of Intercity Trainset Acquisition and Can Improve Stakeholder Engagement on Major Capital Programs* (OIG-A-2023-005), December 22, 2022
- *Human Resources: The Company is Addressing Engineering Management Workforce Challenges, but Additional Work Remains* (OIG-A-2022-012), July 12, 2022
- *Governance: Company Needs a Comprehensive Framework to Successfully Manage its Commitments to the Gateway Program* (OIG-A-2022-006), February 4, 2022
- *Governance: Early Planning and Oversight Deficiencies Led to Initial Program Failures and Continued Risks to the Moynihan Train Hall Program* (OIG-A-2020-014), August 17, 2020
- *Observations on Risks to the Acela 21 Information Technology Program Element* (OIG-MAR-2020-009), April 22, 2020
- *Train Operations: Acela 21 Program Continues to Face Significant Risk of Delays, Warranting More Contingency Planning* (OIG-A-2020-004), January 21, 2020
- *Train Operations: The Acela Express 2021 Program Faces Oversight Weaknesses and Schedule Risks* (OIG-A-2018-002), November 16, 2017
- *Acquisition and Procurement: Opportunities Exist to Improve Management of Technical Support Services Contracts* (OIG-A-2016-013), September 30, 2016
- *Asset Management: Additional Actions Can Help Reduce Significant Risks Associated with Long-Distance Passenger Car Procurement* (OIG-A-2016-003), January 31, 2016
- *Asset Management: Amtrak Followed Sound Practices in Developing a Preliminary Business Case for Procuring Next-Generation High-Speed Trainsets and Could Enhance its Final Case with Further Analysis* (OIG-E-2014-007), May 29, 2014

APPENDIX B

Management Comments

NATIONAL RAILROAD PASSENGER CORPORATION

Memo

Date: December 2, 2024

From: Eliot Hamlisch, EVP Marketing & CCO
Laura Mason, EVP Capital Delivery
Tracie Winbigler, EVP Business Transformation & CFO

To: John J. Marzullo, Assistant Inspector General, Audits

Department(s): Capital Delivery, Business Transformation, and Marketing

cc
Stephen Gardner, CEO
Roger Harris, President
Eleanor Acheson, EVP General Counsel
Robert Grasty, EVP CHRO
George Hull, VP Chief Mechanical Officer
Dennis Newman, EVP Strategy & Planning
Steven Predmore, EVP CSO
Michelle Tortolani, VP Project Delivery Fleet & Facilities
Gerhard Williams, EVP Service & Delivery Ops
Christian Zacariassen, EVP CIO

Subject: Management Response to **Major Programs:** *Company Established a Management Framework for Long Distance Fleet Replacement Program but Can Improve Risk Management and Clarify Lines of Authority* (Draft Audit Report for Project No. 002-2024).

This memorandum provides Amtrak's response to the draft interim audit report titled, "*Company Established a Management Framework for Long Distance Fleet Replacement Program but Can Improve Risk Management and Clarify Lines of Authority*". Management agrees with all the noted OIG recommendations below and appreciates the opportunity to provide a response.

We believe that two excerpts from the audit report require additional clarification and context to ensure accuracy and balance.

NATIONAL RAILROAD PASSENGER CORPORATION

Pages 7 and 8: "Complex Design Requirements Pose Schedule, Cost, and Other Risks"

The report states that Amtrak (the "company") began revising its requirements to reduce design complexity, but this process delayed the procurement by seven months. This statement does not fully reflect the complexities of this procurement process. The protraction of the RFP submission deadline was primarily due to requests from car builders for extensions. While the company revised several requirements based on feedback from car builders to address their comments and concerns, these revisions were not limited solely to design complexity. Rather, they encompassed broader adjustments to the overall procurement strategy to drive a competitive process (e.g. terms & conditions, pricing, service agreement, etc.). The revisions were a deliberate effort to ensure a robust and equitable procurement approach, balancing industry input and program needs.

In addition, the report notes that one car builder indicated it could produce 8 to 9 car types, acknowledging the associated challenges. While this observation is accurate, it is important to clarify that this response reflects the capabilities of only one car builder and does not represent RFI responses provided by all participants. The RFI question specifically asked how many different car types could be built simultaneously in a manufacturing facility without significantly impacting production. Responses varied: two car builders stated there were no defined limits, one specified the ability to produce up to six car types, and one did not provide a quantified limit/range. This variation highlights the diverse capabilities within the industry, providing a more comprehensive and balanced perspective on the responses received. It is crucial to avoid overgeneralizing the capabilities of a single car builder as indicative of the broader industry landscape.

Since the company is in the process of amending its requirements for the trainsets, the OIG is not making a recommendation in this area but note that any future decisions that add complexity to this program warrant thoughtful consideration and caution. To address the other issues identified, the OIG recommend that the Executive Vice President, Capital Delivery, in consultation with the Executive Vice President, Marketing and Chief Commercial Officer and Executive Vice President, Business Transformation and Chief Financial Officer:

Recommendation #1:

Review and clarify for all stakeholders the roles, responsibilities, and lines of authority and decision-making for each stage of the program and update program documentation accordingly.

Management Response/*Action Plan*:
A Project Management Plan (***PMP***) was developed, and Amtrak has assembled a skilled and experienced team with clearly defined roles and responsibilities to manage the project. In addition to the PMP which outlines how the Program will be managed, a RACI chart, which was defined and agreed to across the key departments, is utilized to clarify roles and responsibilities. All project stakeholders and senior leaders are clear the VP of Fleet & Facilities and VP of Procurement co-sponsor the Program prior to the issuance of contract award; after contract award, the VP of Fleet & Facilities is the sole sponsor. Furthermore, with respect to decision-making, recurring meetings are conducted with, and reports/updates are distributed to Amtrak senior leadership in order to solicit input as necessary and provide updates on project-level decisions and activities. Open communication with all internal stakeholders is maintained throughout the project lifecycle.

NATIONAL RAILROAD PASSENGER CORPORATION

Responsible Amtrak Official(s): Michelle Tortolani, VP Project Delivery Fleet & Facilities

Target Completion Date: *Completed*

In addition, the OIG recommend that the Executive Vice President, Capital Delivery, Executive Vice President, Marketing and Chief Commercial Officer, and Executive Vice President, Business Transformation and Chief Financial Officer should each:

Recommendation #2:

Prioritize filling key senior management vacancies as soon as practical. In addition, prioritize filling key program team vacancies, as appropriate, including those requested for FY 2025.

Management Response/*Action Plan:*
Amtrak agrees with these recommendations and has established procedures to mitigate staffing risks. The AVP Long Distance Fleet Replacement (LDFR) Program (previously Senior Director) role, which was vacated in July 2024, has been filled with a target start date of January 6. 2025. Capital Delivery and Fleet & Facilities resources are supporting the project schedule definition and update until the LDFR scheduler, who has been hired, starts employment at Amtrak on December 16, 2024. As other gaps are identified, resources from both teams are capable of supporting the LDFR team until dedicated resources are hired and/or identified. The plan for LDFR FY25 hiring has been defined and approved as part of the FY25 AOP process; and hiring is proceeding according to that plan.

Amtrak conducts exit interviews to help identify root causes of personnel departures and has established procedures for promptly filling open positions with qualified candidates. These procedures include collaboration with the HR and Talent Acquisition departments to prioritize LDFR positions and streamline the hiring process.

The Mechanical department has identified key positions that will need to be filled prior to the start of the program. In the interim, Amtrak's mechanical program team is utilizing resources from outside consultants to address near-term mechanical needs.

Responsible Amtrak Official(s): Michelle Tortolani, VP Project Delivery Fleet & Facilities
George Hull, VP Chief Mechanical Officer

Target Completion Date: December 31, 2025

Further, the OIG recommend that the Executive Vice President, Capital Delivery:

Recommendation #3:

Update the program's risk register to include contingency plans for high impact risks.

NATIONAL RAILROAD PASSENGER CORPORATION

Management Response/*Action Plan*:
Contingency planning, and the ability for Amtrak to effectively respond to a variety of "what if" scenarios is fundamental to the success of the LDFR Program. Amtrak understands contingency plans must be devised, periodically updated, decided upon and put into practice at specific times in order for value to be delivered to the operation and business. The periodic updates translate, at some levels, to daily tracking and risk management.

Prior to the issuance of the LDFR RFP, Amtrak conducted contingency planning analysis effort which contemplated various new equipment deployment and do-nothing scenarios. This analysis was revisited as new, pertinent trainset delivery timing information became available.

A short-list of contingency scenarios which span from minor delays in the current/assumed project schedule to extensive delay/disruption possibility are being contemplated by leadership and are under review. The contingency plan will be revisited and updated by March 31, 2025, and then as needed moving forward. Decisions related to activating contingencies will originate from the Program Sponsor.

Responsible Amtrak Official(s): Michelle Tortolani, VP Project Delivery Fleet & Facilities

Target Completion Date: March 31, 2025

APPENDIX C

Abbreviations

ADA	Americans with Disabilities Act
FRA	Federal Railroad Administration
FY	fiscal year
IIJA	Infrastructure Investment and Jobs Act
LDFR	Long Distance Fleet Replacement
OIG	Amtrak Office of Inspector General
RACI	Responsible, Accountable, Consulted, Informed
RFI	Request for Information
RFP	Request for Proposal
the company	Amtrak

APPENDIX D

OIG Team Members

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OIG MISSION AND CONTACT INFORMATION

Mission

The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management, and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

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or

800-468-5469

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