Amtrak® Next-Generation High-Speed Trains

Building upon 16 years of high-speed rail service in the Northeast, Amtrak® is working with Alstom to produce the next-generation of high-speed trainsets built to international standards, to replace the equipment used to provide Amtrak's premium *Acela Express* service on the heavily-traveled Northeast Corridor (NEC). As part of this multifaceted modernization program, Amtrak is also investing in infrastructure needed to improve the on-board and station customer experience and accommodate the increased high-speed rail service levels made possible by the new trains.

Customer Benefits

- Each trainset will have roughly one-third more passenger seats, while preserving the spacious, high-end comfort *Acela* customers expect and feature an improved boarding experience and more comfortable seating.
- Amtrak is ordering 28 trainsets, 40 percent more trainsets than its current high-speed fleet, to provide half-hourly *Acela Express* service between Washington, DC and New York City during peak hours, and hourly service between New York City and Boston.
- The trainset design, together with advanced track maintenance practices that Amtrak will be funding, will result in a smoother ride comparable to international high-speed train service.
- Each trainset will have modern amenities that will be upgradable as customer preferences evolve:
  - Improved Wi-Fi access
  - Personal outlets, USB ports and adjustable reading lights at every seat
  - Enhanced food service car offering easy access and greater selection
  - Modern interior design for increased comfort and productivity throughout the journey
  - Exceed the ADA minimum accessibility requirements

Infrastructure, Facility and Station Investment

- As part of a $2.45 billion loan from the Federal Railroad Administration's (FRA) Railroad Rehabilitation & Improvement Financing (RRIF) program, Amtrak will invest in significant station improvements at Washington Union Station, Moynihan Station New York, as well as safety, track capacity and ride quality improvements to the NEC.
- Additionally, Amtrak will modify high-speed fleet maintenance facilities to accommodate the new trains.
- Amtrak is funding this project on its own through this loan, which it will repay through growth in NEC revenues. Amtrak is not relying on federal grants for this project.

Economic Growth

- Amtrak's *Acela Express* service is a remarkable success story. From 2,473,921 passengers in FY2002 to 3,473,644 passengers in FY2015, *Acela* has led a significant growth in revenue and market share in the Northeast.
- *Acela Express* is the premium service on the nation's busiest rail corridor. Each day, 750,000 people board commuter and Amtrak trains to head to work, school and other destinations making the NEC a major driver of the regional and national economy.
- Nearly one-third of the region's jobs are located within five miles of an NEC station. The region is home to nearly a quarter of the nation's top universities, a fifth of Fortune 500 company headquarters, and many top hospitals.
- This investment will ensure efficient movement of customers, goods, and ideas to keep the economy thriving in the Northeast region.

Energy Efficient

- The light weight design and the articulated architectures of the new trainsets, combined with the minimal, aerodynamic drag will reduce energy consumption by at least 20 percent.
- The trainsets can capture energy created during braking and inject it back into the overhead power system for reuse.

Safety

- The base trainset design is among the safest, if not the safest, high-speed trainset design in the world and has transported billions of customers safely over the last 35 years.
- The trainsets meet the latest FRA guidelines, including a Crash Energy Management system.

Reliability

- The new trainsets will replace the *Acela Express* fleet that has been in service since 2000. The new trainsets are based upon a design that is service-proven in the international marketplace and will be at least eight times more reliable than the equipment it replaces.

Suppliers

- Production of the new train sets will provide 400 jobs at Alstom's manufacturing plant in Hornell and Rochester, New York.
- Parts for the new trainsets will come from 350+ suppliers in 30+ states, generating more than 1,000 jobs across the country.
- "Made in America": More than 95 percent of trainset components will be manufactured domestically, which will help increase the ability of domestic manufacturers to participate in the international trainset manufacturing and repair marketplace.
- More than $280 million worth of materials and services will be procured from Disadvantaged Business Enterprises and Small Business Concerns for the manufacturing and the 30-year maintenance of these trainsets.

Speed

- The new trainsets will initially operate along the NEC at speeds up to 160 mph. All trainsets will feature Alstom's anticipative tilting system that will enable faster journey times and a smoother ride. The trainsets are capable of speeds up to 186 mph and thus will be able to take advantage of future improvements to NEC infrastructure.

Production Schedule

- The first trainset prototype will be ready for testing in 2019 and the first trainset will enter revenue service in early 2021, with all trainsets in service and the current fleet retired in early 2022.

Images courtesy of Alstom