



The Future of the Northeast Corridor

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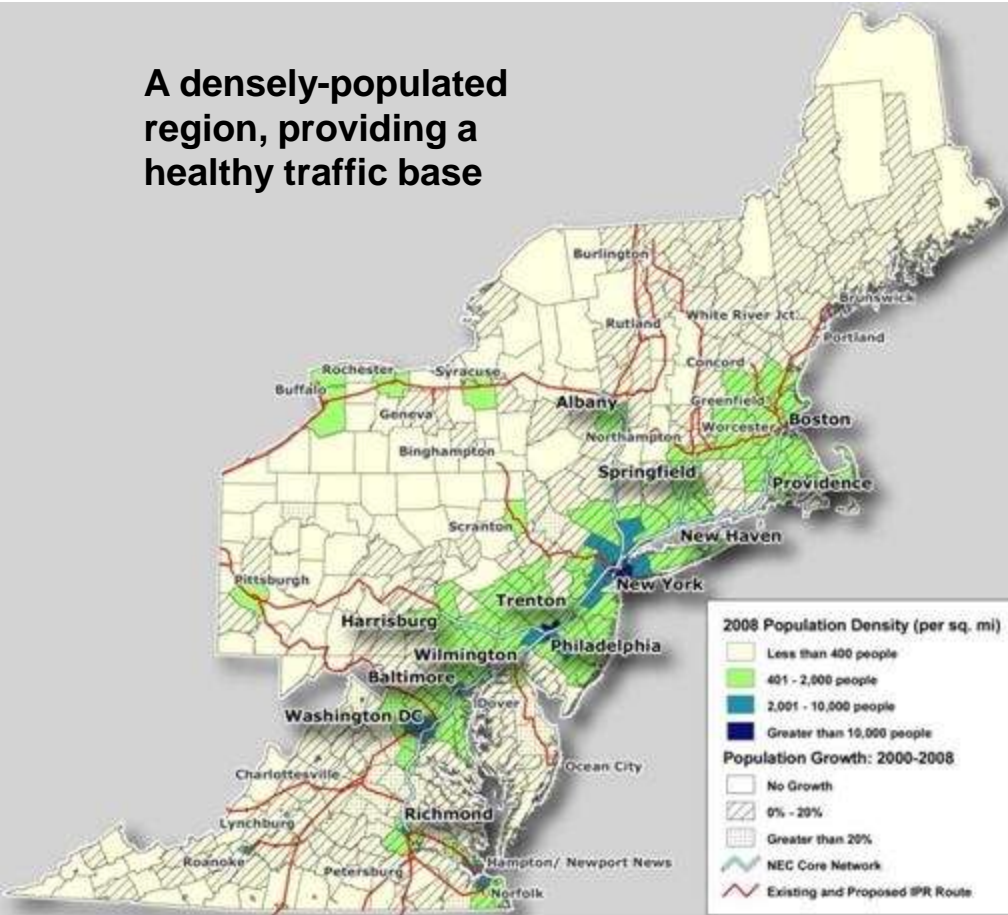
President and CEO, Amtrak

March 11, 2011



The NEC today

A densely-populated region, providing a healthy traffic base



A right-of-way that supports 125-150 mph service



What they have.....

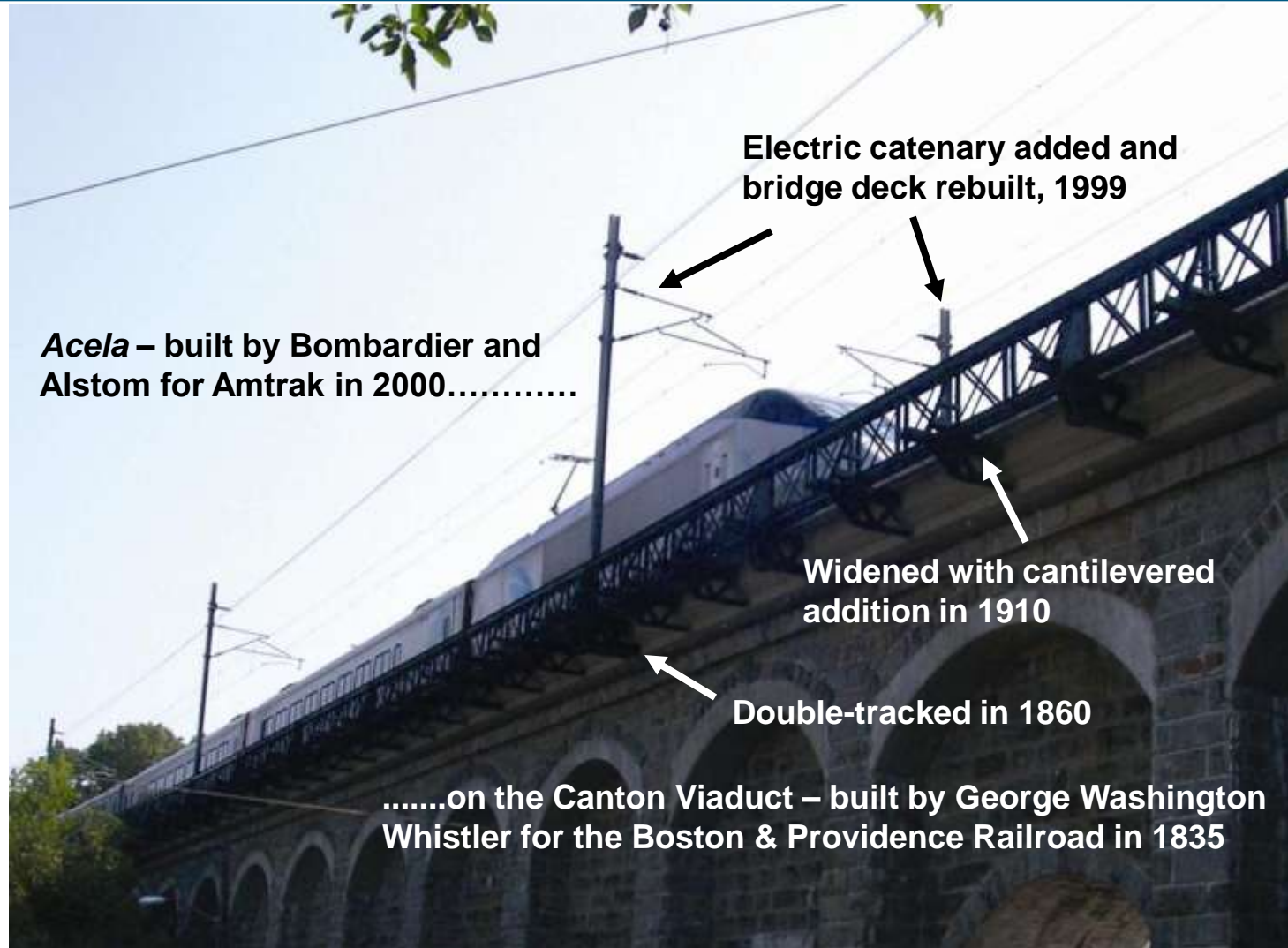
AVE Class 102 train – built by Talgo and Bombardier for RENFE (Spanish national rail operator) in 2005.....



....on the Paracuellos de Ribera viaduct, part of the Madrid-Barcelona high speed line, opened in 2003

Infrastructure designed to realize the potential of the equipment

.....and what we have



Acela – built by Bombardier and Alstom for Amtrak in 2000.....

Electric catenary added and bridge deck rebuilt, 1999

Widened with cantilevered addition in 1910

Double-tracked in 1860

.....on the Canton Viaduct – built by George Washington Whistler for the Boston & Providence Railroad in 1835

Equipment designed to operate within the constraints imposed by the infrastructure

The NEC is a bona-fide HSR operation.....

Line	15 mph (CL I)	16-30 mph (CL II)	31-60 mph (CL III)	61-80 mph (CL IV)	81-90 mph (CL V)	91-110 mph (CL VI)	111-125 mph (CL VII)	126-150 mph (CL VIII)	Total Track Miles
NEC Main Stem	4.7	18.8	68.4	145	144.6	273.7	267.6	195.4	1118.2
Percentage	0.4%	1.7%	6.1%	13.0%	12.9%	24.5%	23.9%	17.5%	100.0%

Does not include about 400 miles of miscellaneous yard tracks

About 65.9% of the Amtrak-owned NEC Main Stem trackage usable for 110-150 mph service

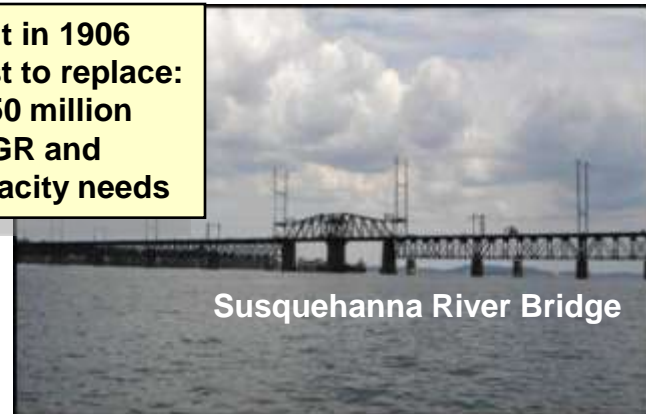
Amtrak is the only company in America to maintain track for 110+ mph service

...but it depends on century-old infrastructure



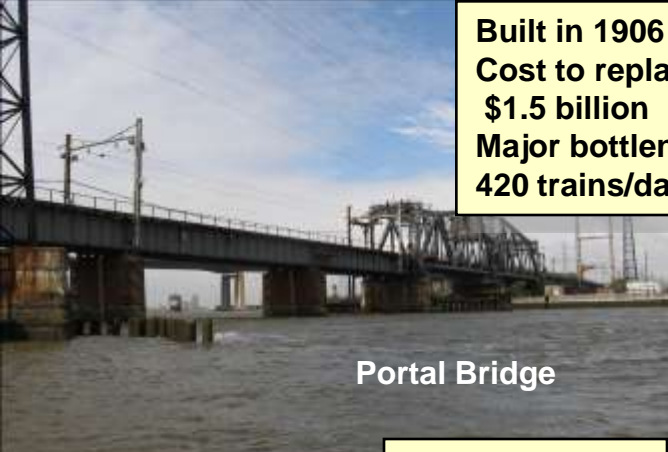
Connecticut River Bridge

Built in 1907
Cost to replace:
\$225 million
Most active – 4K openings/yr
Fatigue issues



Susquehanna River Bridge

Built in 1906
Cost to replace:
\$550 million
SOGR and
capacity needs



Portal Bridge

Built in 1906
Cost to replace:
\$1.5 billion
Major bottleneck
420 trains/day

Built in 1907
Cost to replace:
\$100 million
2nd most active
Reliability & fatigue issues



Niantic River Bridge



Pelham Bay Bridge

Built in 1907
Cost to replace:
\$210 million

Built in 1873
Cost to replace: \$1.2
billion
Major bottleneck
30 mph speed restriction
Water infiltration
problems



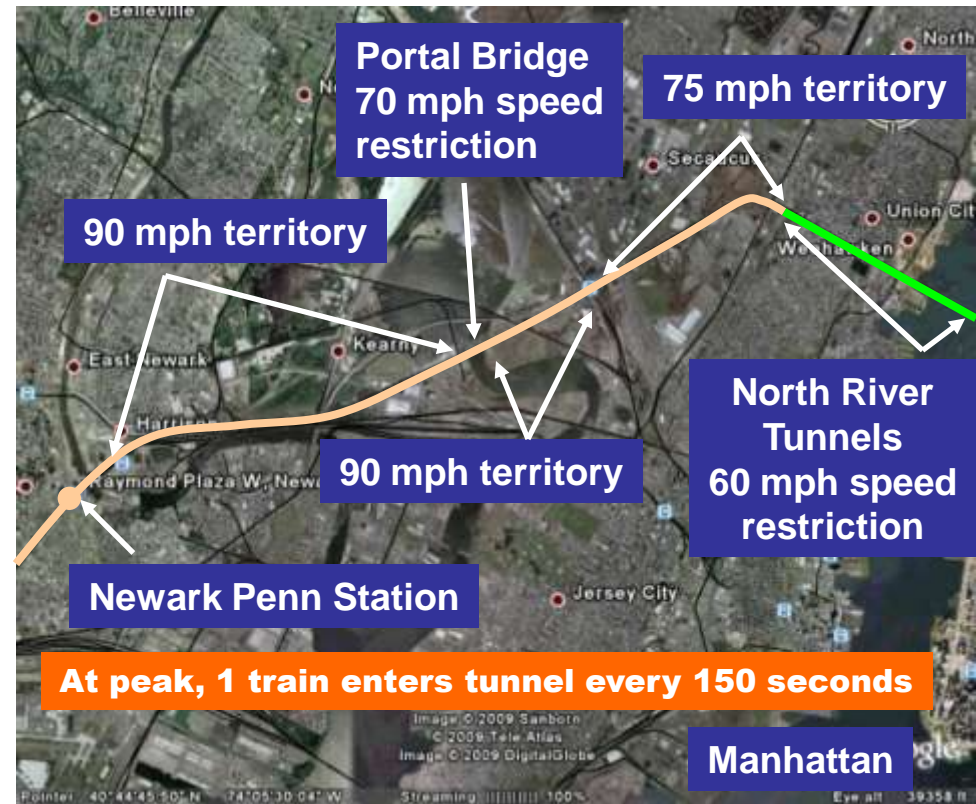
B&P Tunnel

The Situation in Northern New Jersey

- Greatest operational challenge on the NEC
 - Density (NJT, Amtrak)
 - Operating geography
 - Infrastructure age
- Service disruptions here ripple through the system, causing further disruptions at distant terminals:
 - Miami
 - Chicago
 - New Orleans



North River Tunnels – Weehawken Portal



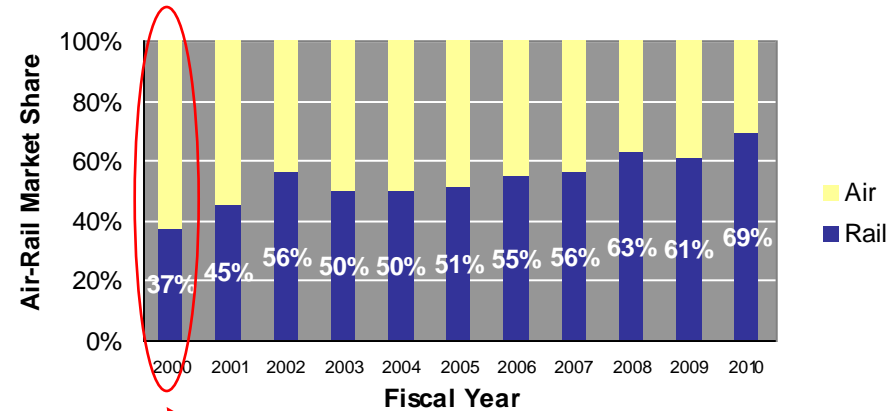
In spite of these challenges...

- Amtrak carries more people than all of the airlines put together between:
 - New York and Washington
 - New York and Boston
- We're operating a vital transportation link that can touch 150 mph – but we're running on century-old infrastructure
- *How do we solve this problem – and how do we grow?*



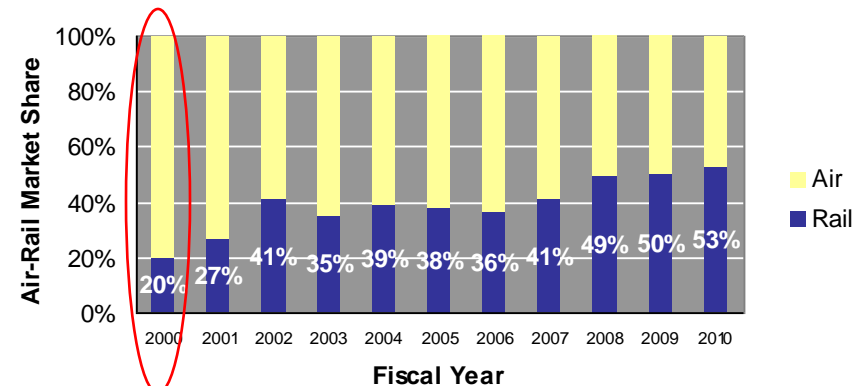
MOW equipment on the North End of the NEC

Washington to New York Air-Rail Market



Acela service introduced – 86% growth in South End ridership between FY 2000 and FY 2010

New York to Boston Air-Rail Market



Acela service, electrification, and 125 mph Regional service introduced – 160% growth in North End ridership between FY 2000 and FY 2010

NEC Stair-Steps to HSR Vision

Next Gen HSR to Boston

Next Gen HSR North to Hartford

Next Gen HSR South to Wash D.C.

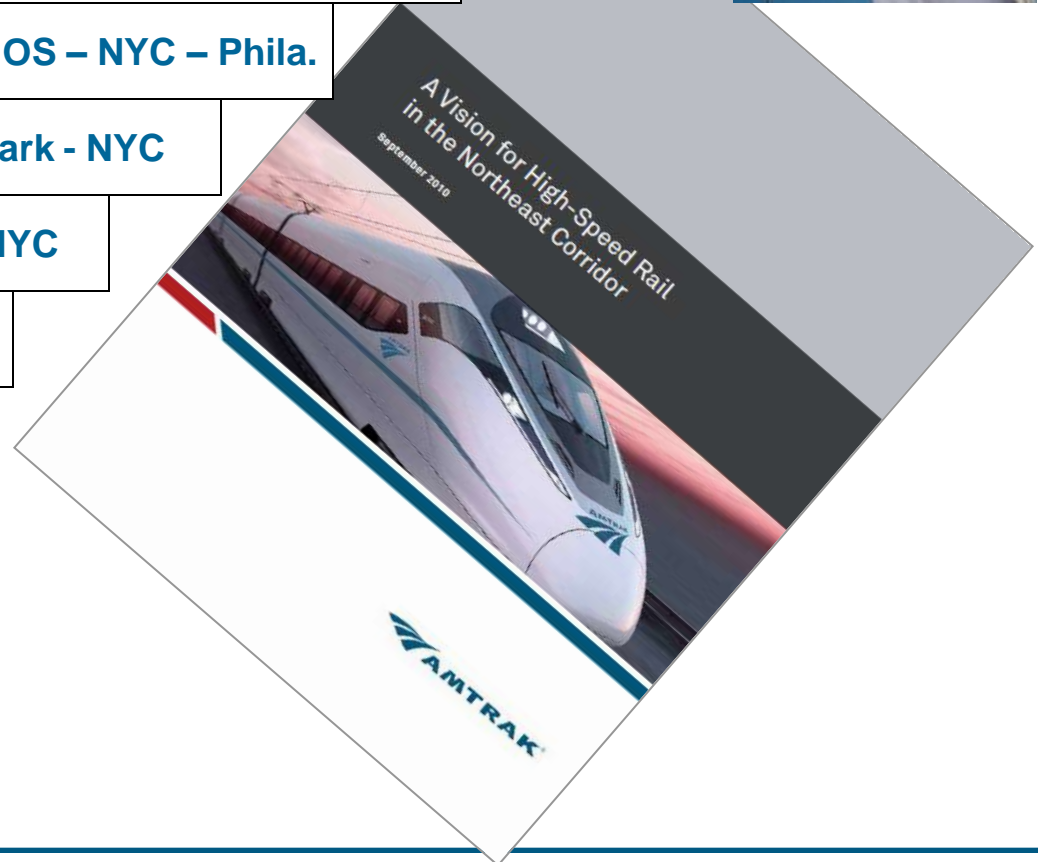
Next Gen HSR MOS – NYC – Phila.

NEC Gateway – Newark - NYC

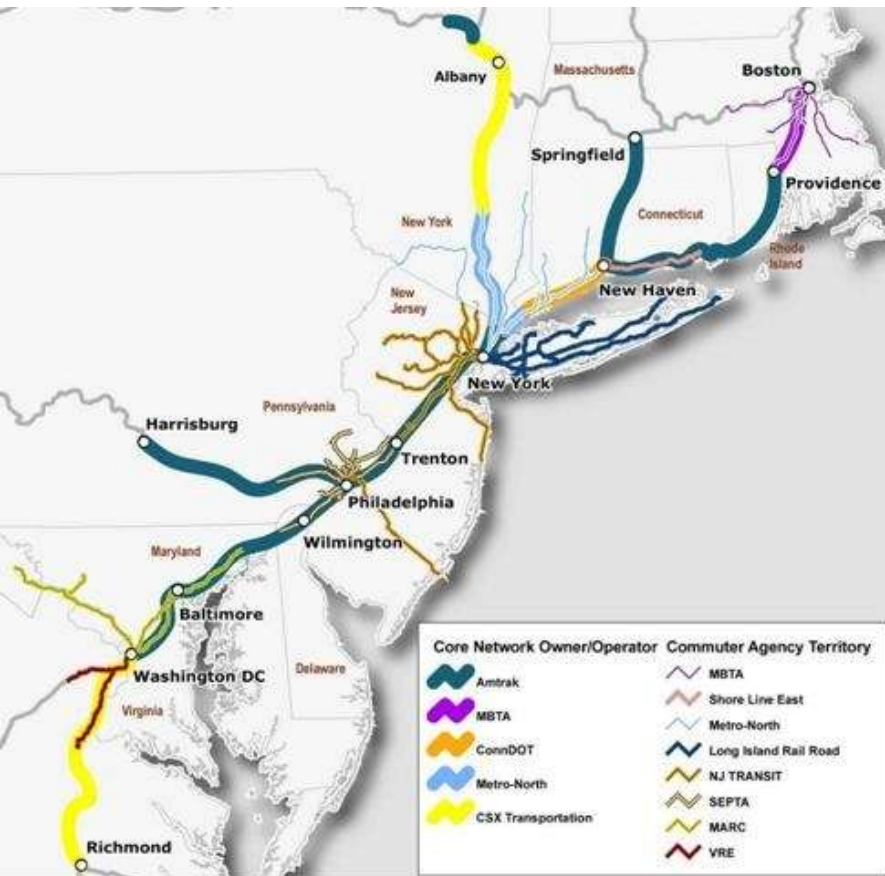
160 mph Service south of NYC

Acela II Doubles HSR Fleet Capacity

35% Increase in Acela Capacity



The NEC of the future



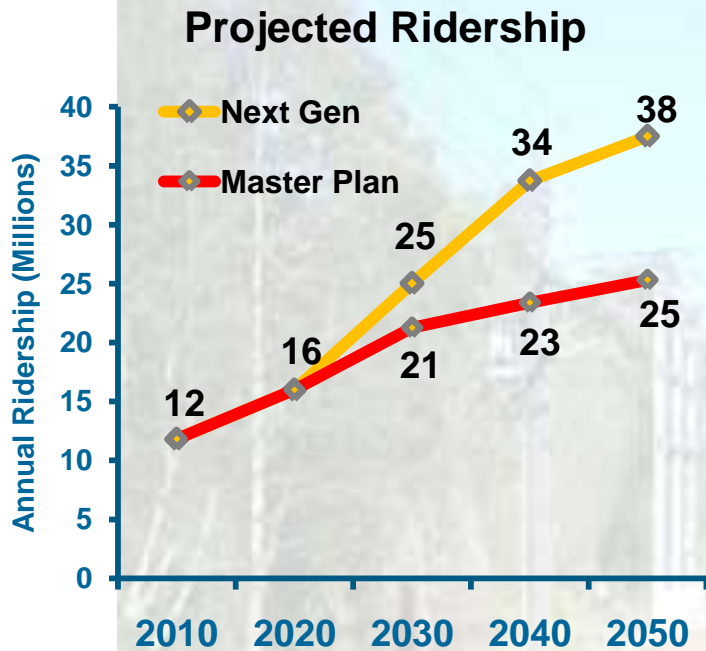
- The NEC Master Plan published in 2010
 - Collaborative process with states, commuters, and freights
 - Designed to expand existing network and feeders to accommodate (by 2030):
 - 59% growth in total passenger ridership
 - 41% growth in total passenger trains
 - Increases in speed on existing ROW to 160 mph for *Acela*
- This is a good plan, but:
 - Essentially improvements on existing alignments
 - Projected growth will “max out” capacity by 2030
 - Total cost (thru 2030) exceeds \$50B

Amtrak's Next Generation HSR Feasibility Study

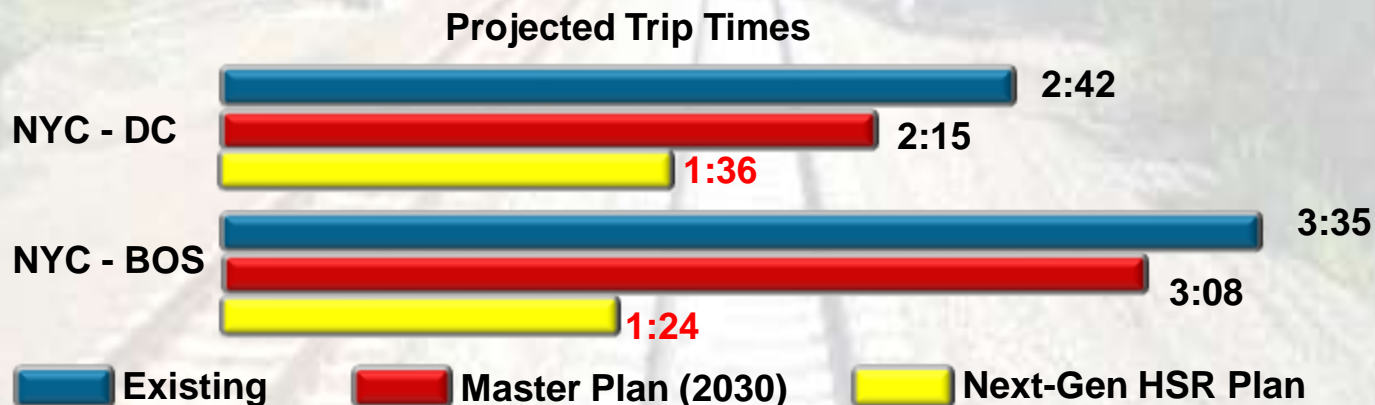


Route:	Stations Served:
Super Express (4 stops)	<ul style="list-style-type: none"> • Boston • New York • Philadelphia • Washington (via Next-Gen alignment)
Standard Express (18 stops, A/B stop pattern)	<p>As above, other stops will include:</p> <ul style="list-style-type: none"> • Hartford • Danbury • Newark • Wilmington • Baltimore (via Next-Gen alignment)
Shoreline Express (11 stops)	<p>Boston – New York (via NEC alignment) serving:</p> <ul style="list-style-type: none"> • Providence • New Haven • Stamford <p>Direct service to New York – Washington (via Next-Gen alignment)</p>
Keystone Express (6 stops)	<p>New York – Philadelphia (via Next-Gen alignment) Keystone Corridor to Harrisburg</p>

NEC Master Plan – and the Next Gen HSR Plan



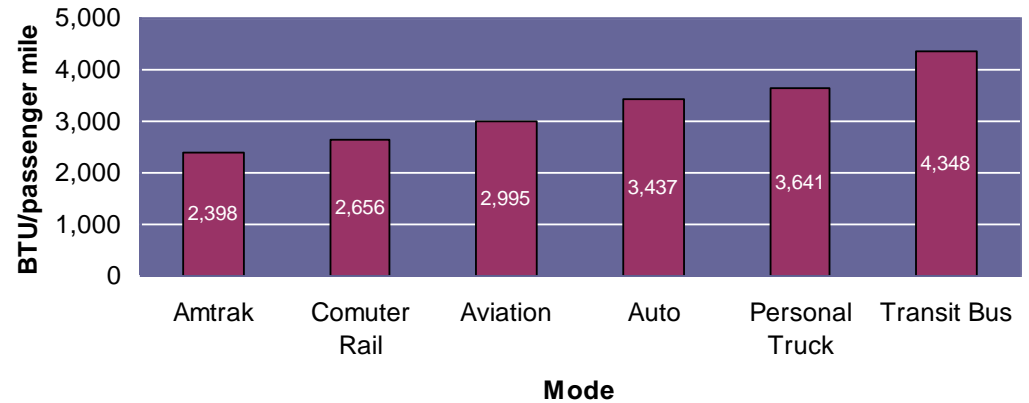
- Master Plan
 - Total cost about \$42B (\$52B with normalized replacement included)
 - Will basically keep up with growth in demand
- Next Gen
 - Total cost (thru 2040) of \$117B
 - Will generate \$900M operating surplus in 2040



Why do we need to make these investments?

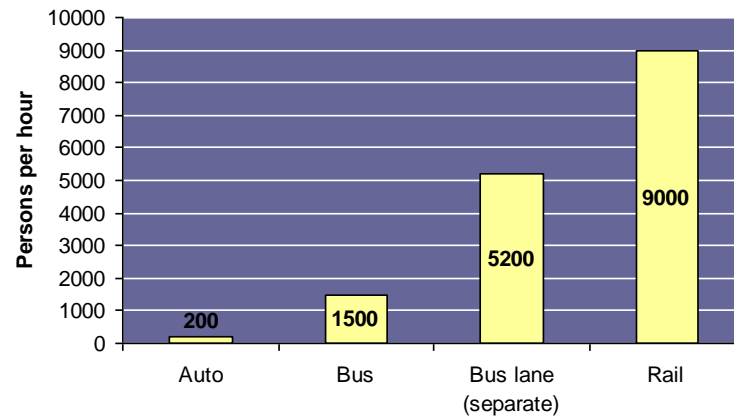


Comparative Energy Intensities



Source: US DOE

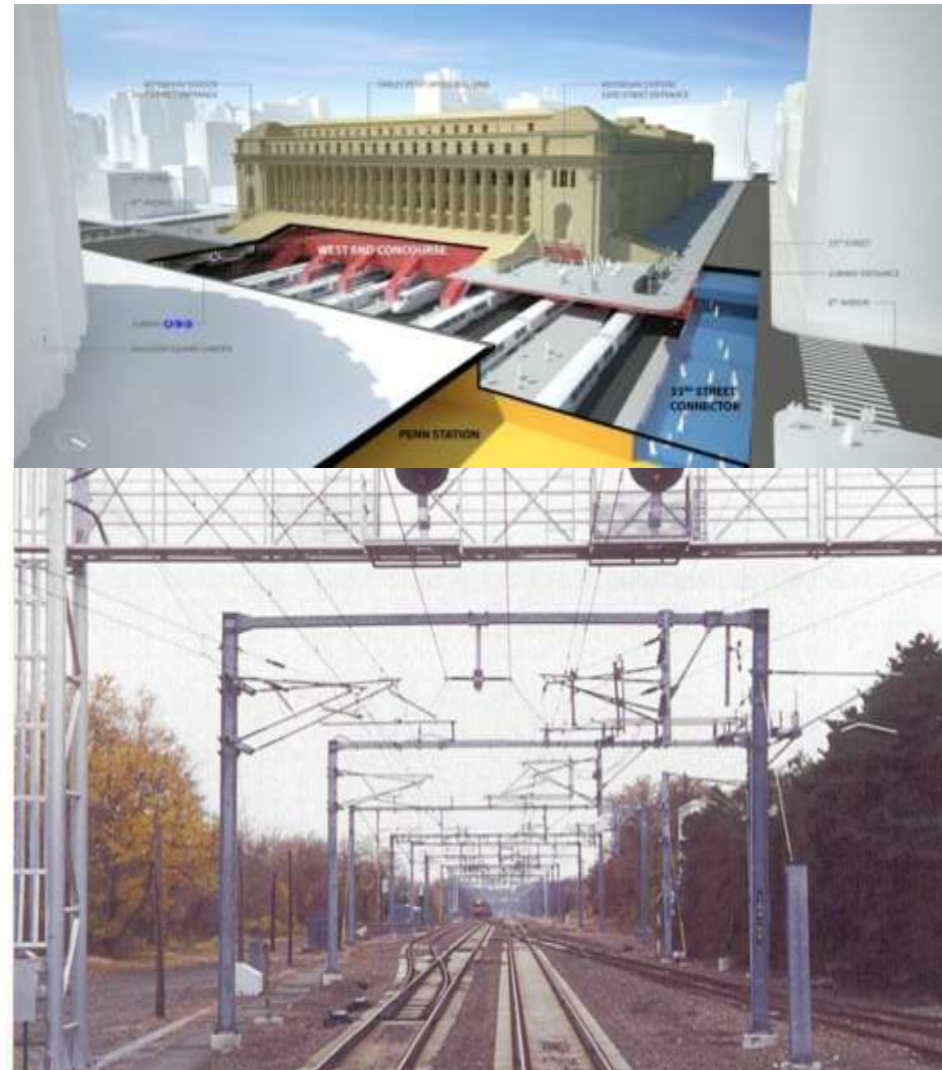
Passenger capacity per meter of width



Source: International Union of Railways

Beginning the process

- We have a vision – but vision needs to be matched to a plan that is:
 - Attainable
 - Affordable
 - Generates returns quickly
 - Provides the public with a useful transportation solution that builds support for the completed project
- Amtrak has identified the first two stages of a plan:
 - NEC Gateway Project
 - New York-Philadelphia segment
- These improvements will provide the NEC with the capacity it needs for a century to come



NEC Gateway

- Keystone of the plan – creating capacity where it's most needed
- Involves major capacity expansion
 - Add extra tracks between Newark and Penn Station
 - Build two new tunnels under the Hudson River
 - Build Moynihan Station
 - Add extra commuter rail capacity at Penn Station
- When commuter services get investment, high speed services get operational fluidity



New York-Philadelphia dedicated HSR Line

- The “minimum operable segment” concept:
 - Existing line would be improved to raise speeds to 160 mph (short term)
 - Separate HSR line could be built to provide dedicated 220mph express service (mid- to long term)
- Each improvement will generate
 - Initial rounds of improvement will greatly increase capacity
 - Subsequent rounds will increase speed, provide jumping-off point for later rounds of HSR construction



What do we need?



- A solution for the future – not a strategy from the past
- Capacity for growth
- An infrastructure improvement that will last for a century
- A strategy that will safeguard our mobility and conserve oil
- Rail is the progressive, high-tech, energy-efficient solution for tomorrow