
TESTIMONY OF

ALEX KUMMANT

PRESIDENT AND CHIEF EXECUTIVE OFFICER

AMTRAK

BEFORE THE

**SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS
MATERIALS**

OF THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

WEDNESDAY, JULY 11, 2007

10:00 A.M.

2167 RAYBURN HOUSE OFFICE BUILDING

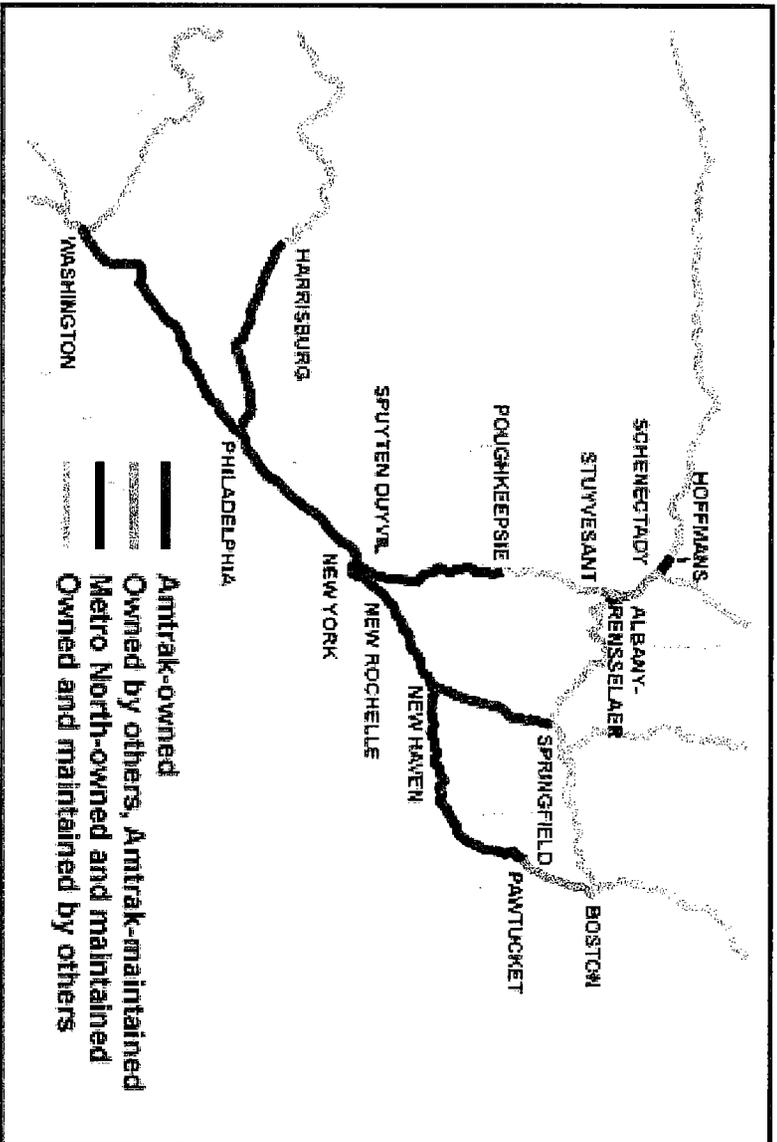


Categories of Amtrak capital assets

- Amtrak operates a 21,000-mile route system, mostly owned by other commuter or freight railroads
- Infrastructure owned by Amtrak
 - Northeast Corridor, 363 miles of the total 457 miles, Washington-Boston
 - Keystone Corridor, 104 miles, Philadelphia-Harrisburg
 - New Haven-Springfield, 62 miles
 - Porter, Ind.-Kalamazoo, Mich. (Chicago-Detroit line), 97 miles
- Facilities
 - Equipment maintenance shops/yards
 - Stations—Amtrak owns 46 of the 525 stations in the system
 - Control centers (such as CNOC)
- Equipment—locomotives, coaches, etc.
- Emerging corridors—nearly all such lines owned by other commuter or freight railroads



Northeast Corridor



Northeast Corridor

- The NEC hosts nearly 1,900 trains a day, ranging from slow freights to 150-mph Acela Expresses. *157 Acela Hrs.*
- Acela Express New York-Washington:
 - Top speed 135 mph
 - Average speed 82 mph (for trains taking 2:45 hours)
- 8 commuter railroads operate over Amtrak-owned or -controlled NEC segments; about 1,700 trains a day.
- About 50 freight trains a day use the NEC.
- Amtrak is the only operator using the entire length of the NEC.
- Measured in train-miles, Amtrak is the majority user of the NEC.



Northeast Corridor-trains and train-miles on Amtrak maintained NEC segments

Operator	Daily trains (1)	Annual train miles (000s)
Amtrak	157	10,520
MBTA (2)	276	736
SLE	32	277
LIRR (3)	566	675
NJT	474	3,793
SEPTA (4)	388	1,954
MARC	92	682
VRE (3)	30	17
TOTAL	2,015	18,654

- (1) Fall '06 schedules; exclude Metro-North territory, New Haven-New Rochelle, where Metro-North operates about 250 daily trains and Amtrak 36.
- (2) MBTA owns Boston-Pawtucket but segment maintained by Amtrak.
- (3) Agencies operate over short segments into Amtrak-owned terminals.
- (4) SEPTA includes 37 DELDOT-funded trains to Wilmington and Newark.



Northeast Corridor – a busy and complex operation

9.4

- Nearly 10 million Amtrak passengers on the NEC in FY 2006; a little less than half of total system ridership
 - also 750,000 commuters daily
- We have a strong partnership with NEC states
 - \$240 million in Amtrak/federal funds and \$112 million in NEC state funds invested in NEC infrastructure in 2006
- Since FY 2003, Amtrak has invested \$1.36 billion in NEC infrastructure
 - This is about two-thirds of Amtrak Engineering's entire budget
- NEC investment brings:
 - Better reliability from all structures
 - Better on-time performance for Amtrak and other NEC users
 - Some reduced trip times
 - Some added, incremental capacity
 - Lower recurring maintenance costs
 - Coming closer to a state of good repair allows our focus to shift to large, capacity-driven projects, such as the New York and Baltimore tunnels



Why no high-speed rail on the Northeast Corridor?

- Compared to European high-speed lines, the NEC:
 - Is not a dedicated, high-speed passenger right-of-way
 - Has many more intermediate stops
 - Has a much more complicated mix of traffic, including freight and commuter
 - Has a much wider variance in top speeds of each type of traffic
- European countries, where possible, build new TGV-style lines in rural areas at a cost of \$20-25 million per mile
 - At that rate, the 457 miles of the NEC (Washington-New York-Boston) is about \$10 billion, excluding the cost of real estate acquisition
- Tackling some key issues in the NEC that do not necessarily apply to projects in Europe would add to the \$20 million per mile figure in ways not yet well studied:
 - There is very little open, rural land in the NEC upon which to build new, high-speed lines
 - There are significant, expensive tunnel and station capacity issues at the center of the NEC, in and through New York City...the single-biggest bottleneck on the entire Amtrak system
 - Having a high-speed line enter and leave important, intermediate downtown areas adds to the overall cost and engineering complexity



Why no high-speed rail on the Northeast Corridor?

- Recent examples of high-speed construction reported by UIC (International Union of Railways):
 - TGV Est, France, Paris-Strasbourg
 - 200 miles, \$4.8 billion, \$24 million per mile, mostly rural
 - France-Spain link, Figueres-Perpignan
 - 28 miles, \$1.3 billion, \$46 million per mile
 - Taiwan, Taipei-Kaohsiung
 - 215 miles, \$9 billion, \$42 million per mile, less rural than in France

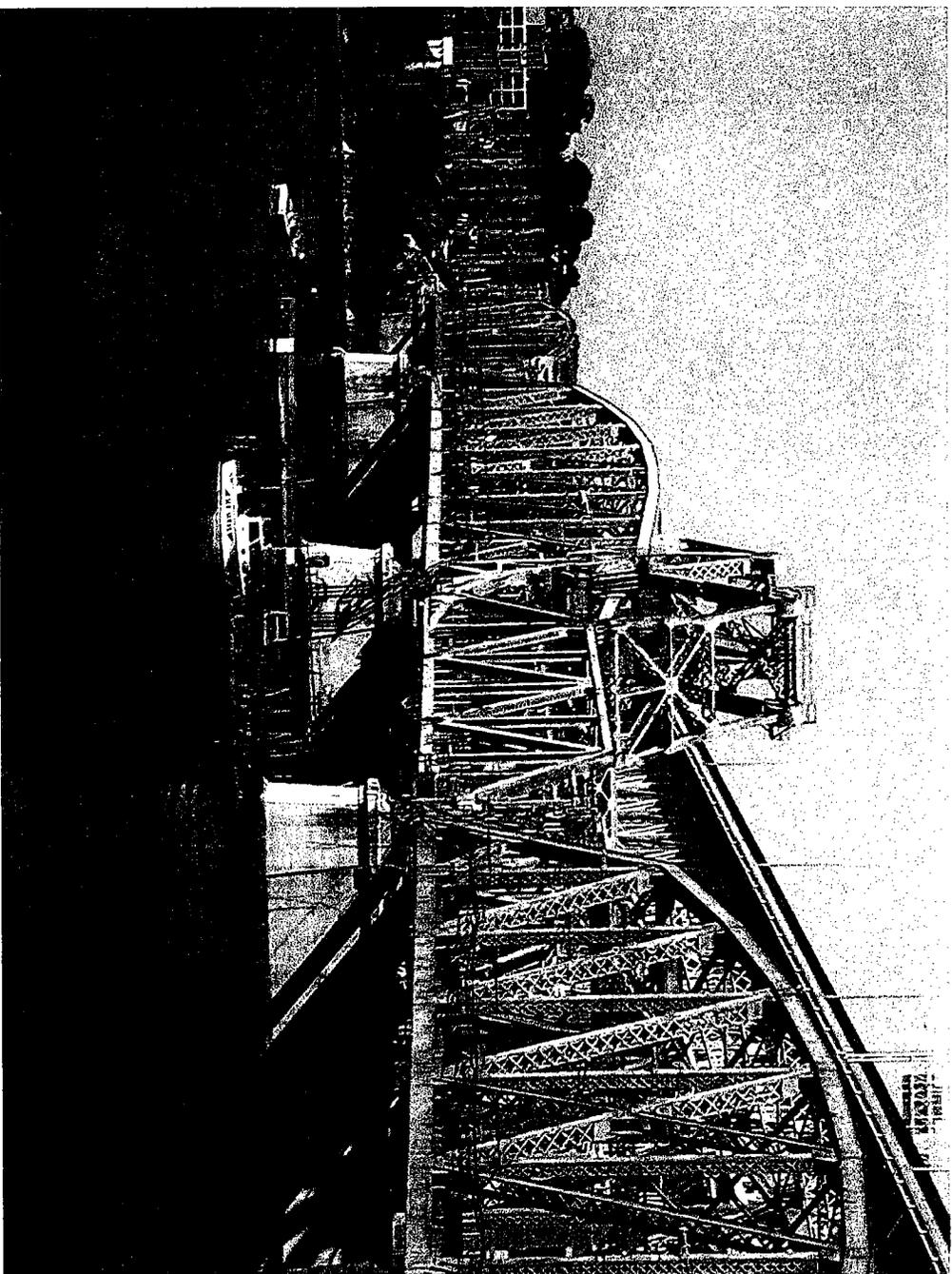
Engineering 5-year plan, FY 08-12 (mostly NEC)

(\$ millions)

	Actual	Actual	Budget	March Reset	Plan										
Discipline	2005	2006	2007	2007	2008	FY08 '+/-	2009	2010	2011	2012					
Track	162	170	180	169	194	25	191	176	166	170					
Structures	45	62	125	101	130	29	150	185	205	220					
C & S	33	26	30	26	32	6	50	40	32	25					
E.T.	33	29	49	43	63	20	80	91	78	65					
Life Safety	77	53	77	64	77	13	54	55	48	45					
Other	27	29	39	26	50	24	29	29	29	29					
Grand T total	377	370	500	429	546	117	553	575	557	554					



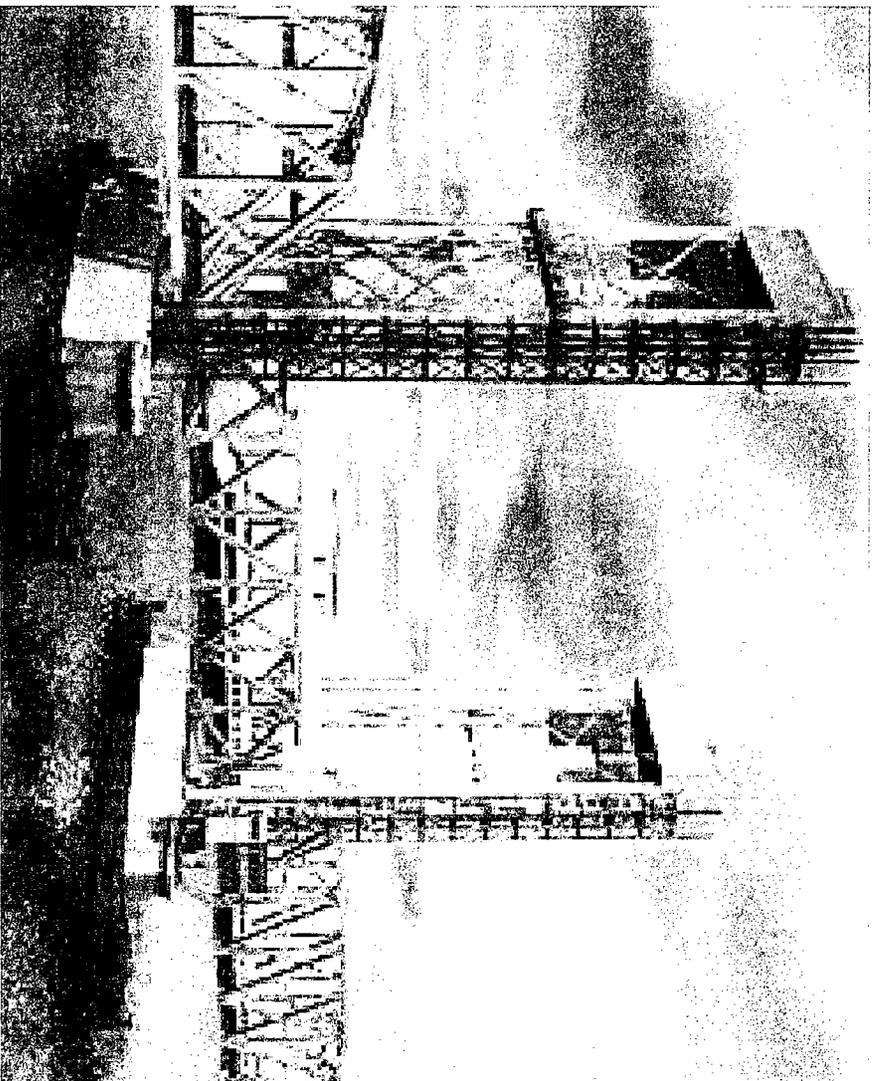
Thames River Bridge, Connecticut, “before”



Bridge built in 1919, but increasingly unreliable



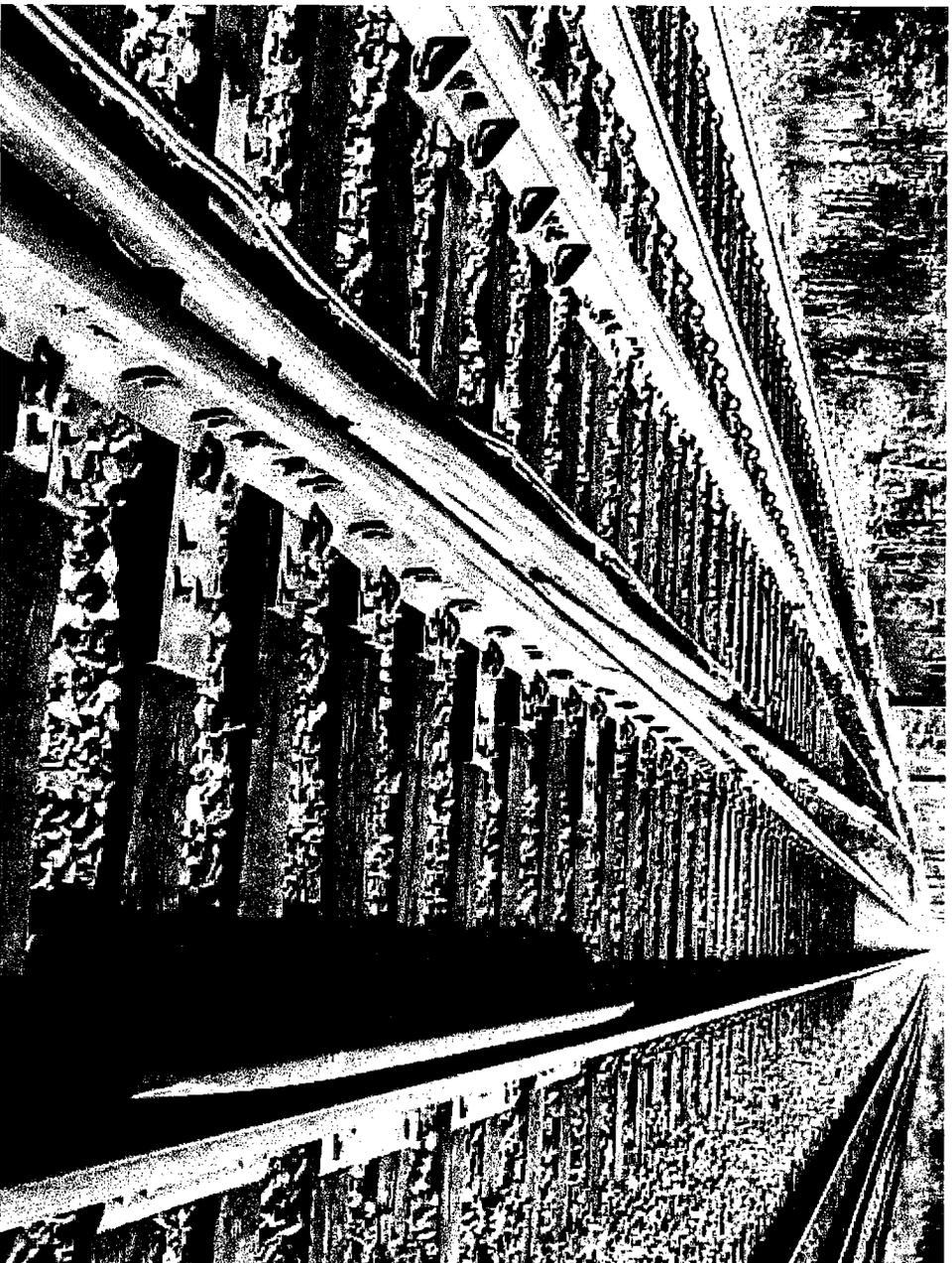
Thames River Bridge, Connecticut, “after”



Rendering of \$76 million replacement, designed to last another
lifetime



Track turnout, wood ties, “before”



An older turnout (type number 20), maximum speed 45 mph.
It can take well over a year to order and install replacement turnouts.

Track turnout, concrete ties, “after”



A new turnout (type number 32 $\frac{3}{4}$), where trains can change tracks at 80 mph.

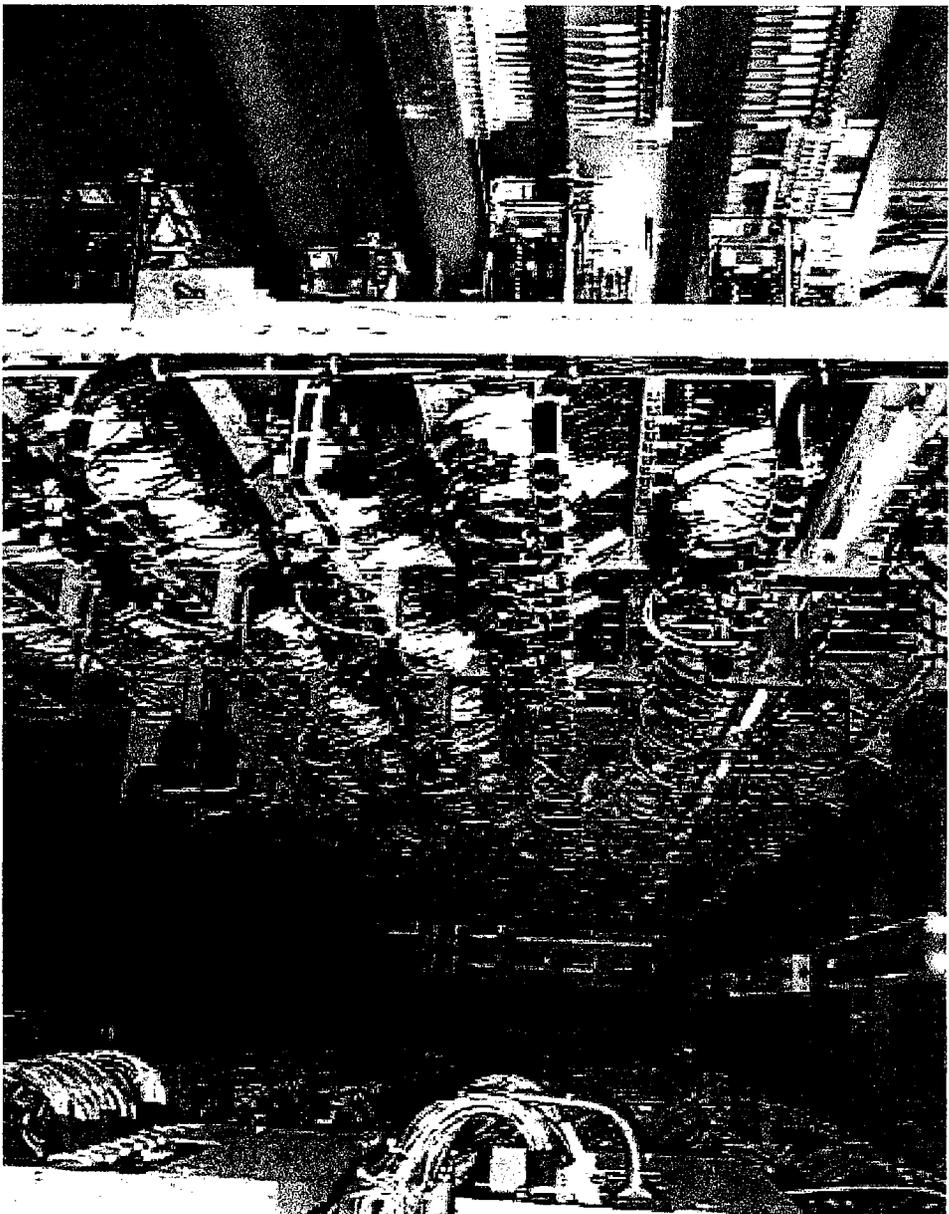


Wiring inside a signal box “before”



Carroll Interlocking, New Carrollton, Maryland

Wiring inside a signal box “after”



Carroll Interlocking, New Carrollton, Maryland



Proposals to decrease NEC trip times

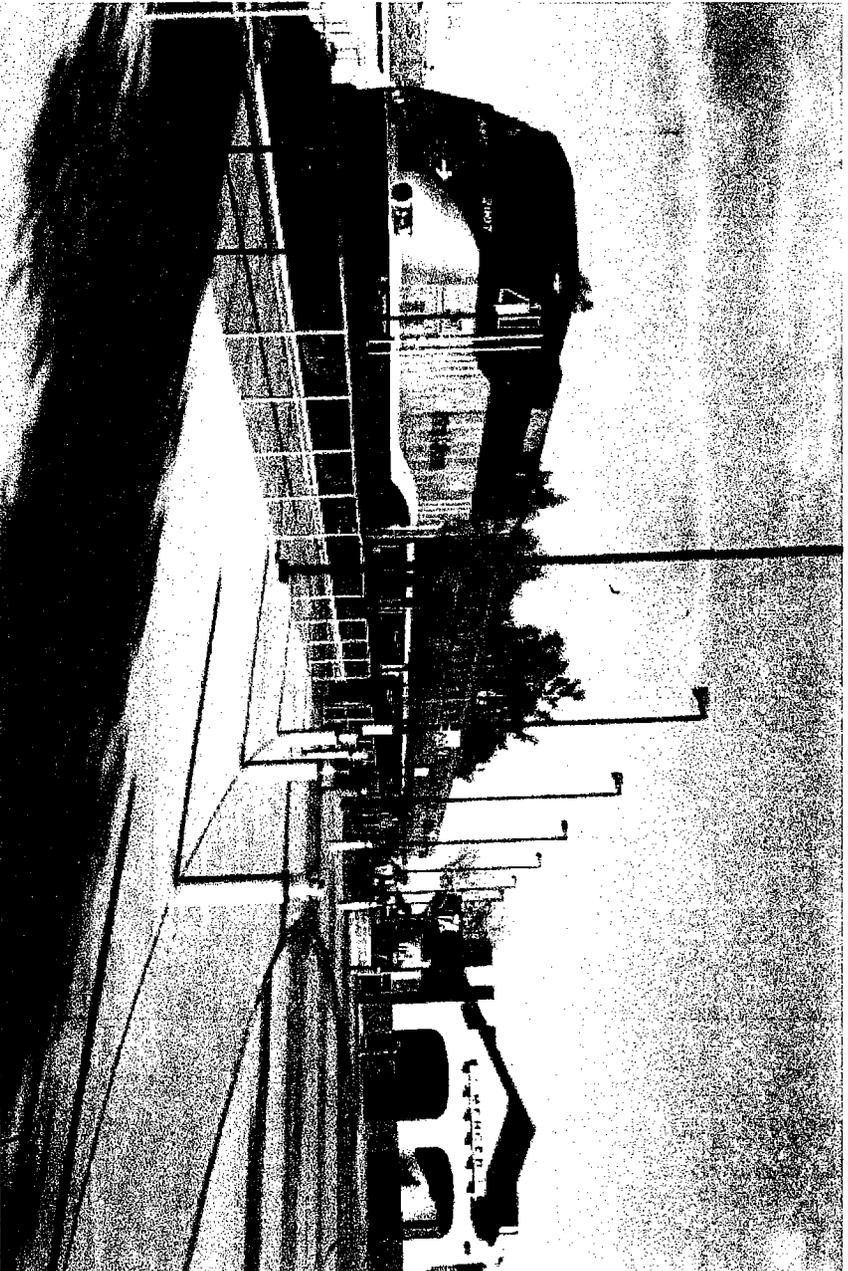
- Currently 2:45 hours WAS-NYP (average 82.2 mph)
- 2:30 possible (avg. 90.4 mph) with \$625 million in improvements
 - Track upgrades from 135 to 150 mph
 - Equipment modifications
 - ACSES on-board cab signals
 - Constant tension catenary
- 2:20 possible (avg. 96.9 mph) with \$10 billion in improvements
 - New tunnels in New York and Baltimore
 - New bridges at Portal and Susquehanna
 - Station track upgrades at five stations

Corridor Development

- Several states have approached Amtrak about studying or implementing new corridor services
- Virtually all such proposals involve rail lines that are owned and maintained by freight railroads
- A few states have “gone it alone” by investing state funds in infrastructure, most notably California
- Most other states are waiting for the creation of a federal-state infrastructure investment program, before investing significant capital in their corridors



Corridor Development

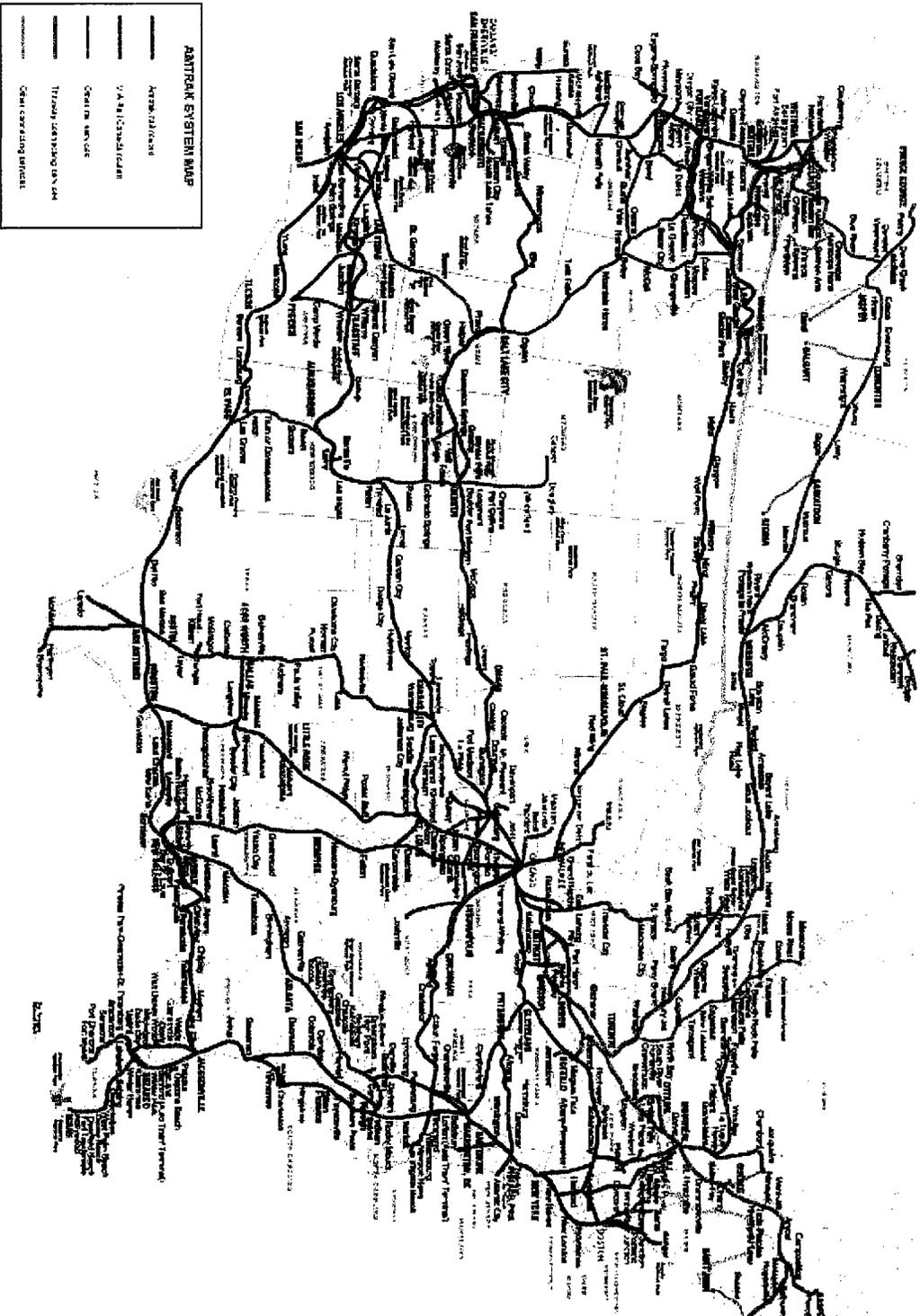


San Joaquin train at Merced, California, where this station was built in 2000 with state rail bond funding.

Corridors on freight lines – some progress already made

- Cascades Corridor, Eugene-Portland-Seattle-Vancouver
 - \$336 million invested FY94-FY04
- California Corridors – Capitol, San Joaquin, Surfliner
 - \$1.54 billion invested FY94-FY04
- Chicago-St. Louis
 - \$182 million invested FY94-FY04
- Southeast Corridor, Washington-Richmond-Raleigh-Charlotte
 - \$314 million invested FY94-FY04

National system issues



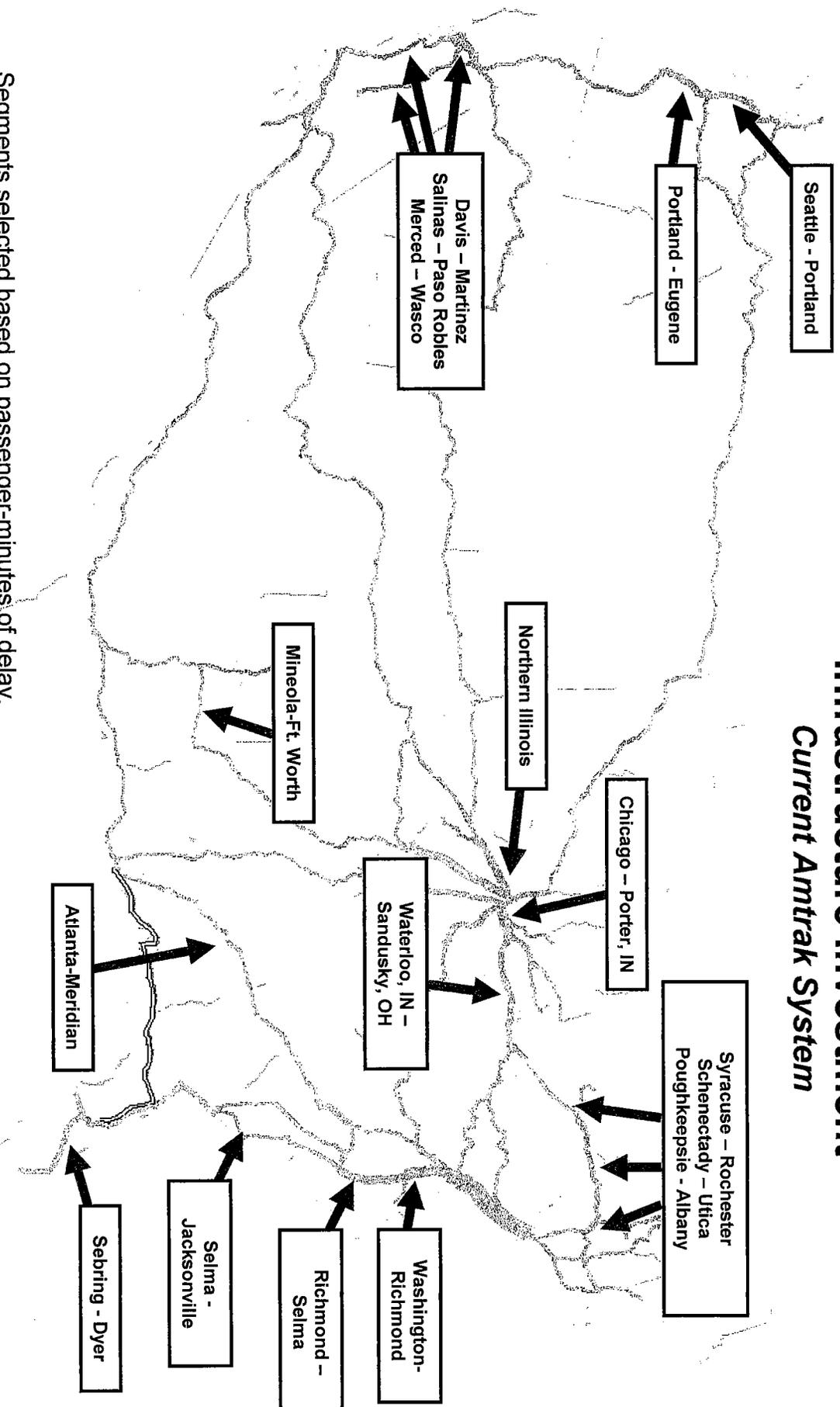
Infrastructure owned by others – freight line bottlenecks

- Unlike our lines in the Northeast, Amtrak does not control investment and maintenance issues on the freight lines where we run state-supported corridor trains and long-distance trains
- We have identified major bottlenecks on the corridor and long-distance network, and have supplied this information to the Committee
- Amtrak has studied potential projects on lines not owned by Amtrak, based on three objectives:
 - To reduce passenger-minutes of delay on existing services
 - To unblock freight bottlenecks that affect passenger train operations
 - To build additional capacity in high-growth corridors to avoid future congestion issues and create greater fluidity of train movements



Major Delay Segments in Need of Infrastructure Investment

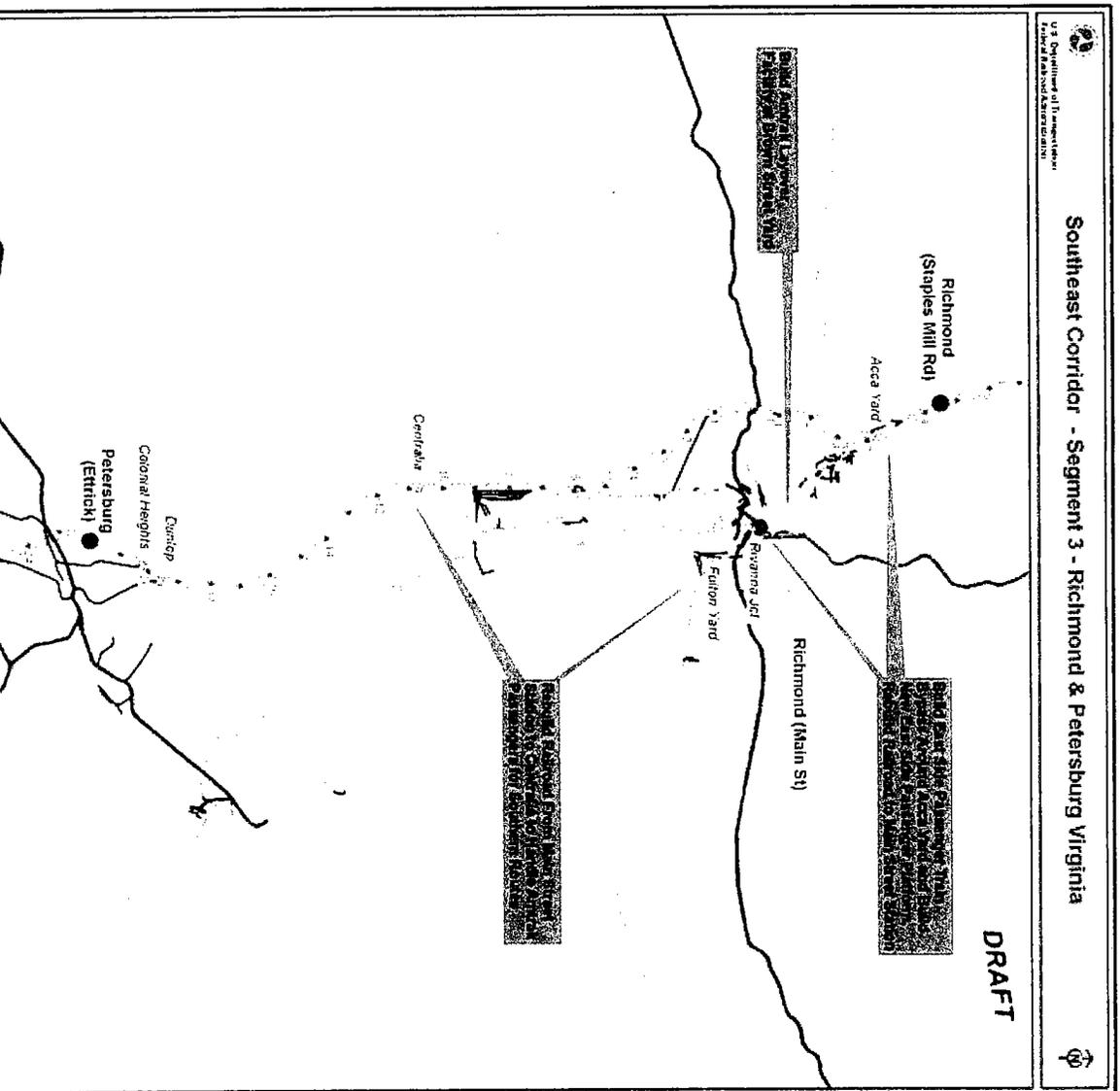
Current Amtrak System



Segments selected based on passenger-minutes of delay.
 Other high-delay areas excluded where projects are already underway.



Infrastructure owned by others – FRA Southeast Corridor initiative



Example - Chicago to East Coast

- Empire Service
- Ethan Allen
- Michigan corridor services
- Maple Leaf
- Capitol Limited
- Lake Shore Limited

Chicago-Porter, IN

- 40 miles, 14 Amtrak trains/day
- Track owner: Norfolk Southern
- Canadian Pacific freight trackage rights
- Routes on this segment carried 1.2 million passengers in FY06

Proposed Projects:

- Install new signals in a 3 mile section of track in Chicago
- Improve configuration of turnouts at Porter
- Build siding on Amtrak Michigan line to allow Amtrak trains to meet off of this segment
- Construct separate passenger main line
- Construct flyovers at Porter and Buffalo Harbor
- Rough cost: \$750 million

➤ These projects will also facilitate development of the Midwest High Speed Rail Initiative, allowing additional frequencies and higher speeds

Syracuse-Rochester

- 79 miles, 8 Amtrak trains/day
- Track owner: CSX

Proposed Projects:

- Additional station tracks at Syracuse
- Reduce congestion through, new crossovers, upgraded signals, and new double track

Albany-Utica

- 95 miles, 12 Amtrak trains/day
- Track owner: CSX

Proposed Projects:

- Double track Schenectady - Hoffmans
- Other extended sidings, new crossovers, upgraded signals to reduce congestion

Poughkeepsie-Albany

- 53 miles, 25 Amtrak trains/day
- Track owner: CSX

Proposed Projects:

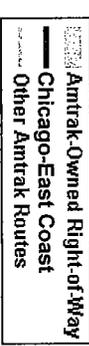
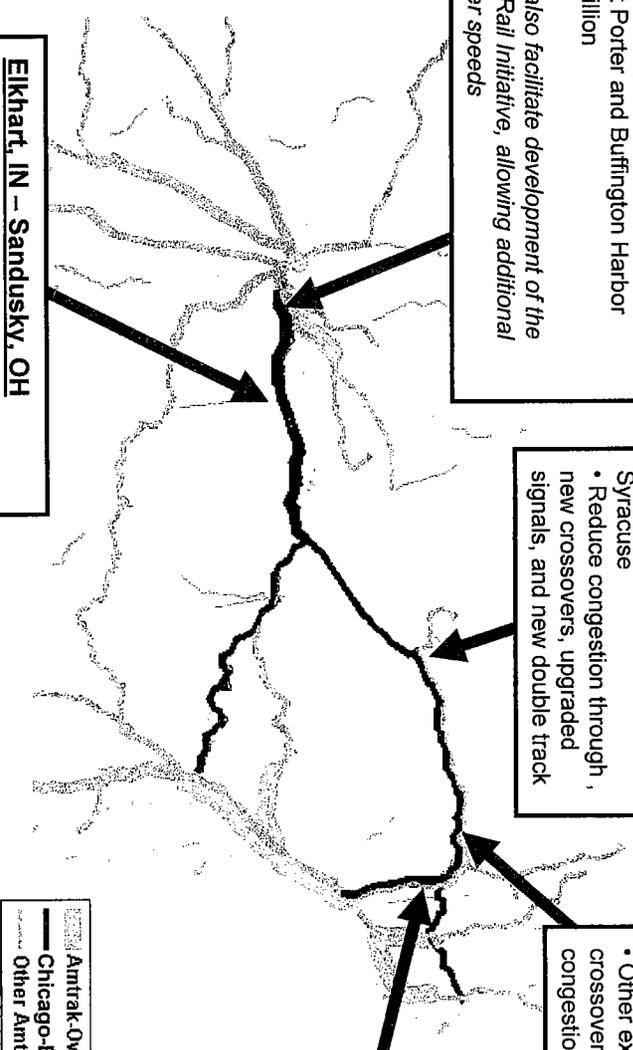
- Improve super-elevation on several curves
- Construct new storage track at Poughkeepsie for Metro-North commuter equipment (currently stored on mainline)

Elkhart, IN – Sandusky, OH

- 180 miles, 4 Amtrak trains/day
- Track owner: Norfolk Southern

Proposed Projects:

- Reduce congestion through extended sidings, new crossovers, upgraded signals, and new double track



Amtrak Facilities

- Equipment maintenance shops, including
 - Wilmington (NEC locomotives, built 1903, 360 employees)
 - Bear, Del. (NEC cars, built 1980, 339 employees)
 - Beech Grove, Ind. (non-NEC locomotives and cars, built 1903-07, 529 employees)
 - Oakland (western locomotives and cars, built 2004, 151 employees)
- Yards and turnaround facilities
- Stations—Amtrak owns 46 of the 525 stations in the system, including
 - New York Penn
 - Washington Union (part)
 - Chicago Union
- Dispatch Centers, including
 - Consolidated National Operations Center (CNOC), Wilmington
 - Boston South Station
 - Philadelphia 30th Street Station
 - Penn Station Central Control, New York
- Many stations will have ADA issues to address, particularly platforms
 - Includes stations owned by Amtrak and by others



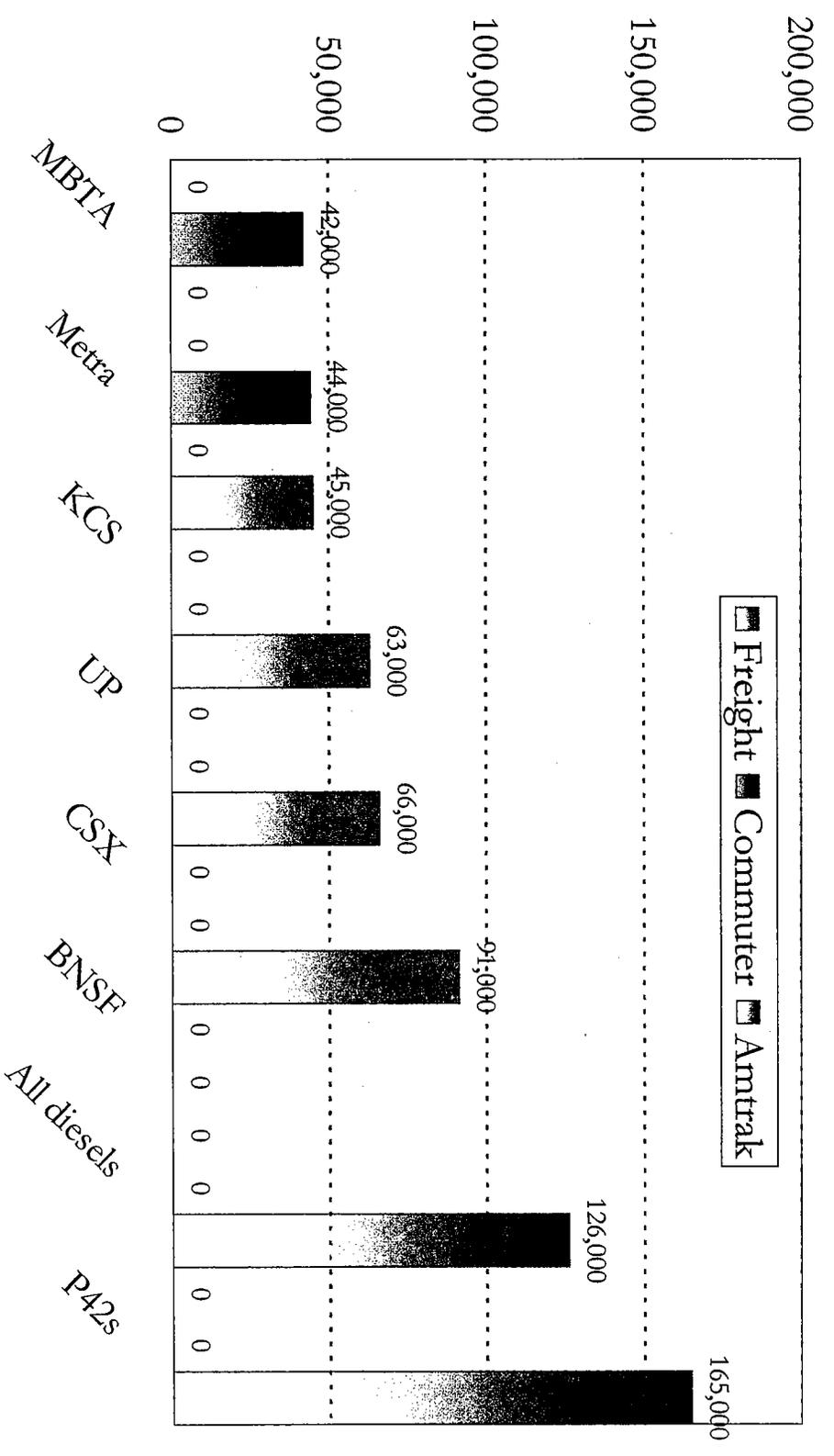
Procurement of New Equipment will be a Major Focus

- Need to provide for growth – new equipment on corridors could cause demand to explode
- Need to renew our aging fleet while making the best use of existing equipment
 - Passenger cars
 - Average 22 years old
 - Range 5 to 56 years in age
 - Useful life 40-50 years
 - 73% will be in “state of good repair” (overhauls up to date) by end of FY07
 - Locomotives
 - Average 11 years old
 - Range 5 to 25 years in age
 - Useful life 25-30 years
 - 89% will be in state of good repair by end of FY07
- Fleet pooling – explore aggregating demand nationally

Andrew J. [unclear]
1/10/07

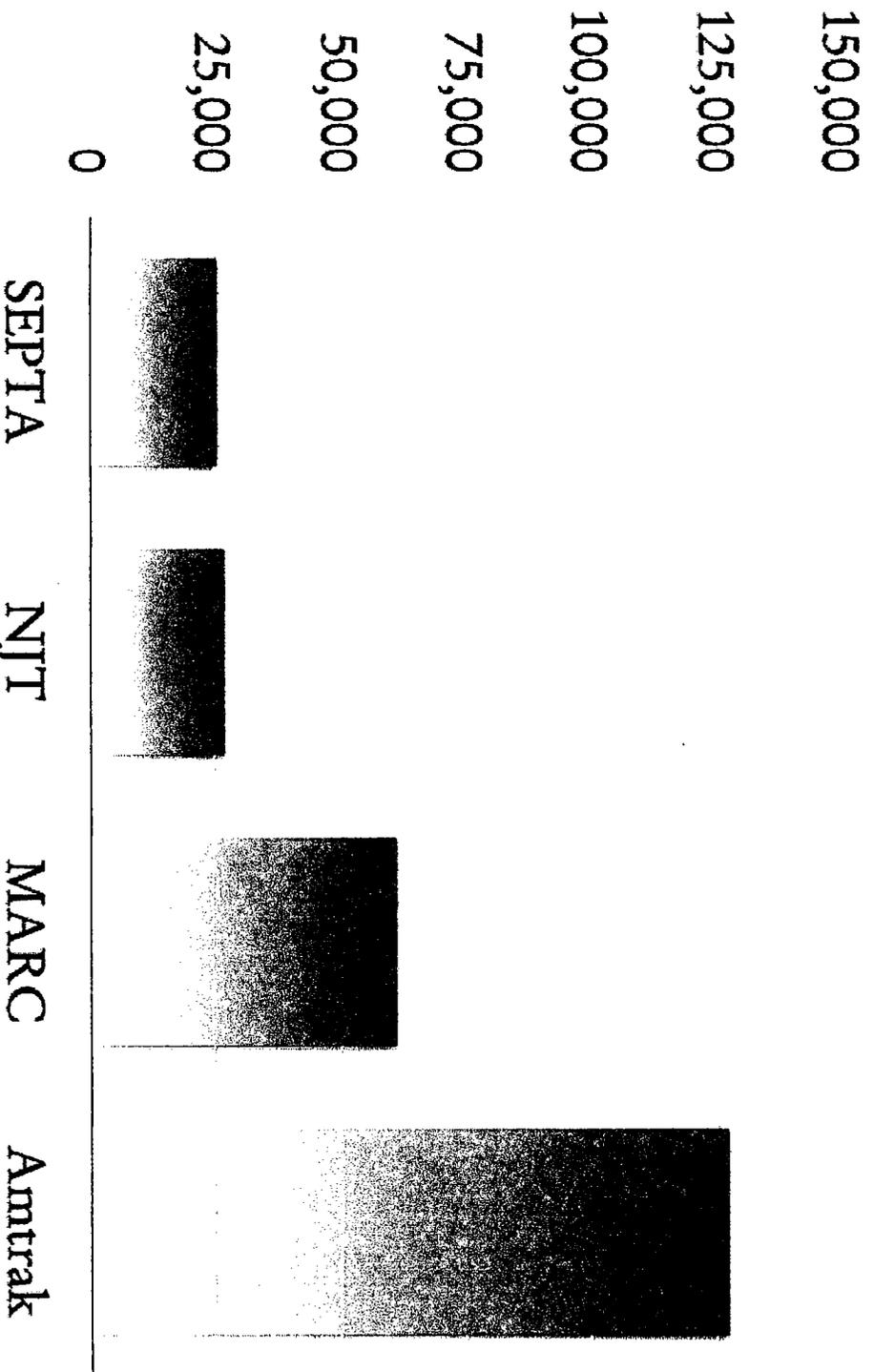
Amtrak's Diesel Locomotive Utilization - Higher Than Freight & Commuters

Average annual miles



Amtrak Electric Locomotive Utilization – Higher Than Other NEC Users

Average annual miles



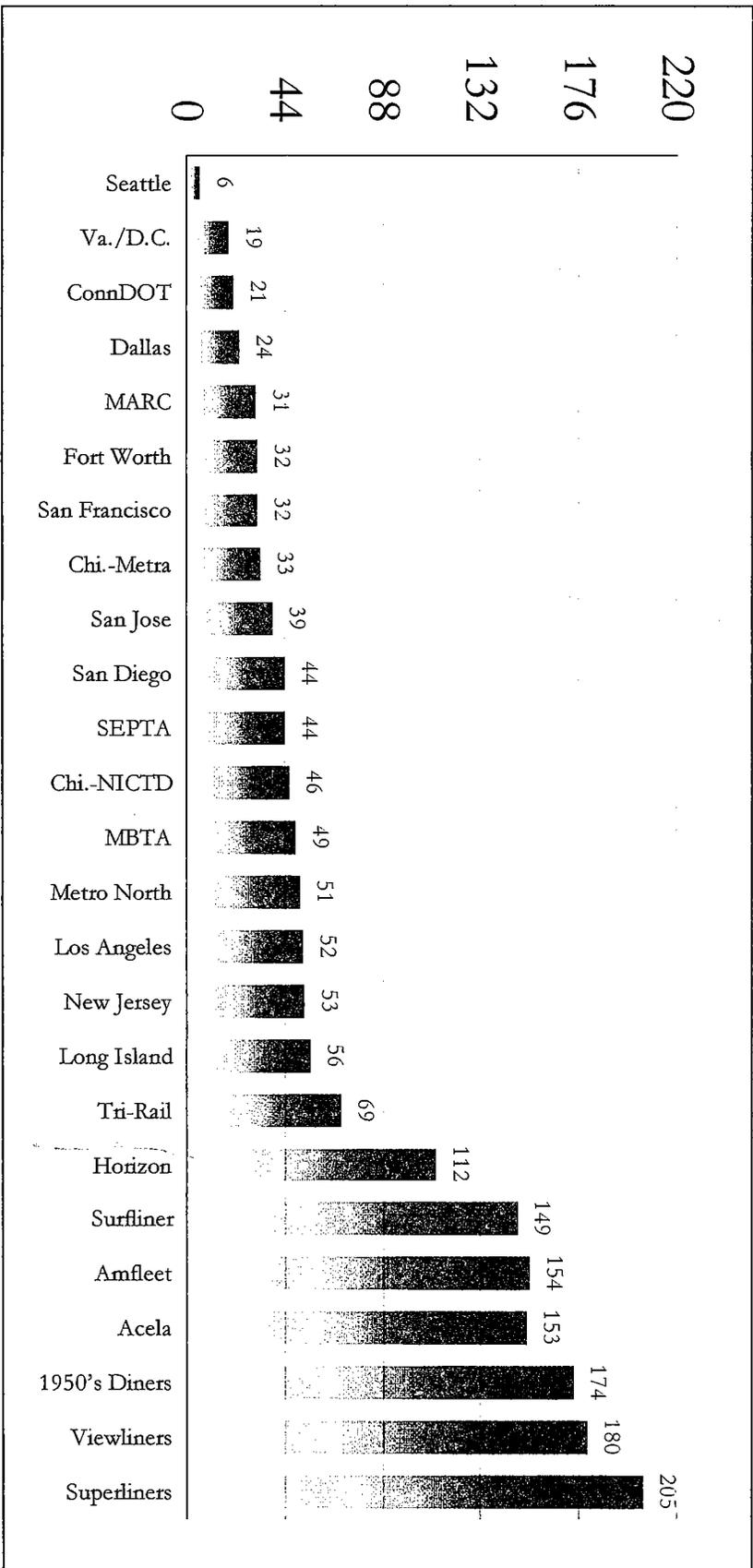
Amtrak's Average Annual Car Miles – Highest in US Passenger Rail

Commuters:

Maintained nights, weekends, off-peak

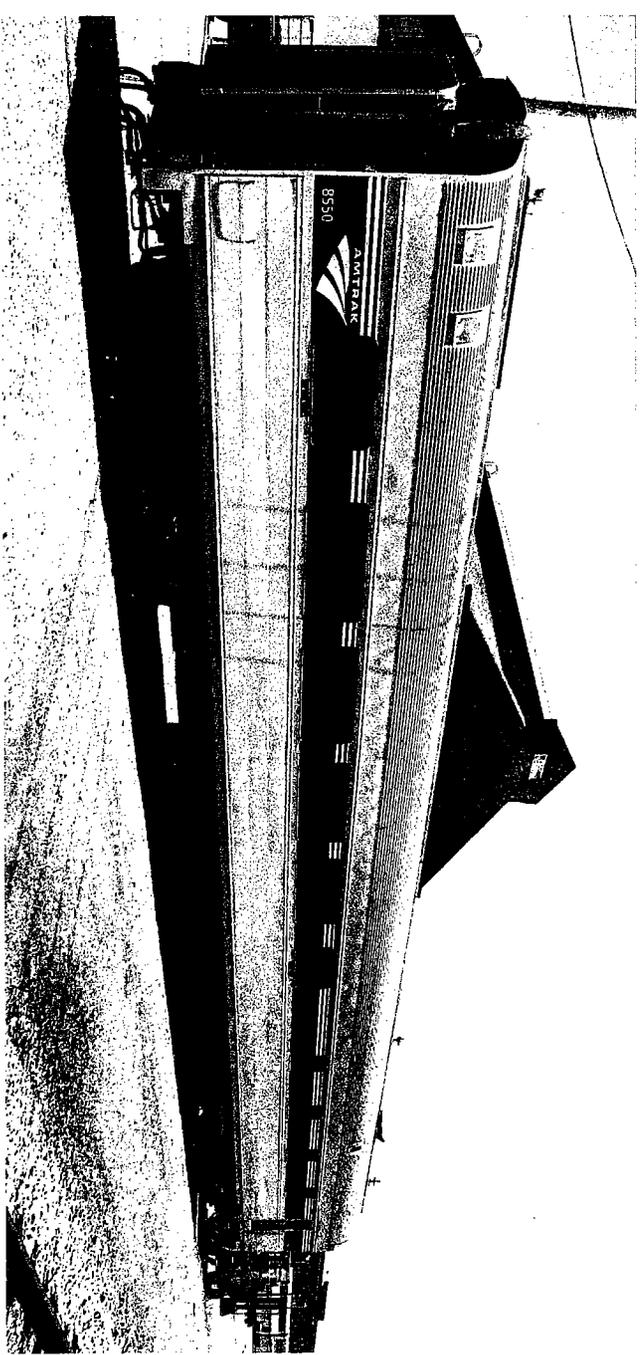
Amtrak:

Operate 24x7, turnaround in 4 to 6 hours



Example of Amtrak “Heritage” car

- Dining car, recently renovated at Beech Grove
- Built by Budd Company in 1958 for Northern Pacific Railway
- Acquired by Amtrak when it was formed in 1971



Average age of fleet (2006)

- Commuter rail industry average: 18 years
- Amtrak passenger cars: 23 years; including:

Type	Amount	Average age
Heritage/Hi-Level	71	55
Amfleet I	478	30
Superliner I	263	26
Amfleet II	145	24
Horizon	102	17
Superliner II	186	11
Viewliner	51	10
Talgo	29	7
Acela	161	7
Surfliner	40	6



What would it cost to replace our entire fleet?

- Using very round-number estimates for unit price:

Type	Amount	Unit price	Cost
Passenger cars	1542	\$2.5 million	\$4.0 billion
Locomotives	497	\$5.0 million	\$2.5 billion
Total	2089	--	\$6.5 billion

- Procurement would take place over 15 years.



What should be considered beyond Amtrak state of good repair?

- Increased capacity on current services
 - NEC capacity could be increased marginally with more equipment
 - Capacity on Midwestern and other corridors also could be increased marginally with more equipment, especially if there were a common pool of equipment for such services
- Development of pending state proposals
 - Midwest
 - Southeast
 - Northwest
- “Breakthrough” corridor proposals
 - Expanding track capacity through New York (tunnels, Penn Station)
 - California high-speed rail
 - Texas high-speed rail
 - Florida high-speed rail
 - Atlantic Coast Corridor, Washington-Miami

Summary / wish list for the future

- Creation of a multi-year capital funding device to allow more flexibility in capital planning, procurement, and contracts.
- Establishment of a federal-state capital program would attract state investment and foster corridor development.
- Fix capacity issues in and through New York City.
- Launch of another breakthrough corridor outside the Northeast.
- Fund equipment procurement
- Determine what high-speed rail development means in the U.S. (i.e., is it 80 mph or 200?), and create a national strategy for developing it.