
An Overview of Amtrak

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Amtrak 101 – basic company and system statistics



- Congressionally chartered corporation (majority of stock owned by U.S. Government), created in 1970 and operated as a quasi-nonprofit corporation for the provision of intercity passenger rail service in the U.S.
- The mission of Amtrak is to provide efficient and effective intercity passenger rail mobility consisting of high quality service that is trip-time competitive with other intercity travel options
- We operate a 21,200 mile system
 - 308 daily intercity trains
 - 528 stations
 - 1,519 cars and 469 locomotives, 80 auto carriers, and 101 baggage cars
 - More than 20,000 employees
 - More than half of our services operate at 90+ mph
 - 70% of our train-miles are run on track owned by other railroads (mostly large freight railroads)
- We carried 28.7 million riders in FY 10 – biggest year in our history
- Amtrak generated total of \$2.5 billion in revenues in FY 10 (incl. ancillary business)
 - Covered 85% of operating cost (heavy rail passenger carriers in the U.S. typically fall into the 40-60% range)
 - Our FY 10 farebox recovery was 76% - highest U.S. passenger railroad
- Federal funding for Amtrak totaled slightly more than \$1.5 billion in FY 2010
 - \$563 million for operating expenses
 - \$1 billion for capital needs

- Focus is on fiscal austerity – and the legislative environment will be challenging
- Major uncertainty surrounding the legislative agenda:
 - Transportation reauthorization?
 - Debt ceiling?
- Administration’s decision to focus on high speed rail is significant
 - Continues the precedent established with Recovery Act funding
 - We strongly support it as a visionary step, with potential to change the way America travels

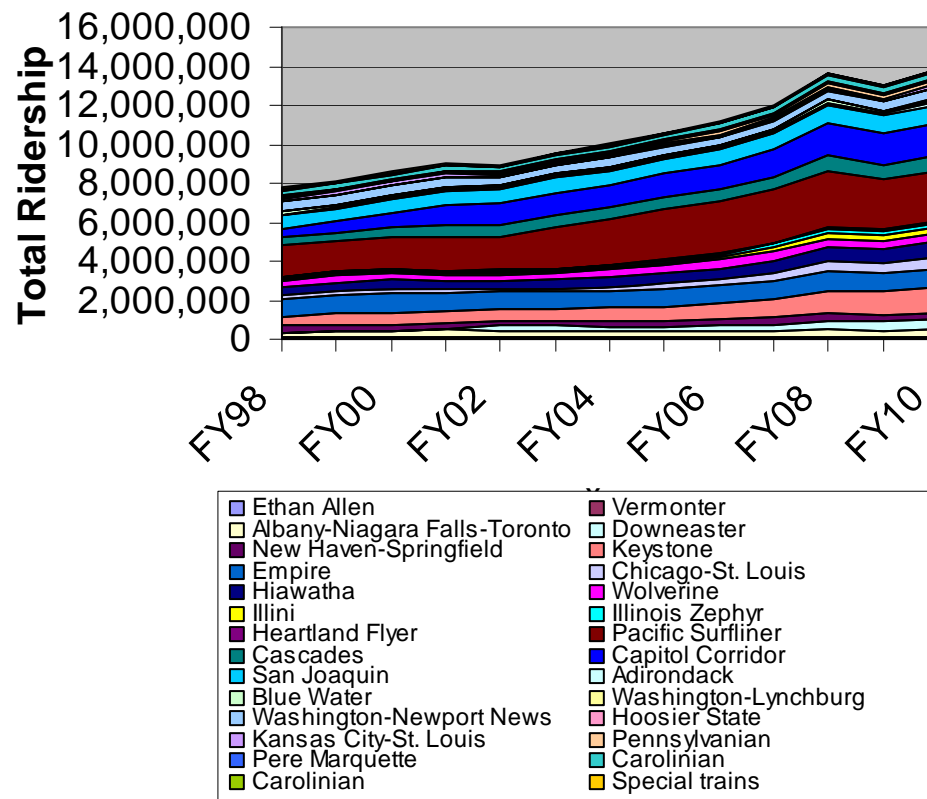
The near-term funding situation

- House of Representatives announced proposed spending cuts for FY 11 budget on Feb 9
 - Originally, Approps Bill proposed \$75B in spending cuts
 - Amtrak level to be cut to \$1.413B – slightly more than FY 08 level
 - On Feb 10, Approps Committee expanded cuts to \$100B
 - Amtrak funding at the revised level TBA
- FY 12 budget announced yesterday
 - Amtrak requested \$2.2B – right around the authorized funding level
 - Detailed discussion on this budget won't start for some time – but will be protracted

Short distance/state corridor trains

- Trains operated over relatively short distances (86-750 miles), often in partnership with states
- Are the only service at 203 of our 528 stations
- 220 daily trains – more than half our daily total
- Fastest-growing business line, and the largest one, too
- Many routes will benefit from DOT's High Speed and Intercity Passenger Rail and TIGER grant programs

Amtrak SD Ridership by Route, 1998-2010



Amtrak's Northeast Corridor – what is it?



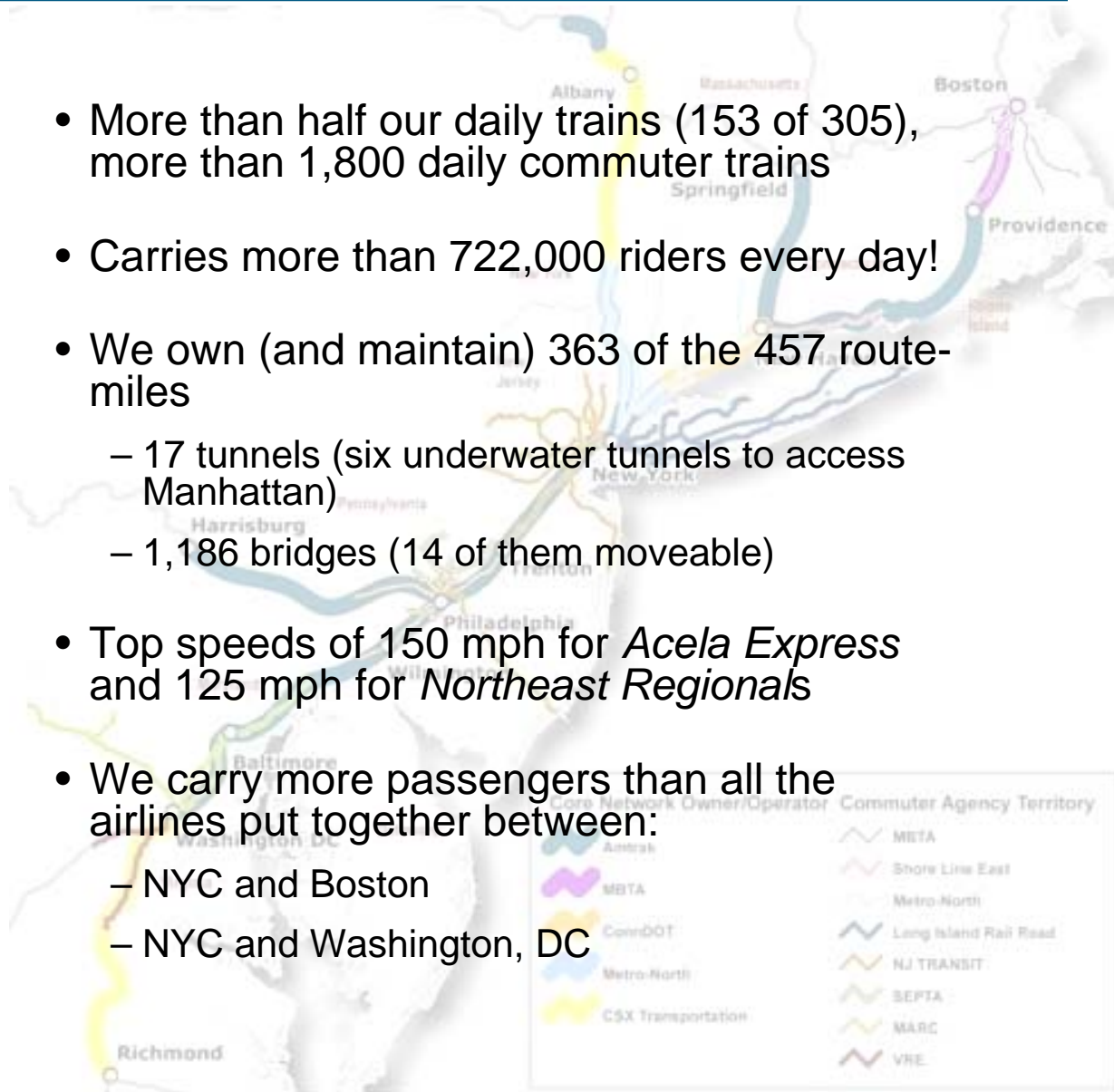
Acela Express on the 1835
Canton Viaduct – at 125mph



Susquehanna River Bridge, 1907



Baltimore's B&P Tunnel:
In continuous service since
1873



- More than half our daily trains (153 of 305), more than 1,800 daily commuter trains
- Carries more than 722,000 riders every day!
- We own (and maintain) 363 of the 457 route-miles
 - 17 tunnels (six underwater tunnels to access Manhattan)
 - 1,186 bridges (14 of them moveable)
- Top speeds of 150 mph for *Acela Express* and 125 mph for *Northeast Regionals*
- We carry more passengers than all the airlines put together between:
 - NYC and Boston
 - NYC and Washington, DC

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

Maximum Speeds on the NEC

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 Line trackage usable for 110-150 mph service
- Amtrak is the only company in America that maintains track for 110+ mph service
- 24.7% Boston to New York Operation is High Speed (125+ MPH)
- 44.9% Boston to Washington Operation is High Speed (125+ MPH)
- 65.7% New York to Washington Operation is High Speed (125+ MPH)

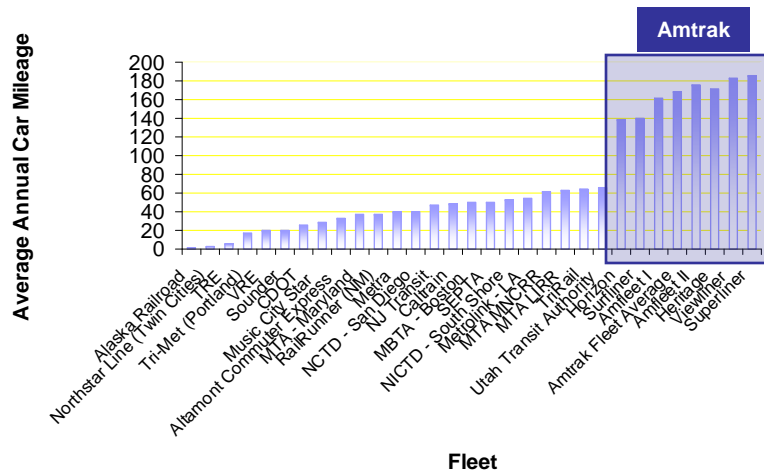
Fleet Needs



Bob Pickering photo

- Fleet age, utilization, mileage, and demand are all issues
 - Hardest-run fleet in America
 - Average age at an all-time high
 - No capacity to accommodate growing ridership

Average Annual Car Mileage



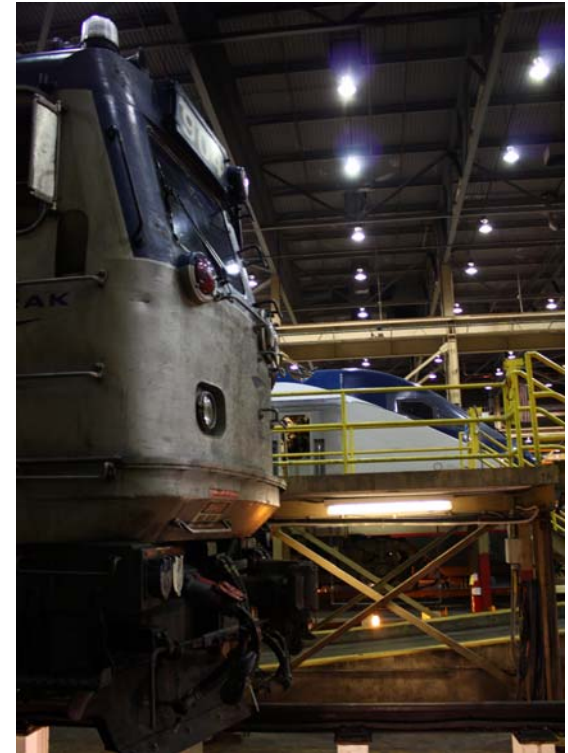
- Issued fleet plan in 2010, updating it now
- First tranche of orders last year:
 - 70 electric locomotive
 - 130 single-level long distance cars

Major fleet issues

- Age of equipment is at an all-time high:
 - Average Amtrak car is now older than the average car we inherited in 1971
 - Heritage equipment is pushing (and in some cases past) sixty years
- Lack of homogeneity (multiple classes of equipment for short and long distance and corridor service) complicates maintenance
 - Complete standardization will never be possible – but we need to reduce the number of classes and mechanically distinct variants
- Sizes of equipment classes vary widely, and mass obsolescence is a problem
- Supply base is limited – lack of market demand led to market exit
 - Transit and commuter rail have taken attention of remaining manufacturers
 - Amtrak needs to take a lead, or:
 - Market will offer equipment not optimized for intercity service
 - Limited range of choices may lead to increased cost and risks
 - Industry may continue to atrophy

Major components of this fleet plan

- Set limits on maximum equipment age (“lifing”)
 - Need to get away from 60 year old equipment
 - Need to determine useful life and commercial life
 - Useful life is the maximum period we want to have equipment in service – 30 years for engines, 40 years for passenger cars
 - Commercial life is the period when the equipment is maintainable, technically viable and commercially attractive for its designed service
- Model ridership demand in future years
- Develop assumptions for costs and production/purchase rates
- Include associated costs (acquisition, maintenance, etc.)
- Create demand for every type of equipment, and provide potential economies of scale and consistency for suppliers and state partners



Major components of this fleet plan (cont'd)

- Plan designed for 2% ridership growth on existing services – but procurement model allows us to easily expand order sizes based on
 - Requirements of new corridors (Sec 305 committee)
 - Large-scale growth beyond conservative levels
- Average cost is about \$743 million per year
- Total anticipated cost in 2009 dollars will be
 - \$11 billion through 2023
 - \$23 billion through 2040
 - These costs include associated improvements to maintenance facilities, provision of spare parts, and provision of fleet overhaul services for the period
- Total fleet procurement over a 30 year period will include more than 2,500 cars and 700 locomotives, independent of needs for projected state-supported corridors and new services

Fleet plan update

- Plan is updated annually and next update is imminent
- An evolution so do not expect a major change of direction
- The first two acquisitions in last year's plan have been awarded
- Some changes are coming
 - Additional *Acela* capacity plans are included
 - Reprioritization of the single level equipment to enhance standardization
 - Program start dates have been adjusted to take account of the latest priorities and the development time for specifications including those from NGEC
 - Additional equipment has been restored to service via Stimulus and that is now included
- NGEC activities have been a vital part of the development of specifications for the equipment needs Amtrak has
- Diesel locomotive recapitalization and the replacement of the NEC regional equipment will utilize the NGEC specifications
- The long term requirement for equipment for Amtrak is substantial and will require a major funding commitment

Acela Express development and replacement

- Smaller fleet makes for a more difficult technical solution
- Factors influencing approach include
 - Need for capacity growth in the short term
 - Plan to double the fleet by 2020
 - Availability of parts for current fleet
 - Modernization of supporting infrastructure
- Build short term capacity with additional cars and other potential solutions
- Commence planning for the next generation within two years



Electric Locomotive purchase



- Variant of popular Siemens Euro-sprinter design
 - Revenue service speed of 125mph, max speed of 135 mph
 - Sufficient horsepower to pull 18 cars at 125 mph
- Base order will be for 70 locomotives
- Incorporates several key features
 - Regenerative braking
 - Redundant HEP power
 - Compliant w/ CFR238A as of Jan 2010 for front end strength
- Total cost about \$466M

Planned Delivery	FY10	FY11	FY12	FY13	FY14	FY15	FY16
	0	0	0	10	27	33	0

Long Distance Single Level Car (LDSL) purchase

CAR TYPE	BASE ORDER	OPTIONS
BAGGAGE / DORM	25	15
SLEEPER	25	10
DINER	25	15
BAGGAGE	55	30
TOTAL	130	70

- Modeled on existing Viewliner fleet to:
 - Ensure uniformity of appearance,
 - Limit variation in part and component pools
- Will be able to operate anywhere on the system at up to 125 mph
- Bag-dorms will free up badly-needed revenue space on single-level LD trains (e.g., *Cardinal*)
- Will finally allow retirement of remaining Heritage equipment:
 - Baggage cars
 - Dining cars
- Estimated cost \$298.1M

Planned Delivery:	FY11	FY12	FY13	FY14	FY15
Number of cars	0	2	57	71	0

Implications of these Rolling Stock purchases

- New equipment will replace *all* existing:
 - Electric locomotives currently in service
 - Heritage equipment
- Existing equipment will not necessarily be replaced on a one-for-one basis:
 - Single level dining car fleet will grow by five cars
 - Sleeper purchase will add 25 cars
 - At a minimum, will ensure improvements in availability, passenger satisfaction
 - Bag-dorms will free up revenue space in Viewliner trains, possibly in shorter Superliner trains
- 110mph speed restrictions for long distance trains on the NEC will end
 - Trip times for NYC-DC leg of *Cardinal*, *Crescent*, *Silver Service*, *Palmetto* and *Carolinian* can be shortened

- **Amtrak anticipates utilizing the PRRA 305 Specifications to acquire additional equipment and continue implementation of its Fleet Plan in the upcoming year.**
 - Diesel Road Locomotives
 - Diesel switchers
 - Single Level Cars
 - Bi-Level Cars
 - Additional *Acela* car procurement
- **Expect to begin Acela II procurement in 2020**

Acquisition plan

	Single level cars	Bi-level Cars	Diesel Locomotives	Electric Locomotives	Acela Coaches*	Acela Power Cars*	Tier I† trainsets	Switchers
2012-2023	780	420	264	70	150	50	2	41
2024-2040	648	431	225	60	120	40	0	0
Total	1,428	851	489	130	270	90	2	41

- These numbers are approximate – and will vary, depending on variables such as actual growth, seating capacity, etc.
- Acquisition of larger equipment runs spread over period of years
- Production runs of smaller equipment will come in blocks
- Batch sizes and composition to be determined as needed
 - Larger orders will translate into decreased cost-per-unit
 - Additional orders for state-supported corridors could benefit greatly from economies of scale

*Configuration of future *Acela* equipment TBD

†Trainsets compliant with FRA Tier I safety standards for service up to 125mph

- **Incorporating 305 Activities into Amtrak Fleet Strategy**
 - Amtrak anticipates utilizing the PRIIA 305 Specifications to acquire additional equipment and continue implementation of its Fleet Plan in the upcoming year.
 - Utilizing the Section 305 Specifications and Processes will allow for:
 - Standardization
 - Opportunities for state corridor(s) joint acquisitions/partnerships
 - Economies of Scale
 - Orders of sufficient size to help rebuild the domestic equipment industry
 - Create pool of equipment that can be flexibly deployed as necessary
- **Implementation framework will be of great importance**
 - Managerial structure
 - Financing mechanisms
- **305 Committee work is important to us – and to the future of passenger rail in America**