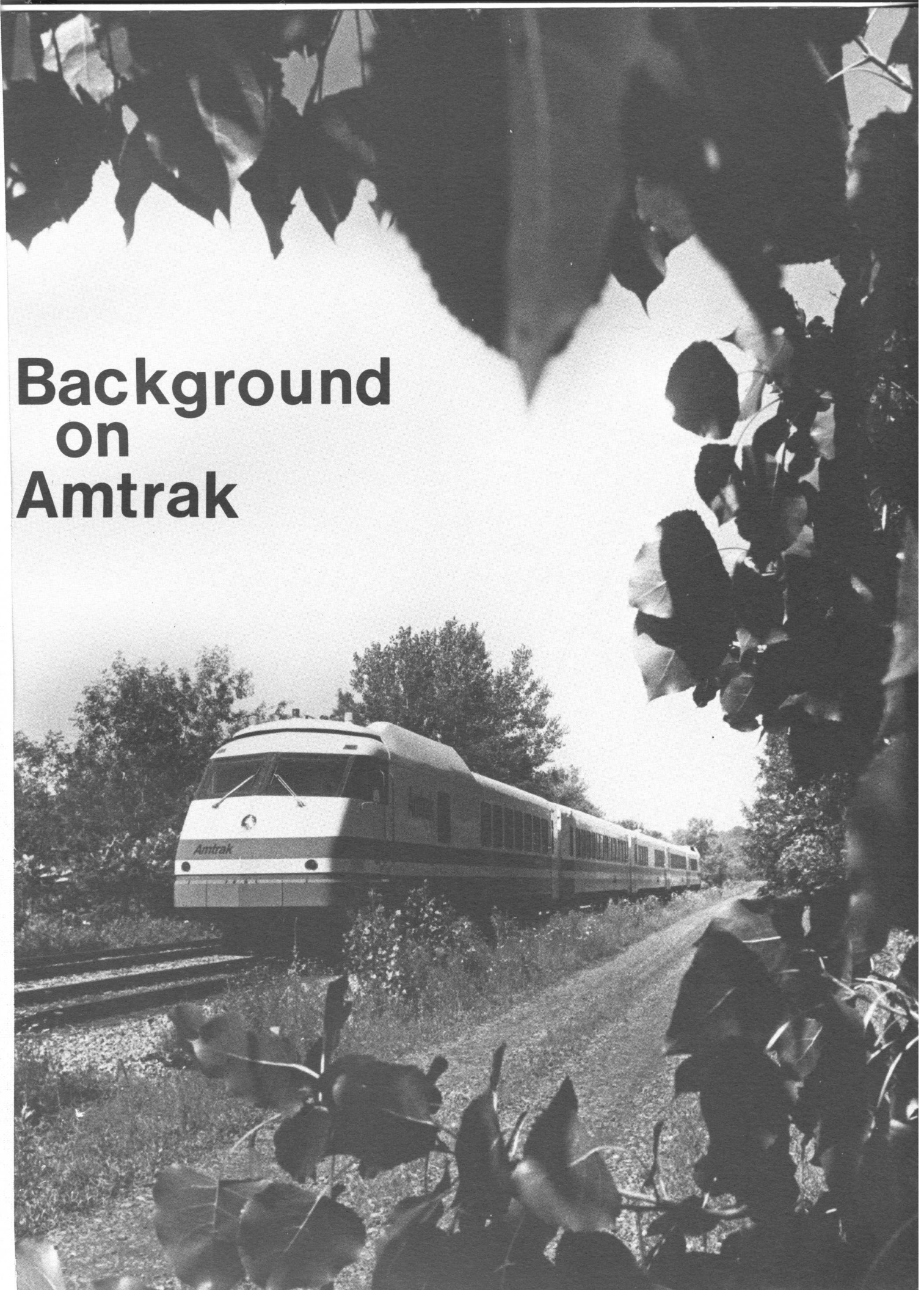


Background on Amtrak



HE
1081
B3

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD.....	3
HISTORY OF AMTRAK	
Historical Summary.....	4
Objectives of the Corporation.....	5
Actions by Incorporators.....	5
BUILDING THE AMTRAK SYSTEM	
Amtrak's First Days.....	6
Experimental Route Additions.....	7
International Routes.....	8
State-Assisted Services.....	8
Other New Services.....	9
FINANCING AND CONTROL	
Legislative Review.....	9
Funding.....	10
Buy American.....	12
Oversight of Amtrak.....	12
Board of Directors Organization.....	12
Corporate Organization.....	13
AMTRAK'S SEVENTH YEAR	
Building the Amtrak Fleet.....	14
Maintenance.....	16
Northeast Corridor Ownership.....	16
Northeast Corridor Improvement Project.....	17
Key Track Improvements.....	17
Stations & Terminals.....	18
Employees & Training.....	20
Who Operates Amtrak Trains?.....	20
MARKETING AND SERVICES	
Marketing.....	21
Reservations & Information.....	21
Access Amtrak.....	22
Tour Packages.....	22
Travel Agents.....	23
Government & Military Travel.....	23
Interline/Intermodal.....	23
Mail Service.....	24
Package Express.....	24
TRANSPORTATION SAFETY	
Passenger Safety.....	24
Grade Crossings.....	25
FUTURE INDICATORS	
Public Opinion Surveys.....	26
Role in Energy Conservation.....	27
Plans for Upcoming Years.....	28
AMTRAK PROFILE.....	30
MAP OF AMTRAK'S SYSTEM.....	31

DEC 27 1978
JUDSON COLLEGE LIBRARY
1151 N. STATE STREET
ELGIN, ILLINOIS 60120

FOREWORD

Almost with Amtrak's inception in May, 1971, the downward trend in rail passenger ridership, which had lasted for 25 years, reversed itself and began to climb upward. From 1971 through 1977, Amtrak ridership has continually increased. In 1972, Amtrak's first full year of operation, Amtrak carried 16.6 million passengers. By 1977, Amtrak's ridership had reached 19.2 million passengers.

Significant progress has been made in modernizing passenger equipment. Amtrak was forced to begin operations with a leased fleet of 1,275 old cars inherited from the railroads. By 1977, more than three out of every four passengers on short-distance trains were riding in either new Amfleet or Turboliner equipment purchased by Amtrak within the last 3-1/2 years. Almost half of all Amtrak passengers nationwide now ride in new equipment. Delivery of new Superliner cars for long-distance travel in the west will begin in late 1978 with operation expected to begin early in 1979.

Important steps have been taken during the past seven years to improve all aspects of Amtrak service. Over \$658 million has been spent or committed to buy new cars and turbine trains, and new diesel and electric locomotives. Compared to 1971, there are more places served by Amtrak, a modern reservation system, new and improved stations in cities, additional suburban stops, more efficient personnel and more comfortable conditions on the trains.

Amtrak is primarily a contractor buying services from the 19 railroads over which it operates, except on several key routes in the Northeast Corridor which stretches from Boston to Washington.

This year marks the 151st anniversary of American railroading, and in that context Amtrak is very young. Nevertheless, the turnabout in the quality of rail passenger service is beginning to attain historic proportions in the industry.

September, 1978

HISTORY OF AMTRAK

Historical Summary

In 1929, the nation's railroads, operating some 20,000 passenger trains, carried 77 percent of intercity passenger traffic by public mode in the United States. Buses carried 15.4 percent, and the airlines served an immeasurably small number.

By 1950, more than half the passenger trains had disappeared, and the railroads' share of the intercity passenger traffic had declined to 46.3 percent. In the meantime, traffic on buses increased to 37.7 percent and the airlines' share had grown to 14.3 percent.

Twenty years later, in 1970, railroad passenger traffic dropped to 7.2 percent of the commercial share and the number of trains still operating was less than 450. Of these, about 100 were in the process of being discontinued. Airlines dominated the public carrier market with 73 percent, while buses, still in second place, held on to barely 16 percent. There was a substantial growth in automobile traffic throughout this period.

By this time, it was increasingly recognized that the country's excessive reliance during the past four decades on the private automobile and the airplane for intercity travel had left the nation with a serious imbalance in its transportation network.

The formation of Amtrak was proposed as it became more evident that the United States could not rely solely upon further massive construction of highways and airports to meet its transportation needs. It was argued that the strangulation of our central cities and such environmental problems as air and noise pollution, excessive land use and dislocation of people make unrestricted expansion of these facilities impractical and hazardous.

Creation of a national rail passenger system was viewed as a method to save an alternate form of transportation that possessed a priceless asset -- existing tracks and rights-of-way into the major population centers of the nation. These rail facilities could be upgraded quite economically when compared to the costs for construction of new highways and airports.

The country's growing population and increasing mobility was also offered as evidence that an efficient rail passenger service was needed, especially in high-density corridors. Over 20 percent of U.S. households do not own an automobile. Millions of people do not drive, and many of the 24 million people with incomes below the poverty level cannot afford to drive.

Further, fear of traveling by air is a phobia that touches the lives of an estimated 25 million Americans. Adequate public transportation was deemed essential to insure mobility for these and other groups and, it was stressed, rail passenger service must be retained if balance was to exist in the transportation system.

Little was said during the debate to create Amtrak about the vital role railroad passenger service would play during a future energy crisis. It was not until the fuel shortage of 1974 that railroad passenger transportation was seen as potentially the most energy efficient form of people movement.

Objectives of the Corporation

The underlying thrust of Amtrak's first efforts was to gradually revitalize public confidence in rail passenger service through service improvements and thereby attract the traveling public back to the trains.

The Corporation began with some specific goals: To increase the consideration with which railroad employees served the public; to offer reliable performance and better-maintained equipment; and to issue accurate information to travelers.

Most of all, Amtrak developed positive programs to entice an increasing share of the travel market to train travel. The principal target: the 87 percent of travelers who use private automobiles on intercity trips.

Actions by Incorporators

The Rail Passenger Service Act, enacted on Oct. 30, 1970, created Amtrak and specified that a Board of Incorporators consisting of eight Presidential appointees would be formed to organize the Corporation. The Incorporators were faced with enormous tasks when they began work on Jan. 1, 1971, four months before Amtrak would be responsible for the nation's passenger service.

They had to begin organizing what was comparable to a \$200 million public service corporation; to decide what specific routes should connect the 21 pairs of cities designated by the Secretary of Transportation; and decide what trains, frequencies and type of service to be operated effective May 1st.

The Incorporators sought out full-time professional help. A management consulting firm was hired to develop the organizational structure as well as provide interim staff support until the Corporation could hire its own people. Two executive search firms were put to work to find management prospects.

Lawyers began drafting articles of incorporation and numerous contracts needed for train operations. Engineering experts inspected and surveyed available passenger terminals, cars and locomotives. A major airline was asked to study and make recommendations on a nationwide ticketing and reservations system. A national public relations agency, along with an advertising agency, was retained to help promote increased passenger traffic.

Up until this time, the Corporation had been commonly known as "Railpax." A leading design firm was retained to develop a new name, and Railpax became "Amtrak."

BUILDING THE AMTRAK SYSTEM

Amtrak's First Days

Beginning May 1, 1971, Amtrak assumed responsibility for managing intercity passenger train service over 23,000 route-miles, an extensive system by railroad standards. Actual train movements continued to be performed by the railroads under contract with Amtrak.

On Amtrak's first day of operation, it inherited a dying business. Not one railroad operated a computerized reservations system. The majority of the passenger cars were old, and many were in disrepair. Too many of the stations and maintenance facilities had been neglected and were inefficient and unsightly.

When Amtrak first offered service, it did not own any railroad tracks, any stations, any terminals, any yards or repair facilities, any locomotives, any passenger cars or other railroad equipment; and there was not one manufacturer in the U.S. with an open production line for intercity rail passenger equipment because no such equipment had been purchased for years.

For the first two years, Amtrak was almost totally dependent on the private railroads, leasing equipment from them and using their facilities. An Amtrak customer could make a reservation, buy a ticket and complete his journey without ever coming into contact with an Amtrak employee. The Congress had given Amtrak only a two-year experimental period of life, with no fixed route structure beyond that time, and planning future improvements was excruciatingly difficult.

Meanwhile, even Amtrak supporters were in disagreement about what Amtrak should become. Some wanted 150-mile-an-hour corridor "trains of the future" while others called for restoration of great long-distance "name" trains of the past.

In its initial route structure, Amtrak trains began operating over 13 railroads. Three railroads -- the Denver & Rio Grande Western, the Rock Island, and the Southern -- were offered contracts by the Amtrak Incorporators, but they chose not to operate within the Amtrak system. Since Jan. 1, 1975, these companies have been free to petition appropriate regulatory bodies to discontinue service, and this has been done in some instances.

Experimental Route Additions

By law, Amtrak is permitted to experiment with routes or service frequencies at any time. An amendment in 1973 authorized the Secretary of Transportation to designate at least one experimental route each year to be added to the system. After two years of operation, the Secretary would determine if the route is to be operated permanently or discontinued. The Act was further amended in 1975 shifting the responsibility for selection of new services to Amtrak's Board of Directors. Under current law, Amtrak is no longer required to start one new experimental route per year, but may do so if resources permit.

In mid-1978, the Amtrak route structure was under study by the U.S. Department of Transportation.

Experimental services and dates instituted include:

North Coast Hiawatha -- Chicago-Seattle via Billings, Mont., June 14, 1971.

Blue Ridge -- Washington-Parkersburg, W.Va., Sept. 7, 1971. Modified to Washington-Cumberland, Md., May 7, 1973, to contain service to more heavily used portion of route. Modified to Washington-Martinsburg, W.Va., Oct. 31, 1976, when the Shenandoah began operating between Washington, Cumberland and Cincinnati.

San Joaquin -- San Francisco-Fresno-Bakersfield, Calif., March 6, 1974.

Inter-American -- St. Louis-Dallas-Laredo, March 13, 1974. Extension of Fort Worth-Laredo International service that began Jan. 27, 1973.

Lone Star -- Dallas-Fort Worth section with through cars to Chicago added to this Houston-Chicago train, July 1, 1975.

Lake Shore Limited -- Boston-Buffalo-Cleveland-Chicago with a New York section joined at Albany, Oct. 31, 1975.

Shenandoah -- Washington-Cumberland, Md.-Cincinnati, Oct. 31, 1976.

Hilltopper -- Washington-Richmond-Roanoke-Kentucky, June 1, 1977, replacing the Mountaineer, a Norfolk-Cincinnati train that began March 24, 1975.

Pioneer -- Salt Lake City-Pocatello-Boise-Portland-Seattle, June 7, 1977.

The Secretary of Transportation had designated the Lake Shore Limited and Mountaineer on June 27, 1974, as two-year experimental routes.

International Routes

On June 22, 1972, Congress authorized International services to Canada at Vancouver and Montreal and to Mexico via Nuevo Laredo. Such service was inaugurated as follows:

Pacific International -- Seattle-Vancouver, B.C., July 17, 1972.

Montrealer -- Washington-Montreal, P.Q., via Vermont, Sept. 29, 1972.

Inter-American -- Fort Worth-Laredo, Jan. 27, 1973.

State-Assisted Services

The Act provides for states or regional agencies to obtain service not included in the original system designated by the Department of Transportation. To do so the local unit must assume 50 percent of the solely related losses of operating the service as well as related capital costs. Other cost formulas were in effect at different times prior to Oct. 1, 1976. Such service in operation and their start dates are:

Illinois Zephyr -- Chicago-Quincy, Ill., Nov. 4, 1971.

Philadelphia-Harrisburg -- Additional frequency, Oct. 29, 1972.

State House -- Additional train, Chicago-Springfield, Ill., Oct. 1, 1973.

Illini -- Additional frequency, Chicago-Champaign/Urbana, Ill., Dec. 19, 1973.

Black Hawk -- Chicago-Rockford-Dubuque, Feb. 14, 1974.

Adirondack -- New York-Albany-Montreal, Aug. 6, 1974.

Blue Water Limited -- Chicago-Lansing-Port Huron, Mich., Sept. 15, 1974.

Empire Service -- Additional frequency, New York-Albany,
Oct. 27, 1974.

Niagara Rainbow -- Detroit-Buffalo with through cars to New
York City, Oct. 30, 1974.

Michigan Executive -- Additional frequency, Detroit-Jackson,
Mich., Jan. 20, 1975.

St. Paul-Duluth -- April 15, 1975.

San Diegan Service -- Added frequency, Los Angeles-San Diego,
Sept. 1, 1976. Second state-assisted frequency, April 24, 1977.
A third frequency, 100 percent state-supported, was begun Feb. 14,
1978, bringing the route total to six daily trains in each
direction.

Chesapeake -- Additional frequency, Philadelphia-Baltimore-
Washington, May 1, 1978. Funded 100 percent by Maryland and
Pennsylvania.

Other New Services

Amtrak has increased frequency on some of its routes, bringing
about increased passenger usage. Added trains on the New York-
Washington, Chicago-Detroit and Los Angeles-San Diego routes have
brought about significant increases in revenues and ridership.

A gain in patronage was also experienced on a long-distance
route with added frequency. On June 15, 1976, Amtrak began
operating its first daytime train in the Carolinas on the heavily
traveled New York-Florida route. This New York-Savannah train,
the Palmetto, immediately began carrying large numbers of
passengers while usage continued at high levels on the New York-
Florida trains.

For the first time in railroad history, direct service links
Boston, New York, Washington and other large Northeastern cities
with Williamsburg and Newport News, Va. This train, the Colonial,
was begun on June 15, 1976, in place of a Newport News-Charlottes-
ville service that continued to Chicago as part of another train.
On this restructured route, the Colonial has been carrying over two
times as many passengers as the former train.

FINANCING AND CONTROL

Legislative Review

The Rail Passenger Service Act, enacted on Oct. 30, 1970,
created Amtrak to manage the basic national passenger network and
be responsible for intercity passenger trains operated by the
railroads under contract with Amtrak.

The legislation identified three underlying purposes and objectives of the Corporation: (1) Provide modern, efficient intercity rail passenger service within the basic rail system of the nation; (2) Employ innovative operating and marketing concepts to develop fully the potential of modern rail service in meeting intercity transportation needs, and (3) Strive for operation on a "for profit" basis. This fundamental philosophy has remained, but the Act has been amended in several respects since.

The Amtrak Improvement Act of 1973 continued Amtrak's authority beyond the original two-year experimental stage. It also stated that quality of service should be a major factor in determining compensation to the private railroads for services they provide.

The 1974 Act expanded Amtrak's scope of responsibilities. It required Amtrak to directly perform its own maintenance and repairs, and directed Amtrak, the U.S. Railway Association and the Secretary of Transportation to cooperate in a project to improve service in the Northeast Corridor.

The Amtrak Improvement Act of 1975 authorized, for the first time, cash grants for capital improvements rather than federally guaranteed loans. It also directed Amtrak, the Secretary of Transportation and the Interstate Commerce Commission to submit to Congress proposals setting forth criteria and procedures under which Amtrak would be authorized to add or discontinue routes.

The Amtrak Act of 1976 amended the Railroad Revitalization and Regulatory Reform Act to permit Amtrak to purchase several Northeast Corridor railroad lines. This Act also mandated that the president of Amtrak shall automatically become an ex-officio member of the Board of Directors.

The Amtrak Improvement Act of 1978 locked into law until Oct. 1, 1979, all routes currently in the system. The "for profit" clause was modified by the Act, and Amtrak is to be "operated and managed" as a for-profit corporation. Additionally, the Department of Transportation was directed to evaluate the common stock ownership of Amtrak and present recommendations on retaining, retiring or converting common stock held by the railroads. The Act also authorized Amtrak to operate commuter services under agreements with a state, regional or local transportation agency.

Funding

Amtrak is financed by a combination of earned revenues from passenger service operations and Federal Government assistance. The one exception was a \$197 million "entry fee" paid by the railroads over a three year period as compensation for Amtrak assumption of rail passenger service. The fee was equivalent to

one half of the participating railroads' passenger service operating losses for 1969. These funds were used by Amtrak to cover operating expenses.

Government assistance has been provided in terms of cash appropriations to cover operating expenses and a mixture of guaranteed loan authority and direct grants for capital improvements. Support provided through Fiscal Year (FY) 1978 has been:

(\$ millions)

	<u>Operating Grants</u>	<u>Guaranteed Loan Authority</u>	<u>Direct Capital Grants</u>
Initial Funding FY 1971	\$ 40.0	\$100.0	-
FY 1972-73	179.1	100.0	-
FY 1974	140.0	300.0	-
FY 1975	278.0	400.0	-
FY 1976	357.0	-	114.2
Transition Quarter	105.0	-	25.0
FY 1977	482.6	-	93.1
FY 1978	536.0	-	130.0
	<u>\$2,117.7</u>	<u>\$900.0</u>	<u>\$362.3</u>

Federal funding to Amtrak is a multi-step process. Funds must be authorized by legislation originating in both House and Senate Commerce Committees. Funds must also be appropriated by legislation originating in House and Senate Appropriations Committees. After the bills have been signed into law by the President, the money is then released to the Department of Transportation. These funds are apportioned to Amtrak on a quarterly basis for operating and capital purposes.

Amtrak funding should be viewed in the context of government assistance to other forms of transportation. From 1921 to 1976, all levels of government provided \$457 billion to build and maintain the nation's highways and streets. About \$302 billion was covered by receipts of Federal, state and local highway user imposts and toll receipts and \$155 billion from general fund revenues. Further, an incalculable amount of funds has gone into other highway services such as police patrol and snow removal. Since 1925, government assistance in the development of airways and airports has totaled \$40.9 billion.

Federal support of Amtrak reflects a decision by government that public policy requires continuation of rail passenger service at public expense, although at cost levels lower than have been provided to other transport modes. It should be noted that no major railroad passenger system in the world earns a profit, although individual routes within a few systems do.

Buy American

Amtrak has followed a stringent self-imposed Buy American policy. The majority of Amtrak's equipment was designed and built in this country by U.S. firms. From its inception through 1977, Amtrak committed a total of \$1,374,937,107 to purchases of materials, supplies and equipment. Orders were placed with domestic suppliers involving 96.3 percent of those funds. New Amtrak equipment has been built in Pennsylvania, Illinois, Indiana and California. Locomotives or cars have been rebuilt in Delaware, North Carolina, Indiana, Pennsylvania, Idaho, Kentucky and Kansas. Subcontractors for components -- brakes, seats, wheels, electrical equipment -- are scattered throughout the U.S.

Amtrak has stimulated domestic production of advanced equipment by encouraging U.S. suppliers to seek licenses to build equipment found abroad that incorporates new technology. In Illinois, the Electro-Motive Division of General Motors is building modified electric locomotives designed in Sweden. In California, the Rohr Corporation constructed seven Turboliners modified from a successful French design.

Oversight of Amtrak

Amtrak is subject to varying degrees of oversight, review, regulation, auditing and certain forms of administrative control by a multiplicity of government agencies, as follows:

Comptroller General; Office of Management and Budget; Department of Transportation, including Office of the Secretary, Federal Railroad Administration and National Transportation Safety Board; Interstate Commerce Commission; State Departments of Transportation; Governors' offices; Mayors of 545 Amtrak-served communities; Metropolitan Transit Authorities; Department of Treasury; and Department of Commerce. Amtrak legislation and appropriations are handled mainly by four committees of the Congress which also exercise oversight responsibility.

Board of Directors Organization

The Rail Passenger Service Act, as amended, states that the Board of Directors shall consist of 17 members, as follows:

- 8 Appointed by the President of the United States
- 2 Ex-officio members
- 3 Representing Common Stockholders
- 4 Representing Preferred Stockholders (vacant)

The President of the United States nominates and the Senate confirms eight members of the Board, of whom not more than five

shall be from the same political party. Of these eight, not less than three shall be designated consumer representatives. Further, not more than two consumer representatives shall be from the same political party.

The two ex-officio Board members are the Secretary of Transportation and the President of Amtrak.

Three Board members are elected annually by the common stockholders of the Corporation. Shareholders were created by a provision of the Act that permitted railroads to take stock instead of tax write-offs when Amtrak was organized. The shareholders are: Burlington Northern, Milwaukee Road, Grand Trunk Western, and Trustees of the Penn Central.

Four Board members would be elected by preferred shareholders. To date, no preferred shares have been issued and these seats remain vacant.

Corporate Organization

Amtrak, a large and complex corporation, is organized into a dozen departments, each charged with specific objectives as follows:

Executive (overall direction); Computer Systems (computer and telecommunication support services); Finance (financial management and reporting); Government Affairs (liaison with government agencies and elected officials); Labor Relations and Personnel (employment, benefits, labor relations, equal employment opportunities, security, training, general administration); Law (representation before courts and regulatory bodies, claims); Marketing (advertising, sales, tour development, market research); National Operations (monitors and evaluates train operations over private railroads, plans train operations, directly controls on-board and station services, and performs some maintenance); Northeast Corridor Operations (operates Amtrak-owned lines in the Northeast area only); Operations Support (engineering, safety, procurement, real estate and heavy overhaul of equipment); Planning (planning and evaluation); and Public Affairs (communications with public, media and employees).

AMTRAK'S SEVENTH YEAR

Amtrak has had many notable accomplishments during its first seven years. Improvements to the system have increased ridership and have convinced a large portion of the public that rail passenger service can grow and play an increasingly important role in the nation's transportation system.

Building the Amtrak Fleet

By 1977, more than three out of every four passengers on short-distance trains and about half of all passengers were riding in new equipment purchased by Amtrak within the last 3-1/2 years. The standard of service being provided today is a far cry from May 1, 1971, when Amtrak began service with an equipment fleet inherited from the railroads.

Amtrak started operations with 286 diesel and 40 electric locomotives, and 1,275 cars, all purchased or leased from the railroads. As ridership increased, Amtrak bought more equipment from the railroads. The last major addition of old cars was precipitated by the energy crisis in the winter and spring of 1973-74 when Amtrak found 113 usable cars after an extensive nationwide search. Over \$114 million was spent in the first three years to purchase and repair this equipment.

The majority of these cars were over 20 years old because the private railroads had not been ordering intercity equipment and manufacturers had stopped building it. After two decades of service, most cars badly needed renovation and mechanical overhaul. Amtrak began to perform such work in November, 1971.

The advanced age of the fleet made the need for new equipment quite obvious. Amtrak developed a capital program to purchase turbine trains for short-distance routes, Amfleet cars for corridor and medium-distance routes and newly designed bi-level cars for long-distance routes.

Amtrak began operating French Turboliners beginning in the summer of 1973 from Chicago to St. Louis, and later to Detroit and Milwaukee. In each instance the attractive new equipment brought ridership gains. Amtrak began service with two of the French trains, but ultimately purchased four more. Amtrak also ordered seven Americanized versions and placed them in service on the New York-Albany-Buffalo line in the fall of 1976, once again sparking increases in patronage.

Beginning in October, 1973, Amtrak placed a series of orders, totaling 492 Amfleet cars, with the Budd Company at a total cost of \$206.3 million. The cars have an improved suspension system, public address system, attractive and carpeted interiors, and seating that may be increased or decreased depending on the market served. The first Amfleet train operated in test revenue service on August 7, 1975, from Washington to Boston. Amfleet equipment now operates on a dozen routes throughout the nation, often with modification for long-distance use.

Amtrak placed an order in April, 1975, with the Pullman Standard Company for bi-level cars, named Superliners, for long-distance service in the west. Originally fixed at 235 cars, the

number has been increased to 284 and the total cost, including escalation payments, is expected to reach \$250 million. The first train fully equipped with these cars is expected to begin operation in January, 1979, illustrating the long lead times involved in new equipment purchases.

The Superliners will be unmatched anywhere in the world. Their stairways, double-levels and generous lounge and dining areas will provide a train more spacious and varied than ever before. Improved air-cushioned suspension systems will give passengers a smoother ride. Standardization of components will make the cars considerably easier to maintain than Amtrak's existing fleet of aged long-distance cars.

The Corporation will lease two LRC (Light, Rapid, Comfortable) trains now being built in Canada. These trains incorporate a new suspension system to provide higher speeds around curves, and will be tested in early 1979 between Vancouver, Seattle and Portland.

Amtrak has spent or committed \$658.1 million in capital funds over seven years to buy a variety of new equipment, as follows:

150 diesel 3,000 hp. locomotives (SDP40F) from General Motors; \$68 million; ordered in 1972 and 1973.

26 electric 6,000 hp. locomotives (E60CP) from General Electric; \$18.4 million; ordered in 1973.

492 Amfleet cars from Budd Company; \$206.3 million; ordered in 1973, 1974 and 1975.

6 five-car Turboliners from ANF-Frangeco; \$18 million; 1974.

25 diesel 3,000 hp. locomotives (P30CH) from General Electric; \$12.2 million; 1974.

7 five-car Turboliners from Rohr Company; \$30.3 million; 1974.

284 bi-level Superliner cars from Pullman Standard Company; \$250 million with escalation; ordered in 1975 and 1976.

40 lightweight 3,000 hp. diesel locomotives (F40PH) from General Motors; \$23.3 million; 1975.

8 lightweight 6,100 hp. electric locomotives from General Motors; \$21.6 million; 1978. (Amtrak's program calls for 30 of these locomotives at a cost of \$77.9 million.)

Maintenance

Amtrak has assumed many servicing and repair functions formerly performed by the railroads and is now the owner and operator of facilities located in Beech Grove (Indianapolis), Boston, Buffalo, Chicago, Dallas, Detroit, Harrisburg, Houston, Jacksonville, Kansas City, Long Island City, Los Angeles, New Haven, New York, Newark, Philadelphia, Rensselaer (Albany), N.Y., Savannah, St. Louis and Wilmington, Del.

Amtrak has built two new maintenance bases. A \$14.8 million Turboliner maintenance facility north of the Albany-Rensselaer station was completed in 1977. Located there is a new 113,000 square-foot building with two turbo service tracks, a diesel repair track, an all-weather car washer, auxiliary shops and employee facilities. The first new shop completed by Amtrak was the Brighton Park facility in Chicago for repair and servicing the Midwest Turboliners.

Improvements are underway at facilities purchased from the railroads. Amtrak is undertaking a \$38 million program to modernize the 12th Street maintenance yard and 16th Street locomotive shop in Chicago. The program is scheduled for completion by 1981.

On April 1, 1975, Amtrak purchased from Penn Central the rail car overhaul and repair shops at Beech Grove, Ind., for \$3.8 million. This is Amtrak's primary heavy overhaul and car modernization facility and it, too, is undergoing extensive upgrading in a \$29 million program.

Northeast Corridor Ownership

With the acquisition of Northeast Corridor rail lines from the Consolidated Rail Corporation (Conrail) on April 1, 1976, Amtrak became a full-fledged operating railroad in the region. The property acquired comprised 456 route-miles from Boston to Washington, 62 miles from New Haven to Springfield, Mass., and 103 miles from Philadelphia to Harrisburg, for a total of 621 route-miles.

The properties, along with selected equipment, were conveyed to Amtrak from bankrupt railroads through Conrail under terms of the Regional Rail Reorganization Act of 1973, as amended by the Railroad Revitalization and Regulatory Reform Act of 1975.

Operating on Northeast Corridor lines is an average of 960 trains a day, including over 120 Amtrak trains, nearly 660 commuter trains under contract with transportation authorities, and more than 170 Conrail freight trains.

In addition to trackage, Amtrak purchased 107 railroad stations and numerous maintenance shops and yards at key points along the route. The purchase price for Northeast Corridor facilities was about \$86 million, the net liquidation value certified by the United States Railway Association. The purchase agreement between Amtrak and Conrail calls for payment over an eight-year period, with an option for accelerated payment.

Laws that authorized these purchases also permitted Amtrak to buy properties elsewhere. Included are 83 miles of line between Kalamazoo, Mich., and Michigan City, Ind.; stations at selected points such as Syracuse, N.Y., Lima, Ohio, and Johnstown, Pa.; and 50 percent stock ownership in both Chicago Union Station and Washington Terminal Company. The purchase price for off-corridor properties was nearly \$3.9 million.

Northeast Corridor Improvement Project

The Boston-Washington route is being upgraded in a \$1.6 billion program enacted into law on Feb. 5, 1976. The five-year program contains an additional \$150 million in federal money, to be matched by state funds, for improvements to non-operational aspects of stations and the installation of right-of-way fences.

Track improvements, curve realignments, and bridge and tunnel work account for more than half the total program cost. New welded rail will be laid; crossties replaced; roadbeds reworked; curves modified; tunnels improved; and bridges reinforced or replaced as needed. New electrification will be installed where none exists from Boston to New Haven, and the existing electrical system between New York and Washington will be modernized.

When this is completed, electric-powered trains will run at speeds up to 120 miles an hour, and will whisk travelers between New York and Washington in 2 hours and 40 minutes and between Boston and New York in 3 hours and 40 minutes. The program is funded and administered by the U.S. Department of Transportation, Federal Railroad Administration, in cooperation with Amtrak.

In May, 1975, even before Amtrak purchased the Northeast Corridor, it began a \$15 million program to improve track conditions between New York and Boston. The project was completed on time and within budget.

Key Track Improvements

Outside the Northeast Corridor, Amtrak routes depend on track improvements on privately owned railroads. Amtrak has upgraded track in a few instances through a contract arrangement that protects

the public's interest in the improved property. In several instances, Amtrak has purchased land and built its own new track.

Amtrak plans to construct 12.6 miles of track between Post Road and Rensselaer, N.Y., to eliminate a complicated backup move on the Boston-Albany section of the Lake Shore Limited, allowing a 32-minute faster schedule. This stretch was abandoned in 1972 by the Penn Central and the track removed. The Congress earmarked \$4.1 million in Amtrak capital funds for the project.

In 1978, Amtrak completed construction of a \$1 million track project in Richmond, Va. The connection and improved signaling allowed the Colonial, operating between Boston and Newport News, to bypass a congested freight yard, save schedule time, and reduce operating expenses by over \$100,000 a year.

A time-consuming back-up operation in Fort Worth for the Inter-American was eliminated in 1976 after tracks were improved in a \$350,000 project. Another round-about routing for this train was eliminated the same year upon completion of a \$1.8 million track upgrading project between Temple and Taylor, Texas.

In a joint program with Michigan, the Chicago-Detroit line has been improved in a \$5.9 million project. In New York, Amtrak financed equipment purchases while a state bond issue is funding improvements on the New York-Buffalo route. A state-sponsored track program will also permit Amtrak to extend service to Niagara Falls for the first time.

Amtrak has funded track improvements in terminal areas or in conjunction with new services. Included is work in St. Paul, Miami, Sacramento, Chicago Union Station, Little Rock, Cincinnati, Kenova, Ky., and between Springfield, Mass., and White River Jct., Vermont, after inauguration of the Montrealer.

Stations and Terminals

A railroad station is the first visual impression of Amtrak that a prospective passenger receives, and Amtrak is committed to making that first impression a good one. This has been difficult in that many stations, particularly those inherited from bankrupt railroads, were in deplorable condition in 1971.

Since Amtrak's inception, 17 new stations have been constructed where previous stations were unavailable, unacceptable for passenger use or presented serious operational problems. More than 300 stations have received some degree of repair or improvement.

Work has been completed and new stations are in use in Cincinnati (1973); Jacksonville (1974); Port Huron, Mich., Catlettsburg, Ky., Richmond, Va., Roanoke, Va., and Bluefield W.Va. (all 1975); Worcester, Mass., Cumberland, Md. (1976); Cleveland, Duluth, and Parkersburg, W.Va. (1977); Rochester, Miami, St. Paul, Canton, Ohio, and Richmond, Calif. (1978). Amtrak operates out of a new station in Louisville as a result of a 1976 contract with the Auto-Train Corporation. New stations are under construction in Dearborn, Mich., and at the Baltimore-Washington International Airport in Maryland. Planning is underway for new terminals in St. Louis, Schenectady, Cheektowaga, N.Y., and in New Carrollton, Md., which will be a joint Amtrak-subway station in the Washington metropolitan area. Amtrak's station program generally falls into the following categories:

General Improvements -- Major rehabilitation has been completed in Nashville, Laredo, New York, Houston, Chicago and Springfield, Mass., and is underway in Oakland, Detroit and North Philadelphia. Station efforts often have coincided with inauguration of a new route. For example, Amtrak spent nearly \$500,000 to upgrade 13 stations in Utah, Idaho and Oregon in preparation for the Pioneer service.

Northeast Corridor Improvement Plan -- Federal funds are available to improve the operationally essential parts of primary intercity passenger stations between Boston and Washington. This includes some structural work, new or lengthened high-level platforms, and utilities necessary for passenger safety and train operations. The major stations are: Boston, Providence, New Haven, Stamford, New York, Newark, Philadelphia, Wilmington, Baltimore and Washington. The program authorizes \$150 million in federal funds to match state funds to improve non-operational portions of stations such as parking lots, waiting rooms and ticket offices.

State & Local Participation -- Amtrak cooperates with various levels of government to share station modernization costs. In joint programs with Michigan, a new station was built in Port Huron and seven other stations were upgraded. Amtrak and New York have renovated nine stations and built the new Rochester station in conjunction with the city. In Texas, Dallas purchased and modernized the station for Amtrak use; Lima, Ohio, helped to refurbish and landscape its station. Both St. Paul and Duluth constructed new stations which were leased to Amtrak. The new Richmond, Calif., station resulted from a joint effort by Amtrak, the Bay Area Rapid Transit System (BART) and the California Department of Transportation.

Amtrak has a continuing program to encourage upgrading of stations in smaller communities where current levels of ridership do not permit early improvements by Amtrak acting on its own. Station rehabilitation under this matching funds program has been accomplished at Mystic and Windsor Locks, Conn., Kirkwood, Mo.,

and New Brunswick, N.J. Projects will commence in the near future at Wichita, Kansas, Champaign, Ill., Ogden, Utah, and Dallas, Texas.

Consolidation -- Amtrak succeeded in doing on March 6, 1972, what the individual railroads could not do for a century when it consolidated passenger operations in one terminal in Chicago instead of three. Later, Amtrak consolidated its operations into one station in Houston and one in Richmond, Va.

Employees & Training

When Amtrak began, its trains and stations were staffed by employees of the operating railroads. Slowly, Amtrak began to assume responsibility for station and on-board services and for maintenance functions by transferring railroad employees to the Amtrak payroll. By October, 1977, Amtrak had 20,500 employees. An Equal Opportunity Employer, Amtrak has an established program involving goals and timetables for employment and upward mobility of minorities and female employees.

In a constant effort to improve service levels, Amtrak continues to conduct extensive training courses for its personnel in these areas: reservations and information, on-board service, station service and ticketing, maintenance of equipment, track maintenance, sales and management development.

Most employees are covered by collective bargaining agreements with the following labor organizations: American Railway Supervisors Association; American Train Dispatchers Association; Amtrak Service Workers' Council (includes Hotel & Restaurant Employees International Union and Transport Workers Union); Brotherhood of Locomotive Engineers; Brotherhood of Maintenance of Way Employees; Brotherhood of Railway, Airline & Steamship Clerks (includes the Brotherhood of Sleeping Car Porters with which it recently merged); Brotherhood of Railway Signalmen; International Association of Machinists & Aerospace Workers; International Brotherhood of Boilermakers; International Brotherhood of Electrical Workers; International Brotherhood of Firemen & Oilers; Joint Council of Carmen, Helpers, Coach Cleaners & Apprentices (includes Brotherhood of Railway Carmen; Transport Workers Union); Police Benevolent Association; Railroad Yardmasters of America; Sheet Metal Workers International Association; and United Transportation Union.

Who Operates Amtrak Trains?

It is not commonly realized that private railroads, not Amtrak, actually operate Amtrak trains over the majority of the system. Under contract with Amtrak are 19 railroads, ranging in size from the nation's largest to smaller regional carriers, which supply

train operating crews (engineers, firemen, conductors and trainmen) and are responsible for moving Amtrak-owned passenger trains over their respective lines. The railroads, responsible for on-time performance and safe operation of the trains, are as follows:

Atchison, Topeka & Santa Fe; Boston & Maine; Burlington Northern; Chessie System (Baltimore & Ohio and Chesapeake & Ohio); Canadian National; Consolidated Rail Corporation (Conrail); Central Vermont; Delaware & Hudson; Grand Trunk Western; Illinois Central Gulf; Louisville & Nashville; Milwaukee Road; Missouri-Kansas-Texas (trackage rights agreement only); Missouri Pacific; Norfolk & Western; Richmond, Fredericksburg & Potomac; Seaboard Coast Line; Southern Pacific, and Union Pacific.

Amtrak has primary operating responsibilities on routes where it owns the track and roadbed, namely: Boston-Washington; New Haven-Springfield, Mass.; Philadelphia-Harrisburg; and Michigan City, Ind.-Kalamazoo, Mich.

MARKETING AND SERVICES

Marketing

To increase public utilization of passenger trains, Amtrak must promote its product in highly diversified markets. Amtrak's advertising, promotional activities and services are directed toward various target groups. Amtrak conducts continuing research by taking on-train surveys, performing analysis of consumer complaints and reviewing ridership and revenue data. Amtrak then attempts to maximize sales through tailored pricing and service. Sales campaigns and special fare programs, such as the U.S.A. Rail Pass, are launched based on these programs.

Amtrak's advertising campaigns have included newspapers, local radio, network television, billboards, transit cards and trade magazines. Specialized advertisements have been centered along specific routes, especially when new equipment is placed in service. Many Amtrak ads have received distinguished awards.

Reservations & Information

One of the first major problems to confront Amtrak in 1971 was the complicated, time-consuming and often frustrating method of making train reservations. Amtrak's nationwide, computerized reservation system has brought order to the previously fragmented railroad information, reservation and ticketing procedures.

Now, trained reservation and information clerks at five major locations -- Bensalem, Pa., New York, Chicago, Los Angeles and Jacksonville -- consult television-like consoles for information on available space and fares and quickly enter reservations. Toll-free numbers, listed in local directories, provide easy access to this 24-hour-a-day service.

This computerized system is also used by station agents to print tickets. Automatic ticket printing devices issued 80 percent of all Amtrak ticketing by mid-1978.

A new reservations service was installed in 1976 that permits deaf persons who have access to teletypewriters to communicate with specially trained Amtrak agents using similar machines. "Talking" is done through the keyboard.

Incoming call volume during 1977 averaged 51,000 calls daily, significantly higher than the average of 32,000 calls per day handled during the peak summer months of 1973.

Access Amtrak

When Amtrak began service in 1971, its old passenger cars and stations were for the most part inaccessible to the handicapped or infirm. Today, out of 545 stations, 400 have wheelchairs available while over 60 recently constructed or renovated stations have barrier-free access.

Amfleet, Superliners and Rohr Turboliners are specially equipped to handle handicapped travelers with accommodations in food service cars. Superliners will also feature special sleeping accommodations for the handicapped. Provisions for boarding ease are now being developed for future installation at stations.

By calling Amtrak's toll-free reservation number, details about station and train accessibility are available along with assistance in coordinating the trip from beginning to end. In addition, Amtrak can make special arrangements for passenger convenience.

Teletypewriter reservations from deaf passengers can now be made. Blind travelers with an attendant can get a 25 percent discount while seeing eye dogs are allowed on the train at no additional cost. A complete booklet on this subject, Access Amtrak, is available by contacting Amtrak.

Tour Packages

In conjunction with tour operators, Amtrak offers tour packages to vacation areas over the entire system. These include ski areas, historic points, Florida and California resorts, city packages,

national parks, Alaska, environmental trips, student tours, motorhome vacations, group tours, Canada and Mexico. All tours identify Amtrak as the mode of transportation while the tour operator provides other services such as hotels, sightseeing and transfers. Sales from these packages have continually grown since 1972. In 1977, revenue from rail sales in connection with tours totaled \$5.4 million, 129 percent above the previous year.

Travel Agents

To make it easier for passengers to obtain railroad tickets, Amtrak instituted a nationwide program to offer tickets through travel agents in January, 1972. Under the plan, Amtrak pays a commission to travel agents with no extra charge to the passenger. This program has become highly successful with revenue growth as follows: \$8 million in 1972; \$16 million in 1973; \$20 million in 1974; \$28 million in 1975; \$38.1 million in 1976; and \$44 million in 1977.

Government & Military Travel

Amtrak's participation in the extensive government travel program is steadily increasing. This success has resulted from a combination of efforts to eliminate restrictive government regulations and through development of programs that make it easy and simple to use intercity passenger trains.

To attract government travelers, Amtrak has provided a competitive fare structure; has installed ticket stock in government offices; accepts Government Transportation Requests as tickets on board trains; offers special rates for official groups; issues standing orders for repetitive travel, and trains Amtrak personnel in the intricacies of government transportation policies.

The result has been a progressive revenue increase as follows: \$1.1 million in 1972; \$1.8 million in 1973; \$2.7 million in 1974; \$3.9 million in 1975; and over \$5 million in 1976 and 1977. These figures represent official travel only, but the program has been so successful that government personnel in ever-increasing numbers now travel on Amtrak for vacation and other personal travel. Military furlough travel alone accounted for nearly \$2 million additional revenue in 1977.

Interline/Intermodal

To make Amtrak service more easily accessible from off-line points, Amtrak has established interline agreements with a number of bus lines, limousine services, airlines, railroads and steamship lines. This simplifies ticketing and permits travelers to use convenient service to Amtrak trains. Some 50 interline agreements are

in effect, and in 15 of these the cooperating carrier calls to pick up or deliver passengers at trainside. Amtrak is also interested in establishing intermodal terminals with bus lines or transit systems, and has done so in several places.

Mail Service

Amtrak and the U.S. Postal Service have been cooperating with great success in moving mail by train. Mail is moved, for the most part, between end terminals on Amtrak routes to minimize delays at intermediate stations. Amtrak's mail revenue was \$1.2 million in 1971; \$2.4 million in 1972; \$4.1 million in 1973; \$6.2 million in 1974; \$7.0 million in 1975; \$7.6 million in 1976; and \$10.5 million in 1977. The increasing use of mail containers is helping to improve efficiency. In 1977, Amtrak carried over 63,000 containerized shipments compared to 38,000 in the previous year and only 8,000 in 1975.

Package Express

Amtrak offers Package Express Service between major cities across the country. The three-part program includes: Priority Package Express, a high-speed service for packages under 25 pounds between 32 cities within the Northeast, Midwest and West Coast corridors; Economy Package Express for shipments up to 1,000 pounds between 321 cities; and Custom Express, a specialized service for frequent, regular express users where services and rates are tailored to the requirements and characteristics of the traffic. On July 1, 1978, Amtrak incorporated a pickup and delivery service into the program in conjunction with a nationwide delivery service. Package Express revenue in 1977 was \$2.2 million.

TRANSPORTATION SAFETY

Passenger Safety

Safety statistics reveal that railroads provide the safest form of passenger transportation. Since May 1, 1971, when Amtrak was formed, over 273,000 persons have been killed in auto accidents, with hundreds of thousands of others permanently disabled. In that same time span, there have been 13 passenger fatalities in Amtrak accidents: 11 shortly after Amtrak's formation, one in 1973 and another in 1976. Data from the National Transportation Safety Board show the following fatality rates for 1977:

<u>Kind of Transportation</u>	<u>Passenger Deaths</u>
Automobiles	34,349
General Aviation	1,395
Domestic Airlines	654
Intercity Buses	29
Amtrak	0

Compilations also show that in each year from 1948 to 1977, the auto fatality rate has exceeded any commercial mode.

Grade Crossings

Amtrak has experienced accidents at grade crossings in every year since its inception. The overwhelming majority were caused by negligent motorists and fatalities and injuries to automobile and truck occupants and railroad personnel have resulted. There were 275 accidents involving Amtrak trains and motor vehicles in 1977 -- most at crossings equipped with flashing lights, gates and warning bells. In the same year, more than 43 percent of grade crossing accidents occurred in five states: Florida, Illinois, Indiana, Texas and Michigan. Over three-fourths of all such accidents happened during daylight hours.

"Operation Lifesaver" is a cooperative effort between Amtrak, the railroads over which it operates, and state and local governments, to improve grade crossing safety. The accident prevention program is made up of three phases: installation of warning devices at rail crossings based on traffic needs; education of the public to crossing hazards, and enforcement of traffic laws relating to warning signs and signals.

An analysis of "Operation Lifesaver" in Florida after its first full year of operation showed a reduction of 51 percent in accidents, 60 percent in fatalities and 68 percent in property damage. According to the U.S. Department of Transportation, rail-highway grade crossings were one of the two areas reporting a decline in motorist fatalities in 1977.

Amtrak is trying to reduce the total number of grade crossings by having local communities evaluate their actual crossing needs. With fewer crossings, available funds can be channeled to improving safety at the remaining ones through installation of warning signals or gates. Total separation of highways and railroads has been difficult to accomplish because the average cost is estimated at \$2.8 million per project.

FUTURE INDICATORS

Public Opinion Surveys

The results of two separate national Harris polls conducted in 1972 and 1978 reflect a greater public confidence in Amtrak as it makes continual efforts to improve train service. The polls, conducted by Louis Harris and Associates, measure the trends and changes in public opinion as well as current attitudes. The latest poll shows more people plan to travel by train in the future and favor increased federal spending for intercity passenger rail systems.

Both Harris polls show a decisive mandate to upgrade intercity rail passenger travel and mass transportation with decreasing support for highway and airport construction. Sixty percent of Americans polled want improvements in the quality and availability of rail passenger service even if it means increased government spending. Public enthusiasm for building new expressways and highways has diminished since 1972 from 63 percent to 50 percent in 1978. Support for more airports fell from 42 to 35 percent.

The energy crisis is a major reason for increased support for mass transportation. A majority of Americans, by 56 to 36 percent, believe there will be a serious energy crunch in a few years, making mass transportation mandatory.

Amtrak's performance rating has risen from 40 percent positive in 1972 to 55 percent positive in 1978. The ratings reflect such improvements as found in the Boston-Washington Corridor where new equipment carries the majority of Amtrak's passengers and where its 1978 performance rating was 67 percent positive and 29 percent negative. Modernization and improvements in service topped the list of reasons why more Americans were positive about Amtrak. More than three out of five persons familiar with Amtrak (44 percent) cited new equipment, cleaner, more comfortable and faster trains, better schedules and other service improvements as the reasons for their support. Also, 55 percent of those polled believe train travel will improve in the next few years while 51 percent who were familiar with Amtrak said it has improved the quality of service.

In a list of nine proposed transportation improvements in the latest Harris survey, intercity rail transportation ranked third behind auto safety and better commuter mass transit. New highways, new airports and faster airplanes were at the bottom of the list.

According to a survey by Hart Research Associates and released by the U.S. Department of Transportation in March, 1978,

two out of every five Americans believe they will change their present transportation mode within the next few years. People expect to be switching from automobiles to more fuel-efficient forms of transportation.

Role in Energy Conservation

Fuel consumption varies greatly between the different modes of transportation, and America's heavy reliance on the private automobile is the primary reason the nation may face a critical shortage of oil in the years ahead.

The private auto accounts for 95 percent of all local passenger transportation and for 87 percent of all intercity passenger movement in the U.S., the Department of Transportation reports. American cars and trucks alone use one-seventh of all the oil used in the world every day, according to the report "Understanding the National Energy Dilemma" issued by The Institute of Strategic and International Studies, Washington, D.C. The study also said the U.S. has only six percent of the world's population but uses 35 percent of the total energy demand. Meanwhile, the Transportation Department estimates that the inventory of autos in American will increase from the current figure of 110 million to 170 million by 1990.

There is a growing conviction, as expressed in the polls cited above, that public transportation must increasingly be used. This belief appears to be well founded since there have been numerous reports of future energy shortages and since public transportation systems have been modernized and expanded overseas to reduce dependency on foreign sources of energy.

Amtrak's mission may grow more vital as realization grows that passenger trains are three-to-four times more energy efficient than automobiles.

A report issued by the U.S. Department of Transportation in 1974 showed that a railroad passenger train consisting of one locomotive and nine cars can move between 270 and 360 passengers per mile on a single gallon of fuel. The intercity bus also was found to rank high, with an efficiency factor equal to 282 passengers moved per mile on one gallon. The study found automobile factors to be much lower, varying from 112.5 for a subcompact auto to 72 for a luxury car. Commercial jet airliners ranked still lower, averaging 30 passengers transported per mile per gallon on a 250-mile flight to 60 passengers on a 1,000-mile flight using wide-bodied jumbo jets.

In another report, this issued by the Energy Research and Development Administration in October 1976, passenger train fuel efficiency was shown to be quite high based on British Thermal Units (BTU's) consumed per seat-mile. The Metroliner topped the

list by consuming only 440 BTU's per seat-mile. Following was a passenger train pulled by a diesel locomotive at 583, a bus at 1,192 and air at 2,600.

To illustrate fuel savings further, a new eight-car Amfleet train can carry 550 passengers 100 miles on 200 gallons of diesel fuel. It would take 110 five-passenger autos and at least 726 gallons of gasoline to take the same number of people the same distance, based on the national average of 15 miles per gallon.

Passenger trains can vary in size and, as cars are added, fuel efficiency increases appreciably. The Mitre Corporation points out, "The only mode (of passenger transport) with inherent size flexibility is the railroad, where the makeup of the train can be varied to suit the expected load for the day. The train has the best potential for fuel economy of any transportation mode."

The automobile requires high-octane gasoline, the most expensive form of petroleum. Only the train offers the possibility of operating on electric power, which can be provided from other energy sources such as water, coal or atomic power. Today, more than half of Amtrak's passengers ride in a corridor between Washington and Boston which is electrified from New Haven south. A program is underway to extend electrification to Boston.

Plans for Upcoming Years

Amtrak has provided plans to the Congress and Administration to permit an orderly evaluation of Amtrak's potential as well as future capital requirements. Each plan has outlined programs to purchase new passenger cars and locomotives; modernize stations and maintenance facilities; upgrade track on key routes, and conduct research and development efforts.

Extensive planning is vital to future improvements because of very long lead times involved in designing, purchasing and receiving complex equipment, especially passenger cars. Adequate planning and construction time for passenger stations and maintenance facilities is also necessary if local requirements are to be fulfilled.

A major effort will be required to bring about further improvements to Amtrak equipment and to increase earning power by expanding passenger car fleet capacity. An expansion of the car fleet is vital even without an energy shortage that would divert even more passengers to Amtrak.

Amtrak's earning power is below that of other nationwide railroads primarily because it has so few passenger cars in its fleet, many of which are already worn out. Amtrak utilizes

about 2,000 cars to serve a 27,000 route-mile system. This makes it difficult for Amtrak to provide more frequent service on many prime routes or to induce greater volume on existing trains simply because it does not have enough cars. By comparison, the Japanese National Railroad has two cars for every mile in its system -- 26,000 cars for 13,000 miles. British Rail operates a highly regarded 11,200 mile network over which 17,400 cars are in service, permitting frequent train schedules between most large cities.

The highly vaunted German Federal Railroad also has far greater capacity than Amtrak since it virtually has a car for every mile -- 17,700 cars and 17,900 miles. Even the South African system, with 9,800 passenger cars operating over 14,000 route-miles, has the ability to carry more passengers and earn more revenue than Amtrak.

An expansion in Amtrak's passenger-carrying capacity is becoming more urgent. Many existing Amfleet cars must be shifted from several intermediate-distance routes to the Boston-New York-Washington line where, by 1981, ridership is expected to grow substantially upon completion of the Northeast Corridor Improvement Project. Other new cars would be needed on routes where Amfleet has been removed.

A related issue is that the average age of over half the Amtrak passenger car fleet will be about 30 years even after new Superliner cars for western trains are received and placed in use. Many older cars will be converted to electric heating systems -- more reliable and less costly than steam heat -- and will be used primarily in the east, midwest and south. These cars have run millions of miles and, although a rebuilding program will extend their life, they cannot be expected to run forever. They must eventually be replaced to improve service reliability, to attract growing numbers of riders, and to get Amtrak train operations out of the 1940's and into the 1980's.

An energy shortage would place strain on Amtrak's already slim equipment inventory and would cause a need for fleet expansion greater than described above. This issue is of concern to Amtrak management since it is unrealistic to plan and construct thousands of passenger cars on a short-term basis. Experience has shown that between two and four years elapse from the time railroad passenger cars are ordered until they are received.

Amtrak is also faced with a need to replace diesel locomotives that are 30 years old as well as electric locomotives that are 40 years old.

Amtrak is committed to planning and implementing more service improvements designed to offer a greater contribution to America's mobility.

AMTRAK PROFILE

<u>General</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
System Route Miles (thousands).....	23	22	24	26	26	27
Stations Served.....	440	451	473	484	512	545
Train Miles Operated (millions).....	26	27	29	30	31	32
Number of Employees Directly Employed...	1,500	5,300	8,300	8,700	18,400	20,500

Ridership

Passengers (millions) Calender Year.....	16.6	16.9	NA	NA	NA	NA
Passengers (millions) Fiscal Year.....	NA	NA	18.7	17.4	18.2	19.2
Psgr. Miles (millions) Calender.....	3,038	3,806	NA	NA	NA	NA
Psgr. Miles (millions) Fiscal.....	NA	NA	4,484	3,956	4,154	4,333
Total Revenue (millions) Calender.....	\$162.6	\$202.1	NA	NA	NA	NA
Total Revenue (millions) Fiscal.....	NA	NA	\$250.5	\$246.3	\$277.8	\$311.3

On-Time Performance

Systemwide Fiscal Year.....	76.2%	63.0%	69.9%	77.3%	74.0%	63.8%
Short-Distance Fiscal Year.....	82.0%	70.9%	74.2%	79.1%	76.0%	68.3%
Long-Distance Fiscal Year.....	56.1%	33.0%	53.1%	71.3%	68.7%	49.6%

Revenue Cars

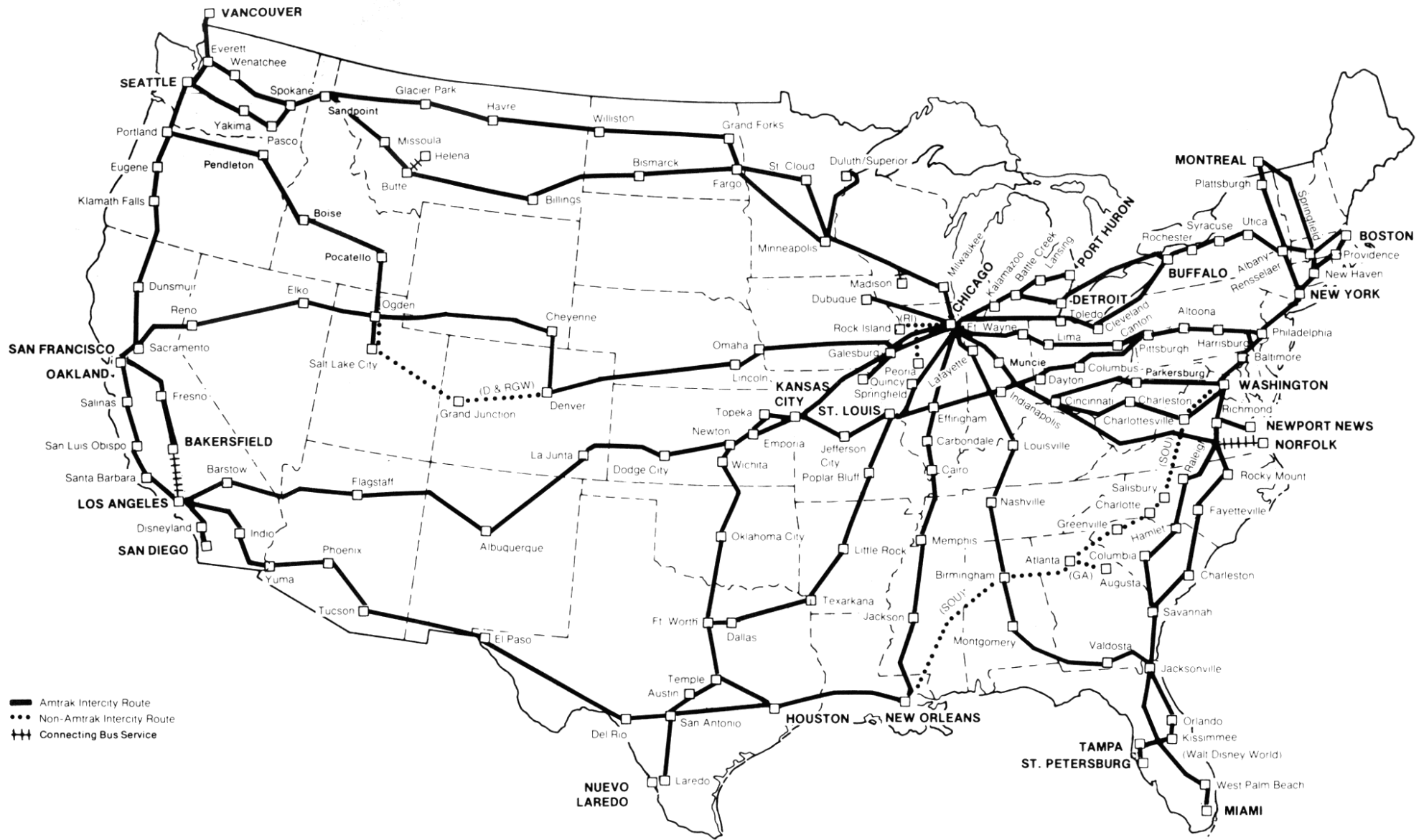
Operating Fleet (thousands).....	1,569	1,717	1,881	1,882	1,932	2,048
Out of Service (daily average).....	NA	NA	18.0%	17.5%	15.4%	17.0%
Average Age (years).....	22.0	23.1	24.3	24.7	20.3	20.4
Number Overhauled.....	177	410	458	490	496	369
New Deliveries.....	0	0	0	115	241	33

Locomotive Units

Operating Fleet (Dec. 31).....	185	337	442	362	353	330
Out of Service (daily average).....	NA	NA	23.5%	13.0%	17.1%	19.5%
Average Age (years).....	22.3	18.7	13.6	14.4	10.7	9.9
Number Rebuilt.....	0	15	24	11	38	26
New Deliveries.....	0	40	110	30	51	0

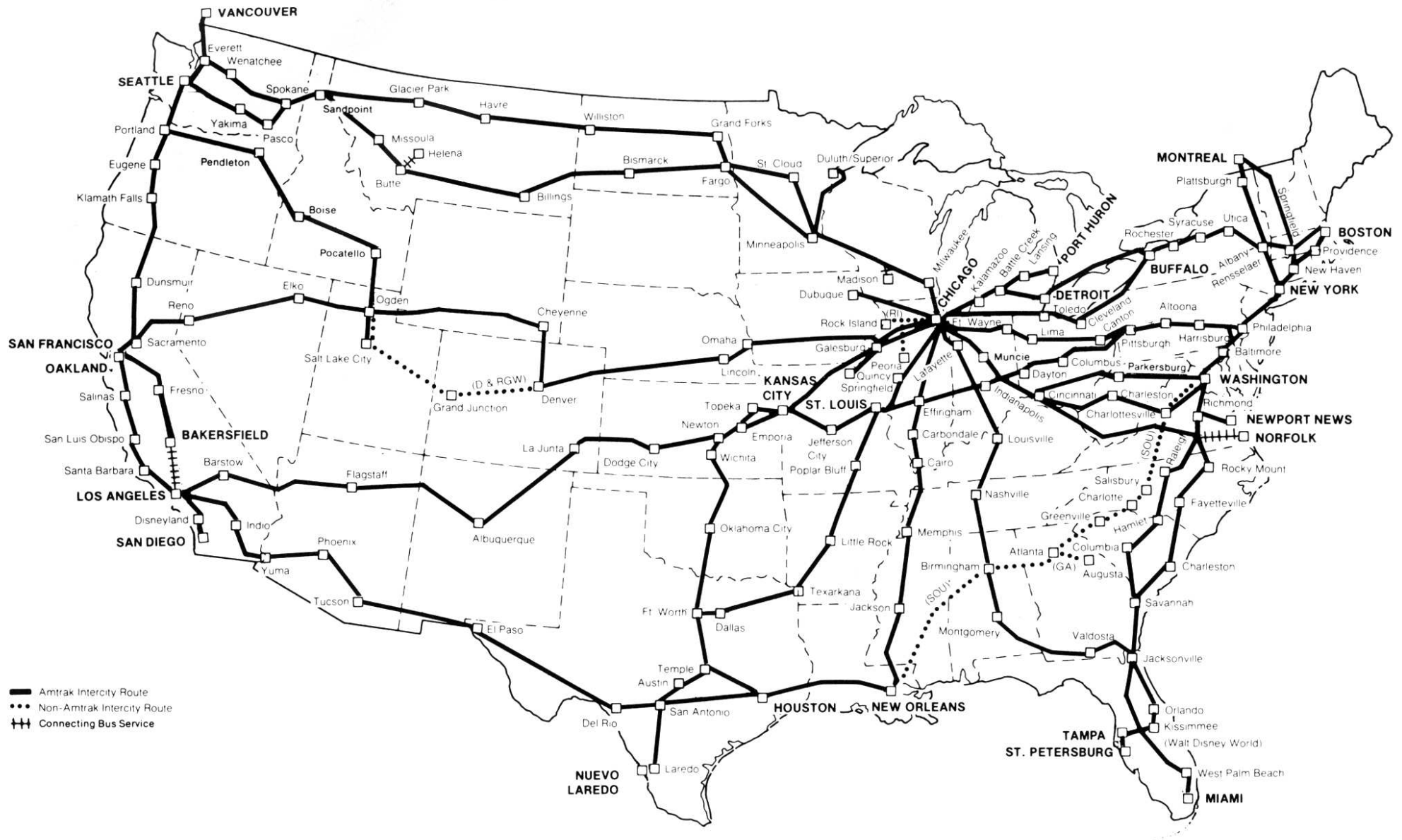
INTERCITY RAIL PASSENGER ROUTES

National Railroad Passenger Corporation



INTERCITY RAIL PASSENGER ROUTES

National Railroad Passenger Corporation





National Railroad Passenger Corporation
400 North Capitol Street, NW, Washington, D.C. 20001

