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NORTHEAST CORRIDOR COMPLETION ACT OF 1979

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HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

OF THE

COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

S. 2156

TO AMEND THE RAILROAD REVITALIZATION AND REGULA-
TORY REFORM ACT OF 1976 TO AUTHORIZE ADDITIONAL
APPROPRIATIONS FOR THE NORTHEAST CORRIDOR IMPROVE-
MENT PROJECT, AND FOR OTHER PURPOSES

1041

FEBRUARY 29, 1980

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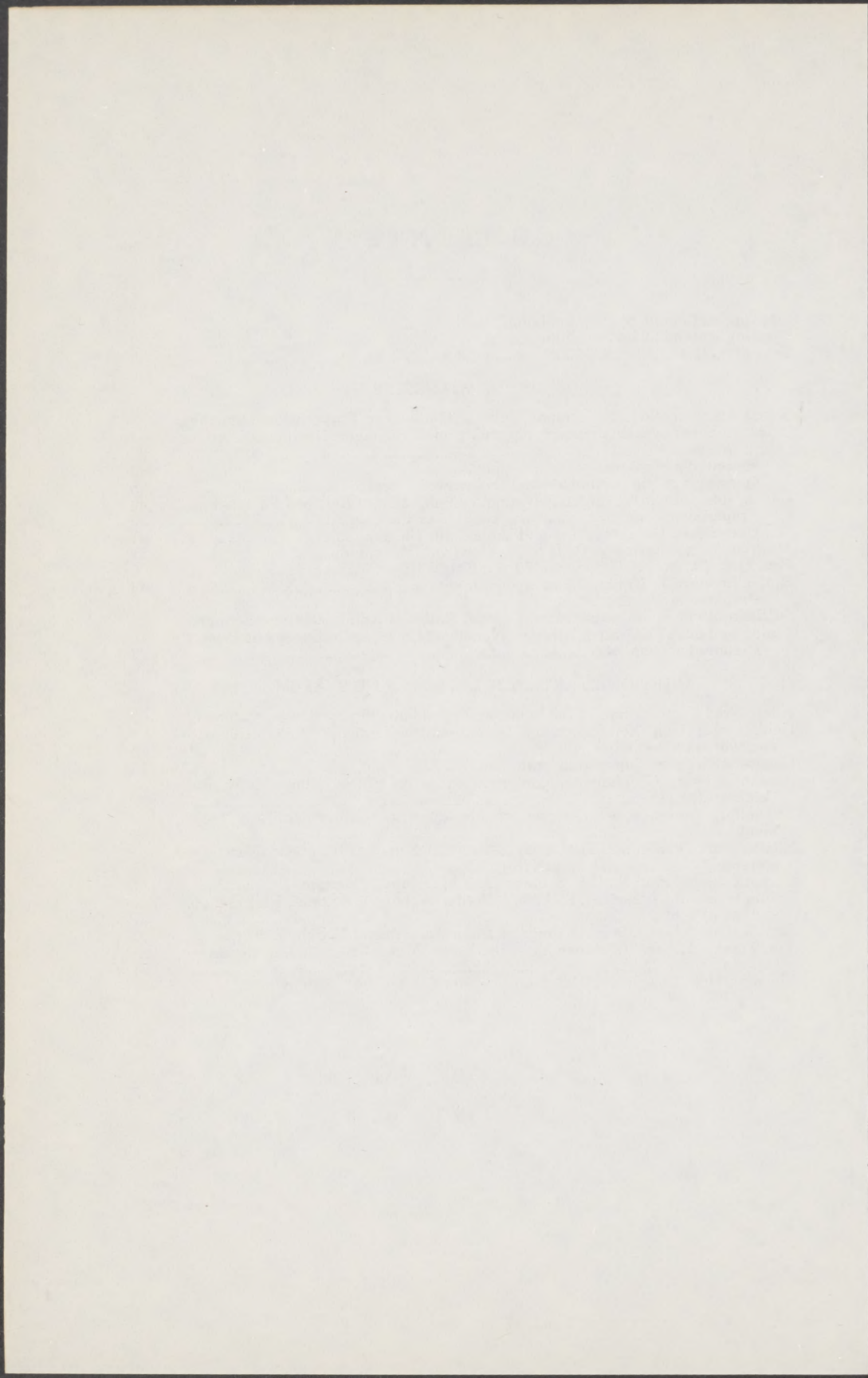
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NORTHEAST CORRIDOR COMPLETION ACT OF 1979

FRIDAY, FEBRUARY 29, 1980

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
SUBCOMMITTEE ON SURFACE TRANSPORTATION,
Washington, D.C.

The subcommittee met at 10:05 a.m. in room 457, Russell Senate Office Building, Hon. Russell B. Long (chairman of the subcommittee) presiding.

OPENING STATEMENT BY SENATOR LONG

Senator LONG. Good morning.

Today's hearing of the Surface Transportation Subcommittee examines the Northeast Corridor Completion Act and the proposed Department of Transportation's initial funds for the completion of that project. The Northeast Corridor improvement project was established a little over 4 years ago, in title VII of the Railroad Revitalization and Regulatory Reform Act of 1976.

The goal was to upgrade and improve high speed intercity rail passenger transportation on the 450 miles of track on the Washington-New York-Boston corridor. Since passage of that legislation, the corridor project has been plagued by construction delays, poor management, low productivity, and the lack of an overall plan to coordinate the needs of all the users of the right of way.

In January of last year, the Department of Transportation completed a review of the entire corridor project and published its findings in a report entitled "Northeast Corridor Improvement Project Redirection Study." The study identified the major problems surrounding the project and concluded that there was a serious need to establish a central planning unit that would coordinate the needs of Amtrak's intercity trains, ConRail's freight trains, and the various commuter agencies operating throughout the corridor. The study also concluded that the project, as outlined in the 4R Act, could not be completed by 1981 and could not be completed within the original \$1.75 billion authorization.

Last December, S. 2156 was introduced to authorize an additional \$750 million, which the Secretary of Transportation has concluded to be the minimum investment we can realistically make to achieve reliable high-speed service.

With an extended completion date through fiscal year 1985 and a new estimated cost of \$2.5 billion, we are anxious to hear the opinions of our witnesses as to the extent to which improvements originally planned should be completed and the feasibility of

achieving a reliable high-speed system within the limits of the requested authorization.

Senator Cannon, do you have an opening statement?

OPENING STATEMENT BY THE CHAIRMAN

The CHAIRMAN. I want to join Senator Long in welcoming you to these hearings on the Northeast Corridor project.

In 1976, when the project was established, it was to be completed by February 1981. By the time the redirection study was completed—just last year—a new realistic completion date of late 1983 was announced. Now, just a year later, we are told that construction will continue through 1984, and perhaps into early 1985.

As the length of the project has grown, so has the budget. The original amount authorized was \$1.75 billion. Last year, the administration requested an extra \$654 million to complete the project. At that time, Secretary of Transportation Brock Adams said \$654 million was the last money that would be requested, and he personally pledged not to ask for another dime. But now the administration is requesting an extra \$750 million and telling us that the \$750 million will purchase much less work than the \$654 million was supposed to purchase. The work not done, some \$400 million worth, would be done by Amtrak at some future time.

If one wonders why the Federal budget is \$500 billion, why inflation is running at the rate of 13 percent, and why we can't seem to shave a \$30 billion budget deficit, the answer may be connected with programs that grow and grow and grow and grow. I hope that we can learn today with more certainty than we have had in the past, and certainly before we act on increased authorizations, how much the project will ultimately cost, what we are getting for our money, and when the project will be finished.

I hope that the committee can act one way or another on S. 2156 before May 15. However, before acting, we will scrutinize this program most carefully.

Senator LONG. Thank you Senator Cannon.

[The bill follows:]

96TH CONGRESS
1ST SESSION

S. 2156

To amend the Railroad Revitalization and Regulatory Reform Act of 1976 to authorize additional appropriations for the Northeast Corridor Improvement Project, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 19 (legislative day, DECEMBER 15), 1979

Mr. CANNON (for himself and Mr. PELL) (by request) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To amend the Railroad Revitalization and Regulatory Reform Act of 1976 to authorize additional appropriations for the Northeast Corridor Improvement Project, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Northeast Corridor Com-
4 pletion Act of 1979".

5 SEC. 2. Section 703 of the Railroad Revitalization and
6 Regulatory Reform Act of 1976 (45 U.S.C. 853) is
7 amended—

1 (1) in paragraph (1)(A)(i) thereof, by striking "this
2 Act" and inserting in lieu thereof "the Northeast Cor-
3 ridor Completion Act of 1979"; and

4 (2) in the forth sentence of paragraph (1)(E)
5 thereof, by striking "6" and inserting in lieu thereof
6 "9".

7 SEC. 3. Section 704 of the Railroad Revitalization and
8 Regulatory Reform Act of 1976 (45 U.S.C. 854) is
9 amended—

10 (1) by striking paragraph (a)(1) thereof and insert-
11 ing in lieu thereof the following paragraph:

12 “(1) \$2,350,000,000 to remain available until ex-
13 pended in order to effectuate the goals of section
14 703(1)(A)(i)”;

15 (2) by adding at the end thereof the following new
16 subsections:

17 “(h) ACQUISITION OF REAL PROPERTY.—The Secre-
18 tary is authorized to acquire for the United States, by lease,
19 purchase, condemnation, or otherwise, title to any interest in
20 real property, including, without limitation, lands, easements,
21 and rights-of-way, and any other property interests, includ-
22 ing, without limitation, contract rights, which the Secretary
23 deems necessary to effectuate the goals of section 703 of this
24 title.

1 “(i) REIMBURSABLE AGREEMENTS.—Where a portion
2 of the costs of improvements authorized under section 703 of
3 this title are to be borne by State or local governmental enti-
4 ties or other responsible parties, the Secretary is authorized
5 to enter into agreements with such cost-sharing parties pro-
6 viding for the Secretary to carry out such improvements with
7 funds appropriated pursuant to this section and requiring re-
8 imbursement to the Secretary by the cost-sharing parties of
9 their portion of the costs of such improvements. Where the
10 Secretary has entered into such reimbursable agreements,
11 the Secretary is further authorized to incur obligations for
12 contracts to carry out such improvements in anticipation of
13 such reimbursement to such extent or in such amounts as
14 may be contained in appropriation Acts. Funds reimbursed to
15 the Secretary shall be credited to the appropriation originally
16 charged for the costs of such improvements to be available
17 for futher obligation.

18 “(j) EXCESS EQUIPMENT AND OTHER PROPERTY.—
19 Notwithstanding the provisions of section 202 of the Federal
20 Property and Administrative Services Act of 1949 (40
21 U.S.C. 483) or of any other law, the Secretary may transfer
22 to the National Railroad Passenger Corporation, in accord-
23 ance with procedures which the Secretary shall establish, ex-
24 cess real or personal property from the Northeast Corridor
25 Improvement Project. As consideration to the United States

1 for such transfer, property so transferred shall be made sub-
2 ject to the mortgage entered into pursuant to subsection (e) of
3 this section. For purposes of this subsection, the term 'excess
4 real or personal property' means any items of personalty,
5 such as equipment, acquired with funds authorized under this
6 section, or any rights in property acquired under the author-
7 ity of subsection (h) of this section, which are determined by
8 the Secretary to be (1) usable by the National Railroad Pas-
9 senger Corporation, and (2) no longer required by the Gov-
10 ernment in order to implement the Northeast Corridor Im-
11 provement Project."

12 SEC. 4. Section 701 of the Railroad Revitalization and
13 Regulatory Reform Act of 1976 (45 U.S.C. 851) is amended
14 by adding at the end thereof the following new subsection:

15 “(d) MANAGEMENT GOAL.—It shall be a goal of the
16 National Railroad Passenger Corporation to manage its oper-
17 ating costs, pricing policies, and other factors so that, begin-
18 ning not later than 5 years after completion of the Northeast
19 Corridor Improvement Project authorized by this title and
20 continuing thereafter, annual revenues derived from the oper-
21 ation of intercity rail passenger service over the Northeast
22 Corridor spine between Washington, District of Columbia,
23 and Boston, Massachusetts, shall equal or exceed the annual
24 operating costs of providing such service. Within 5 years
25 after the date of completion of the Northeast Corridor Im-

1 improvement Project, the National Railroad Passenger Corpo-
2 ration shall submit to the President for transmission to the
3 Congress a report on the success of the National Railroad
4 Passenger Corporation in meeting this goal.”.

5 SEC. 5. Section 9 of the Department of Transportation
6 Act (49 U.S.C. 1657) is amended by adding at the end there-
7 of the following new subsection:

8 “(r)(1) The Secretary is authorized to establish a work-
9 ing capital fund for financing the activities of the Transporta-
10 tion Systems Center. Such fund will be effective on October
11 1, 1979, and shall be available without fiscal year limitation.
12 The Transportation Systems Center is authorized to perform
13 research, development, test, evaluation, analysis, and other
14 related activities as the Secretary may direct for the Depart-
15 ment and other Government agencies and, when approved by
16 the Secretary or his designee, for State and local govern-
17 ments, other public authorities, private sources, and foreign
18 countries.

19 “(2) The capital of the fund shall consist of—

20 “(A) the net assets of the Transportation Systems
21 Center as of October 1, 1979, including any unex-
22 pended advances made to the Center for which valid
23 obligations are incurred as of September 30, 1979;

24 “(B) any appropriations to the fund, which are
25 hereby authorized to be made; and

1 “(C) the fair and reasonable value of property or
2 other assets transferred to the fund after September
3 30, 1979, by the Department and other agencies of the
4 Government less the related liabilities and unpaid obli-
5 gations, and the fair and reasonable value of property
6 or other assets donated to the fund from other sources.

7 “(3) The fund shall be reimbursed or credited with ad-
8 vance payments from applicable funds or appropriations of
9 the Department, other Federal agencies, and with advance
10 payments from other sources, as authorized by the Secretary
11 or his designee, for services provided at rates that will re-
12 cover the expense of operation, including accrual of annual
13 leave and overhead, and for acquisition of property and
14 equipment in accordance with regulations to be issued by the
15 Secretary. The fund shall also be credited with receipts from
16 the sale or exchange of property or in payment for loss or
17 damage of property held by the fund.

18 “(4) At the close of each fiscal year, there shall be
19 transferred into the Treasury as miscellaneous receipts any
20 funds accumulated which the Secretary determines to be sur-
21 plus to the needs of the working capital fund.”.

Senator LONG. We are again pleased today to lead off our witness list with Senator Claiborne Pell, who has been in the forefront of the effort to insure the establishment of high-speed passenger service in our Nation's most densely populated region.

Senator Pell, we welcome you and will be pleased to have you present your statement.

Senator Pell?

STATEMENT OF HON. CLAIBORNE PELL, U.S. SENATOR FROM RHODE ISLAND

Senator PELL. Thank you very much, Mr. Chairman, and Senator Cannon, for permitting me to be here again.

I would like the record to show that the following Senators are cosponsoring S. 2156: Senators Chafee, Ribicoff, Weicker, Tsongas, Randolph, Moynihan, Javits, Biden, Heinz, Williams, Bradley, Durkin, and Sarbanes.

What we hope to do today is to give the final impetus to move ahead and complete the Northeast Corridor project.

A year ago, Mr. Chairman, you voiced your frustration at the meagerness of our efforts in the rail passenger area in comparison to the high-speed systems in use today in so many other nations. I recalled your words a few weeks ago when I came across an article in the New York Times on the new high-speed trains capable of speeds up to 190 miles an hour being developed by the French.

A year ago you noted that Americans like to be first in everything we undertake, but in the passenger train area our efforts place us close to last among the world's highly industrialized nations. For instance, the French, with a geographic area smaller than the State of Texas, had a passenger train ridership of 683 million in 1978. Compare that with the enthusiasm of train advocates last year, when Amtrak ridership nationwide in our Nation soared, as Amtrak said, to 21 million persons, a figure less than one-thirtieth of what the ridership is in France.

While Americans have been content to regard passenger trains as a relic of the horse and buggy era of transportation, there have been thousands of high-speed trains in service in Europe for almost a generation. France, West Germany, and Italy are already far advanced with new high-speed lines much more ambitious than our Northeast Corridor project. The new French line being built between Paris and Lyons will carry new passenger trains at speeds up to 190 miles an hour, making it the fastest line in the world. When this new French line is completed in about 3 years, it will surpass even the famed Japanese bullet trains, which have been the paragon of high-speed technology for over 15 years.

Actually, what we don't often realize is that the United States has retrogressed when it comes to railroad passenger service, both with regard to schedules and speed. We can find schedules showing faster times and more frequent service, sometimes as much as 70 years ago, compared with today.

So we see today that the United States looks to other nations for leadership in technology in this area. Amtrak sensibly hires Japanese advisers to consult on the engineering for the high-speed trains which will travel in the Northeast Corridor and hopefully elsewhere in the United States.

The Federal Railroad Administration sensibly uses a Swiss-designed track-laying machine to rebuild the corridor. And we import other areas of rail research and development, which we as a nation abandoned over a generation ago.

I don't believe we can continue to neglect this vital link in our transportation system. Uncertain supply and increasing costs of oil, together with the problems of auto and air traffic congestion, make a stronger public commitment and investment of funds a wise use of taxpayer dollars.

And then we come to the comparison in terms of concentration of population and industry. The Northeast Corridor region in many ways resembles the nations of Western Europe and Japan, where, despite the vast expansion of automobile use, rail passenger ridership has increased consistently over the last generation. The reason for the increase in ridership in these countries is the reliability, speed, and comfort of the service.

The Northeast Corridor project represents a modest public investment to achieve some of the same quality conditions which have maintained and expanded passenger service in these other countries. There is no reason to believe that it can't happen here. We have already seen some pretty healthy gains in Amtrak ridership in the corridor, despite all of the construction work resulting in the delays to passengers.

If we complete this project the right way, we will finally give passenger trains the opportunity to prove that they can attract and retain a high level of ridership and so justify the capital investment and fare subsidies that the Congress is asked to approve each year.

I don't believe we can afford to fail in this effort. Our highways and airlines are being slowly strangled, as we all know, by their dependence on imported oil. Our failure to upgrade passenger trains in the past is being paid for today by the absence of a system that would cushion some of the harshest impact of the energy and gasoline supply problems.

With transportation accounting for over one-half of the petroleum we use, it is disquieting to compare our inadequate rail systems with Japan, where fully electrified trains use only 10 percent of the energy that other modes of transportation consume.

So, Mr. Chairman, while I share your wish that Americans were always first in the transportation field, I am afraid that for some time this can't be so. Let's instead hope that, just as Germany was building autobahns more than 20 years before the United States began its own program of interstate highways, so the United States will emulate the passenger train renaissance of Japan and Western Europe.

And in this regard, the Northeast Corridor is the best place to start. And the requested authorization today is a realistic base, although, as Senator Cannon pointed out, an expensive base, for future improvements as passenger volume develops further.

While the Northeast Corridor traverses the States comprising almost one-quarter of the total manufacturing employment in the United States, 22 percent of our population and 24 percent of the total electoral vote, it is truly a national project in that there are at least another half-dozen incipient corridors across our Nation.

Whether they become as clogged and fouled up as the Northeast Corridor will depend on the imagination and determination we will have demonstrated in providing a solution to the transportation problems of the Northeast Corridor.

And these incipient corridors are seen here on the map. You can see them fanning out from Chicago, and the east coast and the west coast of Florida, in Houston and in California, you can see the beginning of exactly the same situation that we have in the Northeast.

Whether we move ahead in a sensible fashion will depend in great part on the success of what we do in the Northeast Corridor, where the problem is most acute.

I thank you very much, Mr. Chairman, for permitting me to be here.

Senator LONG. Senator Cannon, do you have any questions?

The CHAIRMAN. No. Thank you very much, Senator.

Senator LONG. Thank you for a very good statement, Senator.

Senator PELL. Thank you very much, Senator.

Senator LONG. We will now hear from Hon. Charles Mathias, Senator from Maryland.

**STATEMENT OF HON. CHARLES McC. MATHIAS, JR., U.S.
SENATOR FROM MARYLAND**

Senator MATHIAS. Thank you very much, Mr. Chairman. Mr. Chairman, I appreciate having the opportunity to testify on the authorization of the Northeast Corridor improvement project. As I am sure both of you may know, too well, in fact, I have had a very keen interest in this project. We conducted hearings in the Senate Appropriations Committee in April of 1978, and again a year later in April of 1979 on this subject, and on the problems that the Federal Railway Administration faces in meeting the congressional mandate for the project.

But what I would like to talk about very briefly this morning is the colossal bottleneck which is caused by the archaic and inefficient Baltimore & Potomac Railroad tunnels under east and west Baltimore. Now, that sounds very parochial. It sounds like it's my problem, just a local problem. But it is so serious a problem that it becomes everybody's problem, and I hope that the subcommittee will include approximately \$45 million for widening of the B. & P. tunnels, which I think is necessary to solve the bottleneck for everyone.

These are tunnels which not only cause Excedrin-sized headaches for the Port of Baltimore, but the fact is that they affect the movement of millions of tons of rail freight and passengers along the main north-south transportation axis of the Eastern United States.

The Northeast Corridor is nothing less than the spinal column of the most populous region of North America. And these tunnels are in effect the slipped disc in that spine, and they cause a lot of pain.

There was a study prepared in 1977 for the FRA which stated that the Baltimore tunnel problem continues to be a threat to the Northeast Corridor improvement project objectives, a perplexing design problem and an obstacle to some degree to every discipline crossing its path.

Now, I don't know whether you have horse racing in Louisiana and Nevada, as we have in Maryland. But the image that comes to mind here, if you really want to picture what is happening, is eight horses entered in a race, thundering down the track neck and neck, and all of a sudden the track narrows to one lane. And the result is mayhem, arms and feet going everywhere, confusion, delay, loss, injury. And that is exactly what happens with these tunnels. That gives you some idea of the magnitude of the problem.

It all originated with a group of farmers in southern Maryland, back in the years just after the Civil War, 1869, who tried to get their produce into the city of Baltimore more efficiently. They got a charter which allowed them to construct the B. & P. tunnel for rail service from the banks of the Potomac near Pope's Creek. And the tunnel was completed in 1873.

But by the turn of the century bottlenecks began to appear because of the tight squeeze through the tunnel. And during World War II the situation became intolerable. It became a defense problem. It would be a defense problem again in a national emergency.

But that was when the track was lowered to permit bigger freight trains to use the tunnel. It was electrified in 1937 and that actually tightened the squeeze.

But since that time things really haven't changed very much. And so now we have a problem the solution to which can no longer be delayed.

The final FRA report on the Baltimore area rail system has just been released, and it looked into three alternatives: To build a new tunnel, to widen the existing one, or to lighten the load of the Northeast corridor main line by diverting some of the ConRail traffic from that main line. The FRA recommended the diversion alternative.

Now, I think we ought to look at how the FRA plans to do this. And table 4-1, a copy of which I have given to the committee and which I request to be inserted into the record, shows the impact on the B. & P. tunnels of freight train diversions after the Northeast Corridor improvement project is completed. The table lays out four options. They are as follows:

No. 1, ConRail freight trains to remain on the Northeast Corridor main line, with no diversion;

Second, ConRail freight trains would be diverted to the B. & O. line;

Third, ConRail freight trains diverted to the Western Maryland line;

And fourth, some combination of options two and three.

TABLE 4-1—IMPACT OF OPTION 1 (FREIGHT TRAIN DIVERSIONS) ON POST-NECIP DAYTIME CAPACITY OF THE B. & P. TUNNEL ¹

Operations options	Freight windows ²	Line-haul freight train demand			
		Growth		No growth	
		Diversions	Remaining traffic	Diversions	Remaining traffic
A—1985:					
1. ConRail freights remain on the NEC main line.....	10	0	³ 14	0	³ 12
2. ConRail freight trains diverted to B. & O. line.....	10	4	10	4	8

TABLE 4-1—IMPACT OF OPTION 1 (FREIGHT TRAIN DIVERSIONS) ON POST-NECIP DAYTIME CAPACITY OF THE B. & P. TUNNEL ¹—Continued

Operations options	Freight windows ²	Line-haul freight train demand			
		Growth		No growth	
		Diversions	Remaining traffic	Diversions	Remaining traffic
3. ConRail freight trains diverted to WM line.....	10	5	9	5	7
4. Combination of options 2 and 3.....	10	9	5	9	3
B—2000:					
1. ConRail freights remain on the NEC main line.....	8	0	³ 17	0	³ 12
2. ConRail freight trains diverted to B. & O. line.....	8	4	³ 13	4	8
3. ConRail freight trains diverted to WM line.....	8	7	³ 10	5	7
4. Combination of options 2 and 3.....	8	11	6	9	3

¹ Passenger train frequencies per 1985 design timetable. 16 peak hour trains added by year 2000.

² Number shown is 75 percent of available windows.

³ Capacity insufficient without costly operational changes.

Now, what they are saying in No. 1 is simply what will happen if no diversions take place. You will notice that for 1985 it projects that there will be 14 daily trains that will need to pass through that tunnel. But the capacity of the tunnel is 10 trains daily. FRA therefore looked to options three and four, which they found not economically feasible and so they ruled them out. This leaves only one viable diversion option—No. 2—which would divert ConRail freight trains to the B. & O. line.

Now, FRA proposes to solve the bottleneck by diverting four trains, as they have illustrated with this option. But even with four diversions, 10 trains would still have to pass through. Thus the tunnel would be operating at maximum capacity, maximum strain, all of the time. What would happen if there is an increase in freight traffic or in passenger traffic or scheduling problems or a serious accident? Any one of these things would be disastrous.

Now, if we look to the year 2000, which is not very far away, considering that we are looking at a \$2.5 billion project. What do we see? FRA projects that there will be a decrease in the number of freight trains that are able to pass through. It will decrease from 10 in 1985 to 8 in the year 2000. This reduction is necessary because of the increase in passenger traffic.

And these projections look more and more realistic in the light of what we are hearing out of the Middle East, with Kuwait reducing production, with Saudi Arabia planning to reduce oil production. There will have to be more and more reliance on rail traffic.

While we will have a reduction of freight trains we can also expect an increase in the number of freight trains that will want to pass through, from 14 in 1985 to 17 in 2000. So in the only workable diversion option—No. 2—ConRail will be diverting four freight trains to the B. & O. line, which leaves us with five trains that will never get through during daylight hours every day of the year—five trains backed up, waiting to get through there. And that is not the way to increase the productivity and the efficiency and the effectiveness of the American economy.

Now, I think equally troubling is the fact that FRA gives us no assurances that these diversions will actually be undertaken. It just simply says that the diversion plan is being studied. But where

are we left if after studying the plan FRA says: "Well, we have finally concluded it won't work?" Where will we be? We have got the Excedrin headache without the Excedrin.

Now, based upon this projected volume of traffic for the Northeast Corridor, based on FRA's earlier statement that it would cost an additional \$10 million to delay the B. & P. tunnel improvements beyond the completion of the project, I think the wisest course of action is to invest the \$45 million, that is required to widen the tunnel now.

Now, it seems to me that that is the most cost-effective, near-term solution. Now, I am certainly not saying that a new tunnel may not be in the long run the best solution, that it may not be necessary as a long term solution. I think that has to be continued to be monitored.

But you have to take some kind of action now. I know the pressure the committee is under with escalating costs of projects and tremendous needs. The whole country is facing problems of this sort, where facilities built a hundred years ago are just beginning to wear out and be out of date and obsolete.

But I think that unless we include the funding for this project, which is of such great importance to—not only to the Northeast corridor, not only to the whole Eastern United States, but from the defense point of view, for the traffic point of view, from the entire country. What has been an Excedrin headache may be a migraine headache.

Thank you, Mr. Chairman.

Senator LONG. Thank you very much, Senator Mathias. And we have a statement from Senator Sarbanes, which I would like to ask that it be included in the record. The Senator could not be here to present it personally. And that will be ordered.

Senator MATHIAS. Mr. Chairman, I have a statement here from the Greater Baltimore Committee that I ask be included in the record.

Senator LONG. Without objection. Thank you very much, Senator. We appreciate your statement.

[The statements referred to follow:]

STATEMENT OF HON. PAUL S. SARBANES, U.S. SENATOR FROM MARYLAND

I appreciate the opportunity to submit this statement on the very serious congestion problem in the Northeast rail corridor and particularly the difficulties posed by the configuration of the rail system in the Baltimore area and the condition of the Baltimore and Potomac Tunnel. Baltimore is an essential link in the Northeast rail corridor and also the rail terminus for one of the nation's major ports and the industrial and commercial market associated therewith. Last year the Port of Baltimore generated more than 59,000,000 tons of total cargo worth about \$16 billion with more than a \$4 billion economic impact for the State of Maryland.

Efficient freight rail service and frequent and timely passenger service are critical to the economic vitality of Northeastern United States as well as Baltimore City and the Port of Baltimore. Freight service is hampered markedly by the B and P Tunnel under Baltimore City which must be shared by both passenger and freight trains. The Tunnel poses access problems for the large, modern coal cars or boxcars resulting in the use of only a single gauntlet track. Therefore, large freight trains can only pass through the B and P Tunnel one at a time and even then, the larger, modern freight cars often scrape the sides of the Tunnel. In addition, the increasing frequency of rail passenger service, the much sought objective of the Northeast Corridor Improvement Project, will reduce the time allocated to freight trains to transit the Tunnel causing even further congestion problems.

Mr. Chairman, a walk through the B and P Tunnel reveals its incredible delapidated condition. The deteriorated condition of the rail, the rotting ties caused by lack of consistent maintenance and bad drainage, the antiquated catenary system all cause frequent delays in freight and passenger service and, on occasion, derailments.

The congestion problem posed by the B and P Tunnel has been recognized by the Maryland Department of Transportation, the City of Baltimore and commercial and industrial rail users of the Baltimore area. On September 30, 1976, the Maryland Department of Transportation issued its "Study of the Rail System of the Baltimore Region," a thorough study conducted with the cooperation of the area's railroads, shipping and port interests, and Baltimore City and other governmental entities. This study underscored the congestion problem posed by the Tunnel and discussed the many other physical and operational problems which rail service, both passenger and freight, is experiencing in the Baltimore region.

In addition, the Environmental Impact Statement for the Northeast Corridor Improvement Project also recognized the tunnel problem and characterized it as being one of the major constraints on the capacity of the Northeast corridor. The Federal Railroad Administration, in its two year report, stated that the interference between passenger and freight traffic posed by the Baltimore and Potomac Tunnel in Baltimore is "worse than any other location along the Northeast corridor."

It is, however, the latest, just completed study undertaken by F.R.A., entitled "Baltimore Area Rail System Study," which most precisely identifies the adverse impact on the Northeast Corridor which the B and P Tunnel has. A thorough analysis of the rail traffic now moving through the B and P Tunnel as well as an estimation of the future demand for rail service was undertaken. In addition, an analysis of Conrail's Bay View Yard and Canton Yard resulted in recommendation for operational improvements, some of which have already been undertaken.

The important feature of this FRA study is that it makes specific recommendations to alleviate the bottleneck which the B and P Tunnel poses. These recommended changes are important because only they will enable the portion of the Northeast Corridor through Baltimore City to meet future rail traffic projections.

Mr. Chairman, the Northeast Corridor Improvement Project is critically important to Maryland and to Northeastern United States. However, the project will not succeed unless the bottleneck posed by B and P Tunnel is corrected. I therefore urge the Subcommittee to consider the recommendations detailed in the FRA study and to support, as part of the NECIP, the necessary solution to the problem posed by the Baltimore and Potomac Tunnel bottleneck.

STATEMENT OF THE GREATER BALTIMORE COMMITTEE

We would first like to express our appreciation to the Chairman for the opportunity to present our views on the Northeast Corridor Completion Act before the Subcommittee today. The Greater Baltimore Committee is Baltimore's regional business organization representing the corporate community of Baltimore City and its five surrounding counties. We have long been concerned with rail problems in general and the effects of the Northeast Corridor Project in particular. While we fully support an adequately funded project and that project's goals, we would like to take this opportunity to reiterate certain concerns regarding the project which we feel strike at the heart of the economic vitality of our region, and indeed of the entire Northeast. Those concerns primarily relate to the impact of planned corridor improvements on the movement of rail freight to and through the region.

While the problems associated with joint freight-passenger use of the corridor permeate virtually the entire corridor operation, those in the Baltimore area are particularly severe. So severe, in fact, that the FRA has recently completed two studies that specifically address this issue. They are: the Baltimore Area Rail System Study of October 1979 and the just released Off Corridor Freight Diversion Study. A central problem, prompting both of these studies was the congestion created by the antiquated B & P Tunnel system in Baltimore, which was constructed over 100 years ago. We have been on record as advocating a new tunnel system as the only acceptable long-term solution to this problem. That continues to be our position and we fear that the FRA studies tend to beg more questions than they answer.

Those studies basically suggest that diversions of certain Conrail traffic to the B & O line between Washington and Philadelphia can sufficiently relieve corridor congestion for the foreseeable future. The study begs the question on successful Conrail-Chessie trackage right fee negotiations, which, in our judgment, remain a serious impediment to any such diversion. Additionally, minor diversion schemes

beg the question of the need for major improvements to the B & P Tunnel under any scenario. Without major work on those tunnels headlines such as that of the September 20, 1976 Baltimore Sun, "Derailment Causes Rerouting of 52 Trains; East Coast Hurt", are bound to be repeated.

A basic and fundamental charge to those responsible for the implementation of the Northeast Corridor Program was the improvement of passenger trip-times with no adverse effect on freight operations. We believe that charge worth reemphasizing. Freight traffic already has been largely relegated to 10:00 p.m. to 6:00 a.m. movements through our area and now we are told that diversion of a few more trains will solve the problem. One must seriously question whether this approach properly responds to the charge of maintenance of adequate freight service on the corridor.

We respectfully urge the Committee to consider these factors as you evaluate the completion of the corridor and that appropriate assurances of adequate freight service are provided. Thank you.

Senator LONG. Next we will hear from the Hon. Alan Boyd, president of the National Railroad Passenger Corporation, or Amtrak.

If Mr. Boyd isn't here, we will call Mr. John M. Sullivan, the Administrator of the Federal Railroad Administration.

Welcome, Mr. Sullivan.

STATEMENT OF JOHN M. SULLIVAN, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION; ACCOMPANIED BY LOUIS THOMPSON, DIRECTOR, NORTHEAST CORRIDOR IMPROVEMENT PROJECT

Mr. SULLIVAN. Mr. Chairman, I have with me today Mr. Louis Thompson, who is our director of the Northeast Corridor project and an associate of mine.

Mr. Chairman, I appreciate this opportunity to come before you today to testify on the proposed legislation for an additional \$750 million for the Northeast Corridor improvement project which is vital to completion of the project.

I have a prepared statement which I would like to enter into the record and summarize briefly and then open up for your questions.

I would like to touch on the progress in the construction area itself. The 1980 season holds very great promise because we are concluding a 1979 season which was the most successful construction season to date.

If I may, I would like to submit a memo for the record in which we detailed this season for Secretary Goldschmidt.

[The following information was subsequently received for the record:]

The purpose of this memorandum is to report on the monthly progress of the NECIP. As of December 29, 1979, this year's performance on the track program shows that 70 percent of the program has been completed for 72 percent of the planned cost, a cost efficiency of 97 percent. This compares with a 47 percent (70/148) cost efficiency in 1977 and a 69 percent (66/95) cost efficiency in 1978.

The following table shows a unit cost trend comparison for the first three years of construction.

COST PER UNIT OF PRODUCTION

[Dollars]

	Unit	1977	1978	1979 (as of Dec. 29)
Track laying system (TLS)	Mile.....		134,840	70,710
Continuous welded rail.....	Mile.....	118,490	85,400	65,112
Joint elimination	Weld.....	864	628	562
Ballast cleaning.....	Mile.....	2,262	3,535	3,692
Tie and surfacing.....	Tie.....	38.10	31.10	27.55

The following table shows the cost trends for several of the major work units:

RATIO TO PLANNED 1979 UNIT COST (100)

	1977	1978	1979 plan	1979 actual through Dec. 29
Track laying system (TLS)		223	100	115
Continuous welded rail.....	179	129	100	98
Joint elimination	143	107	100	76
Ballast cleaning.....	47	73	100	76
Tie and surfacing.....	106	86	100	75

Of all these categories, only the TLS falls above the 1979 Plan, and this is partly because it is only the second year of operation. The TLS completed the 1979 goal of 120.2 miles of concrete ties in December. The following table shows the improvement in production this year over the previous year.

TLS PRODUCTION

	1978	1979
Work days.....	122	179
Miles/days.....	0.34	0.67
Days more than 0.75 miles.....	7	66
Days more than 1.00 miles.....	1	22

Other than major areas of work underway in 1979 include: rehabilitation of 54 bridges, installation of reverse signalling in Delaware, rehabilitation of the duct line between Washington and New York in order to prepare for the signaling system installation, improvements at six stations, and construction to eliminate 11 grade crossings.

Mr. SULLIVAN. The Northeast Corridor improvement project is about one-third track work. And as of the end of this past work season, more than half of that track work is complete.

In the next 3 years, you will be seeing the completion of the majority of the work, which includes signals, electrification, bridge work, and various station improvements.

As an indication of how our program is progressing, our cost-efficiency ratio at the end of 1979 was 97 percent compared with a figure for 1977 of 47 percent.

So I think that we can say that we have been making excellent progress.

We believe the additional money we are requesting is absolutely essential for a variety of reasons. Finishing the corridor will have a

massive impact on Amtrak's financial condition and its ability to break even in the corridor in 1990.

To break even would free up dollars for passenger service in other parts of the Nation and, of course, would be a very anti-inflationary effect.

There is a major social benefit to be realized by completion of this project and this is the opportunity to attract private dollars to the redevelopment of the great cities in the Northeast.

Mr. Chairman, the corridor is absolutely essential, given our precarious flow of oil from the OPEC nations. While there has been an increased gasoline consumption in the Nation as a whole, the Northeast corridor States have lower than average consumption because people use more energy-efficient forms of transportation than the country as a whole. The corridor rail system itself is low in petroleum dependence because the railroad is mostly electrified.

In the first 6 months of 1979, gasoline consumption increased overall in the rest of the Nation but declined in the corridor region.

By finishing the corridor, tying together the major transportation centers of the Northeast, we will be able to continue that downward trend.

Our projections, Mr. Chairman, indicate that by 1990, there will be an annual petroleum fuel savings on the corridor equivalent to 500,000 barrels of oil. Regardless of the price 10 years from now, that will be less money spent or more oil available for the rest of the Nation.

If I may, Mr. Chairman, I have two sheets that would detail that for the committee in case you wish to study it on a State-by-State basis.

We would be happy to respond to your questions.

Senator LONG. Thank you very much.

Senator Cannon?

The CHAIRMAN. Mr. Sullivan, last year the redirection study said that late 1983 was a realistic completion date.

Now you believe the project will not be completed before at least the end of 1984.

Why do you think that this is a more realistic completion than 1983 was last year?

Mr. SULLIVAN. Well, essentially, we have re-examined in much greater detail, Mr. Cannon, the program elements involved. We have, as you can see, actually deferred certain major elements. Our body of information to make these judgments is far more specific and detailed than it has ever been in the past.

The CHAIRMAN. Well, during the House Interstate and Foreign Commerce Committee hearings on February 26, the President of Amtrak is reported to have said that Amtrak will have to ask for another \$1.25 billion to complete the project after FRA interest is involved.

Does FRA agree with that?

Mr. SULLIVAN. I don't have anything in front of me that agrees with that. We do know that there will be some \$300 million of deferrals of work that Amtrak would have to do. And, of course, by the nature of our working agreements with Amtrak now, work that is planned that they are unable to perform on schedule becomes a part of their future budget request.

So there is a real inducement for Amtrak to perform efficiently on the work that we have laid out for them.

The CHAIRMAN. In your prepared testimony, you indicate that the cuts in the program you recommend are either maintenance-oriented or depend upon the projected demand.

Now the bulk of this is maintenance that would be deferred to a later undertaking by Amtrak.

Is it either feasible or responsible to try to defer maintenance for 5 or more additional years? And if it can be deferred that long, why does it ever need to be done?

Mr. SULLIVAN. It breaks down not only into future maintenance, Mr. Chairman, and requirements caused by increased demand, but a major portion of this, some \$86 million, is electrification in the southern end of the system.

And as we explored this, it became clear that the wise way to proceed would be to do the electrification in the North because the learning that we do there can then be applied to the South in an area where you have 1,300 trains a day. If we go into that future electrification with a basic knowledge of work procedures, I think we will be far better off.

In the MTA the conversion to 60 hertz electrification has hit many stumbling blocks. And basically, we are working in an area with skills that had disappeared from this country.

I would like Mr. Thompson, if he would, to give you further specifics on the part of it which refers to what is deferred for Amtrak.

Mr. THOMPSON. Senator, if I may return briefly to your previous question. The difference between the numbers that Mr. Boyd cited and the numbers that we are citing has primarily to do with items which were never in the program.

For example, Mr. Boyd's number includes \$200 million for an entirely new B. & P. tunnel.

That is not work which we agreed needs to be done. It includes the entire original \$228 million for realining curves, work which we do not think is necessary and will not be necessary.

More than half of Mr. Boyd's number includes work which was never in the program and has not been deferred.

Secondarily, a large amount of Mr. Boyd's number includes items such as completely replacing the wire on the south end with constant tension catenary, and converting vehicles on the south end for the new electrification proposal, which we believe should never be converted.

Let me give you an example.

There is \$38 million in the Amtrak number which is associated with converting the old GG1 locomotives that you see out there today.

Those were built in the 1930's and should never, we think, be converted.

So I would not want the record to show that the difference between our estimate and the Amtrak estimate represents a difference in cost estimating. There is a major difference in features which we believe should not have been included in the first place.

The CHAIRMAN. How is your track-laying machine coming along now? What do you estimate per day or what are you making per day and what did you originally estimate on that?

Mr. SULLIVAN. This past season, Mr. Chairman, we did 120 miles of work with the track-laying machine. I had the great pleasure of going up there with the Commissioner of Transportation from Connecticut to congratulate the work crews for the caliber of work that has been done.

It demonstrated very clearly that not only crew discipline and leadership were important factors, but the learning curve that has flowed out of this has been an important factor.

There were 179 work days. We averaged 0.67 miles per day and in that, we had 66 days where the crews were able to accomplish over three-quarters of a mile in a day and 22 days where they were able to accomplish over 1 mile in a day.

So I think they did an excellent job. We feel that with this increased experience, they will do even better in this present year.

Mr. Thompson would like to add to that.

Mr. THOMPSON. Just briefly, sir, comparing the 1979 experience with the 1978 experience, the productivity of the track-laying machine exactly doubled between those 2 years, which is considerable.

Senator LONG. Can I ask, why can't we get more track-laying machines?

Mr. THOMPSON. We could get them. It is a matter of whether we need one or not. We do not believe that another one is required in order to complete the amount of work that we are projecting to be done, sir.

Senator LONG. Don't we have other areas in the country that will need it and could use it?

Mr. THOMPSON. There was at one point a proposal that the Chicago & Northwestern was considering for years a track-laying machine. But I think, sir, most of the American freight railroads are watching the experience here and learning from it. And then they will probably buy some of these themselves.

Senator LONG. Well, I don't think you answered the question. Do we need it? Don't we have other railroads that need and could use such a machine?

Or do we have other railroads in the country?

Mr. SULLIVAN. I guess the answer would be, Mr. Chairman, that there may be. There may be and, indeed, they are watching closely the progress that we have made.

And, of course, our start, as we said earlier, was a little shaky as people developed knowledge. But I think the encouraging results we have obtained more recently increase the chances of private sector railroad interest in this machine.

Senator LONG. How long did it take you to get that track laid now? At the rate you are going, with the machine you are operating, how long will it take to get the job done?

Mr. THOMPSON. The track-laying machine would complete its work in 1981. There may be a few miles in 1982, but the significant work would be completed in 1981.

Mr. Chairman, let me add one thing.

The Canadians have a similar machine and they are finding it to be very useful.

The CHAIRMAN. Mr. Jordan from ConRail has argued that the delays that will be caused by more passenger trains would preclude ConRail from offering efficient freight service.

What impact on ConRail do you perceive?

Mr. SULLIVAN. Well, first may I say, listening to Senator Mathias' comments, I would want to say that he is taking a very responsible approach to this.

Really, what is needed in the bottleneck referred to by the Senator, and, I think, by Mr. Jordan is somebody's exact knowledge of what the future growth is going to be.

Now we have looked at that and made the choice between the \$25 million B. & P. tunnel upgrading that we are recommending as part of the NECIP and the additional \$45 million that Senator Mathias was referring to in a time when the ConRail freight traffic is actually declining.

So it is hard to project growth in a situation which has actually been declining. I think we will all be very happy if ConRail actually starts to achieve significant freight traffic growth because then we won't have to be coming to the Congress asking for more funds to run ConRail through the USRA.

So I guess that I am saying, Senator, it is a question mark.

As to future growth, we feel that the amount that we are suggesting alleviates problems in the sense of construction work within the tunnel and some track work on either end.

There is nothing that we see for the immediate present that urges us to do more than we are doing. We have done a study on the potential for freight diversion. That potential is there.

The principals involved have been discussing the trackage fees that would apply to diverted traffic. Looking at the expenditure of project moneys in a responsible way, we don't see at this time that we are adversely impacting that much on the freight situation in the post-NECIP period, or that there is any economic benefit that justifies spending more than we have recommended.

The CHAIRMAN. Well, in your off-corridor study, did you estimate how much capital investment might be needed?

Mr. SULLIVAN. Yes, sir.

The CHAIRMAN. How much?

Mr. THOMPSON. We estimated that if the diversion were to take place south of Philadelphia onto the B. & O. line and away from the B. & O. tunnel, the cost would be about \$1.6 to \$2.2 million in capital investment.

There was another estimate associated with the western Maryland line, the use of the western Maryland line to divert around the B. & P. tunnel.

We found that to be around \$27 million and not to be worthwhile.

The other area that the diversion study raises, Mr. Chairman, is the alternate routings that ConRail has available over the old Reading and Lehigh Valley Railroad lines in New Jersey and Pennsylvania.

It turns out that north of Philadelphia, there is an awful lot of ConRail trackage which can be used to divert traffic off the corridor.

So that when one takes a systemwide look at how the trackage is used, there are alternatives to deal with a lot of the potential freight problems on the corridor.

The CHAIRMAN. Well, does your proposal, with respect to the Baltimore tunnel, does that permit a freer flow of traffic through there?

Is there going to be a doubling of the flow that is there at the present time or not?

Mr. THOMPSON. The proposal that we have now for the B. & P. tunnel does permit a freer flow of traffic because of the track work that we are proposing be done on the interlockings at either end of the tunnel.

That should make the flow of freight traffic through the tunnel more efficient.

We will also propose to fix the track and prepare it so that there are not as many breakdowns and operating problems associated with the tunnel.

The point that Senator Mathias made is that by the year 2000, if you accept the projections of growth of freight traffic and ConRail's traffic, you will actually bump up against the maximum daytime capacity of the tunnel at that point.

Mr. SULLIVAN. Senator, basically, what I meant to say on Senator Mathias' suggestion is, it is a responsible suggestion and for us, it was definitely a close call.

That is, do not go for the widening, the \$45 million, but to stay with the improvements that we are doing at \$25 million.

We feel that it was a close call and yet, we have presented what we feel is a lean program to you.

The CHAIRMAN. Thank you.

Senator LONG. I understand that the department is recommending the diversion of traffic as the best means to resolve the congestion, the problem in the Baltimore tunnel area.

Would you respond to Senator Mathias' testimony this morning that we should consider providing \$45 million for widening the tunnel to relieve the bottleneck problem?

Mr. SULLIVAN. Again, Senator, it is close and it is a question of future growth. And if you factor in larger growth than we did, there would be the argument for the \$45 million.

Senator LONG. We understand that ConRail, or at least from ConRail, that the charge that ConRail would be required to pay Amtrak for the trackage rights on the corridor will be excessive because of the higher level of maintenance work that will be required to allow for the 120 mile-per-hour trains.

Do you believe that ConRail should have to pay these higher fees even though it does not benefit from having the track maintained at a level above 60 miles per hour?

Mr. SULLIVAN. Senator, we believe that is an issue that could readily be settled between the principals, between Mr. Boyd and Mr. Jordan. The argument as to who wears out the most gets down to ton miles and really, ConRail has a very large percentage of the ton-mile use of that corridor.

The alternative is the argument that the higher speed trains would bring more wear to the track structure.

We feel that that is an issue that could be readily settled between the principals.

Senator LONG. Thank you very much.

The CHAIRMAN [presiding]. Thank you.

[The statement follows:]

STATEMENT OF JOHN M. SULLIVAN, ADMINISTRATOR, FEDERAL RAILROAD
ADMINISTRATION

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to testify on behalf of proposed legislation to authorize additional appropriations for the Northeast Corridor Improvement Project.

About a year ago you met to hear the results of the Department's Redirection Study, which had been initiated by Secretary Adams in January 1978. At that time the Department estimated an additional \$654 million and an extension of the schedule to late 1983 would be required for completion of the bulk of the work. We stated our intention to submit proposed legislation very shortly after a more thorough, in-depth review of the Redirected Program. We were optimistic at that time about our 1979 work program, but that optimism was based more on positive thinking than past performance.

Today, I have some good news. We have just completed by far the most successful season of track work in the Project's history. Track work is our largest program subsystem and vital to the achievement of 4R Act goals. This is proof of solid achievement, not just optimism. Construction activity is picking up, and our effectiveness in the track work area at the end of 1979 was measured by a 97 percent cost efficiency, (70 percent of scheduled work completed for 72 percent of budgeted cost), as compared with a 69 percent cost efficiency in 1978 and a 47 percent cost efficiency in 1977. Despite this progress, a \$750 million authorization increase is essential if we are to complete the project satisfactorily, and work, especially on the north end, will continue through 1984 and, perhaps, into early 1985.

Rationale and methodology of determining \$750 million

Since we have already transmitted our estimate of the need for additional funding in a letter to the Chairman of this subcommittee, dated December 7, 1979, and in proposed legislation, it seems appropriate to review the rationale and methodology by which we arrived at the \$750 million increase. The development of the revised cost estimate began with the Redirection Study. That study was oriented toward an evaluation of options and selection of a recommended program scope. It defined a set of features that would be needed to satisfy the mandated goals in light of projected 1990 demand.

Although done to a level of detail and realism far greater than previous estimates, the costs of the redirection effort were not defined as accurately and comprehensively as they have been during this past year. In that time, we have performed a complete review of not only the costs, but also of the content of the entire program that was discussed with you a year ago. The depth of this review was further dictated by the realization last summer that the recommended program would cost up to \$2.9 billion instead of \$2.4 billion. Faced with an increase of this magnitude, we felt that a reexamination of the basic planning premises was called for.

A key ground rule was that potential improvements should be limited to those that were essential to meet system goals in 1985, particularly the explicit NECIP goals of the 4R Act. Implicit in this decision was the reconsideration of certain projects that were maintenance-oriented or that mainly depended on projected demand for the 1985-90 period. This last decision has effectively committed the Department to a policy of supporting Amtrak's future NEC capital needs to meet increased demand and to correct other specific items when necessary.

After measuring the revised costs of all elements of the recommended program in light of these ground rules, a \$2.5 billion program was judged to be a suitable limit of involvement in the NECIP under which the goals of the 4R Act could be met and Amtrak would have a system capable of expansion to meet future needs. This limitation was necessary to face up to the economic realities presented by increasing costs and to give recognition to the evolving capabilities of the principal participants in the management and execution of corridor improvements. I have included for the record, the letter that the Department sent to Senator Cannon and to the Chairman of this subcommittee this past December explaining the basis for the changes in our cost estimates and what various program levels would buy. I will now touch briefly on some of the key steps in the process by which we derived these costs.

First, the specific projects of the recommended program were analyzed and re-scoped at a detailed engineering level, to assure ourselves that all remaining features were oriented toward achieving system goals.

Costs of all projects were then estimated in mid-1977 dollars, which were used as the base in all later cost calculations. The implementation of all projects was sequenced and scheduled, with critical regard for problems of track access and outage. Amtrak, closely assisted by DCP, played the lead role in developing these schedules. With the time frame established for accomplishing the work, DCP applied inflation factors to each project that had not been completed. Inflation factors were applied to the base mid-1977 cost to produce final current dollar estimates.

The results of our review, revision, and recalculation are summarized in a series of documents which were completed over this past year. We have brought copies with us for your inspection. These documents follow a progression from the conceptual definition of program element requirements provided in the System Performance Specification (SPS), through the Program Requirements Document (PRD), which describes in engineering detail the improvements needed to meet the SPS, the construction sequencing contained in the track availability schedules depicted in the so-called "Green Plan," to the Corridor Master Plan (CMP) which consolidates and summarizes project scope, schedule and cost.

We think that the planning and programming that has culminated in these documents represents a unique accomplishment in that, although railroads have been built elsewhere as straightforward engineering projects, none has attempted work of this dimension on a heavily used line where high speed intercity, commuter, and freight operations have to be maintained.

Project scope and benefits

The main features of the program resulting from the process I have just described are enumerated in attached tables which show the installed value by state for both the total program and the additional \$750 million. I have also attached a schedule that shows the present and future trip times we anticipate when the project is completed.

We have always considered the NECIP as providing benefits other than to the rail passenger. The use of electric traction reduces reliance on petroleum fuels and produces less noise and fewer air pollution effects than either diesel locomotives or other alternative transportation modes. The long-term socioeconomic benefits of the NECIP will be significant. It has been estimated that the employment during the construction period alone will be in excess of 30,000 person-years of labor, which should have a major impact on the local economies of the NEC cities and in the areas where NECIP procures materials and equipment. In addition, the operation of high speed rail service is expected to create approximately 3700 permanent jobs in 1990. NECIP construction is anticipated to have a continued strong positive effect on minority business enterprises.

The highest potential for induced development is expected in urban station areas where revitalization programs are underway or are contemplated by local authorities. Preliminary studies conducted by FRA in conjunction with the Coalition of Northeastern Governors (CONEG) have identified station-related urban development projects in the pipeline which exceed the cost of the NECIP in construction value.

As I mentioned earlier, the use of electric traction will eliminate the need for diesel locomotives from New Haven to Boston and by 1990 will permit the use of non-petroleum fuels for 85 percent of the power required in the south corridor and 60 percent in the north corridor.

Projections indicate that by 1990 there will be an annual net energy savings equivalent to 171,000 barrels of oil. This energy savings is all attributable to petroleum based products. On a per capita basis, NEC states have the lowest fuel consumption when compared with the rest of the country (table attached). While the country outside the NEC increased its fuel consumption during January-July 1979 by 0.3 percent over the first half of 1978, the NEC states reduced their consumption by 1.8 percent (table attached). With increased availability of public transit systems, such as the NECIP, the NEC energy dependency will further decline, thus helping those states and communities where high capacity transit systems are not economically feasible.

Future maintenance and operations

The improvements or requirements developed for the NECIP in the Redirection Study of January 1979 were those improvements thought necessary to meet the goals of the project through 1990 and give Amtrak a sound basis on which to meet

expected demand. Any further scope reduction from these basic projects will have an impact on Amtrak's future capital and operating budgets.

Future track, signal, electrification, and structure projects would be expected to produce improvements in maintenance costs.

Our decision to reduce scope in the maintenance of equipment service facility area, which were minimal, should have little, if any, adverse effect on Amtrak's operating and maintenance costs until our forecasted demand actually starts to materialize. The need for additional MOW bases will depend upon the economics of the situation, such as increased ridership and resultant increased maintenance requirements. One side benefit of this approach is that Amtrak will have an opportunity to "live with" the five existing bases to determine whether any changes are needed in the design and equipping of additional future bases.

In the post-NECIP time frame Amtrak will continue to carry all operations and maintenance responsibilities of the NEC as they now do. These responsibilities will include development of annual capital improvement budgets that will include work currently planned for the post-NECIP time frame.

Converting electrification in the south

We have reviewed the condition of the electrification system between New York and Washington and the circumstances surrounding the conversion of commuter cars and have determined that delaying the conversion to commercial power at a higher voltage will have no impact on achieving the mandated trip times in the near term. However, there is a clear limitation on the ability of the present system to provide the power capacity to service the projected 1990 demand for combined intercity, commuter and freight operations.

The decision to postpone the electrification conversion clearly recognized certain technical limitations in the existing 45 to 65 year-old system.

The catenary current limitation of approximately 1500 amps will curtail the length of trains scheduled to meet the trip time goals to about 7 or 9 cars. When ridership demands exceed this capacity, additional trains will be required. The total generation capacity of 25 Hz power is adequate to operate the projected system in the mid-1980's but any unexpected major component failure would probably result in all trains (Amtrak, commuter and freight) being operated temporarily at slower speeds during the rush hours. The total power demand during the peak hours has significantly increased over the years as approximately 300 new high performance commuter cars replaced older ones and the increased power demand of higher speed trains will add a further load to the electrification system design for an earlier era.

In one respect the decision to delay the electrification conversion on the south end was a difficult one, for who doesn't prefer a new automobile to an overhaul job. The certainty of a significant impact on Conrail's and the commuter authorities' abilities to plan for and to adapt equipment and other facilities to the commercial power of the converted system convinced me that delaying this improvement would be more beneficial over the long run to all parties concerned. With respect to future planning on this point, Ted Lutz, the Administrator of the Urban Mass Transportation Administration, and I have agreed on a long term evaluation of the entire electrification system south of New York.

Amtrak breakeven

We believe, based upon available data, that Amtrak will reach a breakeven point where revenues equal operating costs by approximately 1990. After the initial traffic growth resulting from the high speed service itself, we have assumed that additional ridership will be attracted through growth in the economy and increasing disposable income in later years. Except for equipment, little additional cost is associated with the ridership growth. The recent rapid increase in gasoline prices would have a positive influence on ridership and thus on the likelihood of the project breaking even financially. You may wish to refer to Chapter 5 and the associated appendices of the "Two-Year Report on the Northeast Corridor" for some of the supporting analysis for this conclusion.

Relationships between users

It has been pointed out many times that the railroad we are working on is one that has developed over a long time into a heavily traveled multiple-user line. In 1979 Amtrak operated some 92 trains per day in the Corridor and carried about 11.2 million passengers. The suburban or commuter operators, exclusive of the Long Island Railroad, operated 489 trains per weekday, and Conrail operated approximately 100 through and local freights on an average day in 1979.

The relationship of various corridor users varies according to the geographic segment. Among the factors influencing this relationship are the size of the physical

plant, the owner/operator, traffic flows and the types of traffic. Although there are a couple of notable exceptions, the current railroad configuration generally reflects today's traffic patterns, i.e., where the largest number of passenger, commuter and freight trains operate, there are three, four, or more tracks, and where there is less traffic, only two tracks exist. The current relationship of the corridor traffic is basically a rail industry standard as far as priority of operations relating to passenger, commuter and freight traffic is concerned. The present corridor users coordinate their operation with the owner/operator of the particular segment of the corridor. To date the various traffic types are being adequately accommodated.

In the future more emphasis will be placed on the "goal" passenger train receiving operating priority. Recognizing this necessary emphasis and the requirements of commuter, other passenger, and freight trains, corridor planning has provided for improved physical plant, physical plant configuration changes, a new signal system, centralized traffic control on portions of the corridor, and communication improvements. To provide the best possible coordination of the corridor users, a Train Planning and Scheduling Unit has been established. This unit will produce the optimum operating schedules for all users under the prevailing conditions. The first schedule (timetable) produced by this group will be published in April 1980 to accommodate the traffic and the heavy improvement work scheduled for this year.

Responsibilities and roles

You may recall, Mr. Chairman, that a year ago we reached an agreement with Amtrak on a Memorandum of Understanding that clarified the roles, responsibilities, and relationships of the main project participants. This MOU has helped immeasurably in smoothing the flow of planning and construction contracting on the project. At that time the major positions were defined with FRA responsible for the overall planning and execution of the NECIP; Amtrak as the major owner and operator as well as a prime construction contractor; and DCP as the consultant engineering firm under contract to FRA for planning, design, program management support, and contract supervision and administration for FRA construction contracts.

During the course of the past year, Amtrak's role has been expanded to include a greater participation in construction activities. This has resulted from a desire by the Department to have Amtrak assume a greater responsibility for work related to the "live" railroad in which they were expected to provide a large amount of support. Amtrak's growth into a larger role is also consistent with their eventual assumption of full responsibility for future construction on the NEC in response to any increased demand and to carry out any improvements not considered a part of the NECIP.

Also in keeping with the shift of greater responsibility to Amtrak, DCP will be providing increased construction management support to Amtrak under provisions of a modification to the existing MOU and a companion agreement between DCP and Amtrak which has been agreed upon in principle by the parties involved. Both the revised MOU and the companion agreement should be executed within the near future.

The roles and responsibilities that have evolved during the past year find the FRA with reduced participation in the direct execution of construction on the "live" railroad while still exercising overall project management and control, establishing policy, preparing and presenting budgets, administering funds, and contracting for certain construction projects. As the project progresses towards completion, FRA's role will continue in budget and fund administration of the NECIP authorization. After that time, FRA will monitor the Amtrak capital and operating budgets related to any further corridor work.

As we are reporting to you today, we have settled on our recommended program content, a program that we feel confident will provide the system intended by the 4R Act. We have sharpened and improved the management of the project and through shifting of a greater share or responsibility to Amtrak, have established the basis for a smooth post-NECIP transition.

The significance of the NECIP, in terms of its contribution to national energy conservation objectives, lies in its capacity to accommodate intercity travel during energy emergencies, its ability to divert travelers from other modes more dependent on oil, and its ability to sustain a high level of personal mobility at a reasonable price which does not exacerbate the problem of inflation.

Thus, I would like to reiterate our judgment as to the enormous value of the project to the Northeast and to the nation; not only for the reasons I have just given, but also in fostering sorely needed economic development, and significantly enhancing the capability of one of the region's major alternative transportation modes.

The CHAIRMAN. Mr. Boyd.

STATEMENT OF ALAN BOYD, PRESIDENT, NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK); ACCOMPANIED BY RICH JOHNSON, AMTRAK PROJECT MANAGER, NORTHEAST CORRIDOR IMPROVEMENT PROJECT

Mr. Boyd. Good morning, Mr. Chairman. I am accompanied this morning by Mr. Rich Johnson, who is the Amtrak project manager for the Northeast Corridor improvement project.

I would like to have my statement included for the record, Mr. Chairman, if that is permissible, and just hit some of the high points.

The corridor is the centerpiece of the Amtrak system. It represents 50 percent of our ridership; 36 percent of our revenues; and serves a region with 15 percent of the total U.S. population. The benefits of that project to the region and beyond are substantial. It allows us to employ approximately 2,500 people in the corridor project, and approximately twice as many in the rest of the country, because of our procurement of materials. We have generated much more business traffic than we had before, and also, Amtrak and the GSA have worked out an arrangement for Government employees to utilize Amtrak in the corridor.

It holds the potential of being a model of the kind of high speed, high frequency, convenient, dependable service we would like to offer everywhere. But it is also a high stakes game that should not become a model of our collective inability to manage a project of the scale necessary to get the job done.

In this context, I would like to address the question of responsibilities for project management, the past and present understanding of the scope of work, the implication of items deleted from the work, and the additional concerns beyond the improvement project which results in our role as owners and operators of the corridor.

The Secretary of Transportation was assigned by law the responsibility for implementing the corridor project. That was delegated to the Federal Railway Administration, which is overall project manager. The FRA contracted with DeLew, Cather & Parsons to serve as principal architect and engineering contractor. Since March 1979, Amtrak has been directly involved with FRA and DCP in some aspects of advanced planning and review.

Recently Amtrak has been authorized for the first time to develop estimates for the 1980 work season for projects which Amtrak's own forces will undertake. The expanded Amtrak role in the past year reflects understandings reached with the FRA to overcome many of the institutional problems that we had experienced in the past. As a result, the last work season in the corridor has been very productive.

And I would like to pay a special tribute to Mr. Lou Thompson of the FRA, who has really done Trojan work to bring about the better relationship in the management of this project.

Next season, our goal is to achieve at least a half a mile a day with our track laying machine. This is less than what we were able to achieve last year, but the conditions are totally different. DCP's role will terminate at the completion of the project. FRA's role will then be similar to its role in the rest of the Amtrak system.

Ultimately, Amtrak will be responsible for all deferred projects that are essential to meeting and maintaining the congressional goals.

I am hopeful, but by no means certain, that the additional funding sought may initially result in achieving the mandated trip time goals. It is important to note that electrification north of New Haven cannot begin unless Congress approves the administration's request for an additional \$750 million. If the project does not accommodate electrification between New Haven and Boston, planning must begin immediately to acquire new diesel locomotives for service between these two points.

The necessity for locomotive switching at New Haven will prohibit Amtrak from meeting the trip time goals between Boston and New York. Even if the \$2½ billion is available, other assumptions must prove accurate if Amtrak is to achieve the corridor performance levels you and we expect.

When I testified before this committee last year I indicated that the corridor cost-revenue goal must be based on a number of assumptions, and I have outlined those same assumptions again, and they are still valid, Mr. Chairman. The plan for work in the corridor has been substantially reduced from what it was in 1976. The original estimate for the project, as envisioned and designed to meet the trip time goals, was \$3½ billion in 1975. Converted to 1981 dollars, this amounts to approximately \$5 billion for completion as originally conceived.

Even with the fully authorized DOT request, the project will have funds amounting to half of that. While initial trip time improvements are possible, as a result of the \$2½ billion scope of work, sustaining high speeds, reducing maintenance costs and achieving congressionally mandated 1985 performance targets for the Amtrak nationwide system will be very difficult, unless other work is done outside the scope of the \$2½ billion.

A number of items related to trip time, comfort and reliability, which are not included in the project scope, are particularly significant to Amtrak for two reasons. We view the corridor project as an integrated system, not just a track improvement project.

The goal of shortening trip times is not an adequate measure of our ability to maintain those time savings, or to operate the corridor as owner of the property, in the years ahead. We retain the obligation to operate the corridor once the scope of work identified here is completed. We must do so, making the necessary investments, no matter what the state of completeness of the project, when that date arrives.

Unless sufficient funds are provided under NECIP, the work identified but not completed will have a substantial impact on Amtrak's future operating and capital budgets and upon the ridership and revenue projections described above. While I do not believe it is helpful to burden the committee with all of the details here, I would like to point out some examples of important items that are not covered under the \$2½ billion funding level.

At one point in the project, 755 bridges were to be replaced, rehabilitated or repaired. The \$2½ billion level would include only 230 bridges, and does not include any overhead highway bridges.

Electric traction conversions south of New York will have to be accomplished at some point. Without this, reliability of operations will be seriously constrained, unless the present 60-year-old system is either replaced or upgraded. If funding is not included under NECIP, Amtrak will have to assume responsibility for conversions in future capital budgets.

A major concern of Amtrak is the number of maintenance-of-way bases that have been deleted from the program. Originally, NECIP funding included 13 maintenance-of-way bases. The Japanese consultants who have been helping us believe that this number was insufficient. The current plan calls for maintenance-of-way bases with buildings and warehouses only at three locations, with Philadelphia and Providence having no funds for facilities other than track, making a total of five.

The B. & P. tunnel is the single largest bottleneck in the entire system. In spite of the obvious cost implications, Amtrak continues to believe that the new tunnel will ultimately be essential for operations in the corridor. I believe it is important that the committee realize that the administration's request does not include any track improvements to a major section of the corridor, 54 miles of four-track right-of-way in New York and Connecticut.

One track segment from New Rochelle to the Connecticut/New York border is owned by the New York Metropolitan Transportation Authority; the other segment, from the Connecticut/New York border to New Haven, is owned by the Penn Central trustees and leased to the State of Connecticut. This zone is not now a part of the corridor project except for certain bridge and station projects.

Under the proposed funding levels, achievement of the trip time goals is based on the assumption that improvements will be made over this 54-mile segment of right-of-way.

At this point there are no plans and no funds available to bring this segment of track up to the same level of utility as the rest of the corridor. If there is no change in the current situation, the number of slow orders over this track will prevent Amtrak from attaining the trip time goals between New York and Boston.

On some other matters—I would like to emphasize the importance that Washington's Union Station plays in the Northeast Corridor project. The continued doubts that surround this project only add to the complexities that we are now experiencing. If separate legislation is not enacted to resolve the Union Station/Visitors Center proposal, I am afraid the burden will be shifted to the corridor project, which has resources that are already stretched to the limit.

There is considerable doubt over who owns and who has the obligation to maintain highway bridges over railroads. This is especially true of Amtrak's Northeast Corridor trackage, which is some of the oldest in the country. The situation is extremely complex. And we would urge the committee to address this problem before any of these bridges become a serious threat to life.

We need to clarify the ownership questions and create a mechanism to provide funds for repair. Station development is an important element of the corridor project. In some cases, station development is an integral part of the community's overall economic development plans. The improvements contemplated under the \$2½

billion level will not provide optimal passenger handling and service requirements, nor will they result in major intramodal transportation facilities that would be the focal point of the community development that I believe we all would like to see.

We are also dependent upon completion of the Southwest corridor in order to get into Boston. Completion for that project is now estimated by our staff at 1986. We are also dependent upon the resolution of the Providence, Rhode Island, station proposal, which involves building a new station in a new location and relocating the tracks into the new station. Work has not progressed beyond the planning stage.

There is a continuing need for coordination among Federal agencies for the development and expenditure of funds. I understand that Secretary Goldschmidt has undertaken to bring that about.

One of the most serious problems we face in the future is a financial one involving the use of the corridor by the three entities: freight, commuters, and intercity passengers. Long before Amtrak acquired ownership of the corridor, use of the property by intra-city, passenger, commuter and freight rail service caused disputes over scheduling, priorities within and between railroads and over methods of allocating maintenance cost of physical facilities.

Although we have been able to rationalize many of the scheduling operating problems since we assumed responsibility for the corridor, regrettably there has been no similar progress in settling the longstanding disputes over methods of costing. The irony is, of course, that all of the parties to the dispute—Amtrak, ConRail, and the various State and regional transit authorities—depend heavily on Federal support.

This means that in a real sense this is a dispute over whose Federal dollars shall cover the costs. And no one disputes the cost of maintaining the jointly used corridor. The corridor continues to be operated under a series of interim agreements which have merely put off the final determination of equitable cost-sharing arrangements. Because no resolution has been possible, disputed bills continue to build up. From December 1976 projected to September 30, 1980, these disputed costs amount to \$91.3 million for freight usage and \$93.4 million for commuter usage.

Clearly, our ability to effectively manage and maintain the corridor is dramatically affected by our ability to depend on adequate, timely compensation for the use of the corridor by others. In no event can we permit our intercity passenger revenues to subsidize either freight or commuter service.

ConRail operates the large majority of all commuter rail service in the corridor. Because ConRail is considering getting out of this business, Amtrak must, as a matter of simple business prudence, look at the implications of such a withdrawal. Obviously the separate operation of commuter rail service by each transit authority would further complicate an already difficult problem of trying to manage the corridor as a whole, assure a reasonable allocation of costs, rights and responsibilities among all of the corridor users and schedule and operate trains in accord with all of the parties' needs and priorities.

Amtrak is further concerned that either at the time of a ConRail withdrawal or in the months following, Amtrak will be under

pressure to assume the operating responsibilities of ConRail. There are some attractions to Amtrak in becoming the operator of commuter rail service in the corridor and elsewhere, but frankly, there are also serious problems in doing so. Accordingly, we have begun to take a serious look at the problems we would encounter and the conditions we would need met if we were to expand our activities in this area.

While that analysis is not complete, it is clear that the list of issues requiring attention prior to any larger Amtrak commuter rail role includes meeting capital requirements for equipment, stations, and maintenance facilities; clarification of funding arrangements, addressing both the outstanding disputed claims among freight, commuter, and intercity passenger carriers; and future funding for operations and capital; resolution prior to Amtrak's takeover of any labor issues, including the transfer of ConRail commuter-related work force to Amtrak; and specific determination of transition procedures.

As this committee moves toward consideration of the administration's request for additional funds for the corridor project, I am hopeful that it will focus not only on the cost and problems associated with the project, but also on the benefits that will result.

It has been reported that transportation capital requirements between now and the year 2000 will exceed \$4 trillion. Taken in the context of that level of public and private spending, the congressional goals for the Northeast Corridor improvement project seem well justified and deserving of financial support.

I might mention in closing, Mr. Chairman, that yesterday a number of parties including FRA and Amtrak testified before the Subcommittee of the House Committee on Emerging Corridors, the variety of corridors that have been studied at the request of the various Members of the House throughout the United States. We think that it would be possibly helpful if I could provide for the committee our testimony in that connection, to give you a full picture of what the corridor situation looks like and what the possibilities are.

Thank you, Mr. Chairman.

Senator LONG [presiding]. Going on the first page of your testimony—you indicated that the corridor represents 50 percent of your ridership, 36 percent of total revenues. What percent of the operating cost on the corridor is currently being recovered through the fare box?

Mr. Boyd. I would like to provide that figure.

Senator LONG. Well, can you give us a guess?

Mr. Boyd. Yes, sir, somewhere, right now, between 80 and 90 percent.

Senator LONG. About 80 to 90 percent?

Mr. Boyd. Yes, sir. Of the direct operating costs.

Senator LONG. What would be the impact of not doing all of the originally planned improvement program, on this percentage of recovery at the fare box?

Mr. Boyd. It will have a very serious impact in two ways, Mr. Chairman: First, the ridership will not grow, because the service will not be available; and the cost of operating the corridor will continue to mount.

Senator LONG. Now let me ask you: I was just trying to recall what traveltime do you estimate you will make on a run from Washington to New York with the new track?

Mr. BOYD. Two hours and forty minutes, with five intermediate stops.

Senator LONG. Two hours and forty minutes with five stops?

Mr. BOYD. Yes, sir.

Senator LONG. You don't plan to have a nonstop train going through?

Mr. BOYD. Once we get the corridor upgraded, I certainly do plan to do that. Yes, sir.

Senator LONG. Well, without the stops how fast could you make it?

Mr. BOYD. I haven't run that out, but I'm guessing it would be about 2 hours and 20 minutes. You figure about 2 minutes for a station stop, and then you have a little time for deceleration, breaking and acceleration.

Senator LONG. So if you could get it to that, then you would be reasonably competitive with the airlines, I take it.

Mr. BOYD. Yes, sir.

Senator LONG. And what would your time be from New York to Boston?

Mr. BOYD. Three hours and forty minutes. That demands the electrification north of New Haven. There's no way we can do it without that.

Senator LONG. I take it, then, that for people who are in a hurry, they will still find it to their advantage to take the airplane.

Mr. BOYD. Yes, sir, there is a greater time value in the New York-Boston operation to flying than in taking the train. I would not say that the advantages with aviation, on the New York-Washington—

Senator LONG. Do you think—you think you ought to be able to compete effectively with the airplanes on New York-Washington?

Mr. BOYD. We can, with the five intermediate stops, at 2 hours and 40 minutes, Mr. Chairman. We know that from our own per-passenger surveys.

Senator LONG. And you are assuming that because you take the passenger from the heart of town to the heart of town, and you don't lose the time waiting out there on the end of the runway for takeoff and all of that—

Mr. BOYD. That's right.

Senator LONG. How do you analyze it in time? In other words, if you're trying to sell somebody on using Amtrak, especially if you get it down to 2 hours and 40 minutes, if you're trying to sell him on taking the Amtrak rather than taking the airline, how would you sell it to him?

Mr. BOYD. Well, you made the point—

Senator LONG. Suppose you're trying to convince me. You're sitting in my apartment and you're trying to convince me I ought to take the railroad rather than the airline.

Mr. BOYD. The first point I would like to make is that—that at 2 hours and 40 minutes you are downtown to downtown, you are close to where you were going, as a general proposition.

Senator LONG. At quitting time, you don't have to fight your way across that bridge on the Potomac River, either.

Mr. BOYD. That's right. I'm glad you mentioned that. You don't have to waste all of the time that you would waste in the airline terminal, when you have to go to the gate, and check in, and get your seating assignment and sit around there while they decide when they're going to open up the door.

Senator LONG. We don't waste that much time. One person sits in the car while the other person runs to the gate, in my office, and we just go straight to the shuttle and it doesn't take that long.

Mr. BOYD. Mr. Chairman, I would like to say there are an awful lot of people who fly airplanes who are not senior members of the U.S. Senate.

Senator LONG. Some of them don't have somebody to sit in the car.

Mr. BOYD. The other point that I would like to make, that you should consider in deciding how you're going to travel is that you have much more room on the train. You can work; you can read; you don't have somebody sitting in your lap and you don't have your knees up under your chin. And that is a very important thing for, particularly business people, professional people, who do try to utilize the time working.

And we also serve excellent food on the train, in case you happen to get hungry while you travel. Some people think it's made of plastic, but really it's very good food.

Senator LONG. Thank you very much. I have some other questions I would like to submit for the record.

[The statement follows:]

STATEMENT OF ALAN S. BOYD, PRESIDENT, NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

Mr. Chairman, I appreciate this opportunity to appear before this committee on a matter that is vital to the entire Amtrak system—the Northeast Corridor Improvement Project.

We view, and think much of the Congress and the public view, the Northeast Corridor as the centerpiece of our current system. It represents 50% of our ridership, 36% of our revenues and serves a region with 15% of the total population in the United States. The benefits of the project to the region and beyond are substantial. A \$2.5 billion program will allow Amtrak to maintain employment of approximately 2500 people directly in the NECIP. There is a significant additional employment benefit of this project through the resulting employment in the supplying industry.

In fact, estimates indicate that for every dollar spent on labor in right-of-way construction, two dollars are spent for materials. As a result, up to twice as many people may be employed in the supplying industry as in construction of the right-of-way. Employment benefits that occur in the supplying industry are not limited to the NEC but are spread throughout the country.

Other benefits that will be realized with the completion of the project include reductions in traffic congestion, reduced air pollution—because the Corridor will be totally electrified—and an economic spur for inner city revitalization efforts. The business community is increasing its use of Amtrak for business related travel in the Corridor and we are now targeting 30 percent of our NEC advertising budget to attracting and enlarging that market. Since the market for government employee related travel is high between Washington and New York, Amtrak and GSA have reached an agreement that will encourage more federal employees to use Amtrak and save the government money at the same time.

The Northeast Corridor Project holds out the potential for being a model of the kind of high speed, high frequency, convenient, dependable service we would like to offer everywhere. But it is also a high stakes game. It should *not* become a model of

our collective inability to manage project of the scale necessary to get the job done. It is in this context that I want to address the questions of: Responsibilities for NECIP project management; the past and present understanding of scope of work; the implication of items deleted from the work program; the additional concerns beyond NECIP which result from our role as owners and operators of the Corridor.

Responsibilities

The responsibility for implementing NECIP was assigned by law to the Secretary of Transportation, who delegated the responsibility to the Federal Railroad Administration (FRA). FRA is overall project manager.

FRA contracted with DeLeuw, Cather/Parsons (DCP) to serve as principal architect and engineering contractor. This includes management support, system engineering, design, work package definition, primary responsibility for total program cost estimates and associated resources and construction supervision and inspection.

Since March 1979, Amtrak has been directly involved with FRA and DCP in some aspects of advanced planning and review of the project. Recently, Amtrak has been authorized for the first time to develop estimates for the 1980 work season for projects which Amtrak's forces will undertake.

The expanded Amtrak role in the past year reflects understandings reached with the Federal Railroad Administration to overcome many of the institutional problems that we experienced in the past. As a result, the last work season in the Corridor has been very productive.

During the April-December 1979 work season, the Track Laying System (TLS) completed its planned production of 121 track miles of new track with approximately 300,000 concrete ties. In addition, about 178,000 wood ties and 661,903 feet of continuous welded rail were installed, 31 interlockings were improved, and 140 miles of high speed surfacing were completed.

Next season the track laying machine will be concentrated between Washington and Philadelphia. Our goal is to achieve one half mile per day. Although this is less than what we were actually able to achieve during the 1979 work season, the high volume of traffic in the south end of the Corridor prevents us from being more optimistic.

DCP's role will terminate at the completion of the project. FRA's role will be similar to its role in the rest of the Amtrak system. Ultimately, Amtrak will be responsible for all deferred projects that are essential to meeting and maintaining the Congressional goals.

Project scope and need for additional funding

I am hopeful but by no means certain that the additional funding sought may initially result in achieving the mandated trip time goals. A \$2.5 billion program will allow us to continue most of the planned improvements to the track structures—about 400 miles of designated track with concrete ties, 600 miles of undercutting, 600 miles of wood ties and over 500 miles of new rail.

It is important to note that electrification north of New Haven cannot begin unless the Congress approves the Administration's request for an additional \$750 million.* If the project as finally authorized does not accommodate electrification between New Haven and Boston, planning must begin immediately to acquire new diesel locomotives for service between those two points. The necessity for locomotive switching at New Haven will prohibit Amtrak from meeting the trip time goals between Boston and New York.

This request would also permit some work on route realignments, signaling, fencing and service facilities.

* This particular part of the project has some significant benefits. For example, it allows rail traffic flexibility in fuel sources. Electrification also allows the power source to switch with relative ease to fuel sources other than liquid petroleum. In 1975, the Corridor's power was generated by several sources in the following approximate proportions: coal, 38 percent, oil, 40 percent, and hydro, nuclear and natural gas, 22 percent. Although the economics of using a fuel source other than oil will dictate whether an actual reduction in oil dependence will result from this project element, I believe we can assume that a substantial reduction in oil consumption will occur. The Japanese have documented evidence indicating energy savings in their electrified corridor. This corridor is 663 miles in length that runs through a population area much like the Northeast Corridor. In 1977 that corridor carried 124 million passengers in electrically powered trains which consumed the equivalent of 4.4 million barrels of crude oil. If those passengers had travelled by automobile in average numbers in average cars, they would have consumed 20.6 million barrels of gasoline. Since gasoline is a highly refined distillate of crude oil, these 20.6 million barrels required the refining of 46 million barrels of crude oil. In other words, this one set of trains on one corridor saved the Japanese people 40 million barrels of crude oil in that year. While I do not expect the Northeast Corridor electrified trains to achieve that kind of savings in the near future, I am optimistic that a totally electrified system will allow us to move in the right direction.

In addition, about \$150 million of the proposed total \$2.5 billion of NECIP funding will be earmarked for stations.

Even if the \$2.5 billion is available, other assumptions must prove accurate if Amtrak is to achieve the corridor performance levels you and we expect. When I testified before this Committee last year, I indicated that the Corridor cost/revenue goal must be based on a number of assumptions: (1) Amtrak must be able to maintain the right-of-way at no more than projected cost; (2) Full funding for the 47 high speed, light weight AEM-7 locomotives must be provided; (3) The design and production of future equipment must be funded; the funds to replace the Amfleet equipment now in off-corridor use must be provided; (4) Trip time goals on all trains must be met on schedule; (5) The anticipated ridership and revenue projections must be achieved; (6) Cost increases (especially fuel) cannot outdistance reasonable fare increases; and (7) Unexpected capital expenditures such as those generated by problems with the B&P Tunnel, traffic separation projects on the Hell Gate Line or overhead highway bridges would have to be met to insure maintenance of trip time and reliability.

Implications of deleted work

The plan for work in the Northeast Corridor today has been substantially reduced from what it was in 1976. The original estimate for the project, as envisioned and as designed to meet the trip time goals, was \$3.5 billion in 1975. Converted to 1981 dollars, this amounts to approximately \$5 billion for completion as originally conceived. Even with the fully authorized DOT request, the project will have funds amounting to half of that. While initial trip time improvements are possible as a result of the \$2.5 billion scope of work, sustaining high speeds, reducing maintenance costs and achieving Congressionally mandated 1985 performance targets for the Amtrak nationwide-system will be very difficult unless other work is done outside the scope of the \$2.5 billion.

A number of items related to trip time, comfort and reliability, which are not included in the project scope as contemplated under the \$2.5 billion scope, are particularly significant to Amtrak for two reasons: (1) We view the Corridor project as an integrated system, not just a track improvement project. The goal of shortening trip times is not an adequate measure of our ability to maintain those time savings or to operate the Corridor as owner of the property in the years ahead; (2) We retain the obligation to operate the Corridor once the scope of work identified here is completed. We must do so, making the necessary investments no matter what the state of completeness of the project when that date arrives.

Unless sufficient funds are provided under NECIP, the work identified but not completed (included such major projects as tunnels, bridges, and signaling) will have a substantial impact on Amtrak's future operating and capital budgets, and upon the ridership and revenue projections described above.

Should it be necessary for Amtrak to use its future appropriations to provide for Corridor needs that otherwise would have been funded out of NECIP, corresponding reductions must be made in off-Corridor expenditures.

In that context, let us look at the ridership/revenue assumption, keeping in mind that Corridor ridership and revenue forecasts were a critical element of systemwide projections used during the recent restructuring process. Those revenue and ridership projections were based on the assumption that every major component of the NECIP necessary to achieve trip times, reliability and frequencies would be completed and that certain revenue assumptions would be attained. These assumptions included the following estimates of revenues and ridership:

ESTIMATES OF REVENUES AND RIDERSHIP

Year	Revenue (millions)	Passenger (millions)	Passenger miles	Frequencies
1980.....	\$119.3	11.0	1,190	25
1981.....	144.3	12.0	1,357	30
1982.....	209.3	14.8	1,814	36
1983.....	251.2	16.7	2,056	36
1984.....	298.8	18.7	2,311	36

If specific items are deleted from the project, revenues may fall short of projections. This will affect future subsidy requirements.

While I do not believe it is helpful to burden the committee with all of the details here, I would like to point to some examples of important items that are not covered under the \$2.5 billion funding level.

Bridges. At one point in the project 755 bridges were to be replaced, rehabilitated or repaired. The \$2.5 billion level would include only 230 bridges. This does not include any overhead highway bridges.

Electric traction conversion. Electric traction conversion south of New York will have to be accomplished at some point. Without this, reliability of operations will be seriously constrained unless the present 60-year-old system is either replaced or upgraded. If funding is not included under NECIP, Amtrak will have to assume responsibility for conversion in future capital budgets.

Maintenance-of-way bases. A major concern of Amtrak is the number of maintenance-of-way bases that have been deleted from the program. Originally, NECIP funding included 13 maintenance-of-way bases, including buildings and facilities at each base. The Japanese consultants believed that this number was insufficient. The current plan calls for maintenance-of-way bases with buildings and warehouses only at three locations. The bases deleted are Readville, Cedar Hill, Midway, Sunnyside, Hunter, Morrisville, Wilmington, and Northpoint. Philadelphia and Providence are two of the five bases that will remain in the project but no funds are available for facilities other than track.

B&P tunnel. The existing tunnel under a portion of the city of Baltimore is the single largest bottleneck in the entire Corridor. In spite of the obvious cost implications, Amtrak continues to believe that a new tunnel will ultimately be essential to operations in the Corridor. The existing tunnel was built in 1873. Because of tight clearances, the second track cannot be used while freight traffic is utilizing the gauntlet track. DCP had originally proposed that to new single track tunnels be built at an estimated cost of \$225 million. Traffic projections for the future indicate major delays of train movements can be prevented only if a new tunnel is constructed.

MTA/Connecticut DOT zone. I believe it is important that the Committee realize that the Administration's request does not include any track improvements to a major segment of the Corridor, 54 miles of four-track right-of-way in New York and Connecticut. One track segment from New Rochelle, New York, to the Connecticut/New York border (7 miles) is owned by the New York Metropolitan Transportation Authority. The other segment from the Connecticut/New York border to New Haven, Connecticut (47 miles), is owned by the Penn Central Trustees and is leased to the State of Connecticut. This MTA/Connecticut Zone is not now a part of the Corridor project except for certain bridges and station projects.

Under the proposed funding levels, achievement of the trip time goals is based on the assumption that improvements will be made over this 54-mile segment of right-of-way. At this point, there are no plans and no funds available to bring this segment of track up to the same level of utility as the rest of the Corridor. If there is no change in the current situation, the number of slow orders over this track will prevent Amtrak from attaining the trip time goals between New York and Boston.

Impact of related projects

There are other matters that may have an impact on the completion of the project and Amtrak's ability to meet the mandated goals.

Union Station.—I want to emphasize the importance that Washington Union Station plays in the Northeast Corridor Improvement Project. The continued doubts that surround this project only add to the complexities that we are now experiencing under this project. If separate legislation is not enacted to resolve the Union Station/Visitors Center proposal, I am afraid that the burden will be shifted to NECIP which has resources that are already stretched to the limit.

Overhead bridges.—There is considerable doubt over who owns and who has the obligation to maintain highway bridges over railroads. That is especially true on Amtrak's Northeast Corridor trackage which is some of the oldest in the country. The situation is extremely complex, and we would urge the Committee to address this problem before any of these bridges become a serious threat to life. We need to clarify the ownership questions and create a mechanism to provide funds for repair.

Stations.—Station development is an important element of the NECIP. In some cases, station development is an integral part of the community's overall economic development plans. The improvements contemplated under the \$2.5 billion level will not provide optimal passenger handling and service requirements. Nor will they result in major intermodal transportation facilities that would be the focal point of community development that I believe we would all like.

Other issues.—Additional issues may affect timing of project completion and Amtrak's ability to meet the mandated goals. For example, we are dependent upon

completion of the Southwest Corridor in order to get into Boston; the completion date for that project is now estimated to be 1986. We are also dependent upon the resolution of the Providence Station proposal, which involves building a new station in a new location and relocating the tracks into the new station. Work has not progressed beyond the planning stages.

Need for coordination.—Federal funds involved in these projects should be coordinated to ensure that projects are completed in a timely manner to coincide with the completion of the Northeast Corridor.

Amtrak suggests that we draw on the experience of the White House Interagency Coordinating Council in coordinating Federal activities along the Northeast Corridor. The Interagency Coordinating Council was established by Executive Order and is made up of 16 assistant secretaries from several agencies. The purpose of the Council is to encourage interagency cooperation on projects which are large, complex and multiyear and which involve more than one agency.

The Northeast Corridor project may not require such an elaborate mechanism. The level of complexity in this program may be reduced if the Federal Railroad Administration sought the input on a regular basis of such agencies as the Urban Mass Transportation Administration, the Federal Highway Administration, the Department of Housing and Urban Development, and the Economic Development Administration of the Department of Commerce. This would guard against duplication, delays and agencies working at cross purposes and at the same time ensure full development potential to communities and the Northeast Corridor.

Amtrak Corridor operating concerns

Corridor traffic.—One of the most serious problems we face in the future is a financial one involving the use of the Corridor by the three entities: freight, commuters and intercity passengers.

Long before Amtrak acquired ownership of the Northeast Corridor, use of the property by intercity passenger, commuter, and freight rail service caused disputes over scheduling priorities within and between railroads and over methods of allocating maintenance costs of physical facilities (track, signals, fixed plant). Although we have been able to rationalize many of the scheduling/operating problems since we assumed responsibility for the Corridor in 1976, regrettably there has been no similar progress in settling the longstanding disputes over methods of costing. The irony is, of course, that all of the parties to the dispute—Amtrak, Conrail, and the various state and regional transit authorities—depend heavily on federal support. This means that in a real sense this is a dispute over whose federal dollars shall cover the costs (which no one disputes) of maintaining a jointly-used corridor.

The Corridor continues to be operated under a series of interim agreements which have merely put off the final determination of an equitable cost sharing arrangement. Because no resolution has been possible, disputed bills have continued to build up. From April 1976 projected to September 30, 1980, these disputed costs amount to \$91.3 million for freight usage and \$93.4 million for commuter usage.

Clearly, our ability to effectively manage and maintain the Northeast Corridor is dramatically affected by our ability to depend on adequate, timely compensation for the use of the Corridor by others. In no event can we permit our intercity passenger revenues to subsidize either freight or commuter service.

Commuter.—Conrail operates the large majority of all commuter rail service in the Northeast Corridor. Because Conrail is considering getting out of this business, Amtrak must, as a matter of simple business prudence, look at the implications of such a withdrawal. Obviously the separate operation of commuter rail service by each transit authority (Conrail has contracts with SEPTA, NJDOT, MTA, and CONNDOT) would further complicate an already difficult problem of trying to manage the Corridor as a whole; assure a reasonable allocation of costs, rights and responsibilities among all the Corridor users; and schedule/operate trains in accord with all the parties' needs and priorities. Amtrak is further concerned that either at the time of a Conrail withdrawal or in the months following, Amtrak will be under pressure to assume the operating responsibilities of Conrail.

There are some attractions to Amtrak in becoming the operator of commuter rail service in the Corridor and elsewhere but, frankly, there are also serious problems in doing so. Accordingly, we have begun to take a serious look at the problems we would encounter and the conditions we would need met if we were to expand our activities in this area. While that analysis is not yet complete, it is clear that the list of issues requiring attention prior to any larger Amtrak commuter rail role is a long one, including: Meeting capital requirements for equipment, stations, maintenance facilities; clarification of funding arrangements addressing both the outstanding disputed claims among freight, commuter and intercity passenger carriers and future funding for operations and capital; resolution, prior to Amtrak takeover, of

any labor issues, including the transfer of Conrail's commuter related work force to Amtrak; and specific determination of transition procedures.

Freight.—The recommendation of some people to resolve the current complications resulting from multiple use of the Corridor is to remove freight from the Corridor. While our review of this indicates that this may not be viable, I would suggest that this whole matter be carefully scrutinized.

Conclusion

As this committee moves toward consideration of the Administration's request for additional funds for NECIP, I am hopeful that it will focus not only on the costs and problems associated with the project but also on the benefits that will result.

It has been reported that transportation capital requirements between now and the year 2000 will exceed \$4 trillion. Taken in the context of that level of public and private spending, the Congressional goals for the Northeast Corridor Improvement Project seem well justified and deserving of financial support.

[The following information was subsequently received for the record:]

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

Question. You indicate that "a new tunnel will ultimately be essential to operations in the Corridor". Are you certain this will be essential even if ConRail's freight traffic is diverted? How much do you estimate this will cost?

Answer. The planned freight traffic diversion at present amounts to four (4) trains out of a total of twenty-two (22) scheduled. This reduction is less than significant, and the removal of freight traffic from the Corridor, however desirable, will never, in my opinion, be achieved. Some engineering studies have been performed and to date the cost estimate for a new tunnel is in the range of \$200 million.

Question. You indicate that DOT's program does not include any track improvements on a major segment of the Corridor (54 miles of right-of-way in New York and Connecticut). Do you expect this work to be undertaken by the States? If not, how will this affect the program?

Answer. We at Amtrak would expect the commuter agencies properly to maintain their rights of way to the required speed allocated today. Whether this would be funded by the States or other agencies is debatable, but it must be maintained. There never have been any funds in the NECIP allocated to track improvements in this territory. If this is not done, there very definitely will be an adverse effect on the running schedules of trains through the metropolitan region.

Question. With respect to work that DOT proposes to delete from the program—How much do you estimate it will cost Amtrak to undertake this work?

Can this work feasibly be postponed, or must it be undertaken by Amtrak at the same time that DOT is completing the other work on the Corridor?

If the work undertaken as part of the Northeast Corridor Project is limited to \$2.5 billion, how much extra will Amtrak have to spend?

Answer. Our best estimate for the fiscal year 1981-86 time period is that Amtrak will have to spend at least \$770 million (in fiscal year 1980 dollars) for work that is required but that is no longer in the NECIP funding package. This is part of a \$1,255 million capital investment (in fiscal year 1980 dollars) that will be necessary during this time period to provide the required motive power and passenger equipment, as well as facility improvements, to meet and sustain the Congressional trip/time goals. Another group of former NECIP projects, estimated at \$1,200 million in fiscal year 1980 dollars, have been considered but have not been included in the work that Amtrak considers necessary during the fiscal year 1981-86 period.

No allowance for inflation beyond fiscal year 1980 has been included in the above costs, nor do they include project management, construction supervision, and general administration. It has been assumed that all design work for these projects would be completed within NECIP funding.

See attached chart.

NECIP PRD/CMP SCOPE REDUCTIONS

[In millions of fiscal year 1980 dollars]¹

Subsystems ²	Fiscal year—							Total
	1980	1981	1982	1983	1984	1985	1986	
Track structures.....	1.0	2.0	13.6	18.5	12.3	11.9	11.2	71.4
Amtrak bridges.....						18.1	18.1	36.2
MTA/CTA bridges.....						6.1	6.1	12.2
Electrification.....					235.8	71.6	67.3	374.7
Signaling.....					6.8	6.8	6.8	20.4
Communications.....		11.0	11.0	11.0				33.0
Fencing.....					3.9	3.9	3.9	11.7
Stations.....					2.8	7.0		9.8
Service facilities.....			3.9	8.4	18.8	8.6	35.1	74.8
Tunnels.....					4.3	4.3	4.3	12.9
Safety.....			8.0					8.0
System security.....			.5	.5	.5			1.5
Total.....	1.0	13.9	37.0	38.4	285.2	138.3	152.8	666.6
Add: Construction reserve (10 percent) and project reserve (5 percent).....	.2	2.2	5.7	6.0	44.2	21.4	23.7	103.4
Total.....	1.2	16.1	42.7	44.4	329.4	159.7	176.5	770.0

¹ The cost estimates shown above are stated in constant fiscal year 1980 dollars. Inflation at assumed rates of 11.2 percent in fiscal year 1981 and 9 percent in all other years would raise the total cost from \$770 million to \$1,034 million in current (inflated) dollars.

² These cost estimates do not include project management, construction supervision, and G. & A., and assume that all engineering design will be completed under the NECIP.

Question. The Administration's request for an additional \$750 million is apparently based on the assumption that work that they think will cost \$300-\$400 million will not be undertaken by the Project, but will be postponed and perhaps later undertaken by Amtrak. With respect to this work, how much do you think it would take to complete all the work?

Answer. As I indicated in my response to the previous question, there have been \$770 million of work scope items eliminated in the past several months. An additional \$485 million capital investment, which was not included in the original NECIP work package, will be required, based on current ridership projections for the fiscal year 1981-86 time period, to achieve and maintain the Congressional trip/time goals, including passenger equipment (\$173 million), motive power (\$57 million), station facilities (\$46 million), handicapped compliance (\$11 million) passenger handling (\$38 million), and other right-of-way items (\$160 million).

Beyond the above sums, another \$1,200 million was previously removed from the project for items not essential to meeting trip/time goals but important for full development of the Corridor as originally contemplated by the Act.

Question. What portion of Amtrak's operating costs in the NEC are recovered by fares? Can you break down the costs and revenues in the corridor by segment (Washington-Philadelphia, Philadelphia-New York, etc.)? Also, what was the NEC ridership for 1976 through 1979? What was the ridership by segment?

Answer. The following are the 1979 total revenues and operating costs for the NEC by segments, and their corresponding, revenue-to-cost ratios. Total revenue includes passenger, food and beverage, mail and express, rents and other miscellaneous revenues, and operating costs exclude depreciation. These are consistent with the statements of Northeast Corridor Financial Operations reported by Amtrak in accordance with the guidelines developed with the DOT to measure the return of the NECIP investment.

FISCAL YEAR 1979

[In thousands of dollars]

	Total NEC	Spine				Spurs	
		Washington to Philadelphia	Philadelphia to New York	New York to New Haven	New Haven to Boston	Philadelphia to Hartford	New Haven to Springfield
Total revenues.....	137,083	45,273	51,954	11,785	19,701	4,715	3,655
Operating costs.....	281,829	97,369	91,173	23,726	42,970	16,920	9,671
Revenue/cost ratio (percent)	49	46	57	50	46	28	38

Note.—Historic passenger miles are being developed at this time.

Next, we will call Mr. Ross Capon, executive director of the National Association of Railroad Passengers.

**STATEMENT OF ROSS CAPON, EXECUTIVE DIRECTOR,
NATIONAL ASSOCIATION OF RAILROAD PASSENGERS**

Mr. CAPON. Good morning, Mr. Chairman.

To save your time, I will just skip through the statement, and I would ask that the full statement be included in the record.

Senator LONG. It will be.

Mr. CAPON. Thank you. We appreciate very much the opportunity to testify.

We strongly support your request for \$750 million and urge serious consideration of increasing this amount, in light of testimony from both FRA and Amtrak. Mr. Sullivan practically made the case for more money when he said that the \$2½ billion project would limit trains meeting the trip-time goals to about seven or nine cars. The standard Metroliner consist was six cars when 3-hour running times were maintained 10 years ago. By 1985, the faster schedule will have combined with the energy crisis to improve dramatically the competitive position of Amtrak. So, you have to wonder if we will meet the travel demands the very first day the trip goals are met under the present project.

I am also a bit nervous over Mr. Boyd's warning that it may be necessary to make reductions in off-corridor spending if the corridor project itself is not adequately funded.

I was interested this morning in hearing Mr. Sullivan refer to the Baltimore Tunnel decision as a "close call," and refer to Mr. Mathias' comments as a responsible approach.

I think all of the above, taken together, looks a bit like a thinly veiled plea for Congress to take the lead now to provide some level of funding above the \$2½ billion mark to get the project done correctly. The dollar amounts at issue are not out of line, considering total U.S. transport investment and the expenditures on rail made overseas in countries which use energy more efficiently than does the United States.

I would like to strongly support electrification for New Haven to Boston, even though aviation may retain a slight edge from Boston to New York. We do know there is an incremental effect. There are business travelers now from Boston to New York; there will be many more with the faster trains. Providence, which does not have such good air service and which is almost an hour closer to New York on the train, will benefit greatly from the rail service.

We strongly support Mr. Mathias' comments about the tunnel, and we strongly support Mr. Boyd's comments about Union Station. We appreciate the continuing efforts of you and your committee to get Union Station straightened out and to include Trailways and Greyhound in the badly needed intermodal facility which many have long dreamed of.

I would like to mention that my family is in the process of trying to buy a house, and we have made a determination because of the incredible squeeze on our budget that we may forgo an automobile in order to make that possible. Every improvement that you make, such as the intermodal terminals, makes public transportation that much easier to deal with. We are very grateful for your efforts on that.

In a similar vein, we are very concerned about plans in Providence which apparently will be funded largely out of this budget. Currently, the Providence Railroad Station is just across the street from the almost-new intercity bus terminal, but the plan is to relocate the tracks and build a new station more distant. The entrance-to-entrance distance between the rail and bus terminals will increase from 600 feet to 2,300 feet, which is especially significant for those hauling luggage. And there will be a new six-lane roadway for the pedestrians to cross. At the same time, the rail station will be removed from the central business district of which it is now a part. I think that poses a threat to ridership potential on the corridor itself.

We have seen in many cities in Canada and the United States where stations were moved from an ideal location and the ridership went down as a result. In Albany, I have been told that just moving the railroad station across the river to Rensselaer several years ago led to a 75-percent reduction in rail patronage. The Providence plan is not quite so dramatic a problem, but it is the same type of problem.

In Washington, many potential users of inter-city bus and rail are discouraged by the big distance between Union Station and the bus terminal. In Philadelphia and Boston, commuter rail systems have been badly hampered by lack of connections between separate downtown terminals. Philadelphia is digging a very costly tunnel to correct that problem.

Providence, notwithstanding the growing importance of good intermodal terminals, is in the process of creating two situations other cities are struggling to eliminate: bad linkage between rail and bus terminals, and no downtown link among all radial rail lines.

City and state officials are aiming toward the use of \$21.7 million of NECIP money to fund these mammoth backward steps in transportation which will facilitate certain freeway construction projects. I say "facilitate;" those projects can be completed without the relocation of the station. The relocation, according to its advocates, will have certain positive effects on medium-term development in the station area.

But, at a time when the country is struggling to cut its budget and when Mr. Boyd is concerned about the projects that are not included in the \$2½ billion program, we certainly think this Providence project needs very close scrutiny.

We are pleased with the emerging corridor focus on 79-mile-per-hour trains for which there is a substantial market now. I am referring to the recent study which Mr. Boyd mentioned. These trains can be provided in the short-term to many more parts of the country than would be the case with super trains. By "super trains," I mean 110-plus miles per hour.

Super trains, wherever they have been provided in the world, have been incremental service improvements in corridors already heavily dependent on good but slower intercity passenger trains. That's true in Japan. That is true in Europe.

Thus, the Northeast Corridor is now ready for these advanced improvements; other corridors are not. It is sort of the walk-before-you-run approach. Both the Northeast Corridor and other corridor improvements will benefit long distance trains using those tracks. Also, better corridor service would feed more connecting passengers to long-distance trains and reduce fixed charges against those trains at jointly used terminals.

For example, the New York to Kansas City National Limited almost certainly would be running today but for the fact that it bore 100 percent of station costs in Indianapolis, Columbus, and Dayton, and 50 percent in Pittsburgh—all cities which should have corridor trains. If they did, the costs of superimposing a long-distance service like the National Limited would be relatively small.

In conclusion, we strongly support the \$750 million request. We urge you to approve it, to look at increasing it soon, to fund Washington's Union Station separately, to push the administration and Amtrak to make specific recommendations for funding limited improvements in other corridors, and to consider funding such recommendations in the same package with further NEC funding.

Thank you very much for your time.

Senator LONG. You've indicated you believe that freight trains should be removed between New York and Washington. Is this because of the wear and tear on the tracks, or the congestion problem?

Mr. CAPON. It's both. Regarding maintenance of the tracks, there is just no place in the world where you have trains as heavy as our freight trains coexisting with passenger trains at that speed. So, I think the answer is: both of those factors.

Senator LONG. Can you put those very heavy freight trains on that track, but you just can't keep it up to specification as far as fast passenger trains are concerned?

Mr. CAPON. Well, I guess you could do anything with the right amount of money, but I think they may find that the maintenance costs of trying to serve both of those uses at the same time are prohibitive.

Senator LONG. In other words, I would think that if we were trying to build something for an automobile to go 200 miles an hour, if you want that to be very level and it doesn't carry very heavy weight, and then if you're going to run something that weighs 20 tons on that thing, in short order you would develop a bunch of bumps and things on there, and you are constantly trying to upgrade it to where you don't have to have that speed.

That's the kind of thing we're talking about; isn't it?

Mr. CAPON. That's right.

Senator LONG. In light of the small percentage of intercity passengers who use Amtrak and Amtrak's low rates of revenue, do you feel that granting Amtrak funding above and beyond the administration's estimates for completion of the project would be sound economic policy?

Mr. CAPON. Yes, I do. I think that Amtrak's low revenue-to-cost ratio is really a function of Government policies over the past 20 to 30 years. We are trying to, if you will, redress the imbalance which has resulted from the fact that our investment in the railroad is very recent, whereas our investment in the competing modes has been very great for many years.

I feel very strongly that our country is well served by improving the alternatives to the private automobile. We have friction with our European allies in trying to get reductions in oil imports because they are already using oil more efficiently and largely because they have a good public transportation system in place.

I remember reading that some U.S. officials were expecting to reduce its use of oil but they found that the utilization of the railways was already so heavy that there was very little room to reduce their oil consumption by switching freight and passengers from road to rail. So, I think there are many aspects of our domestic and international policy that are strengthened by improving alternatives to the automobile.

Senator LONG. Have you spent some time looking at the Union Station problem here in Washington, D.C.?

Mr. CAPON. I look at it frequently.

Senator LONG. What is your reaction? Do you think there ought to be a transportation center, a visitors center, or a combination of the two?

Mr. CAPON. I think that the primary use of that land should be a transportation center because you could put a visitors center anywhere, but you can't put the trains anywhere else. And I think that the biggest single thing, the greatest single thing that could be done for public transportation generally in this country would be to put in our National Capital an intermodal terminal where all of the intercity buses and trains would be in the same place. You would also, of course, have commuter trains, the subway, and local buses.

This has been done on a smaller scale in some other cities like Kalamazoo and New Orleans, but to do it in the Nation's Capital where you have both a very high level of utilization of all modes and you have people throughout the Nation coming and seeing it, they will go back and do the same thing in their own city.

I think that getting Greyhound and Trailways into that space is the No. 1 priority for improving public transportation in this country. And there is just no question that any visitor center type of thing that would be there should only use whatever space is left over after you meet the essential transportation needs.

I also strongly support the plan to get that north concourse of the old building, back into passenger use and bring the tracks back down there.

Senator LONG. Well, I at one time found more appeal than I do now for the visitors center idea. But after I had thought about it

quite a bit, I find myself thinking back to the time that I had been there as a boy; that was how I came. I was the first member of my family to take an airplane from Washington out of here going south or going anywhere. And at that time I was, I guess, about 15 years old, and the airplane service didn't go beyond Atlanta. We had to get off at Atlanta and then find some way to get to the train if you were headed for New Orleans.

And, looking back on it, I can't recall it now, even when I came here as a boy, when I would come up here and spend a day and night on that train. I would be weary, and I would walk right on past that visitors center and head for my father's apartment or whatever. I wouldn't even stop to fool around at a visitors center. And the more I see it, the more I agree with you that it ought to be an intermodal transportation connection where a person can get on a bus or get a taxicab or take the subway, the Metroliner can come right up to it, and they can come in on a bus or leave on a train. And it would have a lot of potential.

But I must say, from my point of view, we have given the visitors center plenty of time to prove itself. We have wasted a lot of money on it, and I think we ought to go ahead and make a modern transportation center out of it. I think you agree with that.

Mr. CAPON. Absolutely. I think the visitors center was a useful idea 10 years ago in terms of saving that building when there were a lot of questions about whether we would have passenger trains.

But let me give you an example of how your intermodal terminal idea would be useful. Frederick, Md., is a place that probably never will have passenger trains, but it has good Greyhound Bus service. Somebody that is coming from, say, North Carolina or maybe even Richmond, can come up on the train to Washington. If the Greyhound Bus was right there, they could then go get their bus and go to Frederick or any other place that lacks rail service whereas in the absence of that connection they are probably going to drive all the way.

Senator LONG. I think you are right about that. And it seems to me we ought to follow up on your suggestion. As far as I am concerned, they can use the Capitol Building. Why don't they use that? For the life of me, I don't know why somebody would want to waste his time wandering around Union Station if he could be wandering around seeing something. The Capitol Building has a lot of beautiful statues. Why don't they come around over to the Capitol?

Mr. CAPON. Well, perhaps the National Visitors Center should be in Chicago. I have heard it said why would you want to look at pictures of all those monuments when the real thing is a few steps away?

Senator LONG. Well, thank you very much.

Mr. Capon. Thank you.

Senator LONG. Next we will hear—oh, I have one other question I would submit for the record.

[The statement follows:]

STATEMENT OF ROSS CAPON, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF
RAILROAD PASSENGERS

Mr. Chairman and members of the subcommittee, I appreciate this opportunity to present our views on the vital legislation before you today. Our Association is a non-profit, consumer-oriented organization, supported entirely by membership dues and contributions. We receive no financial support from the government, the railroad companies, Amtrak, or the railroad labor unions.

NARP strongly supports the request for \$750 million and urges serious consideration of increasing this amount in light of testimony from both FRA and Amtrak. I would like to emphasize Alan Boyd's statement that the original project estimate was \$3.5 billion in 1975 or \$5 billion in 1981 dollars.

Administrator Sullivan practically made the case for more money when he said the \$2.5 billion project will limit trains meeting the trip time goals to "about 7 or 9 cars." This is astounding. Standard Metroliner consists were 6 cars when 3-hour running times were maintained several years ago. By 1985, the 2:40 NY-Washington schedule will have combined with the energy crisis impact on other modes to improve dramatically the competitive position of Amtrak. With a \$2.5 billion ceiling, one wonders if the system will be able to meet the travel demands placed upon it from the very first day the trip goals are met.

Also, I am a bit nervous over Secretary Goldschmidt's reference to "deferred maintenance" remaining at the project's conclusion (his December letter to Representative Florio) and Mr. Boyd's warning that, "should it be necessary for Amtrak to use its future appropriations to provide for Corridor needs that otherwise would have been funded out of NECIP, corresponding reductions must be made in off-Corridor expenditures."

Finally, there is Secretary Goldschmidt's recommendation (in the same letter) of \$2.5 billion "with a commitment to support Amtrak as Corridor traffic levels justify future budget requests beyond the point of initial Corridor construction and for major Amtrak capital equipment investment."

All of the above, taken together, looks a bit like a thinly veiled plea for Congress to take the lead now to provide some level of funding above the \$2.5 billion mark to get the project satisfactorily completed.

Since Congress is not exactly begging for new ways to spend money these days, I should point out here that the project at hand contributes directly to lessening our dependence on foreign oil and inefficient, uneconomic use of the private automobile, and the dollar amounts at issue are not out of line considering total U.S. transport investment and the expenditures on rail made over seas in countries which use energy more efficiently than does the United States.

Perhaps a good approach would be quick approval of the Administration's request followed by an early look at Amtrak's list of important items not funded thereby.

In any event, the \$750 million is essential to permit extension of electrification to Boston which, in turn, is essential to meeting mandated New York-Boston trip times by eliminating the costly and time-consuming change to diesel locomotives at New Haven.

We reiterate our belief that through freights must be removed from Amtrak's New York-Washington line to the Chessie/ex-Reading route. At the very least, through freights should be removed from the Amtrak tunnels in Baltimore. At the same time, to prevent a significant 'backsliding' away from the national goal of limiting petroleum usage and the regional desire to minimize air and noise pollution, we hope New York-Washington freight trains will remain under electric power. This would mean electrifying at least part of the alternate route.

Washington Union Station remains a disgrace. We appreciate the continuing efforts of this Committee to get it straightened out and to include Trailways and Greyhound in the badly needed intermodal facility which many have long dreamed of.

In a similar vein, we are concerned about plans in Providence which apparently will be funded largely out the NECIP budget. Currently, the beautiful Providence railroad station is conveniently located across the street from the almost-new Bonanza (union) intercity bus terminal. The plan, however, is to relocate the tracks and build a new station more distant: entrance-to-entrance distance between the rail and bus terminals will increase from 600 to 2,300 feet—especially significant for those hauling luggage! Furthermore, a new 6-lane roadway will separate the two terminals.

At the same time, the rail station will be removed from the central business district of which it is now a part.

Finally, relocating the tracks will cut them off from a secondary rail line which enters the area through a tunnel just east of the present station. This rail line is

part of (a) a branch to Warren/Bristol where there is strong interest in developing light- or commuter-rail service; (b) an alternate route to Massachusetts which could be useful to the NEC in emergencies and might eventually be viewed as a better mainline for the NEC itself. Cutting off the Warren/Bristol line from potential connections with intercity trains and especially other possible local rail services might foreclose development of any local rail services and would at least hinder such development.

In Washington, many potential users of intercity bus and rail are discouraged by the big distance between Union Station and the bus terminals. In Philadelphia and Boston, commuter rail systems have been badly hampered by lack of connections between separate downtown terminals. Philadelphia is digging a terribly costly tunnel to connect its terminals and Boston has devoted considerable planning efforts in the same direction.

Providence, notwithstanding the growing importance of good intermodal terminals, is in the process of creating two situations other cities are struggling to eliminate: bad linkage between rail and bus terminals, and no downtown link among all radial rail lines. City and state officials are aiming towards the use of \$21.7 million of NECIP money to find these mammoth backward steps in transportation, which will facilitate certain freeway construction projects and are believed by the advocates to have certain positive effects on medium-term development in the station area.

The whole plan looks bad to us. If Providence can't do anything better with the money, perhaps it should be shifted to some of the projects Alan Boyd says he badly needs but which the Administration cannot fit into the \$2.5 billion program.

Beyond the NEC: The new DOT/Amtrak report on "Rail Passenger Corridors" is an encouraging sign that the Administration takes seriously one of the common NECIP clichés: "the NEC should be a showpiece and experience gained in it will benefit other deserving U.S. rail corridors."

One of those other corridors is a Washington-Richmond extension of the NEC. Such an extension would strengthen ridership on the south end of the current project and permit accomplishment of one objective properly part of the NECIP: provision of an NEC station on the Virginia side of the Potomac. This probably means the existing Amtrak station in Alexandria, adjacent to the future King St. Metrorail station. Passengers must be able to transfer between these stations via heated and sheltered walkways. The City of Alexandria has applied to the Urban Mass Transportation Administration for financial assistance to provide the necessary walkway connection. There is a strong Federal interest in seeing that such walkways are provided, given the amount of Federal money going into both Amtrak and Metro.

We are pleased with the "emerging corridor" focus on 79 mph trains, for which there is a substantial market now and which can be provided in the short term to many more parts of the country than would be the case with "supertrains." Whenever "supertrains" have been provided in the world, they have been largely incremental service improvements in corridors already heavily dependent on good but slower intercity passenger trains. Thus, the NEC is ready for such advanced improvements, other corridors are not.

Both NEC and other corridor improvements will benefit long-distance trains. Those trains will run faster where they use improved corridor tracks. Better corridor service would feed more connecting passengers to long-distance trains, and reduce fixed costs charged against those trains at jointly used terminals. The "National Ltd." almost certainly would be running today but for the fact that it bore 100 percent of Indianapolis, Columbus, and Dayton station costs and 50 percent at Pittsburgh—all cities which should have corridor trains. If they did, the cost of superimposing a long-distance (NY-KC) service like the "National Ltd." would be relatively small.

In conclusion, we strongly support the \$750 million request. We urge you to approve it; to look at increasing it soon; to fund Washington Union Station separately; to push the Administration and Amtrak to make specific recommendations for funding limited improvements in other corridors; and to consider funding such recommendations in the same package with further NEC funding.

Thank you for the opportunity to appear.

[The following information was subsequently received for the record:]

QUESTION OF THE COMMITTEE AND THE ANSWER THERETO

Question. You express your concern that the Providence rail station may be moved and therefore make bus/rail transfers more difficult. But the bus industry has objected to the whole Project and to Amtrak in general as being subsidized predatory competition. Since you are evidently concerned about both bus and rail passengers, how would you respond to that criticism of Amtrak?

Answer. The short answer is that I believe current subsidies to Amtrak constitute a sort of "affirmative action" program to help restore a proper balance in the U.S. transport system—a balance which was lost a few decades ago as a result of major public investment programs in all non-rail modes. Even where "user taxes" cover the public costs of a particular mode, the effect of having the government act as "banker" for one mode and not another is that of subsidy. (Furthermore, highway users have never paid their full costs if you include traffic control, police department, pollution, and real estate tax costs.)

I believe the basic thrust of the bus industry objection which you cited should be discounted because it is inconsistent with the welfare of both the bus companies and the general public. This is not to defend every penny Amtrak spends, or to oppose more efficient labor utilization such as Amtrak has recently negotiated for the Oakland-Bakersfield and the prospective Chicago-Peoria services.

But it appears that Amtrak—with good intermodal terminals and institutional cooperation—would feed more passengers to connecting bus routes than it would divert from paralleling routes. The fundamental reality is that few people are willing to take long bus trips. For example, I was recently one of two passengers on a convenient mid-afternoon departure from Pittsburgh to Cleveland, where Amtrak has no competing service. But many—if not most—people would make short bus trips to connect with trains.

In my testimony, I referred to Frederick, Md., as a non-rail community where Greyhound ridership would rise if Washington had an intermodal terminal. Greyhound's economics would be improved not only because of increased ridership, but because the intermodal riders would not be concentrated on the Washington rush hour buses. Many of the riders connecting from Amtrak would be off-peak, or counter-flow, riders filling bus seats that are now empty. This is because most Amtrak long-distance passengers arrive Washington in the morning and depart in the evening. This principle would apply also to the Washington-Annapolis run and to similar bus runs around the nation.

Amtrak would even attract some riders to paralleling bus routes, for example, when a would be rail passenger takes a bus for a segment of his trip because of scheduling convenience. Since buses are ideal for low-volume movements, they will always offer more schedule choices during weak travel hours. Between 9:01 p.m. and 6:29 a.m., for example, Amtrak has only one departure from New York to Washington but Greyhound alone has six.

Amtrak also helps the bus companies by providing, in effect, free advertising for their services. Amtrak's widely distributed national timetable is filled with schedules of connecting bus service showing the name of the carrier (particularly helpful for small bus firms whose names may never appear outside their regions except in the guides used by ticket agents).

The public interest would best be served by providing the most attractive practical alternative to use of the private automobile both for commuter and intercity travel. The flexibility of the auto is perhaps its greatest attraction. Public transport may never provide the same flexibility; it can offer much more flexibility than at present. The creation of intermodal terminals is an important element in this effort.

While the American Bus Association protests public funding of Amtrak, the ABA is a bit removed from day-to-day farebox realities. Operating bus companies are generally quick to recognize the advantages of intermodal service. Over the past decade, the number of regular-route intercity buses stopping at both airports and railroad stations has dramatically increased. I have yet to encounter an official of an operating bus company who objected to a specific opportunity to get into a joint terminal with Amtrak. I recently spent a few hours in the Providence railroad station and saw why.

A woman missed an evening train for New York by a few minutes. I saw her problem and showed her my bus schedule, pointing out a Greyhound departure in about 15 minutes. The next train wasn't scheduled for more than 3½ hours and it would arrive New York at 3:13 a.m. She took the bus.

Later the same evening, two students trying to reach Brandeis University near Boston came in. I happened to have the Boston-Brandeis schedule. Armed with the information that there was a 12:10 a.m. train from Boston to Brandeis, the students decided to make the trip even though it was late at night. To get from Providence to

Boston, however, they had to use the hourly Bonanza express bus service because no Amtrak train would get them to Boston in time for their connection.

In both of the above cases, people came first to the train station hoping and expecting to use the train, but readily switched to the bus when they found that necessary. These are simply the two cases I overheard while waiting for my train. Undoubtedly other people dealt only with the ticket agent, and the average volume of passengers so diverted is probably higher than what I witnessed during a light travel time (Saturday night).

In conclusion, the bus industry attitude as you have stated it reflects a lack of understanding of the immediate willingness of the public to respond to a better-coordinated intercity transport network. Perhaps more important, the attitude reflects a lack of awareness that our nation of energy gluttons, to use your apt phrase, is rapidly approaching a time when it will need every bit of well-planned public transport capacity it can provide—and more. As the price of gasoline and new cars continues to increase, so will the readiness of the public to tolerate such activities as changing between bus and train at pleasant intermodal terminals.

Senator LONG. Next we will hear from Mr. Leonard I. Rippa, of the National Taxpayers Union.

STATEMENT OF LEONARD I. RIPPA, NATIONAL TAXPAYERS UNION

Mr. RIPPA. Mr. Chairman, my name is Len Rippa, and I represent the National Taxpayers Union. The National Taxpayers Union is a national nonprofit public-interest organization, representing over one million members in every State in the union. We were founded in 1969 and dedicated to the following goals which I would like to briefly state:

An America where free people can work together to build a better life; an honest accounting of Government finances; a reduction of Government waste, spending, bureaucracy, and regulation; lower taxes for everyone; a constitutional amendment which outlaws inflationary deficit spending and reduces the tax burden.

I am pleased to be here to testify concerning the Amtrak Northeast Corridor Completion Act of 1979, which authorizes additional funds for completion of the Northeast Corridor improvement project. We firmly believe, as you do, that the taxpayers' money must be spent wisely and in the best interests of all our citizens.

We have previously testified before your committee expressing our views against the never-ending subsidies extracted from taxpayers to pay for an uneconomical, inefficient, and poorly justified passenger train system. Despite enormous subsidies, despite fare-setting that attracts passengers with fares one-third of their true cost, and despite an energy crisis that promotes increased use of public transportation, Amtrak has not succeeded in significantly increasing its ridership. In fact, in 1979 less than one-half of 1 percent of all intercity travelers used the train, at a cost of approximately \$1 billion a year to the taxpayer.

In 1979, Amtrak carried approximately 11 million passengers in the Northeast Corridor, incurring expenses of \$238 million, while generating revenues of only \$118 million. What possible justification is there to continue these huge losses for another 10 years?

Continued losses will mean that the taxpayer could pay \$1.2 billion during the next 10 years only to provide a "free" ride for the businessman.

Is the Congress justified in spending the taxpayer dollars to subsidize a select part of the business community? If a few minutes time saving is so important, let them, the businessmen, pay the

cost, not the Nation's taxpayers. The taxpayer must not be forced to subsidize riders who are more than able to pay for faster service.

Second, are we being fully informed as to the true costs of this project?

For instance, Mr. John Sullivan, the very capable Administrator of the Federal Railroad Administration admitted in his recent testimony before the House Commerce Committee, that the 1979 work program was based more on "positive thinking and optimism" than past performance.

Are the taxpayers going to be told 1 year from now that the current cost estimates were mere "optimism and positive thinking" rather than a cold, precise, realistic estimate of the costs?

Mr. Sullivan tells us that his current cost projections are based on an inflation factor of 7 percent. Is this optimism or is this self-deception to base projected cost estimates on such an unrealistic figure? Most economists believe that a 7-percent inflation rate is past history. Yet, projected costs for the NECIP are based on this illusory figure.

Mr. Chairman, as you know, our country faces a severe economic crisis. The costs of homes, food, clothing, and other essential items have skyrocketed.

Some may choose to believe that this unbearably high rate of inflation is caused by our dependency on foreign oil and by the high prices exacted by the OPEC cartel—we argue that inflation follows runaway Government spending and deficit financing, and that it was the weakness of the U.S. dollar which led to the creation of the oil cartel, not the other way around.

Be that as it may, the NECIP has been advocated by many as a way to conserve energy and lessen our dependence on foreign oil, as part of an integrated energy-efficient national transportation policy. While the NTU strongly believes that the market forces of supply and demand should be allowed to operate freely, let us look at the NECIP in the context of energy savings.

Recent Federal Railroad Administration figures indicate that by 1990 the NECIP will help to conserve the equivalent of only 171,000 barrels of oil annually. This works out to a savings of only 0.002 percent of all oil consumed by the United States annually.

Is the intention of this committee to spend billions of dollars for such an infinitesimal energy savings? I think not. If it is the intent of this committee to spend hard-earned tax dollars for the subsidization of alternatives to the private automobile, then why support a project that realizes so little energy savings?

Mr. Chairman, the NTU believes that the Congress should consider the following recommendations:

First, let the marketplace determine the level of fares. S. 2156 mandates that annual revenues cover operating expenses within 5 years of the completion of the NECIP. The NTU believes that this is too long. Amtrak should be required to recover from fares the full operating costs in the Northeast Corridor by 1985. Fares should be incrementally increased beginning immediately, so that, by 1985, 100 percent of operating costs are recovered through revenues.

Second, complete and honest disclosures of all costs. The NTU believes that all costs, actual or potential, associated with the

NECIP should be disclosed to the American taxpayer. It is the duty of the Department of Transportation to insure that all costs are fully and accurately disclosed.

We believe neither the taxpayers nor the Congress will tolerate further misjudgments in cost. The people of this country have sent a clear message to reduce unnecessary spending. This message cannot be ignored, particularly with respect to the Amtrak Northeast Corridor improvement project.

Finally, the NTU feels that this committee should consider all transportation initiatives in the light of their full cost effectiveness and potential energy savings. We believe that transportation plays an increasingly important part in our struggle for energy independence. The NTU believes that the Government should not provide passenger transportation services, as the private sector has the capability to provide this service as the marketplace dictates.

Because of this committee's key position in developing and implementing national transportation policy, full cost effectiveness and energy conservation, at the very minimum, must be primary factors in considering the expenditure of taxpayer dollars for transportation programs.

The NTU believes that the NECIP fails both tests.

I would like to add one other comment, Mr. Chairman, that is not in my prepared statement, concerning the comments that were made concerning the emerging corridor project, and we would hope that, because they are very ambitious programs that we believe would cost enormous amounts of money and the indications are they would be modeled after the Northeast Corridor project, which we feel is a very poor model, that at the appropriate time we would like to have the opportunity to comment on these particular issues since we feel very strongly that it is a very vital issue.

And if we're going to expand the corridors throughout the country to other areas such as New York and Buffalo, Chicago, Detroit, Cincinnati, feeder routes from Philadelphia to Atlantic City and others, and at the appropriate time we would like to offer our comments on that as well.

Thank you very much for your consideration and the opportunity to present our views. I would be happy to answer any questions, sir.

Senator LONG. Well, Mr. Rippa, you know, the Secretary of Transportation has been ordered to get rid of about 12 of those Amtrak trains. And I supported that, and, I think the majority of us on the committee. I know Senator Cannon, the chairman of the committee, supported that. And we were only able to get rid of, by the time all of these vested interests—first one group and then another—they managed to only get rid of 5 instead of 13.

And I think, in terms of what you can actually achieve, you have got a better hope of getting rid of those eight trains that should have been dumped out rather than terminating service on this corridor.

And I think it was generally felt that we ought to go ahead and see if we could modernize the service on the corridor and see if it might be able to continue.

But I would think you have got a better chance, in terms of what you want to do, of going back to work and seeing if we can't get rid of some of those eight that we had a run at but failed to knock out.

Mr. RIPPA. We tried to help on that, too, sir.

Senator LONG. I know. And I appreciate that.

I think what little success we had was, in considerable measure, due to the support of your organization, the National Taxpayers Union. But I think we ought to go back to work and see if we can't get rid of some of those we have. And, while we're at it, maybe we could use a little leverage to try to get more efficiency.

For example, my understanding is that, at long last, after many years, the passenger trains finally got the crews from changing the crews every 100 miles to changing every 150 miles. But I would think, if we can't do any better, we ought to at least say that when somebody retires, we're not going to replace him if the job is not really necessary.

We have more people in the crews than we really have to have. I don't think they need more than four people, maybe no more than three, to move that train. Maybe our labor people won't stand still for it, but if we just said when somebody retired we're not going to replace that job until we get down to about three people on the train crew and then see if we can get it down to where we have—where, instead of changing crews every 150 miles, maybe—I would like to see that train move at 50 miles an hour, and that's only 3 hours—maybe we could get them to move it to at least 200 miles. And you could cut the size of the train crew, and you could make them move it one-third further.

Maybe they would be willing to stay aboard that train for 4 hours a day for the good pay they are getting.

If that would help productivity and reduce costs to help meet inflation.

You haven't spoken to that, but I guess you would find some appeal to that, representing the National Taxpayers Union.

Mr. RIPPA. I would certainly agree with that, Mr. Chairman, because we feel it is almost like—we would like to see other means of other things done other than the improvement project and perhaps let other modes of transportation that are more competitive, and let the free enterprise system play its role.

But if we are going to complete the project—and I think you are correct: That there should be more productivity and more efficiency, and certainly there is a lot of room to increase efficiency in operation of the trains.

I think Mr. Boyd would agree with that, and I think the Federal Railroad Administration would agree with that.

We also feel that—and I feel most taxpayers would feel that—the fundamental issue is if we are going to operate public transportation and invest a sizeable amount, an enormous amount, of taxpayer dollars into improving the facilities—and we're really only talking about below the track, the track bed and the tracks, and perhaps, of course, the improvement of the equipment—not equipment, but stations, as Mr. Boyd addressed, the electrification process has not yet fully been addressed.

We believe that the cost, the costs that are incurred, the operating costs, if nothing else, we would like to see—but the operating

costs, if nothing else, should be recovered through revenue, and the lowering of costs, the lowering of the fares to increase ridership, which it did very slightly, but the cost tripled. Now, I think that is a fundamental issue, and it should be very carefully addressed by the committee, and I think perhaps the language to hold Amtrak's feet to the fire, that if they're going to get all of this money from the taxpayers, then they should increase the fares proportionately and recover the costs to operate those trains.

Then I believe it will be much more palatable to everybody concerned; then I think we could, then, in fact, support a railroad system—but not if it's costing the taxpayer two-thirds of every ticket—two-thirds of every ticket.

Senator LONG. Maybe we can get something going with the railroads to say, "Well, maybe we could study it on a comparative basis and every year discontinue one of these Amtrak trains." And in 8 years we could be up to where the Secretary of Transportation tried to put us and where the President tried to put us, to begin with, so we could get rid of the other eight that we would have a real good try at it, but we could get rid of them.

Mr. RIPPA. I think that would be a good shot, and I think we just need to bite the bullet with a lot of trains. There are 10,000 or so miles of track that the Secretary of Transportation did recommend that it be discontinued, and I am sure it was supported fully by Mr. Boyd, a very good start. And, followed along with a realistic rate of fares, I believe that in the light of the need to cut Government spending, I think it is an overwhelming call from the taxpayers that this is a step in the right direction. And we will certainly support that and work very hard toward that, sir.

Senator LONG. Thank you very much, Mr. Ripa. We appreciate your statement.

[The statement follows.]

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3. The NTU feels that this committee should consider all transportation initiatives in the light of their full cost effectiveness and potential energy savings

We believe that transportation plays an increasingly important part in our struggle for energy dependence. The NTU believes that the Government should not provide passenger transportation services, as the private sector has the capability to provide this service as the marketplace dictates. Because of this committee's key position in developing and implementing national transportation policy, full cost effectiveness and energy conservation, at the very minimum, must be primary factors in considering the expenditure of taxpayer dollars for transportation programs.

The NTU believes that the NECIP fails both tests.
Thank you for your consideration.
I will be happy to answer any questions.

Senator LONG. That concludes this morning's hearings.
[Whereupon, at 11:45 a.m., the hearing was adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

STATEMENT OF HON. DONALD RIEGLE AND HON. CARL LEVIN, U.S. SENATORS
FROM MICHIGAN

Mr. Chairman, we would like to take this opportunity to express our support for a Northeast Corridor bill which includes a component on emerging corridors. As you know, the Federal Railway Administration and AMTRAK recently completed a study at the request of Congressmen Staggers, Florio and Madigan to identify and study potential corridors between key cities to meet new energy and transportation needs. The study, which was distributed to members of Congress this week, identified thirteen corridors which could be significantly improved to meet our future transportation needs, including the corridor between Detroit and Chicago.

Recent world events have made it increasingly clear that we need to develop a more efficient transportation system in this country if we hope to decrease the nation's overall dependence upon foreign oil. The study of corridors which connect major population centers by Amtrak and the Federal Railway Administration demonstrates that the potential exists to significantly improve service availability by increasing train speeds and service frequencies. We can develop a more efficient railway system and provide a meaningful and attractive method of transportation which will meet our future mobility needs if we plan for the improvement of other corridors now.

While we recognize the importance of the improved rail passenger service which is being developed as a result of the Northeast Corridor Improvement Project, concern about future efficiency in transportation modes is not exclusive to the Northeast States. It would be a mistake for the Congress to neglect to prepare for the improvement of other, equally important corridors which already exists and have the demonstrated potential for increased ridership. The House Subcommittee on Transportation has already held hearings on the Federal Railway Administration/Amtrak study and it appears likely that the Subcommittee will include an emerging corridors component in their Northeast Corridors bill. We would urge similar action on the part of the Senate Subcommittee.

Mr. Chairman. Should the federal government decide to take the lead in the improvement of rail corridors, the States stand ready to joint in that effort. In Michigan for example, the State has already contributed roughly \$25 million since 1974 in operating assistance, capital improvements and program support efforts. In testimony before the House Subcommittee on Transportation and Commerce on the emerging corridors study, Mr. Weston E. Vivian, Commissioner of the Michigan State Transportation Commission said, "with the exception of the Northeast Corridor, Amtrak has not been given the tools necessary to properly develop its own potential. Amtrak's failure to develop this potential can only be blamed on the lack of national leadership and commitment to necessary to build a successful railway passenger system. Despiet the aggressive efforts of individual states such as Michigan, the nation will continue to do without a modern rail passenger system until Congress and the Administration exhibit this level of leadership and commitment."

Fast and efficient inter-city corridor rail service has a tremendous potential for contributing to our nation-wide effort to control energy consumption—and we can take the first step toward faster, more efficient rail passenger service now by recognizing the importance of the emerging corridors.

STATEMENT OF HON. LOWELL WEICKER, JR., U.S. SENATOR FROM CONNECTICUT

Mr. Chairman, I appreciate this opportunity to testify in support of S. 2156, which will increase the original authorization for the Northeast Corridor Improvement Project (NECIP) by \$750 million and revise the completion schedule for the Project to 1984. I am gratified that this Administration has recognized the importance of the Northeast Corridor and has reaffirmed its full support for the Corridor Project.

The purpose of the Northeast Corridor Improvement Project, authorized under Title VII of the Railroad Revitalization and Regulatory Reform Act of 1976 (the "4R" Act), was to upgrade and improve intercity rail passenger service between Washington, D.C. and Boston, Massachusetts. To insure frequent and reliable service and to offer a fuel efficient transportation alternative in this densely populated corridor, Congress mandated trip times to two hours and forty minutes between Washington, D.C. and New York City, and three hours and forty minutes between New York City and Boston.

As work on the Corridor Project progressed, it became increasingly evident that the service goals and funding levels set forth in the 1976 4R Act were unrealistic and inadequate. Consequently, then Secretary of Transportation Brock Adams initiated a comprehensive review of the corridor Project which was completed and published in January, 1979. This study concluded that without an additional authorization the goals established in Title VII of the 1976 Act (i.e., frequent and reliable intercity rail passenger service between Washington, D.C. and Boston) would be jeopardized.

The program outlined in S. 2156 will increase the total authorization for the Corridor Project to \$2.5 billion. This figure represents the original \$1.75 billion authorized in the 1976 4R Act, plus a new authorization of \$750 million. In addition, this bill will revise the schedule for completion from 1981 to five years after the enactment of this legislation.

As you know, Mr. Chairman, I have long been a supporter of passenger rail transportation as an alternative to the automobile. The Northeast Corridor Project, when complete, will provide such an alternative. With gasoline reaching \$1.50 per gallon it ought to be obvious why this country has to end its love affair with the automobile.

In 1971, when Amtrak was created, "corridor" markets were expected to be one of the most promising areas of future service. A recent report issued by DOT, Amtrak and FRA indicates that at far distances up to 300 miles, fast, frequent rail service can compete with air and automobile travel. This study focused on the 13 rail passenger corridors having the greatest potential to attract substantial patronage and to save energy. The information in this study is worth noting.

In terms of population density per route mile, the Northeast Corridor is followed by Los Angeles-San Diego, and the corridors emanating from Chicago to several areas in the Midwest. From May to July, 1979, when the impact of the gasoline shortage was most extreme, rail patronage on the Northeast corridor increased by a phenomenal 110%, on the Los Angeles to San Diego corridor by 48 percent and from between 26 and 40 percent on the Chicago corridors.

Mr. Chairman, given the current and prospective energy situation, we can anticipate that more and more people will turn to corridor service as an economic alternative to the automobile. The Northeast corridor has already proven its merit by its continual accommodation of the 34 million people living between Boston, Massachusetts and Washington, D.C. Dramatic increases in patronage have occurred even without the benefit of modern equipment, without high speed rail, and without money to run an efficient and competitive service.

The Northeast Corridor Project has demonstrated the value of similar systems across the nation; the physical improvements now underway, to upgrade tracks, signals, stations, grade crossings and equipment, will result in faster service. Faster travel time, together with more frequent service will undoubtedly make this mode of transportation even more attractive.

Mr. Chairman, there is no question that corridor service is one answer to our mass transit needs. Passage of S. 2156 will mark a very positive step toward making this answer a reality.

Also of importance to me, Mr. President, is the requirement that calls for the elimination of all surface or "at grade" crossings along the Northeast corridor, as this requirement relates to Mystic, Connecticut, the single most historic area of the state and without question the largest tourist attraction. There are two affected crossings located in Mystic. Construction of overpasses at these crossings—which is the only way grade separation can occur due to environmental constrictions in this area—would have a significant negative impact on the area both from a historic and from a tourist standpoint. Similar situations, I am sure, exist in many other areas along the Northeast corridor. To assure that the economic and historic value of this particular area are kept intact, I offered an amendment to the fiscal year 1980 Transportation Appropriations bill which would exempt these two crossings from this requirement. I hope the Committee can take a close look at this problem.

Mr. Chairman, the time has come to step forward and invest in our nation's future, but in doing so, let us act to protect the valuable points of its past. I urge my

colleagues to adopt S. 2156 so that the Northeast Corridor Project may be completed and more adequate service be provided.

STATEMENT OF STUART SHUMATE, PRESIDENT, RICHMOND, FREDERICKSBURG &
POTOMAC RAILROAD CO.

My name is Stuart Shumate. I am President of the Richmond, Fredericksburg and Potomac Railroad Company, with headquarters in Richmond, Virginia. I appeared before this Committee on March 16, 1979 to:

1. Point out the disadvantages of mixing freight and passenger traffic on Corridor.
2. Explain the off-Corridor freight diversion concept.
3. Cite advantages of shifting freight to other existing routes which parallel the Corridor.

4. Call for a cost-benefit study by FRA to determine the feasibility—economic and otherwise—of diverting as much freight as possible to off-Corridor routes.

The record of that March 16, 1979 hearing will include my prepared statement and summary comments at that time.

FRA has since undertaken an off-Corridor Freight Study. Preliminary results indicate that:

1. Diversion of a substantial amount of freight off Corridor is feasible and desirable.

2. Train delay on Corridor would be reduced.

3. The amount of capital funds required is small on most routes.

4. Conrail could reduce operating costs by shifting some freight to certain off-Corridor routes.

Indications are that Conrail will take steps to implement some diversion of freight in those cases where Conrail owns and controls the necessary off-Corridor routes.

Full implementation of all off-Corridor freight diversion steps is not likely to be accomplished, notwithstanding the feasibility and positive benefits identified in the current FRA Study. This is because Amtrak and Conrail have not been able to resolve their trackage rights fee dispute.

Use of the Chessie (B&O) line between Washington and Philadelphia is necessary to achieve the full benefits of off-Corridor freight diversion. Conrail is apparently unwilling to negotiate a trackage rights arrangement with Chessie for fear of prejudicing their position with respect to Amtrak.

The Conrail-Amtrak dispute has apparently been in a stalemate posture for a long time.

An early resolution of the Corridor trackage rights fee issue is essential to:

1. Full realization of the off-Corridor freight diversions currently being identified as feasible and desirable by FRA.

2. Clarify the future role of Conrail in north-south freight service via the Amtrak-owned Corridor.

According to our best available information, Amtrak currently charges Conrail 28.5¢ per freight car mile on Corridor. The FRA report will, we believe, indicate that 15¢ per car mile is representative of other trackage rights fees within the U.S. rail industry. The difference may well be largely attributed to the unique Corridor track maintenance burden occasioned by running heavy freight traffic on high speed passenger tracks.

The 1976 Four R Act, which gave the Corridor to Amtrak, left Conrail without a north-south railroad.

By virtue of what we understand to be the Amtrak Corridor trackage rights fee arrangement, Conrail and its freight shippers are being subjected to an unrealistic and intolerable economic penalty—a penalty that is the direct result of the unwise mixing of heavy freight and high speed passenger operations on shared tracks.

If Conrail is to ever be a viable rail freight carrier in the traffic lane between Washington (Potomac Yard) and numerous points in the Northeast, the onerous Amtrak Corridor trackage rights arrangement must be brought in line with normal user charges paid by one rail freight carrier to another.

Conrail and rail freight shippers simply can't afford the extraordinarily high cost of doing business on the Northeast Corridor!

Therefore, we suggest that the following proposal, or something similar, be added to or incorporated in S.B. 2156:

1. The Secretary of Transportation shall be required to conduct a comprehensive study of rail freight trackage fees within the U.S. rail industry and of rail line ownership, operation and maintenance costs on the Northeast Corridor for the purpose of establishing:

- (a) The rail industry average for comparable freight usage.

(b) The present and projected 1985/1990 Conrail proportion of N.E. Corridor costs, assuming the Corridor to be maintained as a Class IV railroad.

(c) Same as b. above, but assuming Corridor maintained as a Class VI railroad.

(d) The amount (or proportion) of N.E. Corridor ownership, operation and maintenance that Conrail, or any other future freight railroad, should pay (or bear) for use of N.E. Corridor trackage; provided, however, such charge or formula shall not cause Conrail to bear any part of the cost of ownership, operation, or maintenance in excess of the requirements of freight service actually operated.

(Example: If freight only requires Class IV standard of maintenance, then Amtrak and Conrail share such costs on normal industry basis. Amtrak takes all costs associated with Class VI maintenance.)

2. To assist him in this Study, the Secretary shall create a Study team consisting of the Secretary, or his designee, who shall act as Chairman, one representative each from the I.C.C., U.S.R.A., Amtrak and Conrail, to be appointed by the Chairman or Chief Executive Officer of the respective organizations, plus one representative of the U.S. Freight Rail Industry, to be appointed by the Association of American Railroads.

3. The Study shall be completed and a written report, containing findings and recommendations, shall be delivered to Congress not later than September 1, 1980. Unless rejected by Congress within ninety (90) days following receipt, or December 1, 1980, whichever date first occurs, the recommendations of the Study team shall become effective January 1, 1981 and shall be binding upon Amtrak and Conrail.

4. In the interim, there shall be authorized and appropriated the sum of \$10 million (or such other figure as might reflect the added cost to Conrail of operating on Corridor during NECIP construction, plus extra cost of diversion of freight off Corridor) to be utilized by Conrail for temporary off-Corridor trackage rights and detour operations in the interest of:

(a) Reduced freight and passenger delay on Corridor, and

(b) Elimination of congestion on Corridor during NECIP construction, which should

(c) Hasten completion of the NECIP and reduce the cost thereof.

Let me say in conclusion that we understand there may be other proposals offered for resolving the Northeast Corridor trackage rights issue. Ours is only intended to be one constructive suggestion. To the extent that the same purpose and end result can be achieved by some other means, we would undoubtedly be supportive of any such alternative.

Thank you very much.

STATEMENT OF ROBERT V. VAN FOSSAN, CHAIRMAN OF THE BOARD, THE MUTUAL BENEFIT LIFE INSURANCE CO.

Good morning. My name is Robert V. Van Fossan and I am Chairman of the Board and Chief Executive Officer of the Mutual Benefit Life Insurance Company of Newark, New Jersey. Mr. Chairman and Members of the Subcommittee, I appreciate your invitation to discuss with you what I consider an extremely important segment of the redevelopment of the Northeast. Hopefully, my remarks will lend encouragement to the reauthorization of the \$750,000,000 Northeast Corridor Improvement Program (NECIP).

My interest in NECIP stems from three vantage points:

1. As the employer of 2,000 people in downtown Newark.

2. As a past Chairman of the Newark Chamber of Commerce and a present member of its Executive Committee.

3. As Governor Brendan Byrne's private sector representative to the Coalition of Northeastern Governors (CONEG) and as past Chairman of the CONEG Policy Research Center.

First, I would like to discuss the economic and transportation benefits that NECIP would bring to the Northeast. I believe the synergistic effect of the rehabilitation of mid-city railroad stations would be enormous. If I may use Newark, New Jersey, as an example of the potential of NECIP, I believe my remarks will, at the same time, speak to the benefits which will accrue to other cities along the rail spine. Like Newark, they are mostly old cities, their station areas are depressed and the stations themselves are in states of disrepair ranging from unattractive to disgraceful.

In Newark, we have a rail station which in its hey day in the thirties was the finest building in town. Train service north and south was excellent. The facilities were bright, clean and the most modern the times had to offer.

Then came the radical change in travel patterns. The private auto became the prime commuting mode. The railroad station went downhill, the service became unreliable, rail equipment was not only old and uncomfortable, but dirty as well. The station became a hangout as well as a transportation center. Newark is only one city along the corridor whose station and adjacent area slid into decay.

Now—at last—we have the opportunity through NECIP to revitalize those transportation centers and the surrounding areas. Here is what I foresee in Newark if NECIP becomes a reality:

The station itself will be restored. Already escalators to train platforms are being replaced. They haven't worked for years. This is but a start. There will follow a modernization of the station, lighting, seating, ticket handling, stores and shops. Bus, subway and rail commuters will use the station without fear, because undesirable elements will be driven out by the increasing numbers of people using the facility.

Now, with large numbers of commuters riding the trains and using the station, I believe this will create a strong market for more commercial buildings in adjacent areas. Bear in mind, Newark already has the eight-year old Gateway Center office and hotel complex directly across from the station. The office buildings are 100% occupied and there is a waiting list for space.

The hotel, I understand, enjoys an occupancy rate of 73%—much higher than that when Saturdays and Sundays are eliminated. In Newark, it is established that offices and facilities close to the station area are in demand.

There is property in the station area ripe for development. There are commercial and financial interests which would become interested in such development. At such time as more offices are built, I foresee retail shops and possible department store branches locating there to serve the needs of an increasing number of commuters.

In Newark, we have an opportunity that perhaps other cities might not have. Our rail station is contiguous to a large piece of mostly open land running along our Passaic River waterfront. The Passaic River is not known for its natural beauty or environmental cleanliness. But here is an opportunity to turn one or two old brick warehouses into aesthetically pleasing, much needed professional offices, shops, boutiques, restaurants and service establishments. The area is sufficiently large for river bank apartments for middle-income city dwellers, and we need this kind of housing desperately. And there will be room for a recreational park, the inclusion of which would beautify a part of the city which now is ugly.

Realizing that the \$750,000,000 NECIP funding will not, nor is it intended to, pay for the kind of development I am speaking about, I am convinced, however, that the catalytic effect of the station and service improvements will be the keystone to new commercial construction upgrading old facilities, housing increased train patronage, employment for the trades during the developmental period and jobs for the people of Newark and nearby cities and towns who will commute to new offices, stores, and facilities.

But, without a federal commitment to station house improvement, upgrading of service and improved rail equipment, I seriously doubt if private capital can be encouraged to re-enter the very bad sections surrounding the disreputable, often frightening, railroad stations.

There are some other very fundamental benefits that I believe will derive to the Corridor which favor the full completion of NECIP projects:

Fuel efficiency offered by rail travel will reduce regional energy consumption.

Electrified rail service will produce a substantial reduction in air pollution emissions from intercity travel.

Corridor rail passengers will be free from service delays due to ever-increasing congestion which plagues travelers at Northeast airports and on the region's highways.

Combine these benefits with station improvement and high speed, frequent intercity train service and I believe we will unleash the full revitalization potential of the urban Northeast.

The Coalition of Northeastern Governors, through its Policy Research Center, is acting on the belief that NECIP can serve as a strong catalyst for urban revitalization throughout the Corridor. Under Federal Railroad Administration sponsorship, and in conjunction with the Council for Northeast Economic Action (a non-profit private-sector group), the Center has been both measuring and promoting station area joint development. It conducted a two-day seminar in Newark, New Jersey, hosted by Governor Brendan Byrne and Newark Mayor Kenneth Gibson which brought together approximately 250 public and private sector representatives to discuss practical ways to encourage station area development.

Among those speaking at this session were John S. Sullivan, Federal Railroad Administrator; Robert T. Hall, Assistant Secretary, Economic Development Administration; and James J. Florio, Chairman of the House Subcommittee on Transportation and Commerce. Private-sector participants included Rudolph Novotny, President of the Newark Chamber of Commerce and President and Chief Executive Officer, U.S. Savings Bank of Newark; James M. Howell, Senior Vice-President, First National Bank of Boston; Charles Reynolds, Vice-President, Real Estate, Prudential Insurance Company; and Robert Kopchains, Vice President, Real Estate, Mutual Benefit Life Insurance Company.

I would like to share with you two observations from the CONEG/CNEA field-work which were endorsed by the seminar attendees to which I personally subscribed (see Appendix for entire summary of recommendations).

Amtrak should play an active role in Corridor-wide development, and

Public and private committees should be formed in Corridor cities to help promote and direct station area development.

Amtrak should play a leading role in corridor-related economic development. Amtrak not only operates intercity rail passenger service throughout the Corridor, it owns the trackage rights as well as six of the corridor's major stations. It is in a unique position to improve the stations it owns or uses as well as assisting in planning station area improvements and helping to encourage businesses to locate at terminals along its line. Amtrak's full involvement would help smooth the relationship between freight and passenger use along the corridor. A concerted effort on its part to build ridership by encouraging business opportunities in the Northeast can only redound to its benefit and the benefit of the region. Quite naturally, private interests would be encouraged by this.

Finally, the formation of corridor-wide committees composed of public and private sector parties interested in promoting station area development would help to extend the positive benefits possible from the improved Northeast Rail Corridor to the communities it serves. These groups could be organized on a state and local basis, and provide a forum for government officials and private developers to design, coordinate and implement policies supportive of joint development. A small umbrella organization would serve as a clearing house of information between local groups and act as a liaison between the government and private interests.

Another worthwhile suggestion is that federal planning monies be made available to assist state and local governments to establish their joint development planning.

SUMMARY AND CONCLUSIONS

Although the NECIP has faced a variety of difficulties in reaching its goal of establishing safe, reliable, frequent and high-speed service, there is every reason to believe these goals will be substantially realized if S. 2156 is approved. It is my understanding that the bulk of the Corridor funds for station improvements is contained in the reauthorization legislation. These improvements are vitally necessary to make the railroad stations attractive and effective gateways. They demonstrate in a most visible way, federal support for a project that can positively affect the travel patterns of a sizeable percentage of the nation's population.

We in the Northeast recognize that it is incumbent upon those who would benefit from such services to make the most of the opportunities presented. My experience with CONEG, particularly, has dramatized the need for rail area improvement. I assure you that we of the private sector who work with CONEG, will do our best to fully realize the joint development opportunities presented by the Corridor project.

APPENDIX—SEMINAR SUMMARY AND RECOMMENDATIONS

NEWARK SEMINAR URGES REAUTHORIZATION OF NECIP LEGISLATION

In conjunction with the Federal Railroad Administration (FRA), CONEG and the Council for Northeast Economic Action (CNEA) conducted a two-day seminar January 28-29 at the Gateway Hilton Hotel in Newark, New Jersey, on the prospects for economic development in station areas along the Northeast Rail Corridor. These stations will become increasingly attractive for developers because of investment service and infrastructure improvements being made on the Corridor.

The seminar featured addresses from John M. Sullivan, FRA Administrator; Robert T. Hall, Assistant Secretary, Economic Development Administration, U.S. Department of Commerce; Brendan T. Byrne, Governor of New Jersey; Kenneth A. Gibson, Mayor of Newark; Rep. James J. Florio (D-NJ); Alan Sagner, Chairman, Port Authority of NJ & NY; Louis R. Nickinello (D-MA), Chairman, Joint Legisla-

tive Committee on Transportation, National Conference of State Legislatures; and transportation commissioners from Connecticut, Massachusetts and New Jersey.

Over 250 participated in the six seminar panels which focused on ways to encourage increased investment, and on the federal, state and local government and private sector roles in monitoring such investment. The following recommendations, among others, were presented at the concluding session:

(1) The \$750 million Northeast Corridor Rail Improvement Project (NECIP) reauthorization legislation, containing the bulk of funds available for improvement at major stations, should receive strong support from the public and private sectors throughout the region. (The \$750 million is in addition to \$1.75 billion already scheduled to be spent on the Corridor).

(2) CONEG and CNEA should continue to play their roles as information sources for station area development. CONEG and CNEA should extend their efforts to assess investment opportunities and encourage public/private sector cooperation in making corridor-related investments. Another seminar will be held early next year to evaluate the success of these efforts.

(3) Public/private sector task forces should be established to identify and promote viable station area development plans. Funding could be sought from UMTA, FRA and other agencies to provide local planning assistance.

(4) A coalition of corridor political leaders should be created to devise, coordinate and market a corridor-wide development strategy. This group could also lobby in support of NECIP reauthorization.

(5) There should be federal follow up and better coordination of federal efforts to encourage station area development. Better coordination of funding for planning, review and seed investment would greatly enhance the viability of station area revitalization. CONEG and CNEA could help ensure that better coordination takes place.

(6) Amtrak's role in station area development should be carefully analyzed to determine its involvement in marketing corridor investment opportunities. Station area development may be best achieved through the establishment of a subsidiary development corporation(s).

There and other recommendations are being studied by CONEG/CNEA in preparation of a final report to the FRA. The FRA has provided short-term funding for the CONEG/CNEA study of corridor station area development potential.

STATEMENT OF FRED T. ALLEN, CHAIRMAN OF THE BOARD AND PRESIDENT, PITNEY BOWES

My name is Fred T. Allen. I am Chairman and President of Pitney Bowes, a business equipment company whose headquarters and major manufacturing facilities are located in Stamford, Connecticut. I would like to thank the Subcommittee for this opportunity to testify in support of S. 2156, the Northeast Corridor Completion Act of 1980.

In addition to my interest as chief executive of Pitney Bowes, I am here as a representative of the business community of southwestern Connecticut. I am director and past chairman of the Southwestern Area Commerce & Industry Association of Connecticut, Inc. (SACIA). I am a member of the board and was founding chairman of the Stamford Economic Assistance Corporation (SEAC). SEAC is the non-profit economic planning and development corporation formed to supplement economic planning and development capability in the City of Stamford, and to provide a means for implementing economic development projects. Its activities are directed by a board comprised of representatives of the business community, the government of the City of Stamford, and community groups. All of the interests represented by the organizations for whom I am testifying unanimously support the authorization of \$750 million as necessary for the timely completion of the Northeast Corridor Project.

Stamford, Connecticut, located astride the Corridor, is the home for thousands of commuters who travel, mostly by rail, 40 miles to New York City and to other centers of employment along the Corridor. Stamford is also a major employment, commercial, and industrial center, serving the Westchester County, New York, and southwestern Connecticut region. More people commute to work in Stamford than from Stamford to work elsewhere, and the number of commuters to Stamford will continue to increase. A key to the stability or growth of employment in Stamford is the commitment to revitalizing our community by locating major business and commercial ventures in our downtown area, and a critical element in our revitalization efforts is the railroad and railroad station.

The timely completion of the Northeast Corridor Project is important to our national interest because of the contribution it will make to the conservation of energy and the strengthening of our national defense, which requires an effective domestic transportation system. It is important to the Northeast Region and to every community located along the Corridor because of the contribution it will make toward reducing congestion on highway and air traffic facilities, and toward reducing air pollution. Rather than review those benefits, which can be covered more expertly by others with a broader interest, I would like to concentrate on what the Project means to Stamford, particularly to the joint efforts of the public and the private sectors in our community to improve housing, transportation, and job opportunities.

We are in the final stages of completing a major urban renewal project in Stamford, an area bordered on the south side by Interstate 95, the Connecticut Turnpike, and the Corridor railroad tracks. We have been successful in attracting to our downtown area the corporate headquarters of such major companies as General Telephone and Electronics, Champion International, Moore McCormack Resources, The Singer Company, and others, as well as the regional or divisional offices of other major corporations. Major hotels are planned or completed, and construction is underway on an 800,000 square-foot regional shopping center. Lower and middle-income housing has been provided or is being planned, and plans are underway for a regional center for professional performing art groups. Many of these projects are the result of the cooperation, including joint financial participation, of the private and public sector. And all are within walking distance of the Stamford Railroad Station.

My company, Pitney Bowes, is located on the other side of the tracks, in the South End section, or Stamford Peninsula, where we have been since we were founded sixty years ago. Our corporate offices and major manufacturing facilities are located in the South End, where we employ over 3,000 of the 4,000 persons we employ in the Stamford area. We employ over 25,000 persons worldwide. We are Stamford's largest employer and, by far, the city's largest employer of industrial workers.

The South End of Stamford has many attractive features. It is on Long Island Sound, it contains one of the largest marinas on the East Coast, it contains a good housing supply and is the homestead of many of our employees, and it is served by our bus mass transit system. Most of the South End, including our office and manufacturing complex, is within walking distance of the Stamford Railroad Station.

At the same time, there are many problems with the South End: dilapidated housing, rundown manufacturing and commercial establishments, and major problems of entrance and exits from the area, which in effect is cut off from the rest of the city by the railroad and turnpike.

Because of the growth of our business, we have outgrown our present facilities and we are planning to build a new corporate headquarters. We looked at many possible locations for our new headquarters—in other nearby communities where we have other facilities and some land, and further afield—but we decided to stay in the South End, despite the problems, to make it work, and to be a major part of its revitalization.

In announcing last month that we would build in the South End a \$30 million, 250,000 square-foot facility to house about 750 employees, I said, "Pitney Bowes' plans for remaining and expanding in the South End are a tangible expression of our conviction that this area can retain its many attractive features and be revitalized as one of the best sections of Stamford in which to live, do business, and to work. We feel the construction of our new corporate headquarters here can stimulate such a revitalization, which would include improved housing, transportation, and job opportunities."

I also said, "To insure that this revitalization is orderly and in the best interest of everyone in the South End and for the benefit of all of Stamford, Pitney Bowes is helping to finance a planning study of the South End area by the internationally known architectural and urban planning firm, I.M. Pei & Partners."

We asked the F.D. Rich Company, the area's leading developer, to co-sponsor the study with us because of the Rich Company's worldwide experience with such planning studies, and we asked the Stamford Economic Assistance Corporation (SEAC) to participate in the study and provide general overall direction.

A key element in our expectation for the revitalization of the South End—which includes programs of public improvements, job retention, and housing—and to the continued vitality of our downtown renewal area is the reconstruction of the Stamford Railroad Station and the completion of all related development.

The railroad and turnpike currently are a Chinese Wall separating the South End and downtown Stamford. The Transportation Center Proposal, which includes an intermodal terminal ancillary to the rail station, will serve as a bridge, physically and psychologically tying together the South End and downtown.

The private sector and the City of Stamford joined in developing the Transportation Center Proposal, working with the State of Connecticut, our elected representatives, the Federal Railroad Administration, and the Urban Mass Transit Administration.

The Stamford Station, designated as one of the three high-speed stops in Connecticut, currently is in private hands. The State of Connecticut has agreed to condemn the existing station. The City of Stamford has agreed to operate and maintain a new station, and has committed to put up the 50% local match for construction of a 700-car parking garage at the station. The planned intermodal terminal facility is to be built as a joint FRA-UMTA project.

These are big dreams. They have excited the imagination of the people of Stamford and its corporate citizens, who are anxious to undertake this broad self-help program. We ask the Federal government only that it do its part by speedily completing the Northeast Corridor Project. The bill, S. 2156, which this Subcommittee is considering, is the minimal requirement for the Federal government to do its part.

I thank you for this opportunity to present our views on this legislation.

STATEMENT OF EDWARD G. JORDAN, CHAIRMAN AND CHIEF EXECUTIVE OFFICER,
CONSOLIDATED RAIL CORPORATION

Mr. Chairman, I appreciate the opportunity to present the views of Conrail before this Committee. The purpose of my testimony is to ensure that the Committee is thoroughly cognizant of the potential impact of the Northeast Corridor Improvement Project upon Conrail, its freight customers and consequently upon the economy of the Northeast Region.

My testimony will address four specific areas concerning freight service on the Northeast Corridor.

The impact of the Northeast Corridor Improvement Program upon freight service.

The extent to which there will be future capacity for both passenger and freight in the Northeast Corridor.

The level and the cost of track maintenance required to maintain 120 MPH passenger train speeds.

The possible use of routes parallel to the NEC for freight.

INTRODUCTION

Last year when I testified before this Subcommittee in the Authorization hearings for additional funds for the completion of the Northeast Corridor Improvement Project, I emphasized that Conrail supported the concept of high speed rail passenger service on the Northeast Corridor.

Today, almost one year later, the energy situation has become even more acute; the need to reduce the use of petroleum for personal use through conservation emphasizes utilizing more fuel efficient modes. Aside from issues concerning highway and airport congestion, and the environmental concerns associated with them, the key problem facing this nation, today and in the future, is that we simply cannot depend upon the Middle East to supply us with the levels of imported oil to which we have previously been accustomed. We must find and use more fuel efficient methods of transport. The Northeast Corridor Improvement program remains a critical ingredient toward attainment of that goal. I, therefore, believe that completion of the program is a significant and positive step forward to serve the transportation needs along the Eastern Seaboard.

Notwithstanding the importance of the Northeast Corridor to the movement of passengers, it remains a vital link for the flow of freight traffic. Although passenger trains encompass between 60 and 90 percent (depending on the segment of track) of the total NEC trains, in 1979 over 1,000,000 carloads of freight moved on the NEC at some point between Washington and New York. The movement of these cars in a timely and efficient manner is critical to Conrail's freight customers and consequently to the economy of the entire region. It is therefore important that the Northeast Corridor serve the needs of both passengers and freight if it is to make a meaningful contribution toward attainment of its intended goal. It is our present expectation that the Improvement Project will more likely have a negative affect on freight traffic, positive though it may be for passenger service.

My testimony today will briefly outline some of the problems we've experienced in operating freight service on the NEC. I will also offer some perception as to what we expect in the future and suggestions as to how some of the problems might be resolved or at least alleviated. In its broadest context the purpose of my testimony is to aid the committee in ensuring that the Northeast Corridor becomes an asset to both freight and passengers.

NECIP IMPACT ON FREIGHT SERVICE

During 1978 and 1979 when the track was being upgraded it was necessary to remove some tracks from service and passenger trains were given priority on the remainder; as a result, freight trains experienced numerous delays, adding millions to current costs. As the NECIP trackwork program continues during the next several years, we anticipate the continuation of these delays to freight traffic. Although Conrail, Amtrak and FRA are working jointly to minimize these delays, we expect that both these delays and their associated costs will continue during the construction period.

However, as concerned as we are with the present situation, once the rehabilitation program is completed the long term situation is what we fear the most. It is possible the benefits flowing to passengers will be greatly diluted, if not offset, by the additional costs imposed on the movement of freight.

FUTURE FREIGHT CAPACITY ON THE NEC

When the rehabilitation program is complete—now projected for 1985—it is anticipated that the frequency and speed of intercity passenger trains operated will increase significantly. Compared with today's schedule of 26 high-speed trains and 26 slower conventional trains, the projected 1985 schedule will encompass 66 high-speed trains offering half-hourly service through the business day and the number of commuter trains will be equal to or greater than the present operation. Thus the contemplated 1985 operation will start with more passenger trains operating at higher speeds on which is already a congested railroad.

To estimate the level of delay freight trains would suffer as a result of the increased speed and frequency of passenger trains, in recent months Conrail and FRA jointly undertook a study which simulated the contemplated Northeast Corridor freight operation concurrent with the level of passenger service and the proposed track configuration projected for 1985.

The results, in the form of delay minutes per freight train mile solely attributable to passenger train movements varied widely, according to the assumptions employed in different simulations. At a minimum with some delay to passenger trains, and no additional freight traffic, delay was .8 minutes per freight train mile. At the other extreme which encompassed a 50 percent increase in freight train miles and no delay to passenger trains 1.80 delay minutes per freight train mile were estimated. The magnitude of these delays in relation to congestion free operations can perhaps best be visualized by using the Landover, Maryland (outside of Washington, D.C.)—Newark, N.J. segment as an example. At 40 mph average speed a freight train would take about 5 hours and 15 minutes to cover this segment absent any passenger train interference. Imposition of .8 minutes delay per freight train mile would add almost 3 hours raising the total to over 8 hours transit time. At 1.80 minutes per freight train mile delay transit time would add over 6 hours, requiring transit times in excess of 11 hours.

These delays (which exclude any delays, due to mechanical failures or tracks being taken out of service for maintenance purposes) will preclude Conrail from offering an efficient freight service. If these projections become reality, it follows that some of the traffic will be lost to competing modes. To the extent the traffic remains on rails, the cost to Conrail will be significant. Ownership costs of cars and locomotives and labor expenses will rise proportionately as freight equipment and crews are idle. Energy consumption will rise as a result of the start-stop operation of freight trains to clear passenger trains. (It takes about 25 gallons of fuel to start a typical freight train and bring it to a speed of 50 MPH.) Indirectly these costs will ultimately flow through to the freight customer (if he doesn't divert his shipments to truck) or to the Federal Government (to the extent Conrail continues to require funding).

Conrail is working with FRA and Amtrak in an attempt to identify the key "bottlenecks". Reconfiguration of some of the interlockers coupled with reverse signalling will provide marginal improvements, but the fundamental problem is that there is "too little track for too many trains".

IMPACT OF INCREASED GASOLINE PRICES

The results described above were predicated on the assumption that the high-speed passenger trains would operate approximately every half-hour. Should gasoline prices rise to the extent that sufficient people are diverted from automobiles to require passenger train service increased to 15 minute frequencies, then the opportunity for freight traffic to move on the Northeast Corridor during passenger travel hours will, for all practical purposes, be non-existent. The resultant "back-up" of freight waiting to move during night hours will exceed the capacity of the yards to hold the cars. Furthermore freight movement over the NEC at night will be constrained by the necessity to remove tracks for service for maintenance—thus worsening an already intolerable situation.

NORTHEAST CORRIDOR MAINTENANCE COSTS

The financial burden imposed on NEC freight arising from the cost of delays, is only one factor. An additional and perhaps more significant cost lies in the high cost of maintaining track for passenger trains operating at 120 miles per hour. Those maintenance costs are far greater than those required for freight service at 50 or 60 miles per hour. Moreover freight trains with heavy axle loadings rapidly wear the high-speed passenger tracks, so that the maintenance effort required to provide a smooth ride for passengers rises rapidly as does its cost. Although there is uncertainty as to the future level of maintenance of way expenses on the NEC simply because there is little historical experience to draw upon, there is agreement that the cost will be exorbitantly high.

Today, even with current lower passenger train speeds, Amtrak's proposed trackage right charges are approximately double the charges imposed when a typical freight railroad uses another's tracks. As passenger train speeds increase, so will the cost of maintaining the Northeast Corridor trackage—and, if passed through, that cost will impact Conrail's and its connecting railroads' business.

Northeast Corridor maintenance and operating costs are extremely high for other reasons. Because the NEC is essentially a "passenger oriented" railroad, it contains a multitude of crossovers, multiple track, signals and electrical components, all of which are expensive to maintain and operate. We are indeed fortunate that most of these facilities were in place at the inception of the NECIP as they will make a significant contribution toward attainment of the goal of a high speed passenger service. At the same time most of them are not needed for the freight train operation.

To determine the level of facilities which would be needed for freight, we recently simulated a freight only operation on the NEC. Using the same assumptions which resulted in 1.80 minutes delay per freight train mile (with both passenger and freight trains) we simulated the freight trains only to determine the extent of delay due to freight trains themselves and what trackage would be required. The simulation results indicated that delays would be reduced to only 11 percent of that associated with the combined freight and passenger train operation. Moreover, this hypothetical freight only operation would require only 43 percent of the track miles and only a small fraction of the interlockers which are now in place on the NEC between Washington and Newark.

Since these costs are primarily passenger oriented, Conrail feels that freight should not bear the financial burden associated with the Northeast Corridor Improvement project, including present trackage right charges. To do otherwise would be tantamount to a cross-subsidy from freight to passenger, which is specifically prohibited in the Quad R Act.

OFF-CORRIDOR ALTERNATIVES

I believe that I've made the point that the Northeast Corridor Improvement Program is not directly beneficial to the current freight service and prospectively may create serious financial problems. But we're not just sitting back and waiting for the projected problems to become reality. A solution toward resolution of some of these problems is to use routes parallel to the NEC for freight where it is economically feasible to do so. For its part Conrail has already moved some trains from the NEC to parallel routes in the North Jersey area. FRA is in the process of completing a study which compares the economics of running trains on parallel routes to the NEC such as the Western Maryland, B&O and Conrail. Any implementation of these schemes will require substantial increase in capital dollars which Conrail has never forecast as part of its requirements. Nevertheless, even if the capital funds were made available, a substantial portion of the present traffic will

have to remain on the NEC. This is because these shipments originate or terminate directly on the Corridor and there is no cost effective alternative available.

CONCLUSIONS

The NECIP is a project which should be supported but I suggest that we assure ourselves that it will serve the needs of all users and if it does not, prepare now to take the necessary steps and provide the funds to make the Northeast Corridor a transportation asset to both types of traffic—not just an asset to passenger and a liability to freight.

In my judgment the Federal Government must assess the most cost effective method to move both freight and passenger traffic not only on the Northeast Corridor, but also on routes parallel to it. It may be that the taxpayers dollar is best spent by providing the necessary funds for capital improvements to parallel routes for freight; this could permit the federal government to avoid some of the excessively high NEC maintenance costs which may result from combined heavy use. Moreover Amtrak will be able to offer a smoother ride to its passengers and enhance its ability to attract more travelers from less fuel efficient modes. I believe it is vitally important that DOT approach the problem from this perspective.

Let me summarize by saying that we at Conrail view the Northeast Corridor freight traffic as a "business opportunity". At the same time it is by no means an opportunity that can carry the financial burden imposed by the NECIP. It is not financially self-sustaining now, and as the NECIP is completed the burden will increase. Conrail will have no choice but to take the necessary steps to minimize or eliminate the losses, including efforts to discourage certain traffic.

Moreover aside from the financial burden itself there is the issue whether the shipping community will continue to keep this and future traffic on the rails given the projected delay problems. Should substantial increments of existing rail traffic be diverted to trucks, using already congested highways, the benefits associated with spending billions of dollars to attract passengers from automobiles to trains, will certainly be lost. Succinctly stated I'm sure that no one wants a result where passengers use more energy efficient trains and freight moves to fuel inefficient trucks. Yet that is exactly what will happen if the NECIP is not responsive to the needs of freight.

I do hope the Federal government will address this problem. In the meantime, Conrail, for its part, will continue working with DOT, FRA and Amtrak to provide the best possible freight service under the existing constraints.

Thank you for giving me the opportunity to testify.

STATEMENT OF JAMES McCLELLAN, DIRECTOR, CORPORATE DEVELOPMENT, SOUTHERN RAILWAY

My name is James McClellan. I am Director, Corporate Development of the Southern Railway System, with headquarters in Washington, D.C.

My testimony will address Southern's concern that the Northeast Corridor Improvement Program will have a negative impact on its ability to provide freight service through the Potomac Yard gateway.

Before turning to the specific problems Southern foresees, I would like to briefly review my long-term association with the Northeast Corridor services.

I was a member of the F.R.A. staff which set up Amtrak. I was assistant to the Chairman of Amtrak incorporators and provided much of the technical input to the selection of the original basic Amtrak route structure. As Director of Scheduling and Consists at Amtrak during its first year and one half of operations, I directed the establishment of both hourly Metroliner Service and expanded service on the Shore Line (New York-Boston). While at U.S.R.A. (as Assistant Vice President of Strategic Planning) I had direct responsibility for the U.S.R.A. recommendation—in the Final System Plan—that most freight traffic be shifted "off-corridor" because the problems we at U.S.R.A. foresaw in mixing high density freight and high speed/high frequency passenger service.

At Southern, I have been responsible for monitoring the progress of the Northeast Corridor Improvement Program (NECIP), especially as it might have an impact on Southern's freight service through the Potomac Yard gateway. While my remarks today are directed toward that impact on Southern, they are based on a long term and close association with various aspects of Northeast Corridor operations.

My testimony will address three basic areas: The importance of the Corridor to Southern; Southern's assessment of the problems for freight service which will result

from the Corridor Improvement Program; Recommendations for resolving the problem.

IMPORTANCE OF THE NORTHEAST CORRIDOR TO SRS

Presently, the Northeast Corridor is of vital importance to Southern. One-third of SRS' traffic originates or terminates in Northeastern and Mid-western states. This traffic is concentrated over two gateways—Cincinnati (first in importance) and Washington Potomac Yard (second in importance). The majority of Southern's Potomac Yard traffic moves over the Corridor in connection with either Conrail and, to a much lesser extent, Delaware and Hudson. In 1978, the Potomac Yard interchange with Conrail was 102,800 loaded cars (282 per day); with the D&H, 4700 loaded cars (13 per day) were interchanged.

Southern operates a high capacity, centralized traffic control railroad from its major yard at Linwood, N.C., to Potomac Yard. Between most southeastern states served by Southern and the Northeastern Atlantic Seaboard states, the Potomac Yard gateway is our most direct route.

For most of our current traffic flowing through Potomac Yard, no acceptable alternative route to the Northeast Corridor currently exists. Rerouting over the Cincinnati gateway is too circuitous today and, in light of increasing fuel costs, will be even less practical in the future. Rerouting through Norfolk involves use of a circuitous, lower-capacity route on SRS, and an expensive and time-consuming water transfer at Norfolk.

There are only two practical alternatives to the Northeast Corridor route from a service, cost, and congestion aspect. One is the Baltimore and Ohio (Chesapeake System) to Philadelphia, thence over Conrail (former Reading) to northern New Jersey. Another possibility is use of the Shenandoah Valley route, utilizing lines of the Norfolk and Western, Chesapeake System (Western Maryland) and Conrail. Neither of these routes handles significant north-south traffic volumes today. They may offer potential in the future but only if the involved railroads are willing and able (especially from a capital expenditure standpoint) to make considerable changes in current facilities and operations.

Thus, the Northeast Corridor is very important to Southern. Its present importance reflects the fact that it currently provides, all factors considered, the best available freight route north of Potomac Yard.

THE NORTHEAST CORRIDOR IMPROVEMENT PROGRAM (NECIP) POSES SIGNIFICANT PROBLEMS FOR FREIGHT OPERATIONS ON THE CORRIDOR

Southern has already experienced some periods of substantial delay due to work activity on the Corridor. SRS expects further problems as construction activities increase on the Washington to Newark segment.

If the problems were related only to the construction period, Southern would not be too concerned. But it is *after* completion of NECIP that we foresee the greatest problem.

Simply stated, Southern does not believe that the present high density freight operations, commuter services (primarily north of Wilmington) and high speed, high frequency intercity service can coexist on the Corridor as it is currently planned. One, and perhaps all, of the three services will suffer from reduced reliability, higher cost or both. Given the high visibility of passenger services (intercity and commuter), freight service is likely to be sacrificed when conflicts between the three classes of services arise.

First, there will be capacity problems—especially at Baltimore. Freight trains will be delayed, resulting in lower service quality and higher costs. Given the intense competition from motor carriers, rail freight traffic will decline because of this greater unreliability and cost. (Already, Southern operates virtually all of its trailer on flat car traffic over the highway north of Potomac Yard because the highway service is more reliable and less costly). Southern believes the capacity problem could be acute if the energy problem grows worse, as it would increase demand not only for freight service but also for commuter and intercity passenger service.

Second, the maintenance-of-way impact cannot be ignored. High volumes of heavily loaded freight cars require one type of track structure; high speed passenger service another. At worst, experience may prove that the two services are totally incompatible from the standpoint of track structure. At best, mixing both services will increase maintenance-of-way costs very substantially. While freight and passenger services are successfully mixed in most other countries, the axle loadings for freight are far less. Southern believes that this problem has been largely ignored, and that when maintenance costs escalate, there will be attempts (unfairly in our

judgment) to charge the heavy maintenance costs to freight. This will make freight service uncompetitive with trucking.

Third, there is the safety issue. While the chance of occurrence of a freight train—passenger train wreck may be acceptably small, if an accident does occur it could be serious. There would be an immediate reaction to force freight service from the Corridor and there would be no place for it to go, because efficient alternate freight routes won't exist.

Suggested changes

Southern believes that the cost of mixing freight, commuter, and passenger service should be recognized as an "up front" expense. The NECIP is already underfunded given the current legislated objectives. Thus, the understandable tendency of D.O.T./F.R.A. (with the acquiescence of the Congress) is to downplay the potential problem—hoping that everything will work out.

To solve the freight problem, both the Executive Branch and Congress can either increase expenditures for the program, reduce the expectations for the intercity passenger service (e.g., relax the mandated trip time goals), or accept a serious degradation of rail freight service on the eastern seaboard. Southern cannot judge what the precise trade-off should be, but suggests Congress consider actions along the following lines:

Provide additional capital expenditures for additional capacity. These expenditures should be directed to off-corridor routes wherever possible in recognition of critical maintenance-of-way and safety considerations. F.R.A. has identified a number of off-corridor options; F.R.A. now should recognize that such options must receive the capital expenditures needed to convert them from a paper exercise into reality.

Provide for relaxation of mandated passenger train trip times as—and when—required to keep freight train delays within a reasonable limit. Even with major shifts of freight traffic "off-corridor", there are substantial freight volumes which must remain on the corridor (because of access to industry, yards, etc.). Passenger trains should not be given absolute rights over freight trains at all times—there are service and cost trade-offs which can be made. But the trip times currently mandated do not provide that flexibility.

Accept some deterioration in freight service. This has already occurred; the Corridor has always been a major passenger route and freight reliability has been lower (and costs higher) because of this. Southern could accept modestly longer freight schedules than exist today—but only if such lengthened service is reliable and only if the cost burden it bears is reasonable.

Our recommendations have been necessarily general. Conrail, Amtrak, F.R.A. and others have more intimate knowledge of how the trade-offs suggested above can be implemented.

Thank you for considering our views in this important matter.

THE SECRETARY OF TRANSPORTATION,
Washington, D.C., December 7, 1979.

HON. HOWARD W. CANNON,
Chairman, Committee on Commerce, Science and Transportation,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your letter dated August 2, 1979, consigned by Senators Long, Packwood, and Pressler, in which a number of questions were raised concerning the status of the Northeast Corridor Improvement Project (NECIP). Detailed responses to these questions are provided in Enclosure 1. Your questions have a common thread of inquiry, namely, "How did the program get where it is; what is the current status of the program; and what are the options available to the Congress at this point?" Because our responses to your questions are necessarily detailed, I will summarize below our response to the broad issues.

The Administration supports the NECIP which is designed to complete a vital link in the transportation system of the Northeast. I personally believe that future trends toward increasing transportation congestion, fuel shortages, and air quality deterioration will show that this high-quality, high-capacity, energy-efficient, and potentially petroleum-independent rail system represents a wise use of public funds. Certainly we realize that transportation spending must be efficiently and fairly allocated and balanced among other national needs. Accordingly, projects such as the NECIP must be maintained within a reasonable budget and time frame in order to obtain the maximum benefit from the total resources available.

During 1978 the Department conducted a study to (a) clearly establish the features and funding level necessary to meet the goals established by Title VII of the Railroad Revitalization and Regulatory Reform Act of 1976 (the 4R Act); and (b) to ensure that the needs of all users—commuters and freight operators, as well as intercity rail passengers—are met in a balanced way. The result of this effort was the Redirected Program which was developed in the summer and fall of 1978 and published in January 1979 under the title The Northeast Corridor Improvement Project Redirection Study.

Immediately following the publication of this report, the Department began developing detailed descriptions of all the component features of the program so that final designs and construction plans, together with associated costs, could be completed. This meant that the combined engineering staffs of the FRA (including De Leuw, Cather/Parsons, the principal support contractor to the FRA) and Amtrak had to start with the generalized feature descriptions contained in the Redirection Program and transform them into more precise work descriptions. Following extensive discussion, the FRA and Amtrak have essentially agreed upon these improved descriptions of the scope of work.

The work descriptions were next costed out in base year (1977) dollars; individual design/construction projects were then scheduled for the entire Redirected Program; the "base year cost" was adjusted to consider the effects of inflation on the midpoint of construction; provision was made for an element of uncertainty associated with each individual project; and all these considerations were combined to yield a more refined project cost. In the course of refining the Redirected Program cost estimates, there were several findings, the net effect of which was the identification of additional costs which are explained in detail in Enclosure 1.

These additional costs are attributable to two broad categories: (a) the impact of inflation, i.e., actual inflation rates in excess of those estimated, and minor stretch-outs of certain projects with inflation adjustments to reflect revised schedules; and (b) cost reestimations centering around the results of an adjustment in the estimating method, full costing of Amtrak program management and systems engineering efforts, and more accurate estimates and feature adjustments for individual projects.

In recent months, the FRA has been reevaluating the impact of maintaining a program at the \$1.75 or \$2.4 billion funding levels estimated in the Redirection Study. The conclusion reached was that \$1.75 billion would be totally inadequate and that \$2.4 billion would barely provide the reliability and amenities essential to attract and retain a level of ridership that, in turn, would permit Amtrak to reach a break-even point for Corridor operations by the late 1980's. Our new assessment shows that the necessary reliability and amenities can more readily be provided with a \$2.5 billion program level. This level will accommodate all the major features essential to meeting the goals of the 4R Act. At the same time, this funding level will permit an appropriate balance for reliability, trip time, and comfort for all users of the improved Corridor.

A table has been prepared (Enclosure 2) to contrast the budget levels associated with major system elements, including (a) the \$2.4 billion Redirected Program; (b) a balanced \$2.5 billion program; and (c) a current \$1.75 billion program. The Department recommends option (b), the \$2.5 billion program. To permit the Congress further insight into these options, Enclosure 3 contains an overview of each.

The recommended \$2.5 billion program reflects our renewed commitment to the Corridor program. The analysis that has been done over the past several months has revealed that the need for approximately \$360 million of projects is largely driven by forecasts of future increases in ridership which are not yet proven or by earlier decisions to utilize NECIP construction funds to deal with the deferred maintenance which Amtrak inherited with its acquisition of the Corridor properties. We are recommending that such work can be deferred until such time in the post-1984 time frame that traffic levels justify consideration of further improvements, and that Amtrak should plan and implement such projects. This approach will serve to facilitate the Department's eventual disengagement from the NECIP as an independent project and will coincide with Amtrak's increasing planning and construction management capability. For the period beyond 1984, Amtrak can concurrently maintain the improved Corridor and systematically address the deferred maintenance as appropriate, based upon traffic demand requirements.

The recommended \$2.5 billion program will permit achievement of mandated trip times in both the Washington-New York and the New York-Boston segments. Assuming adequate levels of Amtrak maintenance, trip times should be achieved reliably through the mid-1980's. Additional improvements or equipment requirements to meet passenger growth which we expect to develop beyond that date should be considered for future Amtrak budgets. The \$2.5 billion program presumes

that Amtrak will make provisions in its future budgets to meet higher traffic levels without sacrificing reliability. It is, in effect, the base for future improvements as traffic demand develops further. The Department recommends that the \$2.5 billion program be authorized by Congress, with a commitment to support Amtrak as Corridor traffic levels justify future budget requests beyond the point of initial Corridor construction and for major Amtrak capital equipment investment.

In order to manage the proposed \$2.5 billion effectively, further improvements have been made in the FRA's management of the NECIP that will have a long-term impact on our ability to maintain the integrity of the program:

Organizational realignments have been made at the FRA, De Leuw, Cather/Parsons, and Amtrak to sharpen the focus on control of the project scope, schedule, cost, and performance.

The Memorandum of Understanding executed in March 1979 between Amtrak and the FRA has been carried out in a spirit of mutual cooperation. The improved cooperation will greatly enhance our ability to maintain program integrity, and ensure that the resultant system is achieved with minimal operational problems in the transitional phase.

Better program definition and organization have created powerful incentives for all concerned to control costs so that, with a fixed budget, cost overruns in one area can be compensated by efficiencies or reductions in other areas. As applied to Amtrak, this included two steps:

The FRA identifies and clearly designates all Amtrak construction work.

The FRA turns that work over to Amtrak with the necessary freedom to manage, including the resources necessary to execute. This is done, however, with the understanding that, should Amtrak exceed this budget, it will be at the expense of dropping work equivalent to the overrun. Thus, Amtrak's incentive for improved work quality and productivity is clear and immediate.

Work is being assigned to Amtrak in a more streamlined manner, thus cutting "red tape." Previously, whenever work was assigned to Amtrak it required a formal contract modification with lengthy coordination and negotiation among the procurement and legal elements of both Amtrak and the FRA. Such coordination has been simplified, however, and future work assigned to Amtrak will be construed as technical direction not requiring a contract modification.

I am optimistic that the NECIP has passed its most critical milestones. We know what our initial program content should be; we know with a reasonable degree of accuracy what it should cost; the major organizations are aligned functionally and appropriately staffed; and perhaps most importantly, they are all pulling together.

Progress in the NECIP this year has been significant from a cost-efficiency point of view. As of October 1, 1979, we were completing work in the all-important track program at lower costs than either of the previous two years and at lower costs than had been forecasted for the year. Work is also progressing on other construction projects, and increased emphasis is being placed on the completion of design packages in preparation for construction starts in 1980. We are looking forward to the completion of a successful year.

The history of this project makes it clear that close management controls are necessary to avoid further unpleasant surprises. I must emphasize, however, that it is still not possible to anticipate precisely the variety of future problems that could require the reprogramming of project elements in order to absorb any related cost increases.

The Department and Amtrak will make every effort to plan for and minimize the potentially negative impact of such future uncertainties as the changing competitive situation among construction contractors due to economic fluctuations, Amtrak's productivity rates, future rates of inflation, delays to agency agreements, and environmental issues. In considering the broad questions of uncertainties, two points are to be noted. First, the Department is committed to return to the Congress and request additional authorizations to offset inflation which is beyond our ability to control or predict. The second point is that the Department is committed to ending its direct role in implementing the project when this \$2.5 billion authorization has been expended. If any necessary work being performed by Amtrak is not completed within the schedule or within the \$2.5 billion program we are recommending, Amtrak will have to plan for its accomplishment as a part of their continuing responsibility for maintenance and upgrading of the Corridor. However, as discussed, this should not include responsibility for any shortcomings due to inflation rates above those projected.

As the Department stated at the time of the Redirection Study report, it is essential that the content of our program be stabilized as quickly as possible. In order to control costs and schedules, we must reach full agreement on project scope.

To accomplish this, it is necessary that Congress act favorably on our authorization request for an additional \$750 million, totaling a \$2.5 billion project budget. Concurrently with the delivery of this letter, I am formally transmitting to the Congress the Administration's Northeast Corridor legislation, including the additional authorization request for \$750 million.

Favorable action will permit us to move forward with assurance and considerably more speed. Deferred legislative considerations will continue the design turmoil which has so plagued the project in the past. I urge your prompt and favorable action.

Sincerely,

NEIL GOLDSCHMIDT,
Secretary.

Enclosures.

[ENCLOSURE 1]

RESPONSE TO ITEMIZED QUESTIONS

Question 1. Does the Administration plan to submit a specific legislative proposal for the Northeast Corridor Project? If so, can you give us a date when we might receive the proposal? If not, what action do you recommend the Congress take?

Answer. The Administration's legislative proposal for the Northeast Corridor Improvement Project (NECIP) will be in final form in a matter of days and will be transmitted shortly to the Congress.

Question 2. The additional \$654 million recommended by the Redirection Study would bring total project costs to \$2.404 billion. We understand that this total was derived by adding up the costs of a large number of specific rehabilitation and construction projects. Can you please provide us with a list of these projects, the cost of each as estimated at the time of the Redirection Study, and your current estimate of the costs of each project? To the extent that your current estimates differ from those used at the time of the Redirection Study, please identify and explain any difference.

Answer. The cost increases over original estimates for the Redirected Program were attributable to the following major reasons and in the amounts indicated below.

Major categories of increase:

	Millions
1. Actual inflation rates in excess of those estimated, and minor stretchouts of certain projects adjusted to reflect revised schedules.....	\$72.8
2. Cost reestimations including the result of an adjustment in the estimating method, full costing of Amtrak program management and systems engineering efforts, more accurate estimates for individual projects, and system feature adjustments.....	383.2
Total.....	456.0

Category 1

Actual inflation rate and schedule changes.—The Redirected Program used an inflation rate of 7 percent for 1979 (in line with Administration guidelines), whereas the actual inflation rate for the period has been approximately 10 percent. The effect on the Redirected Program would be a \$49.6 million upward adjustment in the cost estimate for a fixed quantity of work. An additional \$23.2 million to account for inflation would be required because of carryover of fiscal year 1979 appropriations into fiscal year 1980 and rescheduling of outyear projects.

Category 2

Cost reestimation—adjustment in cost estimating method.—Engineering cost estimates normally include contingency allowances. These include allowances for: (a) the difference between cost extensions of design estimates and the actual negotiated contract price; and (b) change orders and/or claims that must be addressed during the construction process. In the light of recent experience, the cost estimating used in the Redirection Study did not make adequate allowance for both types of increase. A recent review indicates an additional \$111.7 million would be required to accommodate these types of contingencies.

Cost reestimation—Amtrak PM/SE costs.—The omission by error of a major share of Amtrak program management and systems engineering (PM/SE) costs accounts for \$106.7 million or 23 percent of the additional costs. This omission did not become

apparent until the FRA and Amtrak initiated in 1979 project definition in greater detail and cost estimation for the scope (work content) of each project.

Cost reestimation—cost adjustments/system feature adjustments.—To arrive at more precise estimates of individual projects, each project was reestimated. More accurate estimates are now possible because detail design work is now available. Most of this had not reached a definitive stage when the Redirected Program was assembled in the summer and fall of 1978. At certain steps in the design process, i.e., 60 percent, 90 percent, and at design completion, improved, revised cost estimates for construction are being produced.

An additional year of construction work experience enables us to further refine project estimates. A result of the reestimating process was the identification of additions and deletions to program elements. Cost adjustments and system feature adjustments account for \$164.8 million.

The Department is recommending a \$2.5 billion level of funding for the NECIP. A comparison of the features in the recommended program with those in the original Redirected Program is shown in Enclosures 2 and 3.

Question 3. Which items of work will continue to be included in the project if funding continues to be limited to \$1.75 billion? Which items will be added if an extra \$654 million is provided? Under both funding levels, which items would be deleted from the scope of work described in the Redirection Study? To the extent possible, please explain why particular projects were retained or deleted?

Answer. With few exceptions, the work included in the \$1.75 billion program represents a limited maintenance and capital improvement program to the roadbed (i.e., track structure, route realignment, and bridges) to reduce deferred maintenance and trip times wherever possible. The \$1.75 billion funding level does not include the major improvements to stations, service facilities, and the signaling and electrification systems north of New Haven which are necessary to fulfill the goals of the 4R Act. The \$1.75 billion program contains the improvements which maximize reliability of service and achievement of trip times within the funding level.

Inflationary pressure has forced the Department to increase the authorization request from \$654 million to \$750 million, for a total program budget of \$2.5 billion. The additional \$750 million will permit major upgrading of 15 stations, construction of 6 service facilities and 5 maintenance-of-way (MOW) bases, and installation of a new signaling and electrification system north of New Haven. The \$2.5 billion program will provide reliability of service, achievement of trip times, and the passenger amenities necessary to support a high-speed intercity rail system.

Enclosure 3 contains a list and comparison of program features for the Redirected \$2.4 billion, the \$2.5 billion, and the \$1.75 billion programs.

Question 4. Your letter of July 26 indicates that the Administration plans to stick by the \$654 million previously requested. Will the reduced scope of the project affect the achievement of the trip-time goals? Will some of the omitted projects have to be undertaken by Amtrak in the future? If so, can you identify which ones and when they will have to be undertaken?

Answer. The Administration is requesting an additional authorization of \$750 million. The resultant \$2.5 billion program will allow achievement of the trip-time goals of 2 hours and 40 minutes between Washington and New York and 3 hours and 40 minutes between New York and Boston.

The FRA has concentrated on the budgetary and planning effort of the \$2.5 billion program. The general post-NECIP requirements for Amtrak have been formulated, but the details have not been completed. The FRA will be assisting Amtrak planners in the formulation of multiyear Northeast Corridor capital and maintenance budgets. Maintenance plans for the Corridor as part of the transition to post-NECIP operations currently are being developed.

Table 4 contains a list of project areas that may be considered by Amtrak, as ridership and service frequencies increase, to produce added revenues which will justify the use of Federal funds.

TABLE 4.—Project areas for future Amtrak consideration

1. Track Structures—including equipment maintenance.
2. Bridges—essential repairs.
3. Electrification—renewals, conversion of voltage and frequency, rehabilitation south of New Rochelle.
4. Signaling—improvements to achieve compatibility with electrification conversion south of New Rochelle.
5. Communications—residual work for communications transmission system contract.
6. Fencing—includes intertrack fencing at selected commuter stations.

7. Service Facilities—further provision for maintenance of MOW equipment.

8. Tunnels—structural repairs and lighting.

Question 5. Can you estimate the trip time that would result if no further funds are authorized for the project? If an additional \$654 million is authorized? If the funding is increased to finance all of the projects in the Redirection Study? How reliably could the trip times be met in each of the three alternatives? Can you provide the Committee with any other means of realistically comparing a system constructed for \$1.75 billion with a system constructed for \$2.404 billion and with a system constructed for around \$2.9 billion?

Answer. If funds for the Corridor project are limited to the current \$1.75 billion authorization, it will not be possible to achieve the trip-time goals for the sector from New York to Boston, and ability to achieve the trip times south of New York would be marginal. \$1.75 billion is insufficient to fund the necessary high-priority items and also to permit electrification construction from New Haven to Boston. Consequently, the motive power operation would remain as is with diesel propulsion north of New Haven. The necessary engine change at New Haven and the lower locomotive performance characteristics of the diesel compared with the new electric would add at least 30 minutes to the goal of a 3-hour-40-minute New York-Boston schedule. We assume that the anticipated trackwork improvements between New Haven and New Rochelle will be accomplished by the appropriate local authorities, as well as the Boston Southwest Corridor Project by the local transportation authority.

If an additional \$654 million is authorized, we believe the running times could be met, although we have significant concerns about the sustainment of service reliability and the passenger comfort which will contribute to passenger growth.

If the financing were increased to the \$2.5 billion level which I am requesting, we expect to provide passenger service on the Corridor that reliably will meet the running times and provide the service levels and passenger comfort I believe necessary to encourage additional ridership.

I do not believe we should increase funding above the \$2.5 billion level at this time. To the extent that some of the Redirected Program spending was demand-dependent, my \$2.5 billion proposal will permit us to test the market before spending the money. Any deferred maintenance remaining beyond the \$2.5 billion level can more effectively be completed by Amtrak in future years.

The attached table provides a measure of comparison between my recommended program and the \$1.7 billion program. The amounts of financial assistance discussed above tend to be largely speed-related. As you will see in my response to your question number 11 below, we should also make an effort to recognize that other factors, such as comfort, reliability, and fares, are every bit as important as speed.

Table 5

IMPACT OF PROGRAM REDUCTIONS ON MARKET POTENTIAL, SYSTEM CAPACITY, AND FUTURE MAINTENANCE COST

\$1.75 Billion Versus \$2.5 Billion Program Features

Criteria	\$2.5 Billion Program	\$1.75 Billion Program
Market potential	Market potential will be increased by achieving a high level of ride quality. Retention of all station improvements called for in the Redirection Study will offer attractive gateways to improved Corridor rail operations.	Market potential will be increased by achieving a high level of ride quality; deferral of stations and parking facilities improvements will adversely affect market growth.
System capacity	Deferral of rebuilding of the electrical system between Washington and New York to new 25 kv, 60 Hz system will constrain system capacity and act to limit traffic growth in the late 1980's.	Deferral of electrification and signaling system improvements north of New Haven increases the trip time and decreases ridership demand in this segment. Reductions in the service facility program will cause reduction of equipment availability which in turn will limit traffic growth. Deferral of major rebuilding of the electrical system between Washington and New York to new 25 kv, 60 Hz system will reduce system capacity and act to limit traffic growth in the late 1980's. Deferral of electrification and signaling system improvements north of New Haven will limit system capacity between New Haven and Boston. Reductions in the service facility program will cause increases in train-turnaround times and will not allow optimum vehicle utilization, therefore reducing system

Table 5 (continued)

Criteria	\$2.5 Billion Program	\$1.75 Billion Program
Future maintenance costs	Deferral of the ballast undercutting program and the maintenance of track construction equipment may be expected to cause increases in maintenance costs in the post-NECIP period.	Deferral of the ballast undercutting program and the maintenance of track construction equipment will cause greater increases in track maintenance costs in the post-NECIP period.
	Deferral of selective bridge work will cause increases in scheduled and unscheduled maintenance operations in the post-NECIP period.	Deferral of the bridge program will cause increases in scheduled and unscheduled maintenance operations in the post-NECIP period.
	Deferral of conversion to a new 25 kv, 60 Hz electrification system between Washington and New York will force dependency on the existing system. Maintenance costs therefore will increase.	Deferral of conversion to a new 25 kv, 60 Hz electrification system between Washington and New York will force dependency on the existing system. Maintenance costs are therefore increased.
	Minor reductions in the service facility program will cause maintenance of MOW equipment to be more labor intensive, resulting in increased costs.	Large reductions in the service facility program will preclude adequate preventive maintenance, will cause degradation of vehicle servicing, and will increase maintenance costs.

Question 6. It has been suggested that, unless the \$1.75 billion now authorized for the Northeast Corridor Project is increased, the trip times could initially be achieved, but the reliability would gradually diminish and trip times would gradually lengthen. Assuming adequate maintenance on the part of Amtrak, why would trip times increase over the course of time?

Answer. Unless the \$1.75 billion now authorized for the NECIP is increased significantly, the trip times north of New York would exceed the legislative goal by more than 30 minutes. Trip times south of New York would barely be achievable. Assuming adequate track, bridge, signal, catenary, and equipment maintenance by Amtrak, they would not alter.

The reductions in scope that we have identified for a \$1.75 billion program would cause a reduction of the trip-time reliability. In particular, deletion of the electrification program north of New Haven would require transfer from electric power to diesel power at New Haven, with reductions in trip-time reliability. Although locomotives and Metroliners will be essentially new or recently refurbished at completion of the NECIP, large reductions in the service facility program would cause marked and rapid degradation of vehicle servicing capability with resulting reductions in reliability.

It is not possible to predict with accuracy the actual rate of degradation in trip-time reliability. It is influenced heavily by extreme, inclement weather conditions; power outages; and new equipment such as the electric locomotives which have not yet been service tested, and on which maintenance personnel have not yet been trained.

Question 7. Have you initiated (or do you plan to use any funds requested for fiscal year 1980 to initiate) any major projects which are dependent on additional authorization for their completion and which will be incomplete or useless unless additional authorizations are received?

Answer. In the House Commerce Committee Report on the Amtrak Reorganization Act of 1979 (Report No. 96-189), page 26, the Committee on Interstate and Foreign Commerce stated, "... to avoid further delays in project completion, the Northeast Corridor Improvement Project should be implemented in accordance with the general plan specified therein (the Redirection Study), pending final Congressional action."

The Department had been proceeding with engineering and long-lead-time procurements for projects included in the currently recommended \$2.5 billion program that have been derived from the original Redirected Program. The installation of the signaling and electrification systems north of New Haven is dependent on additional authorization for completion. To meet the scheduled construction start date for fiscal year 1981 and to avoid potentially serious delay to the program, procurement action for these items has commenced.

Consistent with the direction in the Conference Report for fiscal year 1980 appropriations, the FRA is no longer funding any construction projects which can not be completed within the \$1.75 billion. As the apportionment has been planned, the \$1.75 billion will be exhausted during fiscal year 1981.

Question 8. We realize that major construction projects, especially projects involving rehabilitation of old property, often encounter unexpected costs. However, it has been 3½ years since the Northeast Corridor Improvement Project was established, and approximately \$1 billion has been appropriated through fiscal year 1979. In light of the work already undertaken, and in light of the fact that the Redirection Study was issued only in January, to what do you attribute the very large cost increases now surfacing? What steps have you taken to make sure your current estimates are accurate and that similar increases will not occur in the future?

Answer. The Redirection Study was oriented toward evaluation of options and selection of a recommended program. Although more comprehensive and far more realistic than previous estimates, the costs were not defined to the level of detail that has recently been developed.

Since the publication of the Redirection Study report last January, the FRA Northeast Corridor Project Office and its principal construction and support contractors, Amtrak and De Leuw, Cather/Parsons, respectively, have been compiling and reviewing detailed descriptions of the scopes of work for individual projects to support procurement plans and budgets. As scopes of work are agreed upon, the cost of these detailed work descriptions is estimated.

Essentially, the cost increases that have become apparent since publication of the Redirection Study are attributable to: omissions of adequate cost for Amtrak's program management and systems engineering and for the cost estimating method which are not likely to recur; additional experience that provides more accurate

insight into the requirements of each project and its associated cost; and the inflation rate above that which have been projected.

The omissions, the cost estimating refinements, and the revised inflation rate for 1979 are being accounted for in present budget estimates. The budgetary process which discovered these increases and the level of detail presently available should ensure that uncontrolled cost increases will be less likely to occur.

Question 9. The Redirection Study and the Department's estimate of \$654 million to complete the Project did not address the issue of the Baltimore and Potomac Railroad (B&P) Tunnel in Baltimore, which was the subject of a separate study. The draft report of that study contains no recommendations, and we understand that the issue is under further study. However, since it seems desirable that any legislation to complete the project include a decision about any future funding necessary for the B&P Tunnel, we would like to receive your recommendations on this subject. Do you suggest that additional funds should be added so that the B&P Tunnel can be improved or replaced? If so, which option do you recommend and how much will it cost? If the tunnel is not addressed by this legislation, will additional work on the tunnel need to be undertaken in the foreseeable future? If so, when? How extensive will the work be if needed? How much do you estimate it may cost?

Answer. The Baltimore Area Rail System Study conducted by the FRA developed three options for solving potential congestion problems at the B&P Tunnel. The options, ranked from least to most expensive, are: (a) divert between 3 and 11 Conrail daily freight trains, depending on rates of traffic growth, to Chessie System rights-of-way; (b) modify the B&P Tunnel at three curves to allow concurrent passage of opposing freight trains; and (c) build a new B&P Tunnel.

Option (a) assumes the accomplishment of currently planned NECIP improvements including a new concrete track slab and new track, and repair of the utility lines. It is the Department's position that this option is the preferred one. Representatives from the principal railroads involved in effecting the diversions necessary to alleviate the potential congestion problem, i.e., Chessie and Conrail, should continue to work together to bring their negotiations to a satisfactory conclusion.

Question 10. The Redirection Study indicated a realistic construction completion date of late 1983. Have the problems now surfacing affected this date? If so, what is now your best estimate for a realistic completion date?

Answer. The Department's proposed legislation for the NECIP revises the completion date from "within 5 years after the date of enactment" of the 4R Act to "within 5 years after the enactment of the Northeast Corridor Redirection Act of 1979," extending the completion date to fiscal year 1984 or 1985, assuming completion of Congressional action on the legislation this year.

Question 11. If Congress should decide to reevaluate the original goals of the Northeast Corridor Improvement Project as expressed in the 4R Act, what would you recommend as alternative trip-time goals, their degree of reliability, and the associated total project cost?

Answer. Consistent with the goals of the 4R Act, we consider the paramount Corridor goals to be:

1. Establishment of a level of reliable service that will foster growth of patronage.
2. Establishment of a frequency of service that will meet ridership needs.
3. Scheduling and distribution of appropriate station stops, and appeal to the patronage profile as developed by market research.
4. Establishment of an operating philosophy for Amtrak's management that will provide at least a break-even revenue/cost ratio in the 1986-1987 time frame.
5. Reliable meeting of the present triptime goals as set forth in the 4R Act.
6. Future expansion of service when consistent patronage increases justify taking this step.

We believe that the NECIP focus should not be so exclusively on endpoint running times that we fail to meet the other needs of the traveler. Therefore we would recommend no changes in the existing time goals. If the Congress wishes to reassess the current goals or consider any future changes, we believe such changes should be based on ridership increases and growth in demand, and that demand should reflect passenger sensitivity to fares, comfort, reliability, and frequency as well as speed.

Enclosure 2

COMPARISON OF VARIOUS NECIP FUNDING LEVELS BY PROGRAM ELEMENTS
(\$ in millions)

Subsystems	Original Redirected Program (\$2.4 Billion Level)	Updated \$2.5 Billion Program	Current \$1.75 Billion Program
Route realignments	84.6	63.2	41.9
Track structures	722.0	804.8	723.1
Bridges	239.6	271.5	271.4
Electrification	349.9	307.4	113.8
Signaling	259.7	323.1	182.1
Communications	33.6	10.5	8.8
Fencing	46.6	38.6	13.3
Grade crossings	16.0	16.0	16.0
Stations - operational/ safety	106.4	119.4	21.7
Stations - nonoperational	60.4	72.1	23.7
Service facilities	159.9	158.9	65.1
Tunnels	29.7	33.2	19.6
DGP program management/ systems engineering	235.0	226.7	202.0
FRA program management/ systems engineering	60.6	54.6	47.5
Totals	<u>2,404.0</u>	<u>2,500.0</u>	<u>1,750.0</u>

Enclosure 3

FEATURES COMPARISON OF VARIOUS NECIP FUNDING LEVELS

Program Element	Unit of Measure	Redirected Program (\$2.4 Billion Level)	\$2.5 Billion Program	Current \$1.75 Billion Program
<u>Route Realignments</u>				
Spiral adjustments Time-saving curves	Quantity	34	28	0
	Quantity	6	5 (2 transferred to interlocking reconfiguration)	5 (2 transferred to interlocking reconfiguration)
Curves driven by interlockings, terminal, areas, bridges	Quantity	16	8 (6 transferred to interlocking reconfiguration)	5 (6 transferred to interlocking reconfiguration)
	Quantity			
<u>Track</u>				
Interlocking reconstruction Interlocking rehabilitation Concrete ties Wood ties Fit rail New rail Undercutting Ballast cleaning Tunnel track	Quantity	50	56	55
	Quantity	60	49	49
	Miles	431.3	420.9	420.9
	Quantity	700,000	709,053	709,053
	Miles	95.2	84	84
	Miles	186.9	201.7	201.7
	Miles	773.6	659.9	659.9
	Miles	519.0	234.9	234.9
	Site-specific	Lines 1 & 2 East River, North River, B&P	Lines 1 & 2 East River, North River, B&P	Lines 1 & 2 East River, North River, B&P
	Site-specific			
Service facility track	Site-specific	9 MOW bases 6 Service facilities	5 MOW bases 6 Service facilities	0 MOW bases 2 Service facilities
	Site-specific			

Enclosure 3

FEATURES COMPARISON OF VARIOUS NECIP FUNDING LEVELS

Program Element	Unit of Measure	Redirected Program (\$2.4 Billion Level)	\$2.5 Billion Program	Current \$1.75 Billion Program
<u>Bridges</u>				
Replacement	Quantity	29	17	17
Rehabilitation Amtrak	Quantity	155	184	184
Rehabilitation FRA	Quantity	71	48	48
<u>Electrification</u>				
Electrification system between Washington and New Haven	Type of work	Convert power supply to 25kv, 60Hz; rehabilitate catenary system	Rehabilitate existing power supply system	Rehabilitate existing power supply system
Electrification system between New Haven and Boston	Type of work	New 25kv, 60Hz catenary and power supply system	New 25kv, 60Hz catenary and power supply system	No electrification north of New Haven
<u>Signaling</u>				
Signal system between Washington and New Haven	Type of work	Entire system	Scope reduced for not converting ET to 25kv, 60Hz	Scope reduced for not converting ET to 25kv, 60Hz
Signal system between New Haven and Boston	Type of work	Entire system	Entire system	Rehabilitate existing signal system north of New Haven

Enclosure 3

FEATURES COMPARISON OF VARIOUS NECIP FUNDING LEVELS

<u>Program Element</u>	<u>Unit of Measure</u>	<u>Redirected Program (\$2.4 Billion Level)</u>	<u>\$2.5 Billion Program</u>	<u>Current \$1.75 Billion Program</u>
<u>Communications</u>				
NOW and Operations Radio	Type of work	Procure and install base stations, mobile and portable radios	Procure and install base stations, mobile and portable radios	Procure and install base stations, mobile and portable radios
Communications transmission system	Type of work	NECIP installation of microwave system	Lease primary and secondary system; procure and install tertiary system	Lease primary and secondary system; procure and install tertiary system
<u>Fencing</u>				
Right-of-way (NOW) fencing	Type of work	170.8 miles of NOW fencing; service facility fencing	185 miles of NOW fencing	NOW fencing in Massachusetts, Delaware, and Bronx county
Other fencing	Type of work	125 Overhead bridges, 4 pedestrian access structures	201 Overhead bridges	38 Overhead bridges

Enclosure 3

FEATURES COMPARISON OF VARIOUS NECIP FUNDING LEVELS

<u>Program Element</u>	<u>Unit of Measure</u>	<u>Redirected Program (\$2.4 Billion Level)</u>	<u>\$2.5 Billion Program</u>	<u>Current \$1.75 Billion Program</u>
<u>Stations</u>				
Operational/safety	Type of work	Improvements to 15 stations	Improvements to 15 stations	Improvements to 7 stations with major reductions in scope
Nonoperational	Type of work	Improvements to 13 stations	Improvements to 15 stations	Parking facilities only at 4 stations
<u>Service Facilities</u>				
MOW bases	Quantity	9	5	0
Equipment facilities	Quantity	5 service facilities and New Haven fueling facility	5 service facilities, New Haven fueling facility, Washington car wash	Boston and Washington service facility (reduced scope) New Haven fueling facility, Washington car wash
<u>Tunnels</u>				
Civil work	Site-specific	BSP, Union, East & North River, East Haven Tunnels	BSP, Union, East & North River, East Haven Tunnels (minor scope reductions)	BSP, minor work in East & North River Tunnels

SPECIFIC REGIONAL BENEFITS OF THE \$2.5 BILLION NECTP

(Dollars in Millions)

Washington, D.C.

Washington Service Facility	33.4
Washington Car Wash	1.5
Union Station	25.8
Concrete Ties, 12 miles/track improvement	12.2
New Signaling System	4.8
Rehabilitation of Electrification System	1.2

Maryland

Baltimore Station	12.5
New Carrollton Station	10.9
Baltimore Tunnel	15.6
Odenton Maintenance of Way Base	6.5
Perryville Maintenance of Way Base	6.3
Concrete Ties, 123 miles/track improvements	188.3
New Signaling System	97.7
Rehabilitation of Electrification System	29.3

Delaware

Wilmington Station	12.5
Wilmington Service Facility	38.5
Concrete Ties, 10 miles/track improvements	49.5
New Signaling System	21.8
Rehabilitation of Electrification System	6.4

Pennsylvania

30th Street Station	11.8
Philadelphia Maintenance of Way Base	3.6
New Signaling System	47.2
Rehabilitation of Electrification System	17.9
Concrete Ties, 12 miles/track improvements	93.6

New Jersey

Trenton Station	1.4
Metropark Station	1.0
Newark Station	21.3
Adams Maintenance of Way Base	6.1
Concrete Ties, 58 miles/track improvements	146.6
New Signaling System	41.0
Rehabilitation of Electrification System	25.9

New York

New York Penn Station	9.6
New York Service Facility	16.8
North and East River Tunnels	11.5
Track Improvements	36.4
New Signaling System	14.6
Rehabilitation of Electrification System	18.9

Connecticut

New Haven Station	16.5
New London Station	3.4
Stamford Station	14.5
New Haven Fueling Facility	1.6
Major Bridge Replacements/Rehabilitations	162.7
Concrete Ties, 80 miles/track improvements	79.6
New Signaling System	68.4
New Electrification System	81.9

Rhode Island

Providence Station	13.9
Providence Maintenance of Way Base	3.2
Concrete Ties, 56 miles/track improvements	62.4
New Signaling System	46.6
New Electrification System	65.9

Massachusetts

Route 128 Station	11.2
Boston South Station	28.4
Boston Service Facility	27.3
Southwest Corridor Project	62.0
Concrete Ties, 66 miles/track improvements	77.8
New Signaling System	49.0
New Electrification System	51.4

STATE COST SUMMARY BY SUBSYSTEM (\$000)

	WASHINGTON	MARYLAND	DELAWARE	PENNSYLVANIA	NEW JERSEY	NEW YORK	CONNECTICUT	RHODE ISLAND	MASSACHUSETTS	TOTAL
ROUTE REALIGNMENTS	148	23,627	2,498	6,509	3,423	753	13,669	12,194	7,365	70,186
TRACK STRUCTURES	12,166	188,347	49,513	93,576	146,652	36,409	79,655	62,435	139,817	808,570
BRIDGES	141	12,682	13,094	14,306	31,800	10,248	162,707	8,396	1,978	255,352
ELECTRIFICATION	1,158	29,305	6,368	17,930	25,949	18,963	81,918	65,990	51,355	298,936
SIGNALING AND TRAFFIC CONTROL	4,848	97,773	21,840	47,209	41,017	14,624	68,356	46,625	48,989	391,281
COMMUNICATIONS	150	1,927	348	741	2,602	440	1,044	794	1,263	9,309
FENCING AND BARRIERS	378	1,668	588	2,072	885	8,620	2,662	2,287	2,183	21,343
GRADE CROSSING ELIMINATION	-	3,000	3,000	-	-	-	6,744	3,184	72	16,000
STATIONS	25,764	23,444	12,573	11,879	23,707	9,624	34,449	13,954	39,606	195,000
SERVICE FACILITIES	34,907	12,831	38,500	3,604	6,130	20,069	1,621	3,157	27,277	148,096
TUNNELS	-	15,614	-	-	3,492	11,489	-	-	-	30,595
PROGRAM MANAGEMENT AND SYSTEMS ENGINEERING	8,984	46,414	17,590	22,794	32,802	14,449	51,754	24,450	36,095	255,332
TOTAL	88,644	456,632	165,912	220,620	318,459	145,688	504,579	243,466	356,000	2500000

TABLE
Subsystem Expenditures by State
(millions of dollars)

	DC	MD	DE	PA	NJ	NY	CT	RI	MA
Route Realignments	.2	6.5	2.1	1.8	2.0	.4	10.6	10.3	6.8
Track Structures	.3	10.7	4.9	5.6	15.9	2.6	5.2	5.4	4.3
Electrification	.3	6.8	1.6	6.8	8.8	.8	74.3	60.3	46.5
Signaling	.1	2.9	1.3	13.6	2.7	.6	58.8	37.7	41.5
Communications		.2			.1				
Fencing	.1	1.7	.7	2.3	.8	.6	2.1	1.8	1.4
Stations		16.3	7.4	10.0	20.5	9.3	27.8	13.4	37.2
Service Facilities	2.5	10.0	37.9		5.1	16.8		2.4	7.9
Tunnels						6.9			
Totals (by State)	3.5	55.1	55.9	40.1	55.9	38.0	178.8	131.3	145.6

Subtotal:	704.2
PM/SE:	45.8
Total:	<u>750.0</u>

PER CAPITA MOTOR GASOLINE CONSUMPTION PER STATE

<u>States</u>	<u>Per Capita Use Jan-June 1979 (gal)</u>
Wyoming	441
Nevada	389
Texas	332
New Mexico	331
Oklahoma	331
Kansas	329
South Dakota	326
Arizona	320
North Dakota	318
Colorado	312
Iowa	308
Florida	302
Georgia	300
Montana	300
Idaho	293
Arkansas	291
Tennessee	291
South Carolina	290
Alabama	286
Missouri	286
Indiana	284
Utah	284
Nebraska	283
North Carolina	283
Oregon	279
Louisiana	274
Minnesota	273
Washington	268
Kentucky	266
Mississippi	266
California	265
Virginia	265
Alaska	262
Michigan	261
DELAWARE	258
Vermont	253
Illinois	252
New Hampshire	251
Ohio	248
Wisconsin	247
Maine	240
West Virginia	237
MARYLAND	233
NEW JERSEY	231
CONNECTICUT	221
MASSACHUSETTS	208
PENNSYLVANIA	207
RHODE ISLAND	206
Hawaii	189
NEW YORK	164
DISTRICT OF COLUMBIA	163

SOURCES: "Monthly Motor Gasoline Reported by States," August, 1979, USDOT, FHWA

"Population Estimates and Projections," September, 1979, USDOC, B.Census

PER CAPITA CONSUMPTION PER CORRIDOR/STATE

	Motor Gasoline Used Jan-June 1979 (1,000 gal.)	Per Capita Use Jan-June 1979 (gal)	Percentage of National Average
<u>Northeast Corridor States</u>			
Connecticut	687,934	221	85
Delaware	150,217	258	99
District of Columbia	112,147	163	63
Maryland	965,409	233	90
Massachusetts	1,204,093	208	80
New Jersey	1,697,350	231	89
New York	2,934,360	164	63
Pennsylvania	2,429,201	207	80
Rhode Island	<u>192,279</u>	<u>206</u>	<u>79</u>
TOTAL NEC	10,372,990	199	77

Non-Corridor States

Total	19,807,380	292	112
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WEIGHTED AVERAGE PERCENTAGE CHANGEIN MOTOR GASOLINE CONSUMPTION BY REGION

	Change in Gallons (1000)	Change in Percent
Northeast Corridor States	-183,846	-1.8%
Non-Corridor States	+139,433	0.3%
NATIONAL TOTAL	- 56,859	-0.1%

RAILWAY PROGRESS INSTITUTE,
Alexandria Va., March 6, 1980.

Hon. RUSSELL B. LONG,
Chairman, Subcommittee on Surface Transportation, Committee on Commerce, Science, and Transportation, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: It is our understanding that the Subcommittee on Surface Transportation is presently considering S. 2156, the Northeast Corridor Completion Act of 1980. The Committee on Engineering and Maintenance of the Railway Progress Institute, the national association of rail and rail transit equipment industry, strongly supports S. 2156 which embodies the Secretary of Transportation's request for additional funding to complete the Northeast Corridor Improvement Project.

The potential of the Northeast Corridor was most readily demonstrated in last Summer's fuel crisis. The increase in ridership on the Corridor was well documented by the news media with passenger increases in excess of 20 percent. Ever-increasing gasoline prices and airline fares have increased the viability of fast, fuel-efficient and reasonably priced rail service as a transportation alternative.

We hope that members of the Subcommittee will not view the Northeast Corridor Project as a secondary piece of legislation. Equipment and material which have been used in upgrading the Corridor have been a source of continued employment for workers with many of our member companies. We also hope that the Improvement Project will be examined by the Congress as a model for the additional medium-length corridors identified in a study recently completed by Amtrak and the Department of Transportation and submitted to the Committee on Interstate and Foreign Commerce.

In summary, the Railway Progress Institute's Committee on Engineering and Maintenance endorses the Corridor Improvement proposals as outlined in S. 2156 and urges favorable action by the Subcommittee.

Sincerely,

ROBERT WM. SMITH.

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