Amtrak’s Incentive Contracts
With Railroads--
Considerable Cost, Few Benefits

National Railroad Passenger Corporation

Since July 1974 Amtrak, under its performance incentive contracts with 10 railroads, has spent $32.6 million to improve ontime performance and $1.5 million to improve maintenance quality. Onetime performance has improved mainly because of a more liberal definition of "ontime" and because of loosened schedules, not because of the incentives. Incentives have had virtually no effect on improving the quality of equipment maintenance. Maintenance problems have hampered Amtrak since 1971.

Amtrak recently signed new incentive contracts with three railroads and has reached tentative agreements with five others. Although Amtrak has reduced the running time of many trains and increased the percentage of trains which must be ontime before incentive payments are made, some problems still exist. For example, some railroads will not be penalized for poor ontime performance and the preventative maintenance provision does not give the railroads an incentive to improve maintenance.
To the President of the Senate and the Speaker of the House of Representatives

This is our second annual report on Amtrak activities as required by the Amtrak Improvement Act of 1974 (45 U.S.C. 644 (supp. V 1975)). The report covers Amtrak's incentive contracts with its operating railroads and suggests ways Amtrak can improve future contracts to help insure improved performance in return for incentive payments.

Amtrak negotiated incentive contracts in an effort to motivate the railroads to perform better and thereby reverse the deteriorating quality of Amtrak's service. We reviewed incentive contracts because, if properly constructed and enforced, they can be an effective way to stimulate the railroads to provide high quality service to Amtrak, which is basic to attracting increased ridership.

We are sending copies of this report to the Secretary of Transportation; the Chairman, Interstate Commerce Commission; the president of Amtrak; and various congressional committees concerned with railroad matters.

Comptroller General
of the United States
Since its inception in 1971, Amtrak (National Railroad Passenger Corporation) has been plagued by a declining quality of service to the public, typified by consistently late trains, and by increasing deficits totaling $406 million in 1976. Amtrak's services are financed from passenger revenues, Government assistance, and fees from the railroads. Since passenger revenues cover only about 45 percent of operating expenses, Amtrak still requires large Federal subsidies to continue passenger services. (See p. 1.)

As the Rail Passenger Service Act directed, Amtrak contracted with 20 railroads to operate the trains. (See p. 1.) These cost-reimbursement contracts did not produce satisfactory performance by the railroads, which were paid as much for poor service as for excellent. (See p. 3.)

To encourage better performance, Amtrak negotiated incentive contracts--hereafter referred to as agreements--in 1974 with 10 of the railroads. Incentives were paid for good performance and penalties were assessed for poor performance. (See pp. 2 and 4.)

In this report, GAO assesses the impact of these incentive agreements on the economy and efficiency of Amtrak operations.

The incentive agreements had major deficiencies and sometimes it was impossible to make sure that the railroads complied with the provisions. The $34 million in incentive payments had little effect on performance.

Amtrak management agreed with GAO that the incentive agreements needed improvement and three agreements recently renegotiated include tougher provisions. (See p. 6.)
The first amendment agreements included three provisions to improve ontime performance—an incentive for adherence to schedules, an incentive for making up lost time, and a penalty for excessive delay.

To improve the quality of maintenance, Amtrak included a penalty for unclean cars and incentives for keeping equipment operable and available. Amtrak also offered the railroads a one-time payment to reduce scheduled running time. It attempted to improve cost control by negotiating flat rates (fixed payments) for many items in the incentive contracts. (See pp. 23 and 36.)

**INCENTIVES FOR BEING ONTIME HAVE NOT BEEN EFFECTIVE**

By June 30, 1976, Amtrak had paid the railroads $32.6 million as incentives to improve ontime performance. (See p. 9.) However, improvements have been due not to the incentives, but to liberal arrival criteria and loosened schedules. (See p. 10.) Thus, Amtrak has received little from the railroads in return for large incentive payments.

Several problems concerning ontime incentives exist in the first amendment agreements:

---Shortly before negotiation of first amendment agreements began, Amtrak adopted criteria permitting trains to be up to one-half hour late and still be considered "ontime." Previously, any train arriving more than 5 minutes beyond scheduled arrival time was considered late. (See p. 11.)

---Amtrak altered several schedules to provide more running time, even though existing schedules allowed too much time. (See p. 12.)

---Amtrak measures ontime performance at the final destination only—not at intermediate stops. As a result, a railroad can earn an incentive by arriving ontime at the final destina-
tion even though many passengers are inconvenienced by late arrivals enroute. (See p. 15.)

--Railroads receive incentive payments for ontime arrivals above 65 percent. Yet, they generally averaged 80-percent ontime arrivals before signing incentive contracts. Thus, a railroad could maintain the same level of performance or less and qualify for a substantial bonus without improvement. (See pp. 16 and 17.)

--Amtrak computes ontime performance by averaging all trains. As a result, satisfactory performance on a short route may offset poor performance on a long route. (See p. 17.)

--Amtrak bases its incentive payments on arrival times as recorded by the railroads. These reported times are not always accurate. (See p. 18.)

Amtrak has improved the incentive provisions in the second amendment agreements recently signed. Railroads may now have a more difficult time earning incentives because

--incentives for recovered time and schedule improvement have been eliminated;

--the more liberal arrival criteria have been eliminated;

--some schedules have been tightened;

--the level above which ontime incentives are paid, called the baseline, has been raised from 65 to 80 percent; and

--incentives paid are now based on the performance of an individual train. (See p. 21.)
MAINTENANCE QUALITY HAS NOT IMPROVED

By June 30, 1976, Amtrak had paid the railroads $1.5 million in incentives to improve the quality of equipment maintenance. (See p. 23.) These incentives have had little effect because:

--Penalties for unclean cars are rarely assessed even though cars frequently fail to meet standards.

--No effective method exists to make sure that all equipment failures are reported (establishing that some failures occurred is difficult).

--Railroads are not penalized for numerous small mechanical failures that annoy passengers.

--The incentive to make equipment available has not produced improvement in maintenance.

--Railroads have not performed all cleaning required by the agreements. (See p. 24.)

Amtrak, in two new second amendment agreements replaced the penalties for unclean cars in one agreement and the equipment operability and availability incentives in both agreements, with a preventative maintenance provision because the original provisions were too difficult to enforce.

GAO believes the new provision could create problems because:

--A railroad can receive large incentive payments without completing its required work. (See p. 33.)

--The preventative maintenance provision considers only quantity not quality, of work performed. (See p. 34.)

--A railroad may concentrate on its required maintenance to the detriment of daily car cleaning. (See p. 34.)
--Amtrak could incur additional costs when incentive railroads perform required maintenance on equipment assigned to Amtrak facilities. (See p. 34.)

**FLAT RATES ARE INACCURATE**

Flat rates paid by Amtrak under the first amendment agreements frequently exceed the railroads' cost for providing the service. For example, one railroad paid about $200,000 less for train and engine crew wages than the respective flat rates. Another railroad paid about $14,000 less for accounting services during 1975 than the amount billed Amtrak on a flat rate basis. To a much lesser extent, some flat rates are less than actual costs incurred. (See pp. 36 and 37.)

Flat rates in the first amendment agreements are inaccurate primarily due to (1) inadequate studies and (2) Amtrak's inability to verify the accuracy of historical information. Inaccurate flat rates are not resolved as they surface but are deferred until agreements are renegotiated unless service level or wage and material costs have changed. Amtrak has, however, adjusted many flat rates in the second amendment agreements based on an audit of costs the railroad incurred during a 12-month period. (See p. 38.)

**CONCLUSIONS AND RECOMMENDATIONS**

Amtrak is entitled to satisfactory contract performance by the railroads. The railroads are entitled to reimbursement for reasonable and necessary cost of providing services to Amtrak. This balance does not appear to have been achieved.

Amtrak has to make a concerted effort to determine what costs the railroads should incur in providing passenger services. Amtrak should have complete access to all pertinent railroad records in determining these costs. However, access to the records is not enough; Amtrak must emphasize what the services should cost rather than what they did cost.

Amtrak, in future agreements, should:
--Penalize railroads for performance below the baseline. (See p. 41.)

--Use Amtrak staff for reporting arrival times. (See p. 41.)

--Retain and enforce the penalty for unclean cars. (See p. 41.)

--Strengthen the preventative maintenance provision to reward railroads for doing more work than expected and penalize them for not doing what is expected. The penalty should be applied against other incentives earned. (See p. 41.)

--In renegotiating flat rates, consider what a service should cost in addition to actual historical costs. (See p. 41.)

--Measure ontime performance at major intermediate points especially for schedules that are not constructed properly. (See p. 41.)

AGENCY COMMENTS AND GAO'S EVALUATION

Amtrak agrees, in part, with GAO's observations and has taken or plans to take action to implement several of the recommendations. (See p. 41.)

Amtrak also expressed concern over a recent Interstate Commerce Commission decision regarding compensation for services provided Amtrak. Amtrak believes the decision could seriously undermine its negotiating position with railroads and runs counter to improvements which have been achieved through voluntary negotiations with the operating railroads. (See p. 41.)

The Department of Transportation also believes the Commission's decision could have serious effects on Amtrak's negotiating position with regard to future incentive agreements. (See p. 42.)

The Interstate Commerce Commission stated that the decision should not be interpreted as setting a precedent for Commission decisions on similar cases in the future. (See p. 43.)
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ABBREVIATIONS

Amtrak National Railroad Passenger Corporation
GAO General Accounting Office
ICC Interstate Commerce Commission
CHAPTER 1

INTRODUCTION

The Rail Passenger Service Act of 1970 (Public Law 91-518), as amended by the Amtrak Improvement Act of 1974 (45 U.S.C. 644 (supp. V 1975)), requires us to annually audit the performance of the National Railroad Passenger Corporation (Amtrak). This report, which reviews Amtrak's service and facility contracts, is our second under the statutes.

Amtrak was created by the Rail Passenger Service Act of 1970 as a for-profit corporation to operate and revitalize intercity passenger service—excluding commuter trains. The act requires that Amtrak use innovative operating and marketing concepts to fully develop the potential of rail service. On May 1, 1971, Amtrak began service over 21 domestic routes. The system later expanded to 37 routes including 4 serving Canada and Mexico. (See p. 8.)

Amtrak's operations are financed by passenger revenues, Government assistance, and railroad entry fees. Because passenger revenues cover only about 45 percent of operating expenses, Amtrak requires large Federal subsidies to remain operational. Amtrak has experienced steadily increasing deficits as shown below.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Operating Expenses (000 omitted)</th>
<th>Operating Revenues</th>
<th>Deficits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>$45,301</td>
<td>$22,645</td>
<td>$22,656</td>
</tr>
<tr>
<td>1972</td>
<td>306,179</td>
<td>152,709</td>
<td>153,470</td>
</tr>
<tr>
<td>1973</td>
<td>319,151</td>
<td>177,303</td>
<td>141,848</td>
</tr>
<tr>
<td>1974</td>
<td>437,932</td>
<td>240,071</td>
<td>197,861</td>
</tr>
<tr>
<td>1975</td>
<td>559,807</td>
<td>246,459</td>
<td>313,348</td>
</tr>
<tr>
<td>1976</td>
<td>674,307</td>
<td>268,038</td>
<td>406,269</td>
</tr>
<tr>
<td>Transition quarter</td>
<td>192,500</td>
<td>79,300</td>
<td>113,200</td>
</tr>
<tr>
<td>1977 (estimate)</td>
<td>811,300</td>
<td>301,000</td>
<td>510,300</td>
</tr>
</tbody>
</table>

As of June 30, 1976, Amtrak had received Federal grants totaling $985 million to meet its operating expenses. In addition, the Secretary of Transportation has issued loan guarantees of $620 million for Amtrak capital acquisitions and improvements.

AMTRAK'S SERVICE AND FACILITY CONTRACTS

The Rail Passenger Service Act of 1970 offered private railroad companies then providing intercity passenger service the option of joining the Amtrak system or continuing
to provide service on their own. Twenty railroads agreed to join Amtrak and signed 25-year cost-reimbursement agreements which relieved them of responsibility for providing intercity passenger service. Five railroads chose not to operate under the Amtrak system.

The participating railroads paid Amtrak an "entry fee" of $197 million which represented 50 percent of the intercity passenger operating losses incurred in 1969. Under the 25-year agreements, the railroads were to provide necessary services and personnel to operate Amtrak trains including train and engine crews, station personnel, equipment maintenance, and the right to operate Amtrak trains over their lines. Also, Amtrak had the option to either purchase or lease locomotives and cars from the railroads. In return, Amtrak was to reimburse the railroads for solely related and/or avoidable costs incurred in operating passenger trains.

After June 30, 1974, 10 railroads opted to sign 2-year first amendment agreements which changed the method of cost reimbursement. After 2 years, these railroads must negotiate new agreements. If Amtrak and the railroads cannot come to terms, the Interstate Commerce Commission (ICC) determines the basis for compensation.

As of March 1, 1977, 17 railroads provided services to Amtrak under the following agreements:

<table>
<thead>
<tr>
<th>Type of agreement</th>
<th>Railroads involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original agreement</td>
<td>7</td>
</tr>
<tr>
<td>First amendment agreement</td>
<td>7</td>
</tr>
<tr>
<td>Second amendment agreement</td>
<td>3</td>
</tr>
</tbody>
</table>

1Burlington Northern
Chicago, Milwaukee, St. Paul and Pacific (Milwaukee Road)
Boston and Maine
Delaware and Hudson
Seaboard Coast Line
Grand Trunk Western
Richmond, Fredericksburg and Potomac
Louisville and Nashville

Texas and Pacific
Union Pacific
Southern Pacific
Norfolk and Western
Atchison, Topeka and Santa Fe
Chessie System
Consolidated Rail Corporation (ConRail)
Illinois Central Gulf
Missouri Pacific
Original agreement

The original cost-reimbursement agreements provided that Amtrak would pay the railroads for all reasonable and necessary costs solely related to providing Amtrak passenger service. These costs include train and engine crew wages, fuel charges, and equipment maintenance. Additionally, the railroads received 5 percent of their solely related costs to cover other avoidable costs which were unidentifiable or shared with freight service.

The following table shows the fiscal year 1976 reimbursements received by the railroads operating under the original agreement.

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Costs</th>
<th>5-percent increment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atchison, Topeka and Santa Fe</td>
<td>$27,144,452</td>
<td>$1,362,058</td>
<td>$28,506,510</td>
</tr>
<tr>
<td>Chessie System</td>
<td>3,864,186</td>
<td>192,977</td>
<td>4,057,163</td>
</tr>
<tr>
<td>ConRail/Penn Central (note a)</td>
<td>146,548,019</td>
<td>9,388,843</td>
<td>155,936,862</td>
</tr>
<tr>
<td>Illinois Central Gulf</td>
<td>7,685,501</td>
<td>384,631</td>
<td>8,070,132</td>
</tr>
<tr>
<td>Missouri Pacific</td>
<td>1,504,425</td>
<td>75,221</td>
<td>1,579,646</td>
</tr>
<tr>
<td>Texas and Pacific (note b)</td>
<td>534,575</td>
<td>26,729</td>
<td>561,304</td>
</tr>
<tr>
<td>Union Pacific</td>
<td>1,981,747</td>
<td>106,668</td>
<td>2,088,415</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$189,262,905</strong></td>
<td><strong>$11,537,127</strong></td>
<td><strong>$200,800,032</strong></td>
</tr>
</tbody>
</table>

*aOn April 1, 1976, Penn Central was incorporated into ConRail. Amounts shown include reimbursement to Penn Central from July 1, 1975 to March 30, 1976, and to ConRail for April 1, 1976 to June 30, 1976. Penn Central was paid $1 million per month in lieu of the 5 percent increment.

*bTexas and Pacific was compensated under the original contract format but never signed the original agreement.

First amendment agreement

During the early years of Amtrak operations, trains were consistently late and the quality of service declined. This deterioration of service was due to poor condition of some track and equipment, financial difficulty of some railroads, and the concentration of management attention on freight operations, among other things. Amtrak realized it had to reverse this trend if the railroads were to be a viable means of transportation. The original agreement did little to encourage the railroads to improve performance—they were reimbursed costs no matter how they performed. Amtrak decided
that to motivate the railroads to perform better, a performance payment would have to be included in any new agreement.

As a result, after June 30, 1974, Amtrak amended the original agreement to include incentive provisions. Amtrak's rationale for moving to incentive contracts seems appropriate. Incentive contracts are generally used to stimulate extra management effort and attention by providing incentive payments when contractual goals are surpassed and by assessing penalties when contractual goals are not met.

Amtrak included the following incentives and penalties in the first amendment agreement:

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule adherence</td>
<td>Provides a bonus when ontime arrivals exceed a specified level.</td>
</tr>
<tr>
<td>Recovered time and excessive delays</td>
<td>Provides a payment for making up lost time enroute and a penalty for excessive delays.</td>
</tr>
<tr>
<td>Schedule improvements</td>
<td>Provides a one-time payment for a reduction in scheduled running time.</td>
</tr>
<tr>
<td>Car cleanliness</td>
<td>Assesses a penalty for each passenger car at originating station that does not meet cleanliness standards.</td>
</tr>
<tr>
<td>Equipment operability</td>
<td>Provides an incentive for equipment that operates without failure above a specified percentage and assesses a penalty for equipment below that percentage.</td>
</tr>
<tr>
<td>Equipment availability</td>
<td>Provides an incentive for prompt equipment maintenance.</td>
</tr>
</tbody>
</table>
As of June 30, 1976, the railroads had collected the following amounts:

<table>
<thead>
<tr>
<th>Incentive/penalty</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule adherence</td>
<td>$32,598,297</td>
</tr>
<tr>
<td>Recovered time and excessive delays</td>
<td>64,285</td>
</tr>
<tr>
<td>Schedule improvement</td>
<td>0</td>
</tr>
<tr>
<td>Car cleanliness (note a)</td>
<td>(23,950)</td>
</tr>
<tr>
<td>Equipment operability</td>
<td>356,061</td>
</tr>
<tr>
<td>Equipment availability</td>
<td>1,197,005</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$34,191,698</strong></td>
</tr>
</tbody>
</table>

(note a) Penalty

In addition to the above incentives and penalties, Amtrak reimbursed some railroads for the following costs under this agreement:

--Actual cost reimbursement for items such as materials and some direct labor with an overall reimbursement limit.

--Flat rates for items such as incremental track maintenance and certain employee wages.

The flat rates are amounts which are fixed in price and which provide for wage and material price increases. Flat rates are either paid per trip or per month and are based on actual costs of earlier periods or on Amtrak or railroad studies. Many of the costs previously covered under the original agreements' 5-percent increment are included in the flat rates.

Ten railroads signed first amendment agreements and were paid the following amounts from the effective dates of the agreements through June 30, 1976.
As of March 1, 1977, Amtrak had signed second amendment agreements with Burlington Northern, Milwaukee Road, and Grand Trunk Western and had reached tentative agreement with Boston and Maine; Delaware and Hudson; Seaboard Coast Line; Richmond, Fredericksburg and Potomac; and Louisville and Nashville. Of the two remaining first amendment agreement railroads, Amtrak is currently negotiating with Southern Pacific and plans to begin negotiations with Norfolk and Western later this year.

In the second amendment agreements which have been negotiated, Amtrak completely restructured the incentive/penalty provisions. Incentives for schedule improvement, recovered time, and equipment operability and availability, as well as excessive delay penalties, have been eliminated. The car cleanliness penalty has also been eliminated for Burlington Northern but will remain in Milwaukee Road's agreement.

### RAILROAD VIEWS ON AMTRAK CONTRACTS

Generally, the railroads included in our review believed they were not recovering all costs associated with providing service to Amtrak. The Chesapeake and Ohio, for example, operates under the original agreement and believes that the 5 percent of solely related costs it receives is not sufficient reimbursement for expenses shared by both passenger and freight operations.
Seaboard Coast Line and Southern Pacific, both operating under first amendment incentive agreements, believed they were entitled to some form of compensation in addition to incremental costs. Southern Pacific also stated that, under the first amendment agreements, it does not receive full incremental costs; and in the absence of incentive payments, monthly revenues from Amtrak would not cover incremental costs.

Four railroads operating under first amendment agreements believed they were recovering more than under the original agreements. Why did not all railroads sign first amendment agreements since cost recovery is greater? Officials of the Santa Fe, Illinois Central Gulf, and the Chesapeake and Ohio lines gave differing reasons. These reasons were:

--Incentives were not needed to improve performance.

--Railroad officials opposed the flat rate method of costing.

--Incentive provisions would get increasingly tougher, eventually infringing on management prerogatives.

--Negotiations broke down.

--Amtrak insisted on unrealistic schedules.

--Certain incentives were not applicable to the railroad.

--The final incentive negotiated with one railroad was different than the one offered them.

--Potential to earn incentives depends on many elements over which the railroad has little or no control, such as malfunctioning Amtrak equipment.

--The complex reporting requirements of an incentive system are expensive and time consuming.

According to Santa Fe, a significant maintenance-of-way contribution would be a more valuable incentive for improving on-time performance, especially on lines where the railroad maintains high standards only because of Amtrak service.

Since our primary concern was the impact of the incentive/penalty provisions on the economy and efficiency of Amtrak's operations, we concentrated our efforts on those railroads operating under the amendment agreements.
CHAPTER 2
ONTIME PERFORMANCE INCENTIVES
HAVE BEEN INEFFECTIVE

As of June 30, 1976, Amtrak had paid the railroads $32.6 million in ontime performance incentives. On time performance statistics improved substantially. However, the increase was due primarily to loosened schedules and more liberal arrival criteria—not the incentive payments.

Amtrak is currently attempting to negotiate more realistic incentives. As of March 1, 1977, three railroads had signed, and five others had agreed to sign second amendment agreements with more stringent incentive criteria. Amtrak has restructured and substantially improved the incentive provisions. However, additional changes are needed in the second amendment agreements.

Recognizing the need to improve passenger service, Amtrak included incentive/penalty provisions in the first amendment agreements. Traditionally, incentive contracting has been an effective method of obtaining extra management effort. Amtrak realized that incentives would increase costs but hoped they would be offset by improved performance.

The first amendment agreements included two incentives, schedule adherence and recovered time, and one penalty, for excessive delay, to improve on time performance. The following table shows amounts collected by each railroad under these provisions.

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Schedule adherence</th>
<th>Recovered time and excessive delays</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston and Maine</td>
<td>$17,000</td>
<td>$0</td>
<td>$17,000</td>
</tr>
<tr>
<td>Burlington Northern</td>
<td>12,516,250</td>
<td>$44,714</td>
<td>12,471,536</td>
</tr>
<tr>
<td>Delaware and Hudson</td>
<td>186,550</td>
<td>2,215</td>
<td>184,335</td>
</tr>
<tr>
<td>Grand Trunk Western</td>
<td>2,219</td>
<td>226,954</td>
<td></td>
</tr>
<tr>
<td>Louisville and Nashville</td>
<td>286,000</td>
<td>4,122</td>
<td>281,878</td>
</tr>
<tr>
<td>Milwaukee Road</td>
<td>2,930,000</td>
<td>15,371</td>
<td>2,914,629</td>
</tr>
<tr>
<td>Norfolk and Western</td>
<td>352,642</td>
<td>7,089</td>
<td>359,731</td>
</tr>
<tr>
<td>Richmond, Fredericksburg</td>
<td>505,900</td>
<td>19,410</td>
<td>525,310</td>
</tr>
<tr>
<td>and Potomac</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seaboard Coast Line</td>
<td>11,827,000</td>
<td>173,280</td>
<td>12,000,280</td>
</tr>
<tr>
<td>Southern Pacific</td>
<td>3,667,920</td>
<td>$71,201</td>
<td>3,596,719</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$32,514,087</strong></td>
<td><strong>$64,285</strong></td>
<td><strong>$32,578,372</strong></td>
</tr>
</tbody>
</table>

aPenalty
SCHEDULE ADHERENCE

Plagued by late train arrivals, Amtrak established the schedule adherence incentive in the first amendment agreements. When their percent of ontime arrivals exceed a specified level (usually 65 percent) railroads earn monthly bonuses. A fixed amount based on costs of providing service to Amtrak, ranging from $200 to $21,250, is paid for each percentage point increase above the specified level. The amount varies by railroad; some have received as much as $500,000 a month. However, very little, if any, of the increase in ontime performance shown below could be attributed to this incentive. Rather, statistical improvements were primarily due to a combination of relaxation in ontime arrival criteria and loosened schedules.

<table>
<thead>
<tr>
<th>Railroad</th>
<th>1973 (note a)</th>
<th>1975 (note b)</th>
<th>Increase</th>
<th>Effective dates of first incentive contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston and Maine</td>
<td>(c)</td>
<td>77.4</td>
<td>(c)</td>
<td>Aug. 1, 1974</td>
</tr>
<tr>
<td>Burlington Northern</td>
<td>64.1</td>
<td>90.3</td>
<td>26.2</td>
<td>July 1, 1974</td>
</tr>
<tr>
<td>Delaware and Hudson</td>
<td>(c)</td>
<td>84.6</td>
<td>(c)</td>
<td>Aug. 5, 1974</td>
</tr>
<tr>
<td>Grand Trunk Western</td>
<td>(c)</td>
<td>93.0</td>
<td>(c)</td>
<td>Sept. 11, 1974</td>
</tr>
<tr>
<td>Louisville and Nashville</td>
<td>42.7</td>
<td>76.3</td>
<td>33.6</td>
<td>Nov. 1, 1974</td>
</tr>
<tr>
<td>Milwaukee Road</td>
<td>68.0</td>
<td>90.4</td>
<td>22.4</td>
<td>July 1, 1974</td>
</tr>
<tr>
<td>Norfolk and Western</td>
<td>(c)</td>
<td>92.7</td>
<td>(c)</td>
<td>Mar. 24, 1975</td>
</tr>
<tr>
<td>Richmond, Fredericksburg and Potomac</td>
<td>59.6</td>
<td>89.3</td>
<td>29.7</td>
<td>Oct. 1, 1974</td>
</tr>
<tr>
<td>Seaboard Coast Line</td>
<td>55.2</td>
<td>94.2</td>
<td>39.0</td>
<td>Sept. 1, 1974</td>
</tr>
<tr>
<td>Southern Pacific</td>
<td>40.8</td>
<td>83.3</td>
<td>42.5</td>
<td>Dec. 1, 1974</td>
</tr>
</tbody>
</table>

*Before incentives.
*After incentives.
*Not applicable.

Problems with the schedule-adherence incentive involve:

---Easing the criteria for determining ontime arrivals.
---Adding time to schedules.
---Too much running time in schedules.
---Disregarding arrival times at intermediate stops.
---Setting the baseline for calculating incentives below existing performance levels.
--Combining routes in computing ontime performance.

--Permitting the railroads to record official arrival times.

Arrival criteria eased and time added to schedules

On January 1, 1974, Amtrak adopted new criteria\(^1\) for determining whether a train was ontime. Before the new criteria, a train was considered late if it arrived at its destination more than 5 minutes after scheduled arrival. Under the new system a train could arrive up to 30 minutes late and still be considered ontime. The tolerance varies with trip length as shown below:

<table>
<thead>
<tr>
<th>Trip length in miles</th>
<th>Tolerances in minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 150</td>
<td>5</td>
</tr>
<tr>
<td>151 to 250</td>
<td>10</td>
</tr>
<tr>
<td>251 to 350</td>
<td>15</td>
</tr>
<tr>
<td>351 to 450</td>
<td>20</td>
</tr>
<tr>
<td>451 to 550</td>
<td>25</td>
</tr>
<tr>
<td>551 or more</td>
<td>30</td>
</tr>
</tbody>
</table>

In the recently signed second amendment agreements, Amtrak reduced the arrival criteria to 5 minutes for a trip length of less than 400 miles\(^2\) and 10 minutes for trip length of 400 miles or more.

At approximately the same time that incentive contracts were being negotiated, Amtrak made several schedule adjustments. These adjustments increased scheduled running time for many routes operated by incentive railroads. The effect is that many schedules now have extra time built in, making

\(^1\)This criteria was based on the Interstate Commerce Commission's Adequacy of Intercity Rail Passenger Service criteria (Ex Parte No. 277) for arrival and departure times which requires that each train arrive at its terminus no later than 5 minutes after its scheduled arrival time per 100 miles of operation, or a total of 30 minutes, whichever is less.

\(^2\)According to an Amtrak official, two exceptions to this 5-minute criteria were approved because of operating difficulties beyond the railroads' control. The tolerance in both cases was increased to 10 minutes.
it easier for the railroad to get the trains in ontime and earn incentives. Amtrak officials and even some railroad officials acknowledge that some schedules are unrealistic and provide more time than is needed.

How are train schedules determined? Amtrak and the railroads negotiate the schedules. Amtrak personnel consider factors such as speed limits, type of equipment, stops, distance, and a reasonable amount of recovery time for miscellaneous delays. Computer simulations may be used to determine time required and realistic schedules should result.

A comparison of the May 1971 schedules to the May 1976 schedules shows that Amtrak increased the running time on many routes. For example, the route from Montgomery to St. Petersburg takes 1 hour longer than it used to; the one from St. Petersburg to Montgomery 1 hour and 10 minutes longer; the one from Denver to Chicago 1 hour and 15 minutes longer; and the one from St. Petersburg to Richmond 1 hour and 15 minutes longer.

When negotiating the first amendment agreements, Amtrak recognized that many schedules had too much time and attempted to tighten some schedules. Amtrak was not successful, and even more time was added to many schedules as shown below.

<table>
<thead>
<tr>
<th>Number of minutes of time added (decreased)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 to 55</td>
</tr>
<tr>
<td>36 to 45</td>
</tr>
<tr>
<td>26 to 35</td>
</tr>
<tr>
<td>16 to 25</td>
</tr>
<tr>
<td>10 to 15</td>
</tr>
<tr>
<td>0 (1 to 15)</td>
</tr>
<tr>
<td>0 (16 to 25)</td>
</tr>
<tr>
<td>1 (26 to 35)</td>
</tr>
<tr>
<td><strong>Total 34</strong></td>
</tr>
</tbody>
</table>

\(^a\) Applies only to Burlington Northern, Milwaukee Road, Seaboard Coast Line, and Southern Pacific.

Thus, trains arrived ontime more often after the incentives, but the trips took more time.

During July 1974 through December 1975, Milwaukee Road trains were ontime 89.6 percent of the time. For this, Milwaukee Road received a bonus of $2.2 million. Using the old 5-minute criteria—no schedule changes were made—ontime performance would
have been 84 percent, or approximately the same level experienced by Milwaukee Road before the incentive contract. Thus, no performance increase was achieved for the $2.2 million.

--The Burlington Northern received $2.7 million for having 85.8 percent of its trains arrive on time from July through December 1974. On the surface, this is a substantial improvement over the 58 percent on time performance for the same period in 1973. However, using the current criteria the on time arrival for the 1973 period would have been 82.4 percent. Therefore, a 3.4 percent increase in performance cost $2.7 million.

--The Southern Pacific received $3.7 million in on time performance incentives for December 1974 through June 1976. Southern Pacific's on time performance was approximately 81 percent before and after the incentive contract. If Amtrak had not changed the arrival criteria, the on time performance would have been 74 percent under the incentive contract. Thus, Amtrak paid $3.7 million for decreased performance.

--The Seaboard Coast Line received $11.8 million for 94.4 percent on time performance from September 1974 through June 1976. Although this performance represents a substantial increase over the 70 percent performance experienced in 1973, the increase was due primarily to a change in arrival criteria and very loose schedules rather than improved performance.

The ICC, in recent staff studies of the Burlington Northern and Seaboard Coast Line, also concluded that the main reasons for improved performance under the first amendment agreements were liberal arrival criteria and schedule changes. ICC also stated that Milwaukee Road's increase in arrival statistics was due to the liberal arrival criteria. Our analysis confirms these findings for the three railroads and indicates the same is true for Southern Pacific.

Obviously, realistic schedules are important. If a schedule cannot be met, it should be adjusted; however, schedules containing too much time need to be adjusted downward, particularly when such schedules combined with easier arrival criteria add to Amtrak's costs.

**Schedules contain too much time**

The loose schedule program appears particularly acute with the Seaboard Coast Line—the second largest recipient of
incentive bonuses for ontime performance. ICC stated that during first amendment agreement negotiations Seaboard Coast Line put considerable pressure on Amtrak to extend passenger train schedules. Fifteen days after the incentive contract was initiated, Amtrak lengthened the scheduled running time of seven Seaboard Coast Line trains. Now Seaboard Coast Line trains frequently arrive ahead of schedule. During March and April 1976, its trains, under the incentive agreements, arrived on the average of 21 and 16 minutes ahead of schedule respectively. The performance of its trains during April 1976 is shown below.

<table>
<thead>
<tr>
<th>Train number</th>
<th>Turnaround points (note a)</th>
<th>Average minutes ahead of (behind) schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>Montgomery, Ala. to St. Petersburg, Fla.</td>
<td>28.9</td>
</tr>
<tr>
<td>53</td>
<td>St. Petersburg, Fla. to Montgomery Al.</td>
<td>12.2</td>
</tr>
<tr>
<td>81</td>
<td>Richmond, Va. to St. Petersburg, Fla.</td>
<td>24.5</td>
</tr>
<tr>
<td>82</td>
<td>St. Petersburg, Fla. to Richmond, Va.</td>
<td>7.6</td>
</tr>
<tr>
<td>83</td>
<td>Richmond, Va. to Miami, Fla.</td>
<td>22.6</td>
</tr>
<tr>
<td>84</td>
<td>Miami, Fla. to Richmond, Va.</td>
<td>6.4</td>
</tr>
<tr>
<td>85</td>
<td>Richmond, Va. to St. Petersburg, Fla.</td>
<td>23.7</td>
</tr>
<tr>
<td>86</td>
<td>St. Petersburg, Fla. to Richmond, Va.</td>
<td>10.4</td>
</tr>
<tr>
<td>87</td>
<td>Richmond, Va. to St. Petersburg, Fla.</td>
<td>25.8</td>
</tr>
<tr>
<td>88</td>
<td>St. Petersburg, Fla. to Richmond, Va.</td>
<td>(17.0)</td>
</tr>
<tr>
<td>91</td>
<td>Auburndale, Fla. to Miami, Fla.</td>
<td>10.9</td>
</tr>
<tr>
<td>93</td>
<td>Jacksonville, Fla. to Miami, Fla.</td>
<td>19.4</td>
</tr>
</tbody>
</table>

aPoints between which trains are operated by Seaboard Coast Line.

We also noted that the Seaboard Coast Line is easily able to make up time on its runs. For example, the Chicago to Miami/ St. Petersburg train which is operated by the Louisville and Nashville from Chicago to Montgomery, is often late when Seaboard Coast Line takes it over in Montgomery. However, Seaboard Coast Line frequently makes up this time between Montgomery and the Florida cities. Amtrak auditors have noted the excessive running time built into Seaboard Coast Line schedules and concluded that they should be reduced.

Seaboard Coast Line crews disclosed that they could arrive much earlier than they do. Crew members on one train commented that they could bring in a train 40 minutes early at its destination because of dead time in the schedule. A conductor on another train said that cushions were built into the schedule and that this permitted Seaboard Coast Line trains to be on schedule.
Schedule improvements in second amendment agreements

Amtrak has been successful in negotiating more realistic schedules with six of the eight railroads which have signed or agreed to sign second amendment agreements. The schedules of the other two railroads were not adjusted because they were considered realistic. The following table shows schedule reductions effective October 31, 1976, for trains operated by Burlington Northern between Seattle and Minneapolis.

<table>
<thead>
<tr>
<th>Train no.</th>
<th>Train name</th>
<th>Schedule</th>
<th>Tolerance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>The Empire Builder</td>
<td>105</td>
<td>20</td>
<td>125</td>
</tr>
<tr>
<td>8</td>
<td>The Empire Builder</td>
<td>105</td>
<td>20</td>
<td>125</td>
</tr>
<tr>
<td>9</td>
<td>The North Coast Hiawatha</td>
<td>120</td>
<td>20</td>
<td>140</td>
</tr>
<tr>
<td>10</td>
<td>The North Coast Hiawatha</td>
<td>160</td>
<td>20</td>
<td>180</td>
</tr>
</tbody>
</table>

Ontime arrivals disregarded at intermediate stops

Under the first amendment agreements, Amtrak measures on-time performance only at the final destination. Under this system, a train can be late at all intermediate points, arrive ontime at its final destination, and qualify for an incentive payment. For example, we rode an Amtrak train from Jacksonville to St. Petersburg, Florida, which was late at nine intermediate stops enroute, yet arrived ontime in St. Petersburg.

We analyzed the running times on the two Burlington Northern routes between Minneapolis and Seattle. We noted that one train was about 2-1/2 hours late at one intermediate stop but managed to get to its destination ontime. We also found that the Southern Pacific train from New Orleans to Los Angeles was late enroute several times by up to 2 hours but arrived at its destination ontime. This system of determining ontime performance ignores the passengers inconvenienced by these late arrivals enroute and also makes performance incentives easier to obtain.
Amtrak believes that considerable excessive recovery time has been taken out of schedules agreed to under the second amendment agreements. If excessive recovery time is removed and the schedule is properly constructed, a train must be operated on time for the length of the route to be on time at the final destination. We have not analyzed the second amendment agreement schedules to determine if the schedules are realistic.

Baseline too low

Under the first amendment agreements, Amtrak established a 65-percent baseline for most railroads from which the schedule-adherence incentives are computed. Each incentive contract calls for the railroad to receive a specified amount per percentage point above the on time arrival baseline. For example, as shown below, the Burlington Northern was paid $21,250 per month per percentage point for on time arrival above 65 percent. Thus, if the Burlington Northern had a monthly average on time performance of 80 percent, it would have received $318,750 for the month. The following table shows the baselines and amounts paid per percentage point above the baseline.

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Baseline</th>
<th>Amount paid per percentage point above the baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burlington Northern</td>
<td>65</td>
<td>$21,250</td>
</tr>
<tr>
<td>Seaboard Coast Line</td>
<td>65</td>
<td>18,200</td>
</tr>
<tr>
<td>Southern Pacific</td>
<td>65</td>
<td>10,430</td>
</tr>
<tr>
<td>Milwaukee Road</td>
<td>65</td>
<td>5,000</td>
</tr>
<tr>
<td>Louisville and Nashville</td>
<td>65</td>
<td>1,100</td>
</tr>
<tr>
<td>Norfolk and Western</td>
<td>65</td>
<td>1,050</td>
</tr>
<tr>
<td>Richmond, Fredericksburg and Potomac</td>
<td>65</td>
<td>1,000</td>
</tr>
<tr>
<td>Grand Trunk Western (note a)</td>
<td>70</td>
<td>391</td>
</tr>
<tr>
<td>Boston and Maine</td>
<td>75</td>
<td>200</td>
</tr>
<tr>
<td>Delaware and Hudson (note a)</td>
<td>75</td>
<td>910</td>
</tr>
</tbody>
</table>

*The baseline for these railroads was set above 65 percent because, due to bad track, scheduled running times were increased. The roadbeds have not been repaired, and these railroads have agreed to second amendment agreements that set an 80-percent baseline.*

*Most schedules, including those which are properly constructed, contain a certain amount of recovery time in addition to pure running time to account for unavoidable delays.*
Setting the baseline at 65 percent made it almost certain that the railroads would receive substantial incentive payments without increasing performance. These railroads generally averaged 80 percent ontime arrivals just before signing incentive contracts. The Burlington Northern, for example, could have maintained this level of performance and received $318,750 per month for ontime performance.

Why did Amtrak decide on the 65-percent baseline? In early negotiations, Amtrak proposed a 90-percent baseline, but the railroads rejected it. Amtrak decided that expecting the railroads to accept such a high performance level was unrealistic since there would be little opportunity to earn incentives. Thus, Amtrak set the baseline at the level of ontime performance of all railroads that are members of Amtrak\(^1\) from January through November 1973. This level was 65 percent.\(^2\) Amtrak agreed to this low baseline to allow the railroads to recover incremental costs not identifiable but chargeable to Amtrak.

Under the second amendment agreements Amtrak has attempted to identify all costs associated with Amtrak service and has raised the baseline to 80 percent.

**Combining routes increases incentive payments**

Under the first amendment agreements, incentives are computed by combining statistics on all the routes a railroad operates. This method accords equal weight to all trains, even though some trains on short routes arrive on-time more often than trains on longer routes. Thus, high performance on short routes can increase the ontime performance percentage and the subsequent incentive payments. For example, Southern Pacific operates trains on one short and three long-distance routes. During 1975 the trains over the long routes were ontime 78 percent of the time, but the railroad's overall ontime performance was 83 percent because the short route was ontime 96 percent of the time. The incentive value of the 5 percent difference amounted to $647,000. Thus, the high performance on the short route more than compensated for the substantially lower performance on the long routes.

\(^1\)Includes nonincentive railroads.

\(^2\)This was the level of ontime performance using the 30-minute maximum arrival criteria. Without the criteria, ontime arrival averaged about 50 percent.
Under the second amendment agreement, incentives for ontime performance will be paid on the basis of average monthly performance of individual trains. For example, if train number 9 operating between Minneapolis and Seattle arrives ontime more than 80 percent during a month, Burlington Northern will receive a performance payment for that train. If the ontime performance of train number 10, running between Seattle and Minneapolis is less than 80 percent during the month, Burlington Northern will not receive a performance payment for that train and the ontime performance will not be averaged to compute Burlington Northern's payment.

Amtrak should make more use of its own arrival statistics

Incentives for ontime performance are computed from arrival times reported by the railroads under the first amendment agreements. Yet, Amtrak has the resources available at most stations to independently report arrival times. In fact, Amtrak's Southern Region independently records all arrival times but does not use them in calculating ontime performance. Amtrak auditors have pointed out the need for an independent system to verify arrival times.

Amtrak can verify arrival times. Amtrak auditors occasionally compare arrival times reported by a railroad with the time recorded by a dispatcher on a train sheet.

Amtrak auditors also record some arrival times and compare them with the time reported by a railroad. These times are sometimes different because the railroad employee may round the time to the nearest 5 minutes. This could result in an ontime arrival recorded as being late and vice versa. Also, because arrival statistics are rounded to the nearest percent under the first amendment agreements, one arrival can move arrival statistics up a full percentage point. For example, assume a railroad operates 500 trains a month. If 422 are ontime, performance would be 84.4 percent which would be rounded to 84 percent. However, if 423 trains are ontime, performance would be 84.6 percent which would be rounded to 85 percent.

Under the second amendment agreement the ontime performance percentage is rounded to the nearest tenth of a percent. In the above example, the railroad would be paid for 84.6 percent ontime instead of 85 percent and 84.4 percent instead of 84.

Amtrak has pointed out the need for an independent reporting system, using available resources, to verify
arrival times. Under the second amendment agreement, Amtrak will need better controls because of tighter schedules and reduced arrival criteria.

Railroad comments on improved performance

Railroad officials did not completely agree that schedule changes and more liberal arrival criteria had caused all the improvement in performance statistics. Officials of the four incentive railroads we visited acknowledged that more liberal arrival criteria had helped. In fact, statements of Milwaukee Road officials acknowledge this as the primary cause of improved performance. However, Southern Pacific officials specifically stated they had not changed operating policies or procedures to improve performance in response to incentives and, in fact, thought they could do little to increase on-time efficiency.

Officials of the four incentive railroads also said the use of new Amtrak locomotives increased on-time arrivals. The new locomotives were put into use at about the same time the first incentive contracts were signed. Older locomotives had been unreliable, failing frequently enroute and causing many trains to be late.

As discussed earlier, we believe it is evident that the more liberal criteria has improved performance statistics. However, officials of Burlington Northern and Seaboard Coast Line did not agree with this. They cited other reasons for improvements.

--Shift in operations.

--Renewed enthusiasm for passenger operation caused by the incentive contract.

--Better maintenance practices.

--More realistic schedules.

RECOVERED TIME AND EXCESSIVE DELAYS

Amtrak encourages railroads to avoid excessive delays and, consistent with safety, to make up lost time. Under the first amendment agreements, the railroads are penalized for excessive delays in reaching a destination and rewarded for making up time lost by a connecting carrier. The objectives of this provision are sound and it should encourage the railroads to adhere more closely to the schedules. However, two railroads were able to collect bonuses for recovering time and also for arriving ahead of schedule.
Incentives for recovered time are small and are based on a specified dollar amount for each minute of time recovered. For example, Burlington Northern received $2.50 per minute for recovering time on its Minneapolis to Seattle route; Milwaukee Road received $4.00 per minute for recovering time from Minneapolis to Chicago. This incentive is paid only when connecting carriers are involved, such as the train between Chicago and Seattle. If Milwaukee Road delivered the train 30 minutes late to Minneapolis, the Burlington Northern could collect an incentive for each minute of lateness recovered. If it recovered the full 30 minutes, it would receive $75.

Penalties are assessed using basically the same method. The railroad is penalized a specified amount per minute--varying with the route--subject to the following limitations.

<table>
<thead>
<tr>
<th>Route miles</th>
<th>Penalty not assessed until delay exceeds</th>
<th>Maximum minutes penalized regardless less of delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 250</td>
<td>15 minutes</td>
<td>60 minutes</td>
</tr>
<tr>
<td>251 to 450</td>
<td>30 minutes</td>
<td>120 minutes</td>
</tr>
<tr>
<td>451 and above</td>
<td>60 minutes</td>
<td>180 minutes</td>
</tr>
</tbody>
</table>

The penalty per minute is the same as the incentive per minute. For example, Burlington Northern's penalty on the Minneapolis to Seattle run was $2.50 per minute.

At the end of each month, rewards and penalties are combined into a net amount. The effect of this incentive/penalty provision has been small; Amtrak had paid the railroads only about $64,000 as of June 30, 1976. However, as shown below, one carrier benefited considerably from the incentive.

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Recovered time incentive</th>
<th>Excessive delay penalty</th>
<th>Net amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston and Maine</td>
<td>$ (a)</td>
<td>$ (a)</td>
<td>$ (a)</td>
</tr>
<tr>
<td>Burlington Northern</td>
<td>45,410</td>
<td>90,124</td>
<td>(44,714)</td>
</tr>
<tr>
<td>Delaware and Hudson</td>
<td>3,008</td>
<td>5,223</td>
<td>(2,215)</td>
</tr>
<tr>
<td>Grand Trunk Western</td>
<td>4,892</td>
<td>2,763</td>
<td>2,129</td>
</tr>
<tr>
<td>Louisville and Nashville</td>
<td>11,342</td>
<td>15,464</td>
<td>(4,122)</td>
</tr>
<tr>
<td>Milwaukee Road</td>
<td>8,362</td>
<td>23,733</td>
<td>(15,371)</td>
</tr>
<tr>
<td>Norfolk and Western</td>
<td>10,017</td>
<td>2,928</td>
<td>7,089</td>
</tr>
<tr>
<td>Richmond, Fredericksburg and Potomac</td>
<td>27,300</td>
<td>7,890</td>
<td>19,410</td>
</tr>
<tr>
<td>Seaboard Coast Line</td>
<td>200,474</td>
<td>27,194</td>
<td>173,280</td>
</tr>
<tr>
<td>Southern Pacific</td>
<td>29,359</td>
<td>100,770</td>
<td>(71,201)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$340,374</strong></td>
<td><strong>$276,089</strong></td>
<td><strong>$64,285</strong></td>
</tr>
</tbody>
</table>

aNot applicable.
Amtrak charged for early arrivals

Railroads have sometimes overcharged Amtrak for making up time. For instance, in April 1976, the Southern Pacific Zephyr departed 30 minutes late from Ogden and arrived 13 minutes early in San Francisco. Southern Pacific was paid for 43 minutes recovered time instead of 30 minutes, the amount actually recovered. Similarly, a Seaboard Coast Line train departed Richmond 43 minutes late and arrived 20 minutes early in Miami. Seaboard Coast Line was paid for 63 minutes recovered time instead of 43 minutes. Amtrak paid in excess of $26,000 to Seaboard Coast Line for the 12 months ending August 1975 for early arrival and paid Southern Pacific about $750 for early arrival in March and April 1976.

Amtrak knew about this situation and tried to stop it by requesting the railroads not to arrive early. Under the second amendment agreements accepted by Seaboard Coast Line and 7 other carriers, there is no incentive for recovered time or penalty for excessive delay. Amtrak is currently negotiating a second amendment agreement with Southern Pacific. A Southern Pacific official told us that Amtrak gains nothing from a train arriving early and, accordingly, a bonus should not be paid for arriving ahead of schedule.

SCHEDULE IMPROVEMENT

In the first amendment agreements, Amtrak offered the railroads a one-time incentive payment for reducing scheduled running time. The amount of the incentive would have varied by train, number of trips per year, and the amount of reduction in running time. However, none of the railroads opted for this incentive because it would have been very small in relation to the potential loss in ontime performance incentives. For instance, Southern Pacific officials noted that a 1-hour reduction in running time on their westbound train from New Orleans to Los Angeles would give them a one-time payment of $10.51. Clearly this would not be advantageous because Southern Pacific regularly receives monthly ontime performance payments exceeding $150,000.

Amtrak eliminated this incentive in the second amendment agreements.

IMPROVED ONTIME PERFORMANCE INCENTIVES IN NEW AGREEMENTS

Amtrak management should be commended for making substantial improvements in the ontime performance incentive in second amendment agreements. Amtrak officials acknowledged
that the ontime performance incentives in the first amend-
ment agreements had major deficiencies, and as a result, the incentive provisions were completely restructured during recent renegotiations. As of March 1, 1977, second amend-
ment agreements had been signed with Milwaukee Road, Burling-
ton Northern, and Grand Trunk Western. Amtrak officials used these agreements as the basis for incentive contract nego-
tiations with other railroads.

The new agreements have eliminated incentives for recovered time and schedule improvement, as well as the excessive delay penalty. Railroads may now have a more difficult time earning incentives because:

--The method for determining ontime arrivals is stricter.

--Schedules have been tightened to remove excess running time.

--The baseline has been raised from 65 to 80 percent.

--Incentives are paid by individual train instead of combining all trains.

--Incentive rates vary according to each route's operating costs.
CHAPTER 3

INCENTIVES HAVE NOT IMPROVED MAINTENANCE QUALITY

The railroads are reimbursed for the costs of maintaining equipment. In addition, Amtrak, as of June 30, 1976, had paid the railroads $1.5 million in incentives to improve the maintenance quality. However, the maintenance incentives have had virtually no positive effect on maintenance quality. Recognizing this, Amtrak made major changes in this incentive in its negotiations of second amendment agreements, but we think the changes will do little to improve performance.

While ontime arrivals are important in attracting increased ridership, passenger comfort is also important. Amtrak's ability to provide clean, attractive, and reliable trains is basic to attracting the increased ridership needed to reduce the federally subsidized operating deficits the corporation has experienced since its beginning.

Amtrak has always experienced difficulties providing clean, reliable equipment. Wornout equipment has caused many problems but so has inadequate equipment maintenance. In our report entitled "Quality of Amtrak Rail Passenger Service Still Hampered by Inadequate Maintenance of Equipment" (RED-76-113, June 8, 1976), we identified several problems with contract enforcement.

--- Amtrak did not have an effective system to control the quality and quantity of work done.

--- Work contracted for was not done, yet Amtrak did not take legal action to enforce compliance.

--- Amtrak had not established productivity standards to monitor work output at railroad repair and maintenance facilities.

Amtrak moved to incentives and penalties to encourage the railroads to do a better job of maintaining equipment. A penalty was established for cars not meeting cleanliness standards and incentives are given for equipment operability and availability. As of June 30, 1976, Amtrak had paid the railroads the following amounts for maintenance incentives and penalties under the first amendment agreements:
<table>
<thead>
<tr>
<th>Railroad (note a)</th>
<th>Penalty for unclean cars (in)</th>
<th>Equipment operability incentive ($)</th>
<th>Equipment availability incentive ($)</th>
<th>Total ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burlington Northern</td>
<td>$11,250</td>
<td>$206,956</td>
<td>$609,304</td>
<td>$805,010</td>
</tr>
<tr>
<td>Delaware and Hudson</td>
<td>100</td>
<td>17,425</td>
<td></td>
<td>17,325</td>
</tr>
<tr>
<td>Milwaukee Road</td>
<td>7,050</td>
<td>16,592</td>
<td>92,843</td>
<td>102,385</td>
</tr>
<tr>
<td>Seaboard Coast Line</td>
<td>5,500</td>
<td>100,244</td>
<td>327,119</td>
<td>421,863</td>
</tr>
<tr>
<td>Southern Pacific</td>
<td>50</td>
<td>14,844</td>
<td>167,739</td>
<td>182,533</td>
</tr>
<tr>
<td>Total</td>
<td>$(23,950)</td>
<td>$356,061</td>
<td>$1,197,005</td>
<td>$1,529,116</td>
</tr>
</tbody>
</table>

*The other five incentive railroads did not have the above incentive/penalty provisions in their agreements.*

The maintenance incentives, however, have these problems:

--Penalties for unclean cars are rarely assessed even though cars frequently fail to meet standards.

--No effective method exists to make sure that all equipment failures are reported and establishing that some failures have occurred is difficult.

--The railroads are not penalized for numerous small mechanical failures that annoy passengers.

--The equipment availability incentive has not achieved its goal of prompt maintenance.

--Railroads have not performed all cleaning required by the agreements.

**CAR CLEANLINESS**

Dirty cars have plagued Amtrak since its inception. To compel the railroads to properly clean cars, Amtrak developed a penalty for unclean cars. This penalty became effective when the incentive contracts were signed. The contracts provide that Amtrak may assess a $50 penalty for each car it inspects at route origin which

--does not have onboard the required record of cleaning, or
--has onboard the required record of cleaning but fails to show why specified cleaning was not done, or

--was not cleaned in accordance with cleanliness standards.

Basically, cleaning standards stipulate that trash be removed; floors and seats vacuumed; ashtrays emptied; towels, sheets, and headrests changed; wall surfaces washed; sinks and toilets cleaned and disinfected; windows cleaned; and exteriors washed.

After a car has been cleaned, an Amtrak inspector examines it, usually at the railroad yard. If the inspector finds a deficiency, he must notify the railroad, which then has the opportunity to correct it before departure. If the railroad fails to correct the deficiency, the inspector reports it to Amtrak headquarters, which decides whether to assess the penalty. The penalty is often discussed with railroad officials, but their concurrence is not needed. If Amtrak determines the penalty is justified, $50 is deducted from that month's billing.

Unfortunately, the penalty has simply not worked. Amtrak inspectors are not reporting all deficiencies. We found many cars which were obviously dirty, yet Amtrak had not assessed penalties for them. As of June 30, 1976, Amtrak had penalized the railroads for only 479 dirty cars.

We inspected 343 cars and found 130 that did not meet Amtrak cleanliness standards. Yet, Amtrak had not penalized the railroads for any of the cars. We initially attempted to inspect cars in accordance with Amtrak cleaning standards, but found the standards so high that few, if any, cars would be acceptable. Thus, we classified a car as not meeting cleanliness standards only when it was obviously dirty.

In the Amtrak Central Region, almost half the cars in 42 trains we inspected departing from Chicago and Minneapolis were not clean. Examples of defects were:

<table>
<thead>
<tr>
<th>Defect</th>
<th>Number of cars with defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Litter/lint on seats</td>
<td>9</td>
</tr>
<tr>
<td>Litter/lint on floors/rugs</td>
<td>69</td>
</tr>
<tr>
<td>Dirty windows</td>
<td>13</td>
</tr>
<tr>
<td>Dirty exterior</td>
<td>15</td>
</tr>
<tr>
<td>Dirty bathroom</td>
<td>21</td>
</tr>
</tbody>
</table>
Many reasons are given for Amtrak's not assessing penalties for obviously dirty cars. For example:

--One Amtrak inspector stated he could not afford to be too "picky" because he might antagonize the railroads.

--Some Amtrak inspectors do not apply all cleanliness standards to each car.

--At one facility, Amtrak officials were not even aware of the proper form to use to report violations.

--Amtrak and one railroad disagreed on interpretation of car cleanliness standards.

Amtrak headquarters officials attribute the low level of penalty assessment to a lack of inspectors and of a clear definition of what constitutes car cleanliness. We noted several situations where Amtrak attempted to assess penalties for unclean cars and got into an argument with the railroad over whether the cars were clean.

--An Amtrak inspector rated a passenger car's windows, shades, and sills "not acceptable" because of a broken window. Seaboard Coast Line refused to acknowledge the penalty as a violation since cleaning standards do not require that car windows be unbroken, or even existent, only that they be clean.

--An Amtrak inspector issued a "not acceptable" cleanliness rating because a car's water cooler contained no water. Seaboard Coast Line again refused to acknowledge the penalty since Amtrak standards require only that the water cooler be clean, sanitary, and give a polished appearance. They do not require that a cooler contain water.

**EQUIPMENT OPERABILITY**

Amtrak pays incentives to the railroads for operating a qualified/1 car or locomotive from origin to destination without an operating failure. This incentive is designed to encourage good maintenance and thus minimize passenger-annoying equipment failures. However, this incentive has

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1/ A car or locomotive which is purchased new by Amtrak or has been completely overhauled.
not met its goals of minimizing enroute failures because the provisions are too difficult to monitor. In fact, Amtrak officials have described it as a "nightmare" to monitor.

This incentive is computed monthly and amounts to $150 per qualified car or locomotive. Amtrak pays the incentive if more than 95 percent of the dispatched cars or locomotives complete their runs without failure. A penalty is assessed for performance under 95 percent. For example, if a railroad dispatches 1,000 cars during the month and 950 complete the run without failure, the railroad would not receive an incentive or be assessed a penalty. If, however, 960 made the run without failure, the railroad would receive an incentive of $1,500. Likewise, if 940 made the run without failure, the penalty would be $1,500.

A failure is defined as any malfunction which causes

--- a car or locomotive to be removed from the train;
--- the train to be late at its destination;
--- discomfort to passengers, such as the temperature in the car is less than 62 degrees or greater than 82 degrees for 1 hour or more during the trip (except when outside temperature exceeds 96 degrees a 14-degree differential will be allowed), or car lighting is inadequate for reading for 1 hour or more during the trip.

As of June 30, 1976, Amtrak had paid incentives of $175,525 for car operability and $180,536 for locomotive operability.

We noted numerous problems with the equipment operability provisions under the first amendment agreements. Specifically:

--- No assurance exists that all equipment failures are reported.
--- Establishing whether a failure has occurred is difficult.
--- No penalties exist for many equipment failures that affect passenger comfort.
--- Amtrak pays for both maintenance and maintenance failures.
No assurance that all equipment failures are reported

Amtrak has no effective method to make sure that all failures are reported. Instead it relies primarily on each railroad to report enroute failures and, in effect, turn itself in. A railroad, however, may be reluctant to do so because of the penalty.

When an enroute failure occurs on a car, either the railroad conductor, an Amtrak riding supervisor, or an onboard electrician must complete a report to Amtrak outlining the failure. The same basic procedure is followed for locomotives, and Amtrak bases equipment operability penalties on these reports. The riding supervisors and electricians are Amtrak's control over the reporting of equipment failures; however, these employees only ride selected trains.

We found that not all failures were being reported. For example, on one train we rode, 7 out of 10 coach cars were hot and, in our opinion, warranted a penalty. The conductor said he would report the situation to yard maintenance personnel. Later we learned that Amtrak had not received a report of the apparent failures.

Also, we noted that during December 1975, Burlington Northern reported 13 locomotive failures. Amtrak's own records showed 18 locomotive failures for the month, while our review disclosed 21 actual failures. An Amtrak official agreed that we were correct; however, Amtrak does not have adequate resources to police every failure and there was no way for them to make sure all equipment failures were reported.

Difficult to establish whether failure has occurred

Establishing whether a failure has actually occurred is often difficult. For example, Amtrak standards require a failure to be reported when car lighting is inadequate for reading for 1 hour or more during a trip. Short of a total lighting failure, it becomes very subjective as to what constitutes inadequate lighting. Thus, the standard becomes the subjective judgment of the employee reporting the deficiency—a poor system at best. We could not always determine if the lighting met Amtrak's standard.

The standards also require a penalty when car temperature is outside the 62- to 82-degree range for 1 hour or more during a trip. However, Amtrak and railroad employees do not regularly carry a thermometer with them and are unable to
accurately measure the temperature. In addition, during December 1975, Burlington Northern had 33 air-conditioning or heating failures on cars, yet reported only 5. (This information is based on a railroad internal document which Amtrak does not receive.)

We observed a number of instances when cars were very hot because of apparent air-conditioning failures. Lacking adequate measuring devices, we could not conclusively determine whether the temperature exceeded 82 degrees for 1 hour; however, passengers were very uncomfortable from the heat.

Amtrak officials agreed that enforcing this penalty has been haphazard because of the difficulty in proving that a failure, as defined by the contract, has actually occurred.

No penalties for many equipment failures that affect passenger comfort

Under the first amendment agreements, railroads are penalized when equipment failures cause a car to be cut from the train, the train to be late, or temperature or lighting discomfort to passengers. However, other equipment failures affect passenger comfort but the railroads are not penalized for them. For example, during inspections of trains we noted inoperable power doors and toilets, broken seats, and water leaks--none of which is considered a contract failure. One railroad maintains a monthly list of what it considers to be failures. We examined this list for December 1975. Of the 164 failures listed, only 5 were failures as defined in the contracts. Amtrak personnel said Amtrak had too narrowly defined the scope of an operability failure in the incentive agreements.

Amtrak pays for both maintenance and maintenance failures

Amtrak pays railroads for both maintenance and failures caused by inadequate maintenance. For example:

--Amtrak pays one railroad $15,000 per month for traveling electricians whose job is to repair enroute failures. If a car maintained by this railroad experienced an air-conditioning failure and the electrician repaired it, no failure would be reported. Thus, Amtrak pays the railroads to maintain trains so that failures will not occur, for electricians to repair enroute failures, and incentives for operating enroute without failure.
Amtrak also pays one railroad to maintain Amtrak locomotives in good working condition, but when locomotives break down enroute, Amtrak pays the resulting additional costs incurred. These additional costs can be expensive as they include wages of engine crews, hourly rental for the replacement locomotive, and fuel costs.

**EQUIPMENT AVAILABILITY**

Under the first amendment agreements, Amtrak pays the railroads an equipment-availability incentive for prompt maintenance of cars and locomotives. Amtrak anticipated that this incentive would reduce the number of needed cars and locomotives and thus solve a continual shortage-of-equipment problem. This incentive has not been effective. Only a minimal increase in car availability has resulted and any increase in locomotive availability has not been due to the incentive.

This incentive is paid when the railroad keeps more than 88 percent of the cars and 90 percent of the locomotives it has been assigned to maintain during the month in good working condition. The incentive is determined by using a complex formula which takes into account the numbers of cars and locomotives assigned to a railroad and those out of service for repairs. Because the formula is complex and hard to understand, it has caused considerable difficulty between Amtrak and the railroads.

The incentive can be lucrative. Amtrak pays the railroads $1,700 for each car and $4,000 for each locomotive available above the baselines. As of June 30, 1976, Amtrak has paid $283,755 for car availability and $913,250 for locomotive availability.

**Minimal effect of equipment availability**

The effect of this incentive on car availability in the total Amtrak fleet has been minimal. Amtrak records show that the rate of cars out of service has remained approximately the same. Amtrak officials agree that the equipment availability incentive has done nothing to increase car availability.

Locomotive availability has increased, but the increase is attributable to new locomotives not better maintenance practices. Amtrak records show that out-of-service locomotives decreased from 10 percent to 4 percent after the new locomotives were put into service. Amtrak officials agree
that most of the improvement is attributable to new locomotives, but that railroad management had to be responsible for part of the increased availability.

Railroads not performing all required maintenance

Amtrak has established schedules in its first amendment agreements for regular equipment maintenance. The schedules call for work to be done periodically. For example:

--- Interior and exterior heavy cleaning of passenger cars every 3, 4, or 6 months, depending on the type of car. These are called "E" cleanings.

--- Semimonthly and annual maintenance of passenger cars and locomotives, including preseason servicing for heating and air-conditioning.

In a June 8, 1976, report (RED-75-113), we stated that a periodic maintenance program had not been completely followed and that all railroad maintenance yards together were averaging only 60-percent compliance on periodic maintenance. Basically, this situation still exists for railroads operating under amendment agreements and the original agreement. During 1975, of the required 4,053 "E" cleanings only 2,673 were actually done.

We looked at the percentage of required "E" cleanings and monthly inspections performed in 1975 at two yards. One yard performed 58 percent of the required periodic maintenance; the other yard performed 55 percent of the periodic maintenance. The reasons for not doing the periodic maintenance, according to railroad officials, included (1) nonavailability of equipment, (2) absenteeism, and (3) assignment of "E" cleaning personnel to other maintenance.

AMTRAK COMMENTS ON MAINTENANCE INCENTIVES AND PENALTIES

On September 1, 1976, Amtrak began operating under second amendment agreements with Burlington Northern and Milwaukee Road. Amtrak eliminated the incentives for equipment operability and availability from both agreements and also eliminated the penalty for unclean cars from Burlington Northern's agreement. Milwaukee Road can still be penalized for dirty cars.
Amtrak's reasoning for the contract changes was that the old provisions were too difficult to enforce and the best solution was to eliminate them. A new preventative maintenance provision has replaced these provisions. However, we do not agree with Amtrak's solution, and we believe there will be just as many problems with this new provision as with the old incentives and penalties. We believe the concept behind the maintenance incentives and penalties is valid, and, if properly designed and enforced, could achieve Amtrak's goal of clean and comfortable trains.

Amtrak officials also noted that new equipment and Amtrak's program to take over maintenance from the railroads will alleviate many of the maintenance problems. By 1978, Amtrak hopes to perform all maintenance inhouse. We, however, do not believe the mere takeover of repair facilities, in itself, will solve the problems.

PREVENTATIVE MAINTENANCE

The type of preventative maintenance differs on the Burlington Northern and Milwaukee Road. This difference is reflected in the amendment agreements. For Burlington Northern, preventative maintenance includes only "E" cleanings and preseasonal heating and air-conditioning inspections. For Milwaukee Road, it includes only daily cleaning. Good preventative maintenance is a vital link in Amtrak's system for providing clean, reliable equipment. However, the preventative maintenance provision could very well add to Amtrak's problems.

Under the new provision, both railroads receive their equipment maintenance costs plus an additional 5 percent as a management fee. The Burlington Northern contract provides a fixed penalty for not doing required maintenance work. The amount of the penalty varies by type of car and maintenance function and is deducted from the 5 percent management fee. For example, failure to provide "E" cleaning for a dining car results in a $1,000 penalty and the penalty for failure to do a preseasonal air-conditioning inspection is $150 per car. Penalties may not exceed the 5 percent fee. If Burlington Northern performs all required maintenance, the 5 percent add-on can be $590,000 annually. The railroad can also receive additional payments for performing more maintenance than assigned.

The Milwaukee Road contract provides that Amtrak will penalize the railroad each time a car is cleaned inadequately. The penalty is deducted from the 5 percent. As in the Burlington Northern contract, penalties cannot exceed the management fee.
There are many problems with the preventative maintenance provision:

--Railroads can receive large payments even though they may do inadequate or limited work.

--Amtrak has limited means to insure maintenance quality.

--This provision may encourage Burlington Northern to concentrate on "E" cleanings and preseasonal inspections rather than daily cleaning, maintenance, and monthly inspections.

--Amtrak will incur additional costs when an incentive railroad does required maintenance which should have been done at an Amtrak facility.

--Amtrak may incur additional costs for duplicate cleanings.

The new incentive contracts provide for a 5-percent management fee over a railroad's total equipment maintenance costs.¹ For Burlington Northern these costs include much more than "E" cleanings and preseasonal inspections. They include short turnaround and layover car cleanings, inspections, repairs, etc. However, the penalties apply only to "E" cleaning and preseasonal inspections. Thus, Burlington Northern can still receive a substantial payment even though it does not complete all required work.

Amtrak estimates that Milwaukee Road will receive $141,000 under the preventative maintenance provision during the upcoming year. Because Milwaukee Road is responsible only for turnaround cleaning--no "E" cleanings or preseasonal inspections--it will receive a payment for doing work it is already paid to do. Under its preventative maintenance provision, Milwaukee Road will supposedly be penalized $150 for each inadequate car cleaning. However, in fiscal year 1976 the railroad was only penalized for eight dirty cars while our inspections show that the railroad should have been penalized for many more. Thus, Amtrak may be paying the railroad for inadequate car cleaning.

¹/ Included labor, materials, material handling and shop expense on Amtrak equipment.
No provision for quality of service

The Burlington Northern preventative maintenance provision provides only for quantity, not quality, of work performed. An Amtrak inspector is supposed to inspect each "E" cleaning and preseasonal inspection. However, he has no authority to force the railroad to redo work or penalize it for doing work improperly.

Railroad may concentrate on required maintenance

Burlington Northern has no incentive provision covering daily car cleaning and periodic inspections. This could result in the railroad concentrating its maintenance efforts on "E" cleanings and preseasonal inspections. Failure to properly complete daily cleaning and monthly inspections can have a drastic impact on Amtrak's service.

Amtrak relies on the railroads to perform inspections, make repairs, and clean cars. We doubt, on the basis of their past record, that they will. During 1975 railroads completed only 56 percent of required monthly inspections. Also our inspections disclosed numerous examples of cars that were not cleaned properly. The situation is unlikely to improve and will probably deteriorate because Amtrak has eliminated the penalty for unclean cars in Burlington Northern's second amendment agreement.

Amtrak believes it will have more control over the quality of maintenance as it takes over more and more maintenance facilities. Amtrak officials have said they realize they will still be working with the same yard personnel and supervisors. The staff which did not clean the cars before will still be responsible for cleaning the cars. We inspected cars cleaned at Amtrak facilities and found the same deficiencies as noted on cars cleaned at a railroad facility.

Additional costs incurred on nonassigned equipment

Under the preventative maintenance provision Burlington Northern can receive incentives for work performed on equipment assigned to it for maintenance and on equipment assigned to other railroads. This makes it possible for the railroad to receive an additional amount over the 5 percent if it completes over 100 percent of its required functions. For example, Amtrak requires a railroad to do 100 "E" cleanings. The railroad could complete the 100 "E" cleanings plus 50 more on coaches assigned to other maintenance facilities. Based on a predetermined table, the railroad receives
a $1,000 bonus for each of the 50 extra "E" cleanings. Because these 50 were assigned to other railroads, they would be penalized for not completing their required "E" cleanings by the same amount. So, ideally, it would balance. In reality, it would not balance if an Amtrak facility is involved because an Amtrak facility cannot be penalized. Thus, a railroad under an incentive agreement can pick up additional dollars.

Additional cost may be incurred because of duplicate "E" cleanings.

Amtrak's controls are ineffective in preventing a railroad from doing duplicate "E" cleanings. Amtrak records show that a coach scheduled to be "E" cleaned at 6-month intervals was "E" cleaned by Burlington Northern on October 1, 1976, and again on October 13, 1976. Amtrak said they were aware of the duplication and would have to pay a double labor charge because they are billed on an actual basis, but would only count one "E" cleaning when computing the number performed by Burlington Northern during the year.
CHAPTER 4

MANY FLAT RATES ARE INACCURATE

Flat rates established by Amtrak in the first amendment agreements were often inaccurate. Amtrak flat rated more than 50 percent of all costs to improve cost control and minimize administrative overhead. Amtrak considers flat rates as an effective method of cost control as well as an incentive for the railroads to reduce costs. If the actual cost falls below the flat rate during the life of a contract, the railroad would still be reimbursed the full flat-rated amount. Amtrak would benefit when the contract is renegotiated because the new flat rate would be based on the lower actual cost incurred. Flat rating may be an effective method of cost control since the railroad cannot receive more for certain contract items than the monthly flat rate. However, we believe using flat rates improves Amtrak's ability to control costs only if the rates have been properly established and Amtrak is getting the level of service implied by the rates. In the completed second amendment agreements, Amtrak has taken action to make flat rates more accurately reflect costs.

Flat rates paid by Amtrak under the first amendment agreements frequently exceeded the railroad's cost for providing the service. Among the larger discrepancies we noted were:

--Amtrak overpaid Burlington Northern about $200,000 in train and engine crew wages during 1975 because of inadequate cost studies.

--Milwaukee Road paid about $14,000 less for accounting services during 1975 than the amount billed Amtrak on a flat rate basis.

To a much lesser degree, some flat rates are less than actual costs incurred. For instance, train expenses at one railroad exceeded flat rates by $17,000 per month in 1975.

In its audits of first amendment agreements, Amtrak's Contract Audit Department also took exception to many of the flat-rated amounts. Examples of their findings are:

--Amtrak was overbilled at least $14,170 for property taxes at specific facilities.

--Actual costs were $5,800 per month more than the flat rates for train and engine crews.
--Flat rates for intermediate servicing by one railroad exceeded actual costs by $59,000.

--Fuel costs for switch engines were overstated by $7,250 a month.

--Shop expenses were $17,604 per month less than flat rates.

--Eleven flat-rated items at one railroad were being over-reimbursed about $400,000 annually.

According to Amtrak, contract audit reports are used extensively during negotiations with the railroads, but sometimes these reports and the actual negotiations are based on different assumptions as to what costs should be reimbursed.

Although both Amtrak and the railroads are aware of inaccuracies in the flat rates, these items cannot be adjusted by Amtrak until contracts are renegotiated (every 2 years) unless service level or wage and material costs have changed. One railroad voluntarily agreed to reduce one of its flat rates which was overstated. But this same railroad continued to bill Amtrak for 11 other items which were overstated by about $400,000.

Amtrak may not know about all the excessive flat rates. While most railroads have been cooperative, one railroad would not permit Amtrak auditors to examine supporting documentation for some flat-rated items. The railroad stated the amendment agreement did not require it to keep such documentation. Another railroad was described by an Amtrak auditor as being uncooperative in supplying needed supporting documents.

WHY ARE FLAT RATES INACCURATE?

Flat rates are inaccurate under the first amendment agreements for a number of reasons. Flat rates were based on historical costs and/or Amtrak or railroad studies. We believe the two basic causes for the inaccuracies are (1) inadequate studies and (2) Amtrak's inability to verify the accuracy of historical information.

Some of the problems are illustrated below.

--One railroad projected its yearly cost for labor at intermediate servicing points by using a single
high-cost month even though data was available for a longer period. If the longer period had been used, the projection would be lower.

--One railroad's flat rate for materials handling was derived from 1972 and 1973 historical costs. This is inaccurate because the railroad no longer computes material handling costs using the 1972 to 1973 method.

--According to Amtrak's auditors, shop expenses for several maintenance locations at one railroad were based on erroneous historical cost studies, causing Amtrak to pay more than it should.

We attempted to review contract files at Amtrak to determine the reasonableness of many flat-rate costs. Unfortunately, the files do not include sufficient information to make a valid judgment concerning the accuracy of the negotiated rates. According to Amtrak, the method of computing flat rates has improved and should result in flat rates more accurately reflecting actual costs in the second amendment agreements.

**IMPROVEMENTS IN FLAT RATES IN NEW AGREEMENTS**

In the second amendment agreements completed as of March 1, 1977, Amtrak made many adjustments in the flat-rated items, based on an audit of costs the railroad incurred during a 12-month period. Overall the amount paid by Amtrak under the flat-rated section of the new contracts will increase although some items were reduced. We believe the changes reflect the flat rates more accurately, but we still see some problems.

For example, Amtrak increased one railroad's flat rates for accounting services by providing for an additional employee. Our analysis of this item showed that during 1975 the flat rate exceeded actual costs by almost $14,000. Although the additional employee may be needed, Amtrak should have adjusted the previous flat rate before adding the new position.

Some flat rates reduced

Amtrak will be paying less for some flat-rated items under the second amendment agreements. For example, Milwaukee Road will receive $109,000 less per year for shop expenses. Burlington Northern will receive $530,000 less per year for train and engine crew wages and fringe benefits.
RAILROAD COMMENTS ON FLAT RATES

Officials of four railroads operating under first amendment agreements said they were not recovering all costs under the flat rates. Examples they gave of costs not recovered were passenger train interference with freight operations, maintenance-of-way costs, and various individual items for each railroad. However, as discussed on pages 36 and 37, we noted instances where actual costs were substantially different from flat rates.
CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Amtrak is entitled to good contract performance by the railroads. In return, the railroads are entitled to reimbursement for all reasonable and necessary costs in providing services to Amtrak. This balance does not appear to have been achieved.

We believe Amtrak has to make a concerted effort to determine what costs the railroads should incur in providing passenger services. Amtrak should have complete access to all pertinent railroad records in determining these costs. However, access to the records is not enough; Amtrak must concentrate on what the services should cost rather than on what they did cost.

The original contracts lacked incentives for the railroads to provide better service, reduce costs, and increase efficiency. Indeed, the quality of service dropped during the first years of Amtrak service, yet Amtrak could do little to stimulate improvement because there were no penalty provisions for nonperformance.

We believe that incentives are appropriate in obtaining better performance. Amtrak moved to incentive-type agreements to improve service quality but met with limited success because the incentives have had major deficiencies. It appears that the incentive concept was adopted because Amtrak lacked the necessary strength to force railroads to provide good service under the original agreement. Unfortunately, the first amendment agreement incentives were so unrealistic that they served only to increase the financial burden on Amtrak (and the taxpayer). Any improvements which have occurred--particularly in ontime performance--have not been due to the incentives.

Current Amtrak management recognized the serious deficiencies in the first amendment agreements and, in new agreements, tried to structure incentives more realistically and make them contingent on actual performance. Amtrak management deserves a compliment for its efforts; however, as discussed previously there are still problems in the incentive provisions which should be corrected.
RECOMMENDATIONS TO THE PRESIDENT OF AMTRAK

For Amtrak's future incentive contracts, we recommend that:

--Penalties be assessed for ontime performance below the baseline. In the absence of such a penalty, Amtrak has no recourse against a railroad which chooses to let performance drop, as was the case in the original agreement. With the increase in baseline, decreases in schedule time, and removal of tolerances, it may be more difficult to earn incentives, and railroads may neglect passenger service in favor of freight operations.

--Amtrak use its own resources for reporting arrival times whenever feasible.

--Amtrak retain the penalty for unclean cars and instruct inspectors to enforce it.

--The incentive for preventative maintenance be replaced with an incentive/penalty provision which rewards the railroads for doing more than is expected and penalizes them for not doing what is expected. The penalty should be applied against other incentives earned.

--Amtrak measure ontime performance at major intermediate points especially for schedules that are not properly constructed.

--In renegotiating flat rates, Amtrak consider what a service should cost in addition to actual historical costs.

AGENCY COMMENTS AND OUR EVALUATION

In comments on this report, (see app. I) Amtrak generally agrees with most of our observations and recommendations. As we pointed out in the report, Amtrak has improved its second amendment agreements by applying many of the general principles this report supports. However, Amtrak believes a recent Interstate Commerce Commission decision under section 402(a) of the Rail Passenger Service Act of 1970, as amended, seriously undermines its negotiating position.

Texas and Pacific

According to Amtrak, in negotiating revised contracts governing service and compensation, it is dealing with a
sole-source supplier. It must reach agreement with its operating railroads on the proper compensation for such service or ask ICC to resolve the dispute. Therefore, Amtrak is limited in its negotiations by its own and the railroads' assessments of what each party is entitled to or the ICC's determination of what is fair and reasonable compensation.

In October 1976 ICC, in its first decision under section 402(a) as amended, established the rate of compensation Amtrak must pay the Texas and Pacific Railway Company for providing service to Amtrak.

According to Amtrak, the decision runs counter to the improvements which have been achieved thus far through voluntary negotiation between Amtrak and its operating railroads. While it is not yet possible to assess fully the decision's impact on Amtrak's operations and ability to negotiate effectively for quality service at a reasonable cost, Amtrak believes that ICC's application of the same criteria to other operating railroads would have a profound negative effect on Amtrak's service and costs.

Amtrak has analyzed the potential impact on its total system if the decision is applied in determining reimbursement, performance, and incentive arrangements governing the operations of other Amtrak railroads. Amtrak believes ICC permitted the Texas and Pacific to operate on a slower schedule than warranted and than would be typical of schedules negotiated with other railroads in the second amendment agreements. Amtrak has calculated that its operating payments to all railroads--including incentives--would increase by $80 million over current annual payments if they operated on schedules comparable to what ICC permitted in its Texas and Pacific decision, even if no improvement in current on-time performance occurred. If generous incentives and allowance for delays due to force majeure were also to improve the railroads' statistical ontime performance, Amtrak estimates total payments would increase by more than $100 million annually.

The Department of Transportation, in comments on this report (see app. II) stated that in ICC's decision, the bases upon which compensation was fixed are considerably broader than in any of the current agreements between Amtrak and its operating railroads. In addition, they stated ICC's

1/ An unexpected and disruptive event which acts to excuse a party from the terms of a contract.
formula considerably lessens the impact of incentive payments on overall compensation. The Department believes that if the decision is allowed to stand, it will cause, or at least incline, the railroads to demand in future negotiations more compensation than they now receive. Amtrak itself will have less bargaining strength making the stricter provisions recommended in our report difficult, if not impossible, to achieve by contract.

Amtrak has petitioned ICC for reconsideration of the decision. In the meantime, Amtrak is concerned that the railroads' assessments of how ICC is likely to act in future cases might affect their positions and conduct in negotiations and may also lead to a large number of referrals to ICC for determination of revised service and compensation arrangements.

ICC, in comments on the report (see app. IV), basically agreed with our findings and conclusions. It cited a February 1976 staff analysis which discussed the importance of train speed and on-time performance and how these features far outweigh other service areas needing improvement. In subsequent discussions, ICC officials told us that the Texas and Pacific is different from other Amtrak operating railroads which were relieved of the burden of providing passenger service by Amtrak's creation. The Texas and Pacific did not operate passenger service until Amtrak requested it to do so. ICC stated that each case is considered on its own merit and that the Texas and Pacific decision should not be viewed as necessarily establishing a precedent in other cases.

Other comments

Amtrak agreed with the desirability of providing penalty provisions for performance which falls below the baseline and pointed out that it has included modest performance penalties in some new agreements. However, Amtrak said the railroads have been totally unwilling to accept a meaningful penalty arrangement. We recognize the difficult position Amtrak occupies in attempting to negotiate with the railroads for penalty provisions. However, Amtrak has made some progress and we strongly believe it should continue its efforts to include performance penalty provisions in future agreements.

Concerning using its own resources for reporting arrival and departure times, Amtrak said it is actively pursuing a program to place official clocks at key locations in the system which will be used jointly by Amtrak and railroad personnel to check and record arrival and departure times of all Amtrak passenger trains.
Amtrak generally agreed with the desirability of a penalty arrangement for failure to properly clean cars, but is concerned that such arrangements may not be justified in light of the cost for inspectors who would have to be hired to monitor car cleanliness effectively. Amtrak said it is still evaluating this problem.

Regarding our recommendation that the preventative maintenance provision be replaced with a stronger incentive/penalty provision, Amtrak stated that the need for this provision will be eliminated when it takes over all maintenance facilities. It plans to accomplish this in the next 2 to 3 years. In the meantime, Amtrak believes the preventative maintenance provision represents a satisfactory compromise. Also, it said the railroads would not accept any arrangement which would deprive them of any part of their avoidable cost.

We agreed that the preventative maintenance provision may be an effective compromise when Amtrak plans to take over the railroad's maintenance facilities during the life of the agreement. However, when takeover is not anticipated during the life of the agreement being negotiated, we believe Amtrak should consider including a stronger, maintenance incentive/penalty provision in place of the current preventative maintenance provision.

Amtrak agreed with our recommendation that on-time performance be measured at major intermediate points on a route and said that in future negotiations, it will attempt to include provisions for calculating on-time performance at intermediate points as well as final destination points.

Concerning our recommendation that Amtrak determine what a service should cost in renegotiating flat rates, Amtrak stated that it considered what a service should cost in determining flat rates in negotiating second amendment agreements, and did not rely solely on historical costs. For example, it said the staffing at each station was reviewed and a number of positions were eliminated where not needed. In addition, flat rate items such as train and engine crew wages, intermediate servicing point labor, and switching were developed from studies to determine the number of people and the amount of time required to perform the tasks. We recognize that Amtrak has made improvements in flat rates and should continue efforts to make flat rates more accurately reflect what a service should cost.

Also regarding flat rates, Amtrak stated that, when compared to the decision in the Texas and Pacific case, it is clear that any items of reimbursement which we criticize
as excessive are truly insignificant. We disagree. We believe that any impact the Texas and Pacific decision may have on Amtrak, no matter how serious, is anticipated and in no way minimizes or excuses any excess payments Amtrak makes because of inappropriate or inaccurate flat rates.

RAILROAD COMMENTS

We also received comments from five railroads—Burlington Northern; Seaboard Coast Line; Chessie System; Atchison, Topeka and Santa Fe; and Southern Pacific. We carefully considered these comments in the preparation of this report and made a number of report revisions where warranted. Burlington Northern, in its comments and during subsequent discussions of revisions that we made to this report, specifically requested that we include a statement to the effect that Burlington Northern still does not agree with or approve of the report insofar as it pertains to its Amtrak operations. A Burlington Northern official stressed that the railroad disagreed with the overall philosophy of the report, but he was not able to point out specific examples of factual errors or other inaccuracies.
CHAPTER 6

SCOPE OF REVIEW

We reviewed Amtrak's service and facility contracts and interviewed Amtrak officials at their Washington headquarters and regional offices to determine Amtrak's contracting techniques and procedures for assuring contract compliance and for verifying billings. We also interviewed officials of seven railroads to determine how contract provisions were established and to obtain their views on Amtrak contracting. These railroads were: Atchison, Topeka and Santa Fe; Burlington Northern; Chessie System; Illinois Central Gulf; Milwaukee Road; Seaboard Coast Line; and Southern Pacific.

At these railroad offices we examined billings to Amtrak, reviewed records, and observed certain train operations relating to contract compliance. In addition, we visited several terminals to observe train conditions and record departure and arrival times. During March 2, 1976, to June 21, 1976, we inspected 58 departing passenger trains to determine if they met Amtrak cleanliness standards. We also rode selected trains to observe enroute conditions which could affect passenger comfort.
Mr. Henry Eschwege  
Director, Community and Economic Development Division  
United States General Accounting Office  
Washington, D.C. 20548  

Dear Mr. Eschwege:

Amtrak has reviewed the report of the General Accounting Office to the Congress with respect to Amtrak's contracts with the railroads for operation of Amtrak's trains. In its report, the GAO points out and discusses numerous problems which existed in the First Amendment Agreements, which Amtrak negotiated with many of its operating railroads in 1974. The report also indicates that most of the major deficiencies which existed in the 1974 amendments were satisfactorily taken care of in the Second Amendment Agreements, which Amtrak negotiated in 1976. Amtrak is pleased with the GAO's very favorable evaluation of our efforts in the recent and continuing negotiations. Amtrak generally agrees with most of the GAO's observations and recommendations with respect to the strengths and weaknesses and possible improvements which could or should be made in certain areas of our relationships with the railroads. Although we do not take serious exception to any of the report's observations on the contracts, we are setting forth in the attachment to this letter comments with respect to four items discussed in the report.

Amtrak believes, however, that the GAO study is fundamentally deficient as an assessment of Amtrak's contractual relationship and contracting efforts with the railroads because it indicates only the weaknesses in the contracts which have been negotiated in the past. It totally ignores the constrained context in which such agreements were arrived at and in which future agreements must be negotiated. In effect, the report seems fair and reasonable as far as it goes, but the report fails to give any attention to basic legal considerations which go to the very heart of Amtrak's cost and service relationship with the railroads.
As the GAO report notes, Amtrak was successful in the summer and fall of 1976 in negotiating revised agreements (Second Amendment Agreements) for payment of flat-rated incremental costs plus provision for performance incentives which are reasonably related to the quality of the performance of the railroads in operating individual Amtrak trains. In a substantial number of instances, shorter schedules were agreed upon as a part of the negotiations between Amtrak and the railroads.

In negotiating revised contracts governing service and compensation, Amtrak is dealing with a sole source supplier. Amtrak must agree with its operating railroads on the proper compensation for such service or resort to the Interstate Commerce Commission under Section 402(a) of the Amtrak Act for resolution of any disputes. Thus, Amtrak is limited in its negotiations by the respective assessments by Amtrak and the operating railroads of what the parties are entitled to under Section 402(a) as that statutory provision may be applied by the Commission.

Section 402(a) was amended in 1973 to specifically provide that the Commission shall "in fixing compensation in excess of incremental costs, consider quality of service as a major factor in determining the amount (if any) of such compensation." In a decision issued October 27, 1976, the Commission interpreted and applied amended Section 402(a) to an Amtrak operating railroad for the first time.

The Commission's application of Section 402(a) was made in Amtrak and the Texas and Pacific Railway Company, Use of Tracks and Facilities and Establishment of Just Compensation, 27819, 348 I.C.C. 645, (the Texas & Pacific Case), which was decided by Division III of the ICC. The October decision is in conflict with the objectives which Congress apparently had in mind in amending Section 402(a) in 1973, and it also runs counter to the improvements which have been achieved thus far through voluntary negotiation between Amtrak and its operating railroads. The GAO report is very strong in its support for such improvements, and it appears that its primary criticism is that Amtrak did not achieve even more. While it is not yet possible to assess fully the impact of the Texas & Pacific decision on Amtrak's operations and on Amtrak's ability to negotiate effectively for quality service at a reasonable cost, it is clear that application of Section 402(a) in the same manner as it was applied in the T&P case to other Amtrak operating railroads would have a profound negative effect on Amtrak's service and costs. In spite of this fact, the GAO has not dealt with the case, the statute, or the importance of ICC jurisdiction in its report.

[See GAO note, p.52.]
Because of the potential precedential importance of the Texas and Pacific case, Amtrak has petitioned Division III of the ICC for reconsideration of its October decision. In addition, Amtrak anticipates appealing this case to the full Commission and to the courts if such actions are necessary to remedy the deficiencies which exist in that decision. However, it may be quite some time before such legal claims can be fully heard and resolved. Until such resolution is obtained, the parties' assessments of how the Commission is likely to act in future cases under Section 402(a) will presumably affect their positions and conduct in negotiations. Such assessments may also lead to a large number of referrals to the Commission for determination of revised service and compensation arrangements.

The Commission's decision grants allocated rather than incremental costs to T&P for maintenance of its rail lines. Even though no additional property costs have been incurred by T&P, the Commission's decision awards T&P allocated taxes and a return on investment for its property used in the operation of Amtrak trains. The Commission's decision also awards T&P a fully allocated share of its system train movement and supervision expenses. While payment of amounts in connection with these last two system expenses are conditioned on achievement of 80% on-time performance by T&P, the schedules and the standards of performance measurement adopted by the Commission are so loose (as discussed below) that T&P is virtually guaranteed of receiving these fully allocated payments even if its performance is only mediocre. With respect to the cost items mentioned above, as well as many other compensation items covered in its decision, the Commission adopted and applied methodologies in ways which do not yield accurate determinations of the incremental costs to a railroad of operating Amtrak trains.

Schedules (and other possible indicia of quality service), incentive payments (if any), and total compensation are closely interrelated under the congressional mandate contained in Section 402(a) of the Amtrak Act. While a railroad generally should receive its incremental costs as minimal compensation for reasonable service, the amount (if any) in excess of such incremental costs (and therefore the total compensation potentially payable) should depend on the difficulty of the task to be performed, the quality of the railroad's performance of that task, and the resulting improved service to the public. The GAO is generally quite complimentary of Amtrak's efforts in the 1976 negotiations to bring its contracts into conformity with these objectives. It's only significant criticism is that Amtrak did not go far enough.
In contrast, the Commission's decision established slow schedules for operation of Amtrak's trains over the T&P, and would also provide for generous on-time performance incentive payments. The T&P rail lines involved are, with minor modifications for which Amtrak has offered to pay, capable of 79 mph passenger operations over most of the route. For the operation of Amtrak trains, however, T&P has imposed a speed limit of 60 mph. Speed limits in effect on rail lines used in Amtrak's operations are primarily a matter of Department of Transportation jurisdiction and the Commission may not be in a position to legally compel faster operation over T&P's objections. However, the Commission has awarded generous incentives without regard to the fact that the T&P is operating Amtrak's trains at a level substantially below the speeds attainable on its rail lines. In addition, even at the slower 60 mph speed, T&P could operate the Amtrak trains with reliability on a substantially shorter schedule than that proposed by the Commission. Since the incentive potential available to T&P is based on unreasonably slow schedules, the Commission decision permits T&P to receive generous additional amounts for performance which is far below its speed and operating capability. This contrasts sharply with the congressional mandate that payments in excess of incremental costs should be based on quality of service.

The schedules established by the Commission are essentially the same as those operated in 1969 when T&P last ran passenger trains over this line for its own account. In light of the service impact of quality schedules, as well as the large amounts of money involved, the establishment of schedules for operation of Amtrak trains deserves more careful analysis than a simple comparison with schedules from prior periods. Amtrak has clearly indicated its willingness to engage in appropriate joint tests and studies with the ICC and T&P to determine expeditious schedules which would warrant the opportunity to earn generous incentives.

In addition to establishing a slow schedule, the Commission has adopted a ten-minute tolerance and has specified that delays in train operations due to force majeure shall be excused in measuring on-time performance. Amtrak's Second Amendment Agreements generally provide for a tolerance of five minutes for operations under 400 miles, with a more generous ten-minute tolerance only for longer runs, or on routes where special, identified operating conditions make such additional tolerances appropriate. The First Amendment Agreements did contain tolerances of up to thirty minutes depending on the length of the route, but that defect has now been remedied in the 1976 negotiations. Certainly for a 250-mile operation such as that performed by
Mr. H. Eschwege

March 11, 1977

There is no reason for a tolerance of more than five minutes.

Potentially a more serious problem than the excessive tolerance is the allowance of extra time on individual trips for delays due to force majeure. The precise meaning and impact of the Commission's force majeure exception is not clear, but it is certainly likely to lead to numerous disputes over the causes of particular delays as well as the causal relationship between such delays and late operation of a train on a particular trip. Some delays over which a railroad has no control are bound to occur over a period of time in the operation of any train. It should be noted that a railroad is not being "penalized" when a train is late, regardless of the cause. It simply does not receive the bonus which Amtrak is willing to pay for on-time operation which benefits our passengers. It would not be reasonable to expect a railroad to perform 100% on-time for a sustained period. Since a railroad is paid amounts in excess of incremental costs for aggregate performance above 80%, it has ample opportunity to earn incentive compensation without also being given relief for force majeure delays. Even in situations where a particular delay cannot be totally avoided, a railroad can often minimize such delay by diligent efforts. The relief allowed in the Commission's decision, however, could eliminate any inducement for a railroad to put forth such efforts. Even though the passengers were delivered at their destination far later than their scheduled arrival time, the Commission approach would allow the railroad to "earn" incentives on a trip regardless of the railroad's ability to minimize such inconvenience.

The record of past performance by the Texas and Pacific indicates that it would be able to operate substantially in excess of 90% on time with very little effort on the schedules proposed by the Commission. When a 10-minute tolerance and allowance for delays due to force majeure are permitted, T&P should be able to perform very close to 100% on time and could then earn 20% more than its "costs" for operation of the trains on slow schedules. In addition, the cost base used in calculating incentives would include T&P's allocated common costs as well as the amount awarded for return on investment for use of its property. This generous incentive compensation is in addition to the so-called incentive payment of allocated train movement service and supervision expense (discussed above), which really amounts to an automatic item of reimbursement.

Amtrak has analyzed the potential impact on its total system if the Commission's decision in the T&P case were applied in determining reimbursement, performance, and incentive arrangements governing the operations performed by
other railroads. Judging by the Commission's treatment of the schedule issue in the T&F case, it would be impossible to obtain schedule improvements in proceedings before the Commission which are comparable to those obtained by Amtrak in negotiating the Second Amendment Agreements with the railroads. Operating on schedules which would therefore be unreasonably slow in many cases, Amtrak has calculated that its operating payments (including incentives) to the railroads would increase by $80 million over current annual payments even if no improvement in current on-time performance occurred. If the existence of extremely generous incentives and the allowance of delays due to force majeure had the predictable effect of improving the railroads' "statistical" on-time performance, Amtrak's total payments would increase by more than $100 million annually. Payments at such a level would represent an increase of substantially more than 50% above Amtrak's current costs to the railroads for operation of our trains. Since Amtrak is already reimbursing its railroads their incremental costs plus (in many cases) incentives which average substantially more than 10% of such costs, virtually the entire amount of the increased payment which would be required by the Commission represents payments in excess of incremental costs.

Even for outstanding performance, it does not appear that Congress intended that the railroads should receive payments remotely approaching this order of magnitude for their role in operating Amtrak's trains. The GAO report indicates that Amtrak has significantly overpaid the railroads in the past, particularly in light of the quality (or lack thereof) of the railroads' performance. Even the Commission, in its March 15, 1976, Annual Report to the President and Congress on Amtrak, was rather critical of Amtrak's First Amendment Agreements. The GAO report indicates that Amtrak has done a good job in the 1976 negotiations in remedying most of the major deficiencies in the First Amendment Agreements. It states that we should do even more.

[See GAO note.]

Sincerely,

Paul H. Reistrup
President

Attachment

GAO note: Deleted comments refer to material in the draft report which has been revised in the final report.
Amtrak Comments On GAO Recommendations

Flat Rates

The GAO report takes exception to Amtrak's use of and method of calculation of flat-rated costs, particularly in the First Amendment Agreements. The criticism of flat rates is partially justifiable in that not all flat rates agreed to in 1974 during negotiation of the agreements were completely accurate. However, the weaknesses which did exist in the original negotiated amounts should not be allowed to obscure the value of flat-rating and the steps which have been taken to eliminate inaccuracies in the determination of new flat rates in the Second Amendment Agreements.

Flat-rating costs reduces the administrative and auditing functions during the term of the contract and, more importantly, provides Amtrak with very necessary cost and budgetary controls. The flat rate, in addition, is a very effective means of increasing efficiency. Since the railroads retain for the current compensation term any cost saving they can achieve through increased efficiency, there has been notable effort by the railroads to reduce their costs. The savings realized by the railroads during the course of the contract accrue to Amtrak when compensation is renegotiated at the end of a specified term (normally two years).

The effect of this arrangement can be demonstrated in the case of the Burlington Northern's cost of train and engine crew wages. The GAO has noted that Amtrak overpaid the BN some $405,000 in this area under the 1974 Agreement. Part of this amount, it is true, resulted from inadequate cost studies performed in 1974. However, approximately half of the $405,000 cost reduction in this area in the Second Amendment Agreement resulted from improved efficiency by increased use of interdivisional runs by BN.

[See GAO note, p.52.]

The GAO in another statement indicates that Amtrak overpaid SCL some $14,170 for property taxes. This finding was also based on an Amtrak audit report. The Amtrak audit reports are used extensively during negotiations with the railroads, but sometimes such reports and the actual negotiations are based on different assumptions.
as to what costs should be reimbursed. In the case of the SCL property taxes, the Amtrak auditors' report was based on the theory that we should only pay taxes on sites which are solely occupied (or greater than 90% occupied) by Amtrak personnel. During negotiations, different standards were used to determine whether or not Amtrak should pay taxes at individual railroad facilities. For instance, where the portion of the space utilized by Amtrak was as low as 75% but it was demonstrated that the railroad might reasonably remove all of its personnel and functions from the facility, Amtrak often agreed to pay a larger portion of costs than would normally be the case. This was done in order to avoid paying even higher costs for facilities and personnel which might become solely dedicated to Amtrak business by changes in the railroad's operations.

The GAO suggests, in renegotiating flat rates, that Amtrak consider what a service should cost and not rely solely on historical costs. This, in fact, was done in the negotiation of Second Amendment Agreements. For instance, the manning at each station was reviewed and a number of positions were eliminated where not needed. This was also true with respect to fueling and servicing where a number of "historical" servicing points were eliminated. Flat-rate items such as train and engine crew wages, intermediate servicing point labor, switching, etc. were developed from studies to determine the number of people and amount of time required to perform the required tasks. Flat-rate items wherein it was necessary to determine the number of people required to perform administrative and supervisory tasks were negotiated after a review of the duties and responsibilities of the personnel. Only such flat-rate items as station utilities, fuel handling, lubricants, etc. were determined from purely historical costs.

Amtrak agrees that it is reimbursing the railroads for more than their pure incremental costs in a number of instances. First, it is important to remember that the individual cost items are parts of a total, negotiated compensation arrangement in which there were numerous trade-offs. Second, in some cases such as the SCL property taxes discussed above, Amtrak paid more than incremental costs in order to discourage a railroad from modifying its operations in ways which would have increased Amtrak's costs by far greater amounts. When compared to the decision in the T&P case, it is clear that any items of reimbursement which the GAO now criticizes as excessive are truly insignificant.
System Monitoring

The GAO report makes several recommendations regarding Amtrak monitoring of various aspects of the agreements. One such recommendation suggests that Amtrak use its resources for reporting arrival and departure times whenever feasible. Amtrak is actively pursuing a program to place official clocks at key locations in the system which will be used jointly by Amtrak and railroad personnel to check and record arrival and departure times of all Amtrak passenger trains, instead of utilizing only railroad time clocks.

The GAO also recommended that Amtrak retain the car cleanliness penalty and initiate measures to improve the policing of this penalty. Amtrak agrees generally with the desirability of a penalty arrangement for failure to properly clean cars. Amtrak is still concerned, however, that such arrangements may not be justified in light of the cost for the numerous inspectors which would have to be added to monitor car cleanliness effectively. Amtrak is still evaluating this problem.

The GAO has recommended that on-time performance be calculated at intermediate points (not only at end points on a railroad). Amtrak agrees with this recommendation. As stated in the GAO report, it was felt that if excessive recovery time is removed and the schedule is properly constructed, a railroad must be on time for the length of the route in order to be on time at the final destination. Unfortunately, the schedule construction by railroads did not protect these intermediate arrival times. In future negotiations, Amtrak will attempt to include provisions for calculation of on-time performance at intermediate points as well as final destination points.

Incentive For Preventative Maintenance

The GAO report recommends that the incentive for preventative maintenance contained in the Second Amendment Agreement be replaced with a provision which rewards the railroads for doing more than is expected but penalizes them for not doing what is expected. The GAO recommends that the penalty be applied against other incentives earned and, if need be, against the railroad's avoidable or incremental costs.
The need for this provision will be eliminated when Amtrak takes over all maintenance facilities. Amtrak is planning to accomplish this in the next two to three years. In the meantime, the arrangement in the Second Amendment Agreement is a satisfactory compromise solution. The Burlington Northern has already demonstrated marked improvement in the number of E-Cleanings and amount of pre-season work completed. Since Amtrak pays only for actual labor hours worked, it was appropriate to include a 5% management fee if the quality of management was good as demonstrated by meeting the quota for such work. In the event that the railroad completes less than its quota, it would receive reduced or no management fee. The railroads would not accept any arrangement in the negotiations which would deprive them of any part of their avoidable costs.

Penalties

The GAO has recommended that Amtrak's railroad contracts should contain penalties for performance which falls below specified standards with respect to schedule adherence or maintenance. Amtrak certainly agrees with the desirability of such penalty provisions. We have managed in some negotiated contracts to include very modest arrangements for reduction of incentives previously earned if performance falls below specified levels in subsequent periods. The railroads have been totally unwilling, however, to accept a truly meaningful penalty arrangement which might reduce their compensation below the incremental cost reimbursement base if their performance falls below the incentive standard.

It is Amtrak's judgment that (as is the case with almost any item in a negotiated agreement) a penalty which would be applicable against the incremental cost base could be included in the contract if Amtrak were willing to make large enough concessions in other areas of the contract. However, this issue appears to be a very emotional one with the railroads and the price Amtrak would be required to pay to obtain a solid penalty arrangement would be very high.

In this regard, it is important to note that Amtrak proposed in the T&P case the imposition of penalties for performance below the baseline. Such penalties would be assessed at only one quarter of the rate at which incentives could be earned for operations above such level. In light of the possible concern that a railroad must be guaranteed the opportunity to recover its incremental costs, Amtrak also proposed an alternative arrangement without penalties but with an extremely small incentive potential. Amtrak proposed to the Commission that the railroad should be required to choose between these two options. The railroad would be exposed to some risk but would have a high profit potential under the first alternative. Under the second alternative,
there would be a rather small profit potential but no risk exposure. The Commission adopted an arrangement which gives T&I a very high profit potential, but it dismissed Amtrak's proposal for penalties (or the requirement that the railroad at least be forced to make a choice) without meaningful discussion. The Commission did adopt a proposal to reduce the railroad's incentive payments by a tiny amount depending on the number of minutes that an individual train was delivered late. That arrangement for excessive delay penalties had been included in the First Amendment Agreements, but has been eliminated from the Second Amendment Agreements as being largely ineffective and not worth the time required for its administration.

GAO note: Deleted comments refer to material in the draft report which has been revised in this final report.
February 25, 1977

Mr. Henry Eschwege
Director
Community and Economic Development Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Eschwege:

This is in response to your letter of January 12, 1977, requesting comments on the General Accounting Office draft report entitled, "Lucrative Incentive Contracts Have No Positive Effect on Amtrak's Service." We have reviewed the report in detail and prepared a Department of Transportation reply.

Two copies of the reply are enclosed.

Sincerely,

William S. Heffelfinger

Enclosures
SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

Amtrak moved to incentive type agreements to improve service quality, but has met with limited success. It appears that the incentive concept was adopted because Amtrak lacked the necessary strength to enforce railroad compliance with the original agreement. Unfortunately, the incentives are so unrealistic that they served only to increase the financial burden on Amtrak (and the taxpayers). The improvements which did occur - particularly in on-time performance - were not caused by the incentives, but by other factors. Current Amtrak management recognized that there were serious deficiencies in the first amendment agreements and have made efforts in the new agreements to structure incentives more realistically and to make them contingent on actual performance. They deserve a compliment for their efforts, however, there are still problems in the incentive package which should be corrected.

GAO makes recommendations which are intended to improve second amendment agreements. GAO also believes Amtrak has to make a concerted effort to determine what costs the railroad should incur in providing passenger services. Since the contracts are sole source negotiated procurements, Amtrak should have complete access to all railroad records in determining these costs. However, going to the records is not enough as demonstrated under flat rated items. Amtrak must concentrate on what the services should cost rather than on what they did cost. More must be done to determine where productivity can be increased and costs cut.
DEPARTMENT OF TRANSPORTATION POSITION STATEMENT

There has been a significant legal development which may have serious effects on Amtrak's negotiating position with regard to future service and facility contracts. On October 5, 1976, the Interstate Commerce Commission (ICC), Division Three, decided on the compensation owed by Amtrak to the Texas and Pacific Railway Company for facilities and services under section 402(a) of the Rail Passenger Services Act, 45 U.S.C. section 402(a). The bases upon which compensation was fixed are considerably broader than those upon which any of the current contracts between Amtrak and the operating railroads are based. In addition, the ICC formula considerably lessens the impact of incentive payments on overall compensation. If the decision of the Third Division is allowed to stand (the decision is not yet final), it will cause, or at least incline, the railroads in future negotiations, to demand more compensation than they receive now. Amtrak itself will have less bargaining strength, making the stricter provisions recommended by GAO difficult, if not impossible, to achieve by contract.

We believe the report should evaluate the potential impact of the ICC decision and consider its recommendation in light of that potential impact.

[See GAO note below.]

Deputy Federal Railroad Administrator

GAO note: Comments were deleted at the request of the Federal Railroad Administration.
Mr. Henry Eschwege  
Director  
Community and Economic Development Division  
United States General Accounting Office  
Washington, D. C. 20548  

Dear Mr. Eschwege:

Thank you for this opportunity to review and comment on your proposed report entitled "Lucrative Incentive Contracts Have No Positive Effect on Amtrak's Service." As you know, our staff had previously conducted a study of the incentive agreements which was basically in agreement with the findings and conclusions of your report.

Essentially, our own staff analysis made in February of 1976 discussed the dominant position of train speed and on-time performance and how those features far outweigh other service areas needing improvement, such as operability, availability, and car-cleaning obligations. The claimed improvements were due to excessive scheduled time allowances or "time buffers," not to the incentives. Incidentally, the Staff Counsel of the Senate Commerce Committee was appreciative of receiving our report and has advised us that this very subject of the incentive payments was a major topic of discussion for that Committee. Accordingly, I feel sure that those having oversight responsibility will appreciate receiving the proposed report prepared by the General Accounting Office.

Your report identifies potentially unnecessary cost factors and, in doing so, is useful and in the public interest.

The Commission's staff review of your report has found it to be a study which should add to our overall understanding of Amtrak's problems. Your analysis takes note of provisions contained in the new "Second Amendment Agreements" which were not yet effective at the time of our initial report. Specifically, I refer to those provisions that contain evaluation for individual routes. We believe this to be an improvement, perhaps discouraging satisfaction with payments based on a system-wide averaging basis. The staff noted your observations re-
Mr. Henry Eschwege

garding incentive payments based on computations of lateness of arrival time at final destination. As you know, the Commission has already taken steps to correct such problems by modification of the Regulations Governing the Adequacy of Intercity Railroad Passenger Service, 49 CFR 1124.6. That regulation now considers all intermediate stations, as well as the final terminus. Additionally, the Commission's findings regarding the maintenance incentives also were that they did virtually nothing to stimulate or improve the quality of railroad maintenance services.

We agree that the new "Second Amendment Agreements," increasing the schedule adherence baseline to 80 percent, is an improvement. However, the absence of penalties for bad performance to counterbalance incentive payments for on-time performance detracts from its effectiveness. Also, the proposed report points to improvements needed with respect to the flat amounts paid for preventive maintenance exceeding the railroad's cost of providing the service.

It is our view that the Commission generally agrees with your findings and believes it is a comprehensive report for which your organization should be complimented.

Sincerely yours,

George M. Stafford
Chairman
APPENDIX IV

PRINCIPAL OFFICIALS OF
THE NATIONAL RAILROAD PASSENGER CORPORATION
RESPONSIBLE FOR ADMINISTERING ACTIVITIES
DISCUSSED IN THIS REPORT

<table>
<thead>
<tr>
<th>Tenure of office</th>
<th>From</th>
<th>To</th>
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<tbody>
<tr>
<td><strong>PRESIDENT:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paul H. Reistrup</td>
<td>Mar. 1975</td>
<td>Present</td>
</tr>
<tr>
<td>Roger Lewis</td>
<td>May 1971</td>
<td>Feb. 1975</td>
</tr>
<tr>
<td><strong>VICE PRESIDENT AND GENERAL MANAGER, NATIONAL OPERATIONS:</strong></td>
<td>May 1975</td>
<td>Present</td>
</tr>
<tr>
<td>David Watts</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXECUTIVE VICE PRESIDENT:</strong></td>
<td>Jan. 1972</td>
<td>Aug. 1974 (note a)</td>
</tr>
<tr>
<td>J. R. Tomlinson</td>
<td></td>
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a/Between August 1974 and May 1975 this position was vacant. In May 1975, Amtrak was reorganized and this position was changed to Vice President and General Manager, National Operations.
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